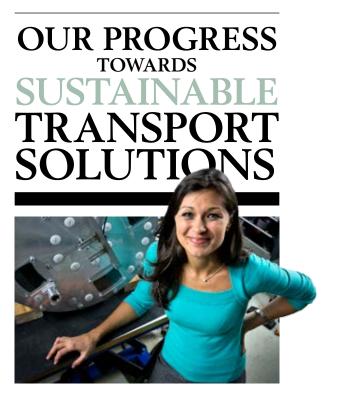
THE VOLVO GROUP

SUSTAINABILITY REPORT 2013





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Front cover:

Maddalena Cirani is an engineer working in the Electromobility and Subsystems department at Volvo Group Trucks Technology. Her idea of a tiny wedge to improve the efficiency of magnets used in electric engines could cut production costs on 10,000 machines by USD 1 M, enabling us to make electromobility technology more affordable for customers. affordable for customers.

This document is a PDF-version of the full Volvo Group Sustainability Report 2013, available online at www.volvogroup.com/sustainabilityreport. This report covers the sustainability performance of the Volvo Group from 1 January to 31 December 2013. It has not been independently audited. See 'About this report' for more detail.



About the Volvo Group

The Volvo Group is one of the world's leading manufacturers of trucks, buses, construction equipment and marine and industrial engines. The Group also provides complete solutions for financing and service.

Share of net sales

The Group employs 110,000 people, has production facilities in 18 countries, and sells its products in more than 190 markets. In 2013, the Volvo Group's sales amounted to around SEK 273 billion. AB Volvo's shares are listed on NASDAQ OMX Stockholm.

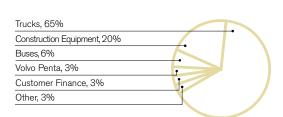
Strong brands

We address diverse customer requirements, in both mature and growth markets, by offering products and services under different brands.



272.6 +110% 2000 2013

Volvo Group net sales





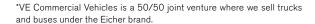
Geographic distribution of employees

Efficient solutions

The Volvo Group develops products and services that contribute to efficient transport and infrastructure solutions. Our trucks, construction equipment, buses, engines, special-purpose vehicles and financial services meet a wide and diverse range of economic and social needs.

TRUCKS

We are one of the world's largest truck manufacturers. Our portfolio of brands include the Mack, Renault Trucks, UD Trucks, Volvo and Eicher* brands. Each brand has its own unique and distinct characteristics that attract customers in their market segments. All offer efficient and economic solutions for long-haul, regional and city distribution and construction purposes. In 2013, we launched a completely renewed European range of Volvo trucks, an all-new range of Renault trucks, the new heavy-duty UD Quester range and the Eicher Pro Series for Asia and other growth markets.





CONSTRUCTION EQUIPMENT

Volvo Construction Equipment develops, manufactures and markets a comprehensive range of equipment for construction and related industries under our Volvo and SDLG* brands. Our products include a wide selection of heavy and compact construction equipment as well as road machinery products.

*SDLG is a brand of the Shandong Lingong Construction Machinery subsidiary, in which we have a 70 percent shareholding.



BUSES

Volvo Buses is one of the world's leading bus manufacturers and a world leader in the electromobility market, offering complete buses as well as bus chassis under the Volvo, Nova, Prevost and Sunwin* brands. Our product offering includes city buses, intercity buses and coaches, servicing and repairs, finance, diagnostics and traffic information systems.

 * Sunwin (formally Shanghai Sunwin Bus Co) is a 50/50 joint venture.



MARINE AND INDUSTRIAL ENGINES

Volvo Penta manufactures engines and drive systems for leisure boats and commercial crafts as well as a wide range of industrial engines for container handling, mining equipment and other industrial applications. Our customers are supported by a global network of approximately 4,000 dealers.



SPECIAL-PURPOSE VEHICLES

The Volvo Group manufactures special-purpose vehicles used by government, defense, peace-keeping and relief organizations, among others.



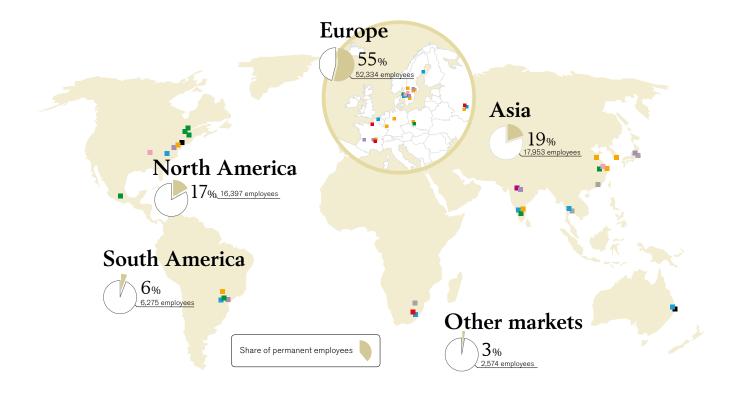
FINANCIAL SERVICES

Volvo Financial Services (VFS) delivers customer financing and leasing, dealer financing and insurance solutions.



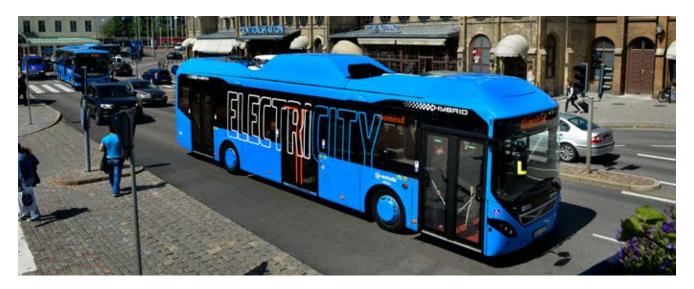
Global presence

The Volvo Group has established a global industrial structure with manufacturing, sales and distribution channels on all continents. We have 67 factories in 18 countries and employed 95,533 employees and 14,794 temporary employees and consultants at the end of 2013. We are present in more than 190 markets and sell over 300,000 trucks, buses, construction equipment machines and engines every year through wholly-owned and independent dealerships.



	Major production facilities	North America	South America	Europe	Asia	Other markets
	Eicher*				Pithampur* (IN)	
2	Mack	Macungie (US)				Brisbane (AU)
Operations	Renault Trucks			Blainville, Bourg- en-Bresse (FR), Kaluga (RU)		Durban (ZA)
Trucks	UD Trucks				Ageo (JP), Hangzhou* (CN), Bangkok (TH)	Pretoria (ZA)
Group T	Volvo	New River Valley (US)	Curitiba (BR)	Gothenburg, Umeå (SE), Gent (BE), Kaluga (RU)	Bangalore (IN), Bangkok (TH)	Brisbane (AU), Durban (ZA)
	Engines and transmissions	Hagerstown (US)	Curitiba (BR)	Köping, Skövde (SE), Vénissieux (FR)	Ageo (JP), Pithampur* (IN)	
	Construction Equipment	Shippensburg (US)	Pederneiras (BR)	Arvika, Braås, Eskil- stuna, Hallsberg (SE), Konz-Könen, Hameln (DE), Belley (FR), Wroclaw (PL), Kaluga (RU)	Changwon (KR), Shanghai, Linyi* (CN), Bangalore (IN)	
	Buses	St Claire, St Eustache (CA), Mexico City (MX), Plattsburgh (US)	Curitiba (BR)	Borås, Uddevalla (SE), Wroclaw (PL)	Bangalore (IN), Shanghai* (CN)	
	Volvo Penta	Lexington (US)		Gothenburg, Vara (SE)	Shanghai (CN)	

^{*} Ownership ≥ 50%



2013 highlights

From the biggest product renewal in the Volvo Group's history through to collaborative educational projects; successful trials of new technology, and continued environmental improvements, 2013 was a positive year in terms of corporate social responsibility and sustainability.

Here are some of the highlights. More detail and examples can be found throughout this report and in the Volvo Group Annual Report 2013.

SUSTAINABLE TRANSPORT

reduced energy consump-

tion achieved in plug-in hybrid bus trials in Gothenburg

Page 23

City Mobility Program launched April 2013 in 5 cities. Plans to expand to 10

Page 28



EU COSMO project results prove potential for intelligent transport systems (ITS)

trucks are road tested in the US ahead of commercialization

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SHARED VALUE

The year of the largest-ever product renewal in the Volvo Group's history



UD Quester range designed, priced and launched specifically for growth markets and businesses

Diversity and Inclusive Leadership training facilitators across the Volvo Group worldwide

OUNTRIES

Vocational training schools to open across Africa in partnership with Sida and USAID

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RESPONSIBLE BEHAVIOR



Our Braås factory in Sweden becomes the world's first certified carbon-neutral construction equipment production plant



5 out of 6 years completed. CO, emissions from factories reduced by 13% (12% target) between 2009-2012

trade unions and employee representatives attend the inaugural Volvo Global Dialogue

MEMBER OF **Dow Jones** Sustainability Indices

In Collaboration with RobecoSAM 🐠

The Volvo Group is ranked among the world's top 300 most sustainable companies in the Dow Jones World Index

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■ I see no contradiction between

meeting our customers' needs and envi-

ronmentally sustainable development"

CEO message

The Volvo Group has a clear and compelling vision for the future: to become the world leader in sustainable transport solutions. We have always been a progressive company and we have put humans and their needs first since our earliest days.

When Volvo was founded in 1927, quality and safety were our core values, because the founders knew that our vehicles would be operated by humans. In 1972, we added care for the environment as a core value. By doing this we put ourselves at the absolute forefront of our industry. It showed that we took a holistic view of the world and the impact that our products have on society. Now we are taking the next logical step, to become the world leader in sustainable transport solutions.

Today, several of the global challenges the world faces are directly or indirectly related to the infrastructure and the transport sector. They include climate change, population growth, urbanization and the

shortage of natural resources and raw materials. Sustainable products and services will be essential for the world in addressing these challenges and provide us with a competitive edge if we can continue to succeed within this field. Striving to reach our vision we will drive product and service development; advance our position and capture market share, while helping to change the world and enabling it to move in a more sustainable direction.

Traditionally, sustainability in the transport industry has first and foremost involved reducing environmental impacts. Naturally, the environmental dimension is still very important, but the Volvo Group has a broader focus and we pay equal attention to economic and social sustainability.

Environmental sustainability drives us to utilize resources more effectively, improve the reliability and lifecycle of our products and reduce their impact on the environment. In this context, I see no

contradiction between meeting our customers' needs and environmentally sustainable development. For example, reducing fuel consumption in our products benefits both our customers and the environment through lower fuel costs and fewer emissions.

With economic sustainability, we are referring to our ability to create economic value for our customers, our shareholders and for society as a whole. In delivering quality, we help our customers

improve their efficiency and profitability. By understanding our customers' business models and contributing to their success, we secure our own long-term profitability. By developing infrastructure solutions and effective transport systems we create

growth, job opportunities and benefits for society as a whole.

When we talk about social sustainability, we are referring to the Volvo Group's role and impact on society. We want to be a good corporate citizen and in order to contribute to positive societal development we collaborate with different stakeholders – from international organizations and universities to local authorities and individual citizens. A society or business that suffers losses – whether due to accidents, injuries, fatalities, damage to goods or vehicles, or congestion and standstills – is not sustainable over time. By using our knowledge of traffic safety, we can create shared value for society and business.

Being the world leader in sustainable transport solutions means that we have a profound influence on the world around us, and our products and services contribute to sustainable development. We will reach our vision by meeting our customers' needs, because only

SUSTAINABILITY REPORT 2013 >> STRATEGIC APPROACH >> CEO MESSAGE

■ Our factory in Braas, Sweden, is the

world's first construction equipment

plant and the Group's fourth manufac-

turing site to become carbon neutral.

a profitable company can make the investments needed for the future. To this end, we are in the midst of an intense period of transformation which began in 2012 and will take us through 2015.

In 2012, we established a new organization and new strategies aiming to increase the Group's profitability. During 2013, we carried out the most extensive product renewal in the Group's history. Over the course of 2014, our focus will be on improving the Group's efficiency through an extensive strategy-linked efficiency program. We still have some way to go before reaching our strategic objectives

but we have made good progress over the past year and there is no doubt we will reach our targets.

I believe that only a sustainable company can provide sustainable solutions. Our 2013 materiality assessment underlined the importance of continuing to

focus on the environmental, economic and social dimensions of sustainability and I would like to highlight a few of the initiatives carried out over the past year.

During 2013, we strengthened labor relations with our new Volvo Global Dialogue forum; we reinforced governance with our new CSR Supply Chain Steering Committee, and we introduced new responsible sourcing procedures and training.

When our factory in Braås, Sweden, was certified carbon neutral, it clearly demonstrated our corporate core value of environmental care. It is the world's first construction equipment plant and the Group's fourth manufacturing site to become carbon neutral. As the world's first automotive manufacturer to be approved by WWF to participate in its Climate Savers program another of our objectives is to reduce the total lifetime carbon emissions for trucks, construction equipment and buses manufactured between 2009 and 2014 by 30 million tons of CO₂, compared to vehicles manufactured in our 2008 baseline year. Between 2009 and 2012, we reduced emissions from these products by 28 million tons – 93 percent of our goal.

One of many new products launched during 2013 was the new UD Quester range, designed specifically to meet the needs of customers in growing economies and thereby contributing to economically sustainable development. The trucks are developed in Asia, produced in Asia and will provide jobs and livelihoods for families in Thailand, India and China where production takes place.

Moving our business towards sustainable transport solutions also influences our thinking about ways to help move society forward. Today the Volvo Group produces trucks in South Africa and we have

a presence in more than 50 African countries. We have a clear strategy for how we want to grow further in Africa, but we also have great respect for the many challenges faced by the countries where we want to grow.

Our CSR agenda for Africa aims to support our growth objectives by solving some of the obstacles that exist in these markets. One such obstacle is the severe shortage of trained drivers, technicians and operators. Our joint project with the Swedish International Development Cooperation Agency (Sida) and the US Agency for

International Development (USAID) will introduce vocational training in 10 African countries that are business-critical for the Volvo Group and eligible for development grants from both Sida and USAID. This exemplifies the benefits of our new strategy to engage in community activities

related to our core business. Taking another example, in India we have trained more than 110,000 drivers on driver responsibility, fuel efficient driving and traffic safety, and thereby created shared value by addressing a societal challenge using our unique knowledge.

During 2013, we took many innovative steps towards realizing our vision, not only with pioneering product technology, but through collaborative programs that are rethinking infrastructure and changing driver behavior. For example, results of the latest electromobility trials show a positive reduction in fuel consumption and emissions. The launch of our City Mobility Program is another milestone in field testing products with alternative fuels and smart technology.

All these initiatives simultaneously move our business forward and create value for the societies where we operate while opening up opportunities for the future. You can read more about our initiatives in this report as well as how we apply the principles in UN Global Compact in our daily business in order to become a sustainable company.

2014 is going to be the year when we see our strategies and hard work beginning to bear fruit. We have our new organization in place, we have a product range that is extremely competitive and we have co-workers who are engaged and professional. I believe we are now very well equipped to implement the next two years of our 2012-2015 strategies, aiming for improved efficiency, growth and profitability. This will put us on the right track to fulfill our long-term vision to become the world leader in sustainable transport solutions.

Olof Persson

President and CEO



Sustainability strategy and approach

Sustainability is integral to the Volvo Group, our policies and actions. As a Group, we believe it is possible to run a responsible and sustainable business, while creating long-term value for our stakeholders.

The Volvo Group's vision is to become the world leader in sustainable transport solutions by:

- creating value for customers in selected segments
- pioneering products and services for the transport and infrastructure industries
- · driving quality, safety and environmental care
- · working with energy, passion and respect for the individual.

The Volvo Group's approach to CSR and sustainability focuses on:

- · conducting business in a responsible manner
- taking stakeholders' perspectives into account
- · creating value for our shareholders and society
- · contributing to sustainable development.

The Volvo Group CSR and sustainability model Sustainability Report 2013 PAGES 18-40 PAGES 41-57 Sustainable transport Rethinking the future Shared value Moving society and our business forward Responsible behavior Earning trust, gaining resilience

Our vision is a public commitment to social, economic and environmental sustainability that not only helps us to manage risk, it creates business opportunities and builds trust. This supports us in developing lasting relationships with customers, employees, suppliers and other stakeholders.

Sustainability approach

6 © Our vision is to become the world leader in sustainable transport solutions"

this goal by investing, developing and delivering pioneering products and services for the transport and infrastructure industries.

Developing tomorrow's transport solutions cannot be achieved by the Volvo Group alone. We can only do this by sharing our expertise and working in collaboration with visionary partners, including univer-

sities, authorities and customers. The 'Rethinking transportation' section of this report highlights key initiatives and the progress we are making.

In 2012, we introduced the Volvo Group corporate social responsibility (CSR) and

sustainability model to express our approach to sustainability.

The Volvo Group CSR and sustainability model is based on the United Nations Global Compact principles, other internationally recognized norms of responsible behavior and interviews with internal and external stakeholders. It is represented by a pyramid that visually demonstrates the need to build upon a broad yet solid foundation of responsible and sustainable behavior in order to create and share value and reach our ultimate goal of becoming the world leader in sustainable transport solutions.

Responsible behavior

Conducting our business in a responsible manner is essential for maintaining the Volvo Group's reputation as a trustworthy company and is the foundation of our sustainability strategy. Compliance and risk management are actively integrated into our everyday business.

Responsibility and sustainability are embedded in our corporate culture, values, and Code of Conduct and every employee is responsible for upholding these. More information on our approach and progress is detailed in the 'Earning trust, gaining resilience' section of this report.

Shared value

The Volvo Group creates sustainable economic value by delivering products and services that meet the needs of society today while considering their long-term social and environmental impacts. A strong economic performance enables us to fulfill our commitments to our employees and to the societies in which we operate today, and to invest for the future.

We believe in taking all stakeholder perspectives into account and working with energy, passion and respect for the individual. The Group strategically shares its knowledge, experience and resources to address societal challenges, such as road safety, education and disaster relief. Aligning our CSR programs and initiatives with our business objectives benefits both society and the Volvo Group. Find out more in the 'Moving society and our business forward' section of this report.

Sustainable transport

Being the world leader in sustainable transport solutions is the ultimate point of our sustainability strategy. We are progressing towards

Sustainability objectives

Long-term, the Volvo Group's CSR and sustainability ambitions include being:

- proven innovators of energy-efficient transport and infrastructure solutions
- · amongst the most profitable in our industry
- · our customers' closest business partner
- · a contributor to societal development, globally and locally
- an employer of choice with a global team of high-performing people, with more women and minorities in leadership positions
- a carbon-neutral manufacturer and provider of carbon-neutral transport

and to achieve zero accidents with the Volvo Group's products.

Our long-term ambitions are broken down into shorter-term targets and activities. In line with our CSR and sustainability model and 2013 materiality matrix, we have chosen to report on the following targets. More detail on our management approach and performance is included throughout this report. The Volvo Group's financial goals and progress are described in our Annual Report.

SUSTAINABILITY REPORTING DEFINITIONS

Material issues

These are relevant environmental, economic and social issues that senior management and external stakeholders believe could substantially affect an organization's sustainability performance

Materiality assessment

This is the process of assessing and scoring an organization's key environmental, economic and social issues – known as 'material issues' – according to their potential impact on business performance and their relative importance to external stakeholders

Materiality matrix

This is a chart that visually maps an organization's material issues – its key environmental, economic and social issues – according to the scoring given by internal and external stakeholders.

SUSTAINABILITY REPORT 2013 >> STRATEGIC APPROACH >> SUSTAINABILITY STRATEGY AND APPROACH

Material issue	Sustainability target	Target date	Result 2013
SUSTAINABLE TRANSPORT			
Alternative fuels	Offer commercial market trucks that can operate on renewable gas ¹	2014	On track ² : Methane Diesel truck launched 2012
Energy-efficient products	Develop a new truck prototype with 20% lower fuel consumption than a corresponding truck manufactured in 2008 ¹	2014	On track: Current prototypes indicate a potential fuel saving of at least 20%, if techniques are combined
Environmental impact of product in use	Reduce the total lifetime CO ₂ emissions of the Group's products by 30 million tons between 2009-2014 ¹	2014	On track: 29 million ton CO ₂ reduction achieved by 2012 ³
SHARED VALUE			
Culture and values	Be among the high-performing companies in the Employee Engagement Index (EEI) of the employee survey	Annual	On track: Volvo Group scored 76% in 2013, one percent off the high-performing sector. (Global norm 2013: 70%)
Customer satisfaction	Be the leader in customer satisfaction, delivering pioneering products and services for the transport and infrastructure industries	Ongoing	On track: Top 3 position on customer satisfaction in all main markets
Diversity and equality	Attract and retain a diverse workforce	Ongoing	On track: Women represented 17% of the workforce and 19% of senior executives.
	Train all managers down to CEO-3 level in diversity and inclusive leadership	2015	On track: new program launched Nov 2013
Occupational health and safety	Increase the number of plants certified to OHSAS 18001	Ongoing	On track: 37% of plants certified to OHSAS 18001
RESPONSIBLE BEHAVIOR			
Culture and values	Train all employees on our updated Code of Conduct, through e-learning and face-to-face training	Ongoing	On track: 23,500 employees have taken the e-learning course since the launch of the updated Code of Conduct in Nov 2012 (out or around 50,000) ⁴
	Maintain ISO 9001 certification for all wholly- owned plants	Ongoing	Achieved: all plants certified to ISO 9001
Business ethics	Train all white collar employees through an anti-corruption e-learning course	Ongoing	On track: 37,300 employees had completed the course by December 31, 2013 (out of around 50,000)
	Train all white collar employees through a competition law e-learning course	Ongoing	On track: 26,900 employees had completed the course by December 31, 2013 (out of around 50,000)
Production related environmental issues	Achieve ISO 14001 certification for all the Volvo Group's major production plants	Ongoing	On track: all but four (out of 67) plants certified to ISO 14001
	Reduce CO ₂ emissions from the Volvo Group's production plants by 0.2 million tons (12%) compared to 2008'	2014	Achieved: 0.3 million tons (13%) reduced between 2009–2012 ³
	Complete energy mapping of the Volvo Group's plants	2012	Behind schedule: 70% completed by 2013
Responsible sourcing	Assess 100% of suppliers delivering automotive products in 'high-risk' countries ('high-risk' as defined in the purchasing section)	2014	On track: 68% completed the self-assessment, corresponding to 80% of spend
	Ensure all suppliers delivering automotive products are certified to ISO 14001	Ongoing	On track: more than 94% of spending
	Train all purchasers face-to-face on supply chain business ethics and environmental issues	2014	On track: 60% by the end of 2013

 $^{1\,}$ One of our objectives as part of the WWF Climate Savers program

² We are currently adapting and improving the technology for Euro 6. Production and deliveries are due for 2015

³ Figures for the year ending 2013 will be available in June 2014 $\,$

⁴ Figures for face-to-face training not measured



Global drivers

The world continues to evolve at a rapid pace, making it more important than ever for the Volvo Group to have an informed understanding of our global operating environment. As part of our business and sustainability strategies, we continually analyze megatrends and regional variations to assess their impact on our Group and seek new business development opportunities.

From our perspective, the most significant trends driving our work towards sustainably meeting transport and infrastructure needs today and tomorrow are:

- 1. Demographic growth and urbanization
- 2. Climate change
- 3. Resource scarcity
- 4. Safety and security
- 5. Competition for skills.

Demographic growth and urbanization

Today over seven billion people live on the planet. By 2025 the United Nations Population Fund expects there to be eight billion people and nine billion before 2050. Half the world's population already lives in cities; urbanization rates by region, however, are not uniform. The 50 percent milestone will be reached in Asia in 2020, but Africa will not be urbanized to this level until about 2035.

These trends are driving an urgent and growing need for transportation and better infrastructure that address the social and environmental challenges of congestion, noise and pollution, and provide solutions for regions at different stages of development.

Climate change

There is widespread agreement that the burning of fossil fuels, including oil and diesel, is a major source of greenhouse gas emissions, which causes climate change. A sustainable transport sector must respond by improving fuel efficiency and moving towards lower carbon alternatives.

This challenge is driving interest and opportunities in electromobility, and alternative and renewable fuels, that reflect the varying availability of natural resources, infrastructure, political will and incentives in different regions.

Resource scarcity

Population growth, increasing industrialization and urbanization, and economic growth place increasing demands on the use of the planet's finite capital. Resource efficiency and finding ways to reuse materials and energy in product lifecycles is increasingly important for industry.

Safety and security

Every year, according to the World Health Organization (WHO), there are more than 1.2 million road traffic fatalities and as many as 50 million people are injured in traffic. The WHO predicts that traffic fatalities could be among the top five causes of death worldwide by 2030. The tragedy of traffic injuries and fatalities is accentuated by the fact that the problems are worst where resources to counteract it are the scarcest; for example, low and middle income countries account for the majority of traffic fatalities.

As more nations and organizations set increasingly ambitious goals for passenger and commercial traffic safety, there is a growing trend for authorities to regulate

L Every year, there are more than 1.2 million road traffic fatalities"

commercial vehicles and make certain safety systems mandatory.

As the population and economies grow, the rising number of vehicles to transport increasing volumes of goods adds to the widespread risk of theft of both vehicles and goods. Security, therefore, continues to be a key focus for the transport and infrastructure industry.

Competition for skills

The transport and infrastructure industry requires a broad range of competences, from engineering and technical skills to management, leadership and financial skills. Multiple factors influence the availability of skilled people for the industry, both today and in the future. These include falling interest in science, technology, engineering and mathematics (STEM) in some developed countries; limitations of the educational systems in some emerging markets; and the long-term decline in the number of people of working age in advanced markets.

The Volvo Group is actively undertaking a wide range of initiatives to address these global sustainability challenges. Examples of our innovative products, services and approaches are included throughout this report.



Our material issues

During 2013, we strengthened our approach to CSR and sustainability by conducting a wider and more formal analysis of the Volvo Group's material issues. This has enabled us to rank the issues that the Volvo Group and external stakeholders consider of highest importance, with customer satisfaction, energy-efficient products and product safety emerging as the top three key priorities.

Our methodology

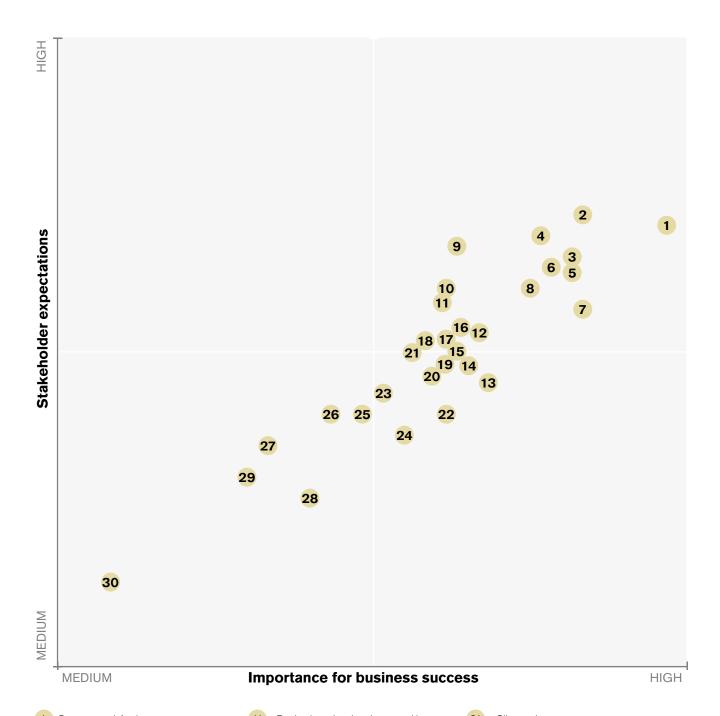
As a first step, we completed the process internally this year. Colleagues from the Group's CSR committee, business intelligence, business strategy and management teams assessed and ranked a long list of issues relevant to the Volvo Group's business success.

Employees with close contact and detailed knowledge of eight stakeholder groups completed the assessment from the point of view of customers, employees, potential employees, suppliers, capital market, decision makers, universities and NGOs.

Conclusions

We regard the resulting matrix as a useful tool to guide and inform our CSR and sustainability strategies, actions and communications. We know not all issues will be relevant for every segment, and that priorities will vary by region – such as human rights in emerging markets. We will continue to evaluate issues, and their importance, as we expand our stakeholder input in our materiality process.

L Customer satisfaction, energy-efficient products and product safety emerged as the top three key priorities"



Customer satisfaction Production related environmental issues 21 Climate change 22 2 Energy-efficient products 12 Volvo Group values and culture Mobility in urban areas 3 Product safety Availability of skilled workforce 23 Diversity and equal opportunity Business ethics Transport system efficiency 24 Corporate governance Research and innovation 15 Employee training and development 25 Local economic growth 6 Alternative fuels and drivelines 16 Traffic safety 26 Product end-of-life management 27 17 Financial performance Responsible sourcing Local community engagement 8 Transition to sustainable transport solutions 18 Occupational health and safety 28 Goods security 29 Environmental impact of product in use 19 Emerging markets products Water consumption

Stakeholder dialogue

Donations and charity

10 Human rights



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Towards sustainable transportation

To address urgent global challenges and contribute positively to economic, social and environmental development, transportation needs to be made more efficient and more sustainable.

The Volvo Group's products and services play an important role in transporting people and goods and building roads and infrastructure. As a business, we are committed to and take an active part in finding, developing and delivering sustainable solutions within our sphere of competence. In 2013, we delivered the biggest renewal of products in the Volvo Group's history, with sustainability factors playing a significant part.

However, the complexity, size and scale of global challenges mean that the Volvo Group cannot meet all needs by acting alone. When developing tomorrow's transportation solutions, we must work in cooperation with other commercial and governmental organizations and with society. And we must take into account the availability of fuels, the environmental impact of our products, the existing and required infrastructure, and the prevailing and emerging social, economic and political needs.

Our holistic approach

For the Volvo Group, sustainable transport solutions improve economic and environmental performance in both the short- and long-term, while considering the social impact at all times.

We achieve sustainable transport solutions by delivering against all three sustainability dimensions:

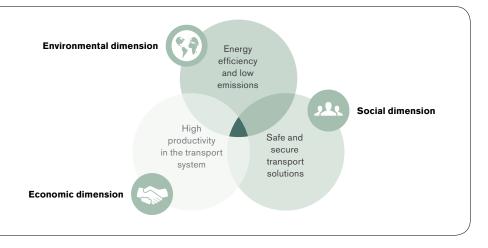
Environmental: energy-efficient transport solutions with very low emissions of carbon dioxide, particulate matter, nitrogen oxides and noise

Economic: the right product or service in order to contribute to high productivity in the transport system

Social: safe and secure transport systems for people and goods.

The Volvo Group's sustainable transport solutions model

The Volvo Group defines sustainable transport solutions as 'solutions that improve short- and long-term economic and environmental performance while considering their social impact'. The Volvo Group's vision of sustainable transport solutions is achieved at the point where all three sustainability dimensions intersect.



■ We achieve sustainable transport solutions

dimensions: environmental, economic and social"

by delivering against all three sustainability

Cleaner and more efficient

Environmental sustainability is about reducing the negative environmental impact of our products. The Volvo Group aims to develop solutions that enable more transportation that uses fewer resources

and emits lower emissions. Our advanced engineering therefore has a strong focus on energy efficiency, alternative fuels and drivelines. By reducing fuel consumption, investing in new technology, utilizing resources

more effectively and giving our products longer service lives, we can reduce the impact on the environment.

We also recognize that attitudes and behavior are important for reducing impacts and increasing efficiency and we actively develop and provide new sustainable transport services. Together, our products and services help our customers operate in the most eco-efficient way possible.

Highly productive

Economic sustainability in terms of sustainable transport solutions refers to the Volvo Group supporting high productivity in the transport system. Our products and services enable many vital business and societal tasks to function efficiently. By understanding our customers' business models and contributing to their success, we secure our own long-term profitability. We offer reliable and cost-effective transportation solutions that help customers improve their productivity. We also strive to increase our customers' success with products and services that are cleaner, smarter and safer. By developing infrastructure and effective transport systems, we create additional benefits for our customers and for society as a whole.

Safe and secure

Social sustainability for the Volvo Group focuses on making things safer for people. A society or business that suffers losses caused by accidents, injuries, fatalities, damaged goods or vehicles, congestion and downtime, is not sustainable over time. As the volume of transport grows, traffic safety and security become increasingly important, with higher demand for solutions to protect the driver, vehicle and goods as well as other road users and pedestrians.

By using our knowledge in traffic safety we can create shared value for society and business. The Volvo Group's research and development addresses all safety and security aspects by focusing on smart technologies and services to reduce the risks of accidents, theft and threats that may occur and to mitigate the consequences.

Cleaner, smarter, safer

Responding to the global challenges of climate change and road safety is critical for the long-term sustainability of the Volvo Group.

According to the Intergovernmental Panel on Climate Change, greenhouse gas emissions must be reduced by 50-80 percent between 2000 and 2050 if we are to avoid the most serious consequences of climate change. Research shows that transport is

responsible for approximately 14 percent of total manmade greenhouse gas emissions and road freight accounts for about four percent of emissions globally.

Approximately 1.2 million people die every year on the world's roads, and another 20 to 50 million sustain injuries. If current trends continue for more than a decade, up to 2.4 million people could be killed annually in road traffic accidents. By 2030, the World Health Organization predicts traffic accidents will be one of the top five causes of death globally.

The Volvo Group can address these global challenges by working towards our vision. We will reach our vision by meeting our customers' needs. This means working as one team, being progressive, driving innovation and developing sustainable products and services that fulfil unmet customer needs. Our approach to sustainability is supported by our corporate core values. These spring from our heritage, but are more applicable today than ever:



Environmental care expresses our commitment to reducing the environmental impact of our operations and products.



Quality reflects our promise to deliver reliable products and services that add economic value to our customers.



Safety is about improving our social impacts by reducing accidents, both within the Volvo Group and in the use of our products and services.

The Volvo Group has therefore chosen to put substantial effort into research and development of products with significantly reduced fuel consumption and the ability to run on alternative, cleaner fuels. Our investment in smarter technologies and infrastructure supports fuel efficiency, while improving safety.

Award-winning

The new Volvo FH truck won many awards during 2013, including the prestigious Red Dot design award. It was also voted International Truck of the Year in recognition of its important innovations in all crucial areas: fuel economy, ergonomics, handling, active and passive safety and time-saving features.





Cleaner solutions

Reducing the environmental impact of our products and services is extremely important for our business and our stakeholders. Innovation, energy-efficient products and alternative fuels are among the Volvo Group's top material issues.

Carbon reduction commitment

The Volvo Group was the world's first automotive manufacturer to be approved by WWF to participate in its Climate Savers program. One of our program objectives is to reduce the total lifetime carbon emissions for trucks, construction equipment and buses manufactured between 2009 and 2014 by 30 million tons of CO₂, compared to vehicles manufactured in our 2008 baseline year. Between 2009–2012, we reduced product emissions by 29 million tons – 97 percent of our goal. The 2013 figures will be available in June 2014.

WWF Climate Savers program



Priorities and progress

Alternative and renewable fuels offer the transport sector opportunities for reducing carbon emissions. We have already proven our ability to produce carbon-neutral transport, and we continue to actively research and develop technologies that operate on renewable or alternative fuels.

In order to be commercially viable, all sustainability dimensions – social, economic and environmental – must be taken into consideration. This includes setting up the infrastructure for new fuels. In addition, fuel represents a significant operating cost for the transport sector and energy efficiency is therefore a key priority in supporting our customers to create value.

As there is no single solution to all needs and markets, the Volvo Group continues to develop a range of products and services.

SOME DEFINITIONS

Alternative fuels

Fuels, including electricity, that can replace conventional diesel or petrol fuel derived from crude oil

. BioDME

DME (dimethylether) derived from renewable material such as biomass, waste and agricultural products

mass, was

Biological material from which energy can be provided

Carbon-neutral transport

Carbon-neutral vehicles powered by fuels or electricity produced from sources and processes that add no excess carbon dioxide (CO₂) into the atmosphere

DME (dimethylether)

A sulphur-free gas with ultra-clean combustion that is easy to liquefy – derived from fossils fuels (coal, natural and shale gas) or a variety of sustainable feedstocks (wood, black liquor and organic materials)

Fully electric vehicles

Vehicles and machines powered or propelled by an electric motor **Fossil fuels**

Fuels based on fossil energy, primarily oil, coal and natural gas

HVO (hydrotreated vegetable oil)

Vegetable oils or animal fat are converted into diesel-like molecules in a refinery process. The end product is similar to conventional diesel fuel

Hybrid vehicles

Vehicles and machines powered or propelled by two different power sources that are able to recover and store kinetic energy $\frac{1}{2} \left(\frac{1}{2} \right) = \frac{1}{2} \left(\frac{1}{2} \right) \left(\frac{1}{2} \right$

Methane

Methane gas (CH_4) is the main component of natural gas and biogas, in both compressed or liquefied form

Plug-in hybrid vehicles

Hybrid vehicles with rechargeable batteries, or another energy storage device, that can be fully charged by connecting to an external electric power source

Renewable fuels

Fuels, including electricity, produced from a renewable source – such as biomass, hydro, wind or solar power

Well-to-wheel

A concept that considers all relevant stages of the fuel chain, including cultivation and harvesting of the raw material, its transport to the fuel production plant, production and distribution of the fuel and its use in vehicles

■ With our extensive range of fully

vehicles, we are the world leader within

electric, plug-in hybrid and hybrid

the electromobility bus market"



Fully electric trucks emit no particulate matter, nitrogen oxides or carbon dioxide during operation and have very low noise levels, making them suitable for city distribution.

Electromobility

Electromobility offers cleaner transport solutions by reducing exhaust emissions and noise. It can also significantly reduce fuel cost for the customer. The electromobility market includes fully electric vehicles and machines – powered or propelled solely by an electric motor – as well as hybrids, which have two sources of power.

It is a new, important and growing market for the Volvo Group. We

quickly realized society's need for low carbon solutions to tackle climate change and have already developed and sold more than 2,500 hybrid city buses, for example. Such product innovation has helped us establish a strong presence and good reputation in the market. With our extensive

range of fully electric, plug-in hybrid and hybrid vehicles, we are the world leader within the electromobility bus market.

FULLY ELECTRIC BUSES

Fully electric vehicles emit no particulate matter, nitrogen oxides or carbon dioxide during use and have very low noise levels. This makes them especially suitable for use in densely-populated urban environments.

China represents a huge market for sustainable public transport solutions. Sunwin Bus, the Chinese joint venture of Volvo Bus, is a leading supplier of fully electric buses longer than 10 meters. The company has sold 787 fully electric buses to date.

Following an extensive city mobility study in 2012, the Volvo Group formally launched its City Mobility Program in April 2013, beginning with partnerships in Gothenburg, Stockholm, Hamburg, Luxembourg and Montreal.

In Gothenburg, Sweden, we have confirmed plans to launch fully electric Volvo buses powered entirely from renewable electricity on the city's public transport network from 2015. In Canada, our North American subsidiary, Nova Bus, has entered into an agreement with the Société de transport de Montréal (STM) to test three Nova electric buses and two rapid charging stations at bus terminals in 2015. Read more about the City Mobility Program in the 'Smarter solutions' section.

FULLY ELECTRIC TRUCKS

Renault Trucks has developed a fully electric 4.5-ton truck, Renault Maxity Electric, in partnership with electric commercial vehicle manufacturer PVI. It emits no particulate matter, nitrogen oxides or carbon dioxide and has very low noise levels, making it suitable for city distribution, operations at night and use in restricted low-emission zones. It is available for purchase or for long-term rental in European markets such as France, Spain and Benelux.

In 2013, Renault Trucks began testing new commercial applica-

tions for the Maxity Electric, including boom lifts and refuse collection. Together with the City of Lyon, we have brought into service France's first fully electric boom lift Maxity truck. We are monitoring its performance under actual working conditions and will adapt it as required to meet

urban operational requirements. We also delivered the first Maxity Electric residential garbage dumpster, capable of covering 50 km. The model draws its energy from a battery pack located in the rear wheelbase and supplies it to the dumpster electronically.

Tests continue on higher tonnage trucks in order to prepare the Volvo Group for future commercial offers. These include two 13-ton all-electric refrigerated Renault Midlum trucks, delivered in 2012 to supply stores in the urban areas of Lausanne and Zürich, Switzerland.

In addition, a logistics company supplying fresh products to store chains in the metropolitan area of Lyon is currently testing a 16-ton fully electric Renault Midlum truck. It is the largest electric-powered

Driving distance for a bus with 5 I diesel equivalent to 50 kWh

DIESEL 10 KM

HYBRID 14.2 KN

PLUG-IN HYBRID 25 KM

truck on the road delivering produce in an urban environment. It can carry 5.5 tons of goods, has an operating range of 100 km and can be fully recharged in only eight hours.

ELECTRIC AND HYBRID DRIVELINES

The Volvo Group has tested various types of hybrid solutions since the 1980s and is now the world leader in hybrid technology. Our solution is based on a unique Volvo Group concept known as I-SAM (Integrated Starter Alternator Motor). I-SAM consists of an electric motor and a diesel engine working in parallel – each can be used where they are most effective. I-SAM can be used for different products and applications, thus facilitating large-scale manufacturing and reducing production costs.

Since 2011, Volvo Buses has been in a joint venture with the Chinese company, SAIC Motors, for the development of driveline systems for electric and hybrid drivelines. The company is based in Shanghai, and operated by Sunwin Bus. It conducts research and development, assembles new driveline systems, completes vehicle matching, prototypes manufacturing and tests new energy driveline systems.

PLUG-IN HYBRID BUSES

During 2013, Volvo Buses undertook field testing of its new plug-in hybrid model. Volvo's plug-in hybrid bus:

- is fitted with an electric motor, powered by a lithium battery, and has a small diesel engine
- enables recharging from electricity grids via a collector installed on the roof – charging takes approximately 7 minutes
- can run exclusively on electric power for approximately 7 km, without any noise or emissions.

Working in partnership with Västtrafik, three plug-in hybrid Volvo buses have been running on the public transportation system in Gothenburg since the summer 2013.

Initial results have exceeded expectations. The plug-in hybrid consumes less than 11 liters of diesel per 100 km – 81 percent less than an equivalent diesel bus. Total energy consumption – based on diesel fuel and electricity – is 60 percent lower overall.

The field test in Gothenburg will continue throughout 2014

and complete 10,000 operating hours. A demonstration project in Stockholm will bring eight more plug-in hybrid buses into service in 2014.

A number of other European cities are showing a keen interest in Volvo Buses'

plug-in hybrids. Hamburg and Luxembourg have already signed contracts for supplies in 2014 and 2015. The Group plans to begin commercial production at the end of 2015.

HYBRID BUSES

We began serial production of hybrid buses in 2010 with the Volvo Hybrid city bus and the Volvo Hybrid double-decker. During 2013, we strengthened our hybrid range with a new articulated bus. The Volvo 7900 Hybrid Articulated has a capacity of up to 154 passengers, which is more than any other hybrid bus on the market, and a



Volvo plug-in hybrid bus tests have recorded average fuel consumption of less than 11 liters of fuel per 100 km – 81% less than an equivalent diesel bus.

fuel consumption that is up to 30 percent lower than current diesel models. We also announced that all complete low-floor buses sold from 2014 by Volvo in Europe will be hybrid buses.

By the end of 2013, the Volvo Group had sold more than 2,500 hybrid city buses worldwide, under our Volvo (1,300), Nova (900) and Sunwin (350) brands.

The Volvo Hybrid city bus and the Volvo Hybrid double-decker offer significant fuel savings of up to 39 percent, compared to a conventional diesel bus. The technology functions equally in congested traffic situations and where there is greater distance between bus stops. The diesel engine only starts when the bus reaches 15–20 km/hour, which ensures a quiet and exhaust-free environment at bus stops. These factors make Volvo hybrid buses the most commercially viable option among hybrid vehicles.

HYBRID TRUCKS

From 2014, all complete low-floor

buses sold in Europe by Volvo will be

hybrid buses"

We have offered two models of hybrid trucks in selected European markets since 2011: the Volvo FE Hybrid and the Renault Premium Hybrys Tech. Customers have given very positive feedback on both models, and the technology has met customers' high expectations on both reliability and performance, reaching the expected fuel savings of up to 30 percent.

However, sales to date have been low and current sales forecasts are not high enough for the Volvo Group to deliver an economically

viable Euro 6 version of these models right now. In light of this, we announced our decision to halt production until customers are more confident about the market and are in a position to commit to the additional investment.

We continue to invest in long-term research and development in order to remain at the forefront of hybrid technology. When market conditions are more favorable, we will be in a strong position to reintroduce highly efficient and reliable hybrid trucks.

Alternative fuels

Alternative fuels and the transition to sustainable transport solutions rank among the Volvo Group's top ten material issues. We have conducted extensive research on various types of alternative and renewable fuels, assessing them from a well-to-wheel perspective.



DME trucks are currently being road tested in the US. We aim to become the first manufacturer to commercialize DME-powered heavyduty commercial vehicles in North America.

OUR POSITION

The Volvo Group believes that renewable fuels have the long-term potential to substitute diesel – at least in part – and significantly reduce carbon emissions in transport. Right now, however, the main challenge is the availability of renewable and alternative fuels in different parts of the world. The transition to a low-carbon society requires collaboration between vehicle manufacturers, vehicle users, politicians, government agencies and fuel producers.

The Volvo Group actively collaborates with various stakeholders to promote the establishment of infrastructure to distribute fuels with high energy efficiency and low greenhouse gas emissions, but in the short term, we see no single successor to fossil fuels. For this reason, we still focus strongly on improving the fuel efficiency of diesel engines.

In the absence of a single optimal alternative, the Volvo Group continues to develop and offer a number of different solutions adapted for various fuels, applications, markets and commercial conditions:

Long-distance transport: we believe crude oil-derived diesel fuel will remain dominant, but with increasing renewable and synthetic components. Liquid methane and DME are prioritized components.

Regional transport: we expect compressed and liquefied methane to grow as a preferred fuel due to improved pricing and security of supply. DME will also be prioritized.

Short-distance transport: we see this leading the shift to electricity, especially in urban areas, for buses, urban delivery and utility vehicles. We believe compressed methane, followed by DME, will also be important for these applications.

METHANE DIESEL TRUCKS

The Volvo Group was the first manufacturer to develop an efficient diesel engine fuelled by a mixture of methane and diesel and the first manufacturer in Europe to start selling gas-powered trucks for long-haul operations that conform to Euro 5 emissions regulation.

In February 2012, the Volvo Group began series production of the Volvo FM Methane Diesel truck, which could use up to 75 percent methane. When powered by renewable biomethane, the truck cut carbon emissions by up to 70 percent, compared with traditional diesel fuel operation.

The first markets to receive this new truck technology were Sweden, the Netherlands and the UK – where the infrastructure and distribution for methane is well established. We have been developing and improving the engine, technology and customer features before testing a new model against Euro 6 emissions regulation. We expect deliveries of Euro 6 compliant methane diesel trucks will commence in the second half of 2015.

DME TRUCKS

Dimethylether (DME) mirrors the exceptional performance qualities and energy efficiency of diesel fuel, but burns clean without producing any soot.

It is non-toxic, and can be made from a variety of sustainable feedstocks, including farmed wood, waste wood, black liquor, and many other organic materials. BioDME can achieve ${\rm CO_2}$ reductions of up to 95 percent compared to diesel.

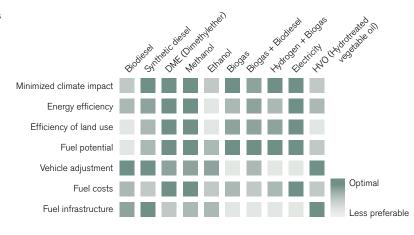
DME can also be produced from natural gas. Converting natural gas to DME is an innovative way to address many of the distribution, storage and fueling challenges presented by alternatives such as compressed natural gas (CNG) or liquefied natural gas (LNG).

In the long term, DME can, in principle, be adapted to the majority of Volvo Group applications.

Alternative fuels: assessment of sustainability features

All fuels in this chart are assumed to be produced from renewable sources. The results may vary for a particular fuel depending on the production process used.

Source: Climate issues in focus, Volvo Group, 2007–2013.



BioDME in Sweden

The Volvo Group was the first truck manufacturer in Europe to test BioDME as a vehicle fuel on a large scale. Since 2010, we have collaborated with various funders and partners to conduct field tests with ten trucks covering a total of 1,350,000 km.

The tests show that BioDME trucks function very well on the road, the technology is reliable and the entire process is energy efficient, from production and distribution all the way to the vehicles themselves.

US field tests and commercialization

In 2013, in conjunction with fuel suppliers and customers, the Volvo Group began road testing four Volvo DME trucks in the US. Since DME has the potential to improve air quality and reduce CO_2 emissions, especially when using BioDME, the Volvo Group has been awarded funding from the San Joaquin Valley Air Pollution Control District to extend the DME testing to California. As a result, we will begin testing with Safeway – one of the nation's largest grocery retailers with more than 1,600 stores across the US and Canada – by 2015.

The US tests will continue during 2014 and 2015, and the Volvo Group aims to become the first manufacturer to commercialize DME-powered heavy-duty commercial vehicles in North America.

HVO RENEWABLE DIESEL

HVO (hydrotreated vegetable oil) is a type of synthetic diesel. It is very similar to conventional diesel, but is derived from vegetable oils or animal fats. Together with a fuel company, we have been conducting trials for over a year on Euro 5 trucks powered solely by HVO. The mid-term results are very positive, indicating that no adjustments are needed to hardware or the maintenance schedule.

In the next phase of the project, we will be testing HVO on Euro 6 vehicles and entering discussions with various authorities over certification.

Next generation diesel engines

The market for diesel engines continues to be strong and the Volvo Group is focused on ways to improve their eco-efficiency and performance.

REDUCING EMISSIONS

Countries worldwide are increasingly introducing legislation to reduce emissions from heavy-duty vehicles. Having initially focused on particulate matter and nitrogen oxides, more recent legislation is now targeting carbon dioxide emissions.



To meet the demanding requirements of EPA 2010 and Euro 6 emissions regulation – in force from January 1, 2014 – Volvo Group vehicles are equipped with both Exhaust Gas Recirculation (EGR) and Selective Catalytic Reduction (SCR). EGR lowers the amount of oxygen in the combustion chamber, which reduces combustion peak temperature and thereby lowers the formation of nitrogen oxides. With SCR technology, a water solution of urea is injected into the diesel exhaust stream to convert nitrogen oxides into harmless nitrogen and water vapor.

Using both techniques together achieves low emissions. Further information about emissions can be found in the product development section of the 'Earning trust, gaining resilience' chapter.

SAVING FUEL

Delivering fuel savings is of material importance to the Volvo Group and our stakeholders. Fuel accounts for one of the highest operating costs for all our customers – and typically one third of a truck fleet owner's operating costs – so any measure that reduces fuel consumption will help to improve our customers' profitability while reducing environmental impact.

For a long-haul Volvo truck, we have forecast potential fuel savings of 15 percent over the next 15 years. This can be achieved in a number of ways, as shown in the infographic. New technology can be used to achieve even more significant savings.

MARINE ENGINES

In 2013, Volvo Penta launched a new engine, IPS900, with medium duty operation, enabling a larger number of commercial boats in segments such as the coastguard and patrol, supply, offshore energy and passenger transport segments to take advantage of its Inboard Performance System (IPS).

Volvo Penta IPS combines improved performance with less environmental impact, compared to a boat equipped with a traditional shaft installation, for example up to:

- 30% reduced fuel consumption at cruising speed
- 30% lower CO₂ emissions
- 50% lower perceived noise level and vibrations.

The lower power usage means reduced load, lower oil temperature, lower engine temperature and thus reduced stress on components. This results in increased durability and a longer life, with longer service intervals.

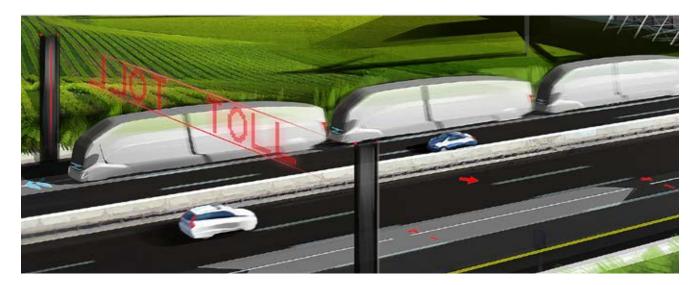
Thanks to these features, the Volvo Penta IPS system received the International Powerboat Association's award for Best Innovation 2013.



Fuel-saving potential

2013 was the year of the largest product renewal in the Volvo Group's history. We introduced the majority of these fuel-saving measures in the range of Volvo trucks launched during 2013.

For a long-haul Volvo Truck, we have forecast potential fuel savings of 15 percent over the next 15 years. This can be achieved in a number of ways.



Smarter solutions

Drawing on our materiality matrix and holistic approach to sustainability, the Volvo Group's advanced engineering and research and development teams continually look for ways to improve the overall efficiency of transport systems.

This involves increased collaboration with external stakeholders and requires us to broaden our focus beyond the Volvo Group's products and services. It does, however, lead us to smarter transport and infrastructure solutions. And ultimately towards the fulfillment of our Group vision of becoming the world leader in sustainable transport solutions.

Rethinking urban mobility

The issue of mobility in urban areas is of material importance to our business. An increasing number of stakeholders are expressing an interest in working collaboratively with the Volvo Group on more sustainable solutions for public transport and city distribution of goods.

BUS RAPID TRANSIT

Volvo Buses was a pioneering partner in the world's first Bus Rapid Transit (BRT) system, in Curitiba, Brazil, in the late 1970s. Since then, we have supplied more buses for BRT systems than any other supplier in the world. The Volvo Group currently works on leading BRT systems in Bogotá, Colombia; Mexico City, Mexico; Gothenburg, Sweden, and York, Great Britain, and continues to develop the system in Curitiba.



Bus Rapid Transit was pioneered in Curitiba, Brazil, in the 1970s. Since then, the Volvo Group has supplied more buses for BRT systems than any other supplier in the world.

BRT is an efficient public transport concept designed to meet growing transport demands in cities around the world. It reduces traffic congestion, lowers environmental impacts and increases safety for bus passengers through:

- · high-capacity buses
- exclusive bus lanes
- · off-board ticketing
- · level boarding
- · priority at intersections
- traffic control
- · passenger information.



Volvo Group's City Mobility Program was launched in 2013 with partnerships in Gothenburg, Stockholm, Hamburg, Luxembourg and Montreal. We aim to expand to 10 cities worldwide.



The Climate-Smart City Distribution project studied emissions from nearly 400 vehicles over 3 years. Emissions were reduced on average by 30% and in some cases by up to 80%.

Economically, BRT is a much cheaper option for cities looking to expand public transport routes, requiring less capital investment per kilometer than new subway or tramline infrastructure.

CITY MOBILITY PROGRAM

Following on from an extensive city mobility study in 2012, the Volvo Group formally launched its City Mobility Program in April 2013. Having met with stakeholders in various cities and ascertained their con-

cerns and goals, we are trying to find sustainable transport solutions relevant to each city's unique circumstances.

Starting in Gothenburg, Stockholm, Hamburg, Luxembourg and Montreal, and focusing initially on city buses, the program will eventually expand to 10 cities with a high focus on electric vehicle appli-

cations. We will also be applying smart technology and infrastructure solutions, such as Bus Rapid Transit. In each city, the program will be operated in close collaboration with local partners.

ElectriCity Gothenburg, Sweden

In 2013, the Volvo Group confirmed plans for the ElectriCity project in Gothenburg, where we are working with the Swedish Energy Agency, Region Västra Götaland, the City of Gothenburg, Göteborg Energi, Västtrafik, Lindholmen Science Park and Johanneberg Science Park.

We have agreed to run buses powered entirely from renewable electricity on the city's public transport network beginning 2015. They will be extremely fuel efficient, silent and completely emissions free. In addition to the electric buses, the program also includes the creation and trial of new bus stop solutions, traffic-routing systems, safety concepts and energy supplies.

The partners hope that the project will attract more commuters to use public transport, highlight Gothenburg as a progressive city in terms of sustainable urban planning and help it achieve its aim of becoming a climate-neutral city.

City Mobility Montreal, Canada

The Volvo Group's North American subsidiary, Nova Bus, and the Société de transport de Montréal (STM) have entered into an agreement on an electrification project for the public transport system of Montreal, Canada.

The city will be testing three Nova electric buses and two charging stations. The goal is to have the noiseless and emission-free buses operational for demonstration in the third quarter of 2015 and in regular traffic for three years, beginning in 2016. The buses will be used in city operations and will charge rapidly at bus terminals. The

program will test a range of new technologies in real operating conditions to assess their impact on planning, operations, maintenance, and the improvement of customer service.

This strategic partnership aims to make Montreal a leading city with innovative

solutions for electric transit. It is in line with the Government of Québec's 2020 Transportation Electrification Strategy to significantly lessen its ecological footprint and the City of Montreal's target for reducing greenhouse gas emissions by 30 percent in 2020, compared to 1990 levels.

How much public transport does **\$1** billion buy?



■ We formally launched our City Mobil-

ity Program in 2013 starting in Gothen-

burg, Stockholm, Hamburg, Luxembourg

and Montreal"



CITY DISTRIBUTION

For the Climate-Smart City Distribution project, which ended in spring 2013, the Volvo Group worked together with a number of partners to improve the efficiency of distribution operations in central Gothenburg, Sweden.

Replacing conventional diesel distribution trucks with vehicles using three different technologies – renewable fuels such as biodiesel, biogas and DME, hybrid technology, and methane-diesel fuel – resulted in a significant reduction in emissions.

Over the course of the three-year project, emissions from almost 400 vehicles involved in the study dropped by an average of 30 percent, in some cases by up to 80 percent.

The problems experienced in downtown Gothenburg are the same the world over and, together with other partners, the Volvo Group is working on the development and testing of solutions for next-generation cargo traffic both on inter-city highways and inner-city streets.

COMMUTE GREENER

Commute Greener is a mobile-based application developed by the Volvo Group that calculates and keeps track of CO_2 emissions. The app transforms a cell phone into a tool to measure emissions generated during everyday commuting, including traveling by bus, car, train, bicycle or other means of transport. Users include corporations, cities, organizations and individuals.

The program challenges users to reduce carbon emissions and traffic congestion while improving health and quality of life. It also calculates financial savings and gives proactive suggestions on how to commute greener, such as riding on public transport or taking a bus. Encouraging more people to commute by bus is good for Volvo Bus customers and, in turn, our business.

In addition to the application itself, Commute Greener provides a community website where commuters can challenge each other to reduce their individual carbon footprint.

Rethinking infrastructure

Infrastructure is an essential part of the transport system and we are rethinking this as much as we are rethinking our products in order to meet current and future transportation needs.

ELECTRICAL ROAD SYSTEMS

Electromobility is a key focus for the Volvo Group's product develop-



ELECTRICAL ROAD SYSTEMS PROJECT

Duration

Phase 2: 2 years (September 2013-December 2015)

Budget

Phase 2: EUR 4.8 M (from California's South Air Quality Management District, the Swedish Strategic Vehicle Research and Innovation agency, and participating companies)

Key objective

To evaluate the viability of electrical road systems that charge vehicles as they drive along.

ment teams as it delivers cleaner and more fuel-efficient solutions for the world's increasingly urbanized populations. Fully electric vehicles, plug-in hybrids and hybrids already offer cleaner and smarter city solutions today and we are now testing the next generation of electric vehicle solutions.

Systems that enable vehicles to charge as they drive along the road could take the advantages of electromobility beyond urban recharging points and open up opportunities for electromobility technology for long-distance bus and truck journeys.

The Volvo Group has been involved in the multi-stakeholder Electrical Road Systems (ERS) project since 2010. The project has received funding from the Swedish Strategic Vehicle Research and Innovation agency (FFI), and participating companies. It will continue through to December 2015.

In the first study, the Volvo Group is testing a recharging solution developed by Alstom on our test track in Sweden, where two power

 $\begin{tabular}{ll} \textbf{Commute greener} is an app that transforms a cell phone into a tool to measure CO_2 emissions from everyday commuting by bus, car, train, bicycle or other means of transport. \\ \end{tabular}$

The free and public version of Commute Greener can be downloaded from the App Store and www.commutegreener.com.





Platooning uses wireless technology to link a road train where the lead truck, operated by a trained driver, controls the convoy behind. Trials are currently underway in the US, following EU tests.



COSMO PROJECT

Duration

3 years (2010-2013)

Budget

EUR $3.88~\mathrm{M}$ (including EUR $1.94~\mathrm{M}$ of funding from the European Commission)

Key objectives

To field test C-ITS technology on public transport and quantify its impact on eco-efficiency

lines have been built into the surface of the road. The power line is built in sections and each section is only live as the truck passes. Power is transferred to the truck via a current collector located at the front of the vehicle.

In parallel to this initiative, the Volvo Group is working in cooperation with Siemens on a second ERS project, named eHighWay, which is funded by California's South Coast Air Quality Management District (SCAQMD). The system charges the vehicle from an overhead wire and is another adaptation of existing tramcar technology for other vehicles. Tests on location in California will begin in November 2015.

GREEN CORRIDORS

The idea of a green corridor is to concentrate goods traffic between major urban areas along specially adapted routes that provide efficient links between highways, sea routes and railways. This will result in safer and more efficient transportation, less traffic congestion and overall lower environmental impact.

The Volvo Group is involved in the EU Green Corridors initiative, collaborating with universities, authorities and other transport companies to reduce the environmental impact of long-distance freight transport. We contribute technical vehicle expertise and knowledge of the transportation system. We also participate in field tests that study real operational circumstances.

In the US, the Volvo Group is involved in several projects related to a corridor connecting the ports of Los Angeles and Long Beach with regional distribution centers. Forty-five percent of US imports come through these ports. With container volumes expected to triple in the next 20 years, their local stakeholders are investing in sustainable solutions for the future. We are involved in projects that include plug-in hybrid trucks, electrical road systems and truck platooning.

Intelligent Transport Systems

Intelligent Transport Systems (ITS) is a concept that will ultimately contribute to more efficient transport and infrastructure solutions. ITS combines new technology with advanced IT and communication technology, providing real-time traffic information, remote monitoring and communication between vehicles and the infrastructure. This offers major opportunities for increasing safety and reducing congestion and environmental impacts.

The latest ITS development is the deployment of short-range vehicle to vehicle (V2V) and vehicle to infrastructure (V2I) communication. We are committed to supporting future deployment of this technology, which will have a major impact on traffic safety as vehicles will be able to 'talk' to each other.

COSMO IN EUROPE

COSMO was a pilot project, co-funded by the EU Commission, to field test C-ITS (cooperative intelligent transport systems) on public transport and quantify its impact on eco-efficiency. Between 2010 and 2013, project partners tested V2I technology in real conditions across three pilot sites: Salerno (Italy), Vienna (Austria) and Gothenburg (Sweden).

The Volvo Group took part in the Gothenburg pilot and studied V2I technology involving three intersections and six buses. For the purposes of the project, we developed and piloted enhanced bus intersection and traffic light logistics, Intelligent Speed Adaptation (ISA) and congestion prevention. We also provided eco driver support.

The results from the Gothenburg pilot demonstrated average speed increases of 6.4 percent and average fuel reductions of 13 percent when drivers followed the system advice at least half of the time.

PLATOONING TRIALS

Platooning is the US term for road trains, which the Volvo Group successfully trialed during 2010-2012 in the EU-financed SARTRE (Safe Road Trains for the Environment) project. The SARTRE tests included a lead Volvo FH truck followed by three cars driven at

speeds of up to 90 km/h, with no more than a six-meter gap between the vehicles. Using wireless technology to link the road train, the lead truck, operated by a trained driver, controlled the convoy behind. The car drivers behind were able to let go of their steering wheel while the road train controlled them autonomously.

The EU tests indicated that driving in a close-formation convoy could reduce accidents, improve traffic flow, offer greater comfort to drivers and lower fuel consumption and carbon emissions. However, there are other challenges regarding legislation, responsibility and communications standards, which must all be resolved before platooning can be adopted as a sustainable transport solution.

In 2013, the Federal Highway Administration, FHWA, a division of the United States Department of Transportation, awarded a total USD 2 M platooning contract to a multi-stakeholder team including the Volvo Group; University of California, Berkeley; CALTRANS; Los Angeles Metro and other partners.

The aim is to develop and demonstrate a system in which three heavy-duty trucks are connected in a platoon in order to increase roadway capacity and decrease fuel consumption. The project will begin in 2014 and run until 2016. The main demonstration will take place around the ports in Los Angeles, where 45 percent of US imports are routed.

In Japan, UD Trucks participated in 2013 in a small-scale platooning project on the test tracks of the National Institute of Advanced Industrial Science and Technology.

The Volvo Group actively participated in dialogue with the US, EU and Swedish authorities during 2013 on issues surrounding platooning.

MACHINE TO MACHINE COMMUNICATION

Volvo Construction Equipment (Volvo CE) is now half way through its five-year study into EASY embedded systems, which facilitate machine-to-machine communication, with the aim of increasing productivity. We are collaborating with one of the Volvo Group's academic research partners, Mälardalen University, Sweden.

The project aims to find and evaluate business opportunities for Volvo CE telematics solutions in quarries and on construction sites. The team is adapting and applying lean principles normally used to identify and analyze sources of waste in production plants. The results will be used as input for generating solutions for these new applications.

Future freight

The Volvo Group is undertaking several projects to improve the freight efficiency of its trucks. The objective is to reduce fuel consumption per volume of freight transported and to reduce greenhouse gas emissions.



MACHINE TO MACHINE COMMUNICATION PROJECT

Duration

5 years (October 2011-October 2016)

Budget

SEK 6 M (from public funding, Volvo Group and Mälardalen University, Sweden)

Objective

To increase productivity and fuel efficiency by implementing lean principles and optimizing machine movements



VOLVO ENERGY EFFICIENT VEHICLE PROJECT

Duration

5 years (2011-2016)

Budget for the US

USD 38 M (from US Department of Energy (DOE) and the Volvo Group)

Budget for Sweden

SEK 177 M (from the Swedish Energy Agency and the Volvo Group)

Objective 1

Improve freight efficiency by 50% (ton-km/liter or ton-mile/Gal)

Objective 2

Demonstrate engine technologies that can reach 55% brake thermal efficiency

ENERGY EFFICIENT VEHICLES

We have been running a bi-lateral project in the US and Sweden since 2011, where we are considering all aspects of a complete vehicle, including the efficiency of the engine, the length of the trucks and the aerodynamics of the trailers.

The objectives are to improve freight efficiency by 50 percent, compared with 2009 truck models, and to demonstrate a technology pathway to improve engine efficiency by over 30 percent. Volvo Group researchers, together with key suppliers in both countries, are looking at many innovative solutions to meet the program's aggressive targets.



ONE MORE PILE PROJECT

Duration

10 years (2007-2016)

Budget

SEK 150 M (from Swedish industry, public funding and the Volvo Group (approx. SEK 25 M))

Key objective

To develop a modular system for forest transportation that increases the amount of timber per load, while reducing fuel consumption, carbon emissions and the number of vehicles on the road



DUO2 PROJECT

Duration

7 years (2010-2016)

Budge

SEK 95 M (from Swedish industry, public funding and the Volvo Group (approx. SEK 20 M))

Key objective

To reduce fuel consumption and increase freight capacity by using a truck that is longer and heavier than those available in Europe today

US SuperTruck

The concept SuperTruck in the US has been developed as part of the global Volvo Group Energy Efficient Vehicle Project. By the end of 2013, it had already achieved freight efficiency improvements of 30 percent.

At the halfway point of this five-year project, the team has successfully reduced the aerodynamic drag of the tractor and trailer by over 26 percent and increased thermal efficiency of the engine by approximately 15 percent, using multiple technologies including heat recovery solutions. Advanced engine design, transmission technology and software are a key enabler to optimize the efficiency of the complete driveline without compromising drivability.

Over the remainder of the project, we aim to reduce overall aerodynamic drag by 40 percent and continue to implement driveline improvements, and develop technology to further enhance transport efficiency, such as advanced driver aid systems. We will also be looking at more sustainable materials and components, and new solutions to optimize the efficiency of regional and low-density freight transport.

HIGH CAPACITY TRANSPORT

The Volvo Group has been actively involved in the development of high capacity transport vehicles (HCT) since 2007. The HCT projects are funded partly by the Swedish Strategic Vehicle Research and Innovation program (FFI) – a cooperation between the automotive industry and the Swedish Governmental Agency for Innovation Systems. The projects are carried out by the Volvo Group and several other companies

Many initiatives are ongoing until 2016, with our company contributing to products and solutions including:

- VETT: 'One more pile' forestry transportation project
- DUO2: a 32-meter 80-ton truck.

One more pile

The One more pile (VETT) project aims to develop a modular system for forest transportation that increases the amount of timber per load, while reducing fuel consumption, carbon emissions and the number of vehicles on the road.

To date, the 90-ton test vehicle combinations have covered 1,300,000 km, providing vast amounts of valuable data, which appears highly encouraging.

Compared to standard 60-ton combinations, the high-capacity 90-ton combinations have so far achieved a 22 percent reduction in fuel consumption and CO_2 emissions, while the 74-ton combinations have reduced CO_2 by 10 to 15 percent per tonkm.

All aspects, such as traction, braking, monitored weight, lift axles and safety, have been thoroughly investigated and addressed. And despite initial fears, overall safety has actually improved. In 2013, the Finnish government approved use of the 74-ton combination on the general road network where bridges are strong enough. Sweden is considering approval of the 74-ton on a limited road network as a first phase.

DUO2

The DUO2 project is testing a truck that is longer and heavier than those available in Europe today. Under EU legislation, trucks are permitted up to a maximum of 18.75 meters in length and 40 tons in weight, except in Sweden, Finland, Denmark and the Netherlands where the limit is 25.25 meters and 60 tons.

For the DUO2 project, we have special permission to test a 32-meter-long truck weighing up to 80 tons, travelling between Gothenburg and Malmö in Sweden – a journey of approximately 300 km.

In 2013, the Volvo Group announced the first set of verified test results. The data shows a 27 percent reduction in fuel consumption, compared to standard combinations. DUO2 also optimized cargo loads, transporting up to 200 m³ and averaging 60 tons in weight. This indicates that volume and load distribution may play a more significant role than weight restrictions and requires monitoring systems to be developed. Work will continue over the coming year alongside consultation on the legislative framework.



Safer solutions

Safety has been a guiding core value for the Volvo Group since 1927 and spans many areas of our business, from how we work to what we deliver. Product safety is a top three material issue and our ultimate goal is zero accidents with the Volvo Group's products.

We are aware that our products do not operate in isolation and accidents can occur at any stage during the use of our products. However, we are committed to working on safety issues for as long as it takes to reach our vision. This includes supporting safer customer use of our products.

UNITED NATIONS DECADE OF ACTION

The Volvo Group supports the ambition of the United Nations Decade of Action for Road Safety (2011–2020), which aims to save five million lives over a 10-year period.

Road traffic fatalities affect current and future generations. Today, injuries sustained in traffic accidents are the number one cause of death among young people aged 15–29 and are expected

to be among the top five causes of all deaths by 2030. This is unsustainable and unacceptable.

In the EU, the number of traffic fatalities has declined by approximately 50 percent since 1990, but globally the

trend is worsening – due mainly to developing markets. Despite owning just over half (52 percent) of the world's vehicles, middle-income countries are home to 80 percent of the world's road traffic deaths. This is due, in part, to the rapid growth in motorization outpacing the development of suitable infrastructure.

ISO 39001

■ Our accident investigators have built

rience from more than 1,600 accidents"

up a unique bank of knowledge and expe-

The Volvo Group has been active in the development of the international Road Traffic Safety Management System, ISO 39001. This is a voluntary tool to complement legislation and can be used by all organizations that use roads directly or indirectly. The ultimate goal is the elimination of deaths and serious injuries in the road transport system.

TRAFFIC SAFETY RESEARCH

In Scandinavia, the Volvo Group's in-house Accident Research Team focuses its work on understanding the causes and consequences of traffic accidents. Our accident investigators have looked at Volvo and Renault trucks accidents for 40 years and have built up a unique bank of knowledge and experience from more than 1,600 accidents.

Each year, they carry out onsite and workshop studies of 30 to 50 accidents involving the Group's vehicles.

The team's specialists use this in-house data along with information from national and international accident databases to

build up a comprehensive understanding of the causes of accidents. In addition, methods and tools are used to study driving behavior in all types of driving scenarios. Growth markets – including China, India and Southeast Asia – are of particular interest, due to the high number of road fatalities in these regions. Combining data analysis with



The Step Safe Cab of Volvo Construction Equipment won the Manufacturer Innovation Award at the 2013 World Demolition Awards.

the Group's own research and test programs gives us solid insights into the causes of accidents and injuries.

The team's work provides important input into our future product plans, advanced engineering and research. The top level conclusion is that human factors are involved in 90 percent of incidents, so the highest priority is placed on developing driver assistance systems to support the driver in difficult driving conditions, as well as driver education and training.

Safer products

The Volvo Group's product development focuses on active and passive safety features. Active safety technology and features, such as vehicle stability and visibility support, aim to prevent accidents and crashes from occurring. Passive safety components, including airbags and body protection in the cab, aim to protect the occupants of a vehicle during a crash.

COLLISION AVOIDANCE

Human factors are a contributing factor in 90 percent of traffic accidents so finding ways to reduce these risks can have a significant impact. The Volvo Group is pioneering several solutions that assist the drivers of our vehicles.

interactIVe project

We took part in the collaborative European 'InteractIVe' project that ended in November 2013. This four-year EU project involved 30 companies, organizations and research institutes and focused on continuous driver support, collision avoidance and collision mitigation.

The Volvo Group tested an emergency steering system with sensors including lasers, cameras and radars. The system could be deployed, for example, if the vehicle is about to leave the road or if something unexpected appeared in front of it. The vehicle would automatically steer away from the potential collision and was often used in combination with braking assistance.

A large number of tests using professional drivers were conducted. These proved that assisted systems can improve traffic safety. However, they also pointed to the need for further research on adapting the designs and support to the driver.

CONSTRUCTION SAFETY

The Volvo Group is not only contributing to improved safety on the roads, we also aim for zero accidents in our products used for the actual construction of roads.

Zero accidents in road construction

Working in collaboration with our academic partner, Chalmers University, and research partner, Vinnova, in Sweden, Volvo Construction Equipment is leading a three-year project which will identify and test active safety systems to increase safety in roadside construction combined with increased productivity.

Having initially investigated accidents and safety conditions at roadside sites, the project team are now acting on their improved understanding of the risks attached to road works. They are currently evaluating appropriate active safety functionality to create a virtual electronic cage. This concept includes solutions to estimate machinery position, detect human and other objects, and raise warnings.

The systems will be integrated into machines in 2015 for proofof-concept trials within a realistic construction environment, weather and operating conditions.

INTERACTIVE PROJECT

Duration

4 years (January 2010-November 2013)

Budget

EUR $28.4\ \mbox{M}$ (consortium of 30 companies, organizations and research institutes)

Objective

To develop safety systems that support the driver, intervene when dangerous situations occur and help to mitigate the impact of collisions in unavoidable accidents

ZERO ACCIDENTS IN ROAD CONSTRUCTION PROJECT

Duration

3.5 years (January 2012-July 2015)

Budget

SEK 7.5 M (from public funding and the Volvo Group)

Objective

To identify and test active safety systems for increasing safety in asphalt laying

MARINE SAFETY

Making things easier for the boat driver and enhancing on-board safety and comfort are fundamental objectives for Volvo Penta and its new Interceptor System (IS) does just that.

IS-equipped boats have greatly improved visibility, with the bow of the boat remaining lower during a considerably shorter acceleration and planing phase, compared to boats with traditional trim systems. For side visibility, a boat without IS typically has a sight distance of about 30 meters and a visibility sector of about 300 m². A boat with IS has a sight distance of about 300 meters and a sector of visibility of about 5,100 m².

The new IS also enables all people on board to stand up safely without having to hold on to the interior, even when accelerating or taking sharp turns.

Driver training

The most advanced safety technology can only work to improve driver awareness and behavior; it cannot fully compensate for human error or solve all traffic safety issues.

Given that human factors contribute to 90 percent of accidents, changing attitudes and behavior is a vital part of the Volvo Group's ongoing commitment to improving traffic safety. We work with different stakeholders to raise awareness and increase drivers' knowledge and understanding of issues such as alertness and the use of seat belts, alcohol and speed.



Driver training is a key focus as 90% of accidents are caused by human factors. In India, we have trained over 110,000 drivers in responsible, safe and fuel-efficient driving.

For example, in India, we have trained more than 110,000 drivers. For every Volvo truck and bus sold, we train at least two customer drivers. To qualify for the training program, drivers must first pass a test. To date, this program has trained more than 35,000 drivers on driver responsibility, fuel efficient driving and traffic safety. Our program for truck and bus drivers run by our joint venture partner, Eicher, has so far trained 75,000 drivers.

Read more about the Volvo Group's traffic safety activities in the 'Moving society and our business forward' section of this report.



Interceptor system



How we rethink

The Volvo Group's vision is to become the world leader in sustainable transport solutions. We believe that bringing together the best minds is one of the best ways to achieve sustainable innovation. We therefore strongly encourage teamwork and collaboration internally, and with a wide variety of external stakeholders, including academia, customers, governments, trade and industry.

Thanks to the many innovations that our people and our collaborative partnerships deliver year after year, we are improving quality, delivery and productivity.

In-house innovation

The Volvo Group innovation model is a framework with various processes, methods and tools that enable us to capture our innovative capability in a systematic way.

Advanced engineering

We encourage our engineers to think differently about issues and give them time to come up with new ideas to make our products more competitive and sustainable.

■ Interact invites everyone to share a challenge, a hot topic or an idea for discussion"

For example, the Volvo Group has recently patented a relatively straightforward, yet effective, idea developed by one of our engineers since 2009. It is a wedge measuring just millimeters that offers great potential for electromobility.

The wedge makes the magnets needed for electric engines more efficient. Initial tests indicate that the weight of the magnets could be reduced by 41 percent without affecting the motor's performance. In the production of 10,000 machines, the financial saving would equate to more than USD 1 M. This would enable us make electromobility technology more competitively priced for customers.

Innovation through interaction

The global online tool, Interact, invites everyone to share a challenge, a hot topic or an idea for discussion. Open dialogue enables

thoughts to grow and ideas to develop into innovations while sharing knowledge and perspectives brings out the best solutions.

Another example is the iCoach network of innovation ambassadors all over the world. They dedicate 10 percent of their time to support innovation, working with advanced engineering and their extensive networks to connect people with the same interest and challenges.

We support innovative thinking through Innovation Jams connected to focus challenges; creative workshops for specific high priority areas and Innovation Labs to boost pioneering ideas.

Two of 2013's biggest Innovation Jams were about CO_2 and fuel

efficiency, and reducing fixed costs. The reducing fixed costs Innovation Jam generated 456 ideas in 72 hours. It had 23,288 views and, at its peak, 828 people were online simultane-

ously in one of three virtual rooms. The carbon dioxide and fuel efficiency jam involved 2,100 active users and resulted in 617 ideas for new products, services and process changes in 57 hours.

The Volvo Group InVolve platform helps us get ideas from outside the organization, in particular from academics and researchers where we benefit from the latest thinking and cross-sector expertise.

INVOLVE TONGJI

The Volvo Group has launched a competition – Involve Tongji – to build on our partnership with Tongji University, China. We invited the university's students to submit ideas for sustainable transport solutions.

The 10 best ideas were selected and the students presented them to a panel made up of Volvo employees and a professor from Tongji. The four winners were offered paid three-month innovation internships carried out at Volvo Group facilities in both China and Sweden.

JINAN TECHNOLOGY CENTER

As well as investing in research and development in our established markets, the Volvo Group recognizes the importance of transferring knowledge to growth markets, to enable joint development.

For example, we have established the Jinan Technology Center in China, equipped with high-caliber testing facilities. It aspires to become a world-class technical center for Volvo Construction Equipment and develop products for growth markets.

Research partnerships

The Volvo Group develops research partnerships with the aim of increasing knowledge and innovation for the future. All our partnerships share our long-term ambition to work towards sustainable transport solutions.

ACADEMIC PARTNER PROGRAM

The Academic Partner Program (APP) is about long-term partnerships. The program was founded in 2009 and covers selected universities in Sweden, France, the US, China and India working in areas of special interest to the Volvo Group.

The APP has two types of collaboration – Preferred Research Partners and Preferred Talent Partners – and aims to cooperate on specific projects and increase the Group's visibility to students and researchers, while securing a pool of talented potential employees.

In 2013, we held a partner conference in Gothenburg bringing together preferred research and talent partners from all countries with members of the Volvo Group's research and talent management teams.

We discussed changing competency needs and increased cooperation between universities and industry; held several sessions to share best practice and generate ideas, and enjoyed the opportunity to network and discuss common initiatives – very important for developing strong partnerships.

THE VOLVO GROUP'S ACADEMIC PARTNERS

China

Tongji University, Shanghai (T) Tsinghua University, Beijing (T)

France

EM Lyon (T) INSA Lyon (T, R)

India

National Institute of Technology Karnataka, Surathkal (T) NEW 2013!

Sweden

Chalmers University of Technology, Gothenburg (T, R)
Mälardalen University, Västerås/Eskilstuna (R)
University of Gothenburg – School of Business, Economics and Law,
Gothenburg (T)
University of Skövde (R)

US

North Carolina State University (T) Penn State University (T, R)

R = Preferred Research Partner T = Preferred Talent Partner



The Academic Partner Program Conference 2013 brought all our preferred research and talent partners from across the world together for the inaugural event in Gothenburg, Sweden.

RESEARCH FOUNDATIONS

Volvo Research and Educational Foundations (VREF) is the collective name under which four foundations collaborate: the Volvo Research Foundation, the Volvo Educational Foundation, the Dr Pehr G Gyllenhammar Research Foundation and the Håkan Frisinger Foundation for Transportation Research.

Research and education into future urban transport worldwide are among various projects financed by the VREF. For example, the Future Urban Transport (FUT) program grants approximately SEK 30 M annually to three Centers of Excellence fully dedicated to research and educational projects supporting the development of sustainable transportation systems in large urban areas around the world. The Centers, integrated within universities or technology institutes, cooperate closely through case studies with key stakeholders responsible for urban transportation systems.

VREF also organizes regular conferences or symposiums that bring together FUT researchers and key stakeholders. The participants have the opportunity to learn from each other and develop new ideas that give rise to papers, articles or publications. For further information on the research foundations, the Centers of Excellence and the FUT program, visit www.vref.se.

TRAFFIC SAFETY RESEARCH

In China, the Volvo Group is one of five partners behind a new center for research on traffic safety inaugurated in Beijing in December 2012. The other partners are Volvo Car Corporation, Chalmers University of Technology, the Chinese Ministry of Transport's Research Institute of Highways and Tongji University.

China is one of the world's biggest markets for cars and heavy trucks and traffic safety has emerged as an increasingly important issue for both the Chinese government and the general public. In its first year, the China Sweden Research Center for Traffic Safety has held knowledge-sharing seminars and run several collaborative pilot projects and activities on driver behavior and its impact on safety. A full-scale project on this is now being prepared.

Venture capital

Founded in 1997, Volvo Group Venture Capital is an investment company owned by the Volvo Group. Its ambition is to be a leading corporate investor in sustainable transport and infrastructure solutions. Each investment should have a positive return in itself while also contributing to the sustainable growth and competitiveness of the Volvo Group.

The convergence of automotive design with communications technology has been fuelled by user demand for increased connectivity. This has opened up a multitude of exciting opportunities for growth, increased brand loyalty, competitiveness and profitability. Volvo Group Venture Capital is at the forefront of this revolution, as the following investments show.

Lytx: safer vehicles on the road

Our investment in DriveCam, powered by Lytx, is an initiative to further strengthen the Volvo Group's continued leadership in safety.

Lytx has built a very strong value proposition for safety and risk management by creating a service – DriveCam – using a video event recorder to capture risky driving habits. These videos are uploaded via a wireless network and are reviewed and analyzed.

Online reporting and tools help the driver learn how to correct mistakes in the future.

Independent evaluations have demonstrated that the DriveCam solution provides up to 50 percent reduction in safety-critical events after the introduction of its behavior-based safety program thereby reducing collision-related costs for the fleet by up to 50 percent.

In simple terms, this means fewer accidents on the roads and less cost for the customer and society. For further information, visit: www.lytx.com.

RidePal: building sustainable commuting services

RidePal offers companies the opportunity to set up tailor-made sustainable commuting systems for employees thus changing the way people get to and from work.

RidePal's business model enables a hassle-free shared shuttle bus service at a significantly lower cost where businesses pay only for the seats they use.

It has proven effective in terms of corporate productivity, as employees arrive fresh and ready for work. It also reduces the number of vehicles on the road.

For further information, visit: www.ridepal.com.



Changing habits

Producing cleaner, smarter and safer vehicles takes us another step closer to achieving our vision, but the Volvo Group cannot achieve sustainable transport solutions alone. To fulfill our vision, we have to understand our role within a much wider operating context and try to encourage more sustainable thinking among a variety of stakeholders.

Influence works both ways – while we aim to work collaboratively with local authorities, fuel producers and distributors, and customers, we ourselves are subject to the limits placed on our company by

market needs, infrastructure, fuel availability and regulation.

Our core business is to meet the needs of customers requiring efficient and reliable vehicles, machinery and transport services that enable them to be productive. To be economically via-

ble, the solutions we deliver must be compatible with the existing infrastructure and fuels.

The next-generation solutions we are developing to further improve our customers' productivity require long-term development of transport infrastructure and fuels. It is therefore essential for the Volvo

> Group to participate in dialogue on transport policy and logistics to ensure that the products, infrastructure and fuels of the future are all aligned.

> Commercial success, however, will only come if enough customers are prepared to buy our products and ser-

vices. Investing in new products and technology and switching to new services and fuels requires a change of mindset, which is something we must prepare for now.

Sustainable transport interdependency

Delivering sustainable transport solutions is a complex system that requires all parts to work in harmony.

We influence corresponding systems

Vehicles & Infrastructure

Fuels

Transport services

Froducing cleaner, smarter and safer vehi-

cles takes us another step closer to achieving

our vision, but the Volvo Group cannot achieve

sustainable transport solutions alone."

We are influenced by corresponding systems

Driving habits

The Volvo Group is already actively supporting customers and encouraging employees to think differently about transportation and to change their driving habits to be more sustainable.

DRIVER SUPPORT

Over the past three years, the Volvo Group has been a member of the eCoMove consortium of 32 partners – including public authorities, vehicle manufacturers, service providers, infrastructure and telecommunication operators, and research institutes.

eCoMove (Cooperative Mobility Systems and Services for Energy Efficiency) has been developing next-generation vehicle-to-infrastructure technologies where drivers receive real-time on-board advice to take action ahead of downstream situations, for example by changing their speed.

By incorporating map data and GPS, the driver can be provided with advanced information of items, such as an upcoming roundabout or changes in speed limits, for example from 90 to 70 km/h. Via a dashboard screen, the driver can be advised to ease off the accelerator or engage the engine brake.

Thanks to wireless communication with traffic lights, the on-board system can also show the time remaining until the lights change color, giving the driver the opportunity to adjust travelling speed and avoid stopping at the lights.

The applications for eco-driving, fleet and traffic management could reduce fuel consumption and ${\rm CO_2}$ emissions by 10 to 15 percent in urban areas where trucks face traffic and frequent changes in speed.

EMPLOYEE ELECTROMOBILITY

To increase our employees' knowledge and experience of electromobility, the Volvo Group has invested in a fleet of 20 Volvo C30 Electric company cars. Over a three-year period, these fully electric battery-powered vehicles are being distributed to employees for a temporary period of up to six months. In total, this will give around 100 employees the opportunity to fully test and evaluate driving an electric vehicle.

So far, the 20 electric cars have been driven a total of 400,000 km, saving approximately 60 tons of ${\rm CO_2}$ emissions, compared to standard fleet cars.



Supporting productivity



Creating shared value

The Volvo Group has taken a shared value approach to contributing to socio-economic development for a very long time. The term 'shared value' reflects the alignment between our business objectives and our responsibilities towards society, both locally and globally.

For the Volvo Group, creating shared value involves the development of practices that enhance our competitiveness while simultaneously advancing the economic, environmental and social conditions of the societies in which the Group operates. We see this not only as a responsibility, but an opportunity.

We create economic value for our company and shareholders by delivering transport and infrastructure solutions that meet the needs of our customers. To be successful in the market, however, it is important that our company, products and services are also seen as contributing positively to society.

The Volvo Group invests in initiatives that are mutually beneficial to society and our business. For example, programs that develop skills in the local community also give us access to future talent.

The Volvo Group cannot address societal challenges alone so we develop partnerships with customers, government officials, non-governmental organizations, local decision makers, educational and community groups. Together we can use our resources in the most efficient way. Our global presence and decentralized structure enable us to operate successfully with partners and create shared value in countries with diverse social, political, economic and cultural systems and conditions.

SOME DEFINITIONS

Community engagement

Working collaboratively with community groups to address issues that affect them e.g. wellbeing

Corporate social responsibility (CSR)

Conducting business in a responsible and ethical manner

Creating shared value (CSV)

Enhancing competitiveness while advancing the socio-economic conditions of the communities in which a business operates

Strategic partnerships

Creating mutually beneficial relationships with organizations that support communities

Sustainability

Meeting today's needs without compromising the ability of future generations to meet their own needs

Global approach to local needs

While many challenges are similar across the world, priorities and stakeholder expectations often differ from region to region. Knowledge and understanding of local markets' needs and conditions are essential for planning and executing strategies and initiatives



Moving society forward

We see the Volvo Group as part of society and believe in contributing to the positive development of the communities in which we operate, both now and in the future.

To fulfill our strategy based on the philosophy of creating shared value, we need to deliver long-term economic value in a way that addresses communities' current challenges and meets the needs of future generations. In this way, we move both our company and society forward.

Supporting productivity

The Volvo Group's operations, products and services play an important socio-economic role and have a positive impact in both mature and growth markets worldwide.

Trucks transport food and other goods to their destinations, and collect the waste. Buses help people reach work, school, family and friends. Machines build roads and bridges. Marine engines power in-land waterway vessels and pilot boats. Industrial engines can provide a secure electrical supply to hospitals and airports, as well as material handling in ports.

Our global presence enables the Group to offer a wide range of products and services customized for different markets and needs. For example, our new UD Quester truck range has been designed to meet specific needs of customers in growth markets in Asia and beyond. In Europe, Volvo Trucks and Renault Trucks offer 24-hour roadside assistance to keep customers moving. Our remanufacturing centers enable us to reduce the cost of spare parts for customers worldwide.

We place great emphasis on supporting our customers to be successful in their business. We focus on high product quality, safety and reliability, fuel efficiency and support services, including servicing and maintenance, repairs and assistance that aim to reduce customers' downtime and costs.

Growing market value

The Volvo Group is well-positioned within all market segments, from the basic to the premium segment, and every brand within the Group focuses on meeting specific buying needs and behaviors.

Emerging markets are the drivers of long-term global growth and offer great potential in the so-called value segment. Many of these customers need to balance operational cost and purchase price, or have set up business in challenging economic conditions and are moving upwards. These customers want products that offer quality, reliability, service and support, but at a reasonable cost.

One reason why these growth markets are important to us is the clear correlation between GDP increase and demand for transport solutions. Our products and services contribute to greater economic development, which in turn brings a generally higher standard of living. Increased employment and wealth leads to a long-term need for improved infrastructure. Additional consumer spend requires increased distribution. We aim to be a significant player in the value segment and have invested heavily in targeted product research and development.

UD QUESTER

In 2013, we made great strides towards our goals with the launch of Quester – the Group's new heavy-duty truck range designed, priced and equipped especially for growth markets and businesses. The first target markets are Thailand, Indonesia, Malaysia and China, with India and several other growth markets across the world to follow.

Quester serves a wide range of heavy-duty transport applications, including off-road mining and construction as well as on-road distribution and long-haul transportation. It is based on a modern

heavy-duty truck platform designed for a range of drivelines and various configurations. Uptime and fuel efficiency are key features, enabling customers to spend less money on fuel and maintenance and more time on running a successful business.

Quester is the result of six years of research, development and testing. Distribution is being supported by a large and expanding support network providing genuine UD parts and service. A production system for complete built-up Quester trucks has begun in Thailand and China, with India to follow. This innovation will create shared value for an increasing number of stakeholders.

CONSTRUCTION EQUIPMENT FOR EMERGING MARKETS

In August 2013, the Volvo Group launched onto the Chinese market two new types of teeth for the buckets of two models of Volvo Construction Equipment's (Volvo CE) excavators. They are part of a new range of components that includes economically priced ground-engaging tools, such as side cutters, side shrouds, segments and bolt-on edges. Volvo CE's new products for medium- to light-duty applications generally offer lower initial purchase costs and adapted wear-resistant specifications.

This latest initiative follows on from the launch in 2012 of the wheel loader, designed specifically for growth markets and currently manufactured in China. As part of Volvo CE's development strategy, a dedicated team has been set up in Shanghai to help ensure rapid product development of other worn parts. It is geographically close to important Asian markets as well as the excavator technology team in Korea.

There is a considerable market for bucket teeth and undercarriage parts in China and we are developing a totally new range of undercarriage replacement parts, due to launch in 2015. The project team is also looking at the possibility of launching the new teeth in other markets across the Asia-Pacific region and Latin America.

Engaging with society

We have supported various society engagement activities for many years. We work collaboratively with a variety of stakeholders to improve the wellbeing of society broadly. This takes the form of projects and strategic partnerships with non-governmental organizations, philanthropic donations, community volunteering and sponsorships.

In 2013 we implemented a tool for systematic reporting of these activities and aggregation of their value. While this is a group-wide effort, it is not exhaustive and will need to be further refined in 2014. Initial data values the Group's total society engagement at more than SEK 230 M over the course of the year, where a substantial part is related to the Volvo Step program.

Today, we are fulfilling our new CSR strategy of society engagement built on the concept of shared value, where we match societies' needs with the Group's business objectives.

We engage in activities related to our core business and operating context where we can use our unique expertise, knowledge and skills to address social and environmental challenges. All activity is guided by our corporate core values of quality, safety and environmental care and aims to support our vision. The Volvo Group is most active in the areas of skills development, traffic safety, education, environmental protection and disaster relief.



UD Quester is our new heavy-duty truck range designed, priced and equipped especially for growth markets and businesses. It will create shared value for an increasing number of stakeholders.



Bucket teeth are the first part of a new range of Volvo Construction Equipment components that offer quality at an economic price for the huge Chinese construction market.



Vocational training schools in Africa will develop job skills and enhance the employability of students to become technicians and operate trucks, buses and construction equipment.

DEVELOPING SKILLS

The Volvo Group conducts a variety of professional training programs in emerging and established markets worldwide that facilitate employment opportunities within the local community and secure the long-term development of our business.

In many countries, the transport and construction industry faces a shortage of people with the right skills and competencies. The Volvo Group's professional training for technicians, drivers, operators and factory workers increases people's experience and equips them with the rights skills for roles in these sectors.

Training schools in Africa

The Volvo Group is planning to invest a total SEK 30 M to introduce vocational training schools in 10 African countries, in partnership with the Swedish International Development Cooperation Agency (Sida) and the US Agency for International Development (USAID).

This follows on from the successful pilot we conducted during the year in Addis Ababa, Ethiopia, working with the Selam Technical and Vocational College in a unique partnership with Sida and the United Nations Industrial Development Organization (UNIDO). We provided



World Food Program (WFP) was supported by Renault Trucks volunteer technicians who spent 5 months training WFP drivers on advanced maintenance techniques in order to keep supplies moving.



The Volvo Step one-year, paid vocational training program in industrial production for 18–22 year olds had 52% of its 2013 places filled by female participants.

the college with equipment, training materials, hands-on teacher training and ongoing curriculum development as well as apprentice-ship opportunities for 65 students.

In November, the Volvo Group signed an MoU (Memorandum of

Understanding) with USAID and Sida with the aim to open vocational training schools in 10 African countries over a five-year period beginning 2014. The schools will train students to become technicians and to operate trucks, buses and construction equipment, developing

job skills and enhancing the employability of those enrolled.

The program is one of the new ways that development agencies are actively partnering with the private sector to produce sustainable development solutions. By working together in public-private partnerships we can generate more resources for sustainable development and contribute to reducing poverty. Training local labor to sell, drive and service Volvo Group products contributes to sustainable growth in Africa by generating decent jobs and giving people the ability to support themselves in the long term. It also helps us to broaden our market reach and to build up the network of dealers and mechanics that is required for future sales of our products in these countries.

The Volvo Group has an ambition to grow revenue in Africa by 25 percent between 2013 and 2015. The schools will be set up in countries that are both business-critical for the Volvo Group and eligible for development grants from both Sida and USAID. The partnership also includes traffic safety and health awareness initiatives.

World Food Program

The United Nations World Food Program (WFP) works to combat hunger by guaranteeing access to food in the poorest parts of the

world. Reliable trucks are vital to the WFP's logistics and Renault Trucks is a key partner for carrying supplies in extreme conditions.

Renault Trucks initiated a five-month volunteer program to train WFP mechanics in six East African countries, concluding March 2013. We provided a mobile training unit and a team of expert technicians to give WFP mechanics onsite training in the most advanced maintenance techniques.

The team of nine employee volunteers carried out weeklong training events in Kenya, Burundi, Uganda, Rwanda, South Sudan and the Democratic Republic of Congo. In total, 40 mechanics have been trained and, equipped with their new skills, they will be able to greatly contribute to the ongoing success of WFP missions.

The Volvo Step

The Volvo Step is a one-year, paid vocational training program in industrial production created specifically for unemployed young people aged 18 to 22. The Volvo Step takes place at 13 sites across Sweden and provides both theoretical and practical learning experience.

Representing an overall investment of SEK 450 M, The Volvo Step is a three-year project that began in 2012. Each year, 400 young people are given professional training and experience. Successful participants receive a certificate showing they are sufficiently qualified to work in industrial production.

The first cohort of Volvo Step participants graduated in October 2013. Around 50 were offered jobs within the Volvo Group, with a further 75 approximately receiving jobs in the Group via manpower agencies. The program does not guarantee employment with the Volvo Group, but it does improve young people's chances in the

labor market overall.

The Volvo Step also places great emphasis on diversity, in terms of gender, social and educational background, academic capabilities and interests. In the program's second round, starting November 2013, 52 percent of participants

are female. This is particularly encouraging for our industry, which traditionally struggles to attract women.

The School Step

All activity is guided by our

core values of quality, safety

and environmental care"

It is becoming increasingly difficult to attract young people into engineering careers in Sweden. In response to this major recruitment challenge, the Volvo Group has announced plans for a new pilot program to build on the success of The Volvo Step.

Starting in 2014, The School Step aims to increase interest in technology, mathematics and the natural sciences. The program will offer high schools across Gothenburg, Sweden, the opportunity to host visits by highly-talented, young and enthusiastic Volvo Group technicians and engineers for two semesters over the course of a school year.

Our people will describe the profession and the projects they are currently working on, and highlight ways of solving problems. They will interact with the teacher to support a real-life learning approach to theoretical studies. In this way, the Volvo Group aims to build long-term relationships between itself and the city's high schools and achieve closer links between school and professional life.

IMPROVING TRAFFIC SAFETY

Safety is one of the Volvo Group's corporate core values and we have a long tradition of sharing our expertise in product and traffic safety.

Approximately 1.2 million people die every year on the world's roads, and another 20 to 50 million sustain injuries. This has an immeasurable impact on the individuals and families affected and on the communities in which they live and work.

Economically disadvantaged families are hardest hit by both direct medical costs and indirect costs, such as lost wages, that result from traffic accidents. Road traffic injuries are estimated to cost low- and middle-income countries between one and two percent of their gross national product.

The increase of road traffic injuries in low- and middle-income countries is partly attributable to the rapid rate of motorization in many developing countries that has occurred without sufficient investment in road safety strategies. Through educational programs and sponsorship, the Volvo Group participates in different initiatives to increase safety and reduce the number of traffic accidents.

Professional driver programs

In South America, the Volvo Group's TransFORM program has trained over 900 professional drivers in vehicle safety technology and safe driving behavior skills since its launch in Brazil (2008) and Peru (2010).

The program offers a five-day intensive training on appropriate vehicle handling and better use of its safety elements onsite or at Volvo Group facilities or dealerships. It also motivates drivers to consider the emotional impacts of traffic accidents on their families.

Improving driver training has resulted in fewer road accidents, deaths and associated financial losses, as well as reduced operational and maintenance costs for companies. Many participants say the program has also changed their mind about work and life.

The TransFORM program is part of the Volvo Group's long-running Volvo Traffic Safety Program in Brazil, where close to 91,000 accidents involving freight vehicles occur every year.

In India, we have trained over 110,000 drivers in total. We train at least two drivers for every Volvo truck and bus sold – around 35,000 to date – and we collaborate with our joint venture partner, Eicher, and government agencies on award-winning truck and bus driving and safety programs. Since our partnership with Eicher started a decade ago, over 75,000 drivers have received training on traffic safety regulations, safe driving habits and skills, vehicle maintenance and fuel saving tips plus health awareness on drugs, alcohol, stress and disease. In addition to Volvo and Eicher customers, we train drivers from competitor companies, government and educational institutions.

In 2013 alone, over 24,000 Indian drivers received training thanks to our investment in recruiting more trainers. Courses are now delivered continuously at two dedicated driver training centers in Indore and Pithampur and a team of five regional trainers deliver locally-based courses for Eicher bus and truck customers across the entire country.

In the US, we support the long-running America's Road Team under our Volvo brand and the Share the Road program through our Mack brand. These national public outreach programs are led by professional truck drivers who take a few days each month to meet with the motoring public, news media, students, transportation offi-



The TransFORM program is part of the Volvo Traffic Safety Program in Brazil, which has been running for 27 years and has trained over 900 drivers.



Driver training programs in India have reached over 110,000 drivers to date. We train two drivers for every Volvo truck and bus sold and our partner, Eicher, trains truck and bus drivers on responsible driving.



America's Road Team and Share the Road program are national public outreach programs led by professional truck drivers who teach car drivers how to drive safely in close proximity with trucks.

cials and government leaders to demonstrate the trucking industry's commitment to safety and promote trucking as a sustainable and essential part of the US economy. They teach car drivers about potential blind spots when driving around large trucks, truck stopping and safe following distances.

School safety programs

Sixty percent of all accidents in which a truck collides with a pedestrian or cyclist result from a driver's blind spot. Many of the injured are children. The Volvo Group conducts a wide range of traffic safety campaigns geared towards schoolchildren in diverse countries including Latvia, Russia, Sweden, Denmark, South Korea and India.

Our longest-running program is Denmark's Traffic Safety at Eye Level campaign, launched in 2003. Working together with several other organizations, we have so far taught over 75,000 children how to approach trucks safely.

We launched our latest community initiative during 2013, working with the non-profit HOPE Foundation in India on a road safety campaign for children and women in Bangalore. In the first six months of this trial, HOPE aims to educate 13,000 children about traffic etiquette through interactive audio-visual presentations. The pro-



Schools safety programs are run in diverse countries including Latvia, Russia, Sweden, South Korea and India. In Denmark, we have taught over 75,000 children how to approach trucks safely.



Volvo Trucks Safety Award is open to US and Canadian fleets who can win USD 25,000 prizes for the safest driving records and top safety programs.



Disaster relief support 2013 included donations of money, clothing and equipment to assist organizations dealing with the Ya'an earthquake, Uttarakhand floods and Typhoon Haiyan.

gram for 5,000 women is targeting self-help groups in low income areas, using street plays as a means of instruction.

Raising awareness, rewarding best practice

The Volvo Group raises awareness of traffic safety and shares information with authorities and leading organizations through various awards, campaigns, seminars, symposia and forums.

For example, as part of the Volvo Traffic Safety Program in Brazil, which has been running for 27 years, we host the annual Volvo Traffic Safety Forum, attended by approximately 200 customers, journalists, government representatives and freight transport specialists. The theme of the 2013 forum was business and the future of Brazil's road transportation. We presented the results of a national survey on the image of Brazil's road transportation undertaken with members of the public, society leaders, media and trade entities. We also discussed the key role of professional truck drivers in the transportation of goods.

In Europe, the Volvo Group continues its active support for the Safe & Sober campaign, run by the independent non-profit European Transport Safety Council (ETSC). Throughout 2013, the campaign held a series of debates, known as the Safe & Sober Talks,

aimed primarily at politicians, opinion leaders, safety organizations and the transport industry in selected EU member states. The campaign also aims to identify and support good practice and carry out training programs and educational activities.

The Volvo Group sponsors several safety awards worldwide to highlight best practice. In North America, the annual Volvo Trucks Safety Award is open to US and Canadian fleets who can win USD 25,000 prizes for the safest driving records and top safety programs. In Brazil, the Volvo Traffic Safety Award recognizes good practice that contributes effectively to increasing safety in the transportation sector. Every two years, Volvo Trucks and Buses Argentina SA honors news media and journalists who produce the best communications on traffic safety in the country.

RESPONDING TO DISASTERS

We respond to disasters in various ways, depending on the situation and the most appropriate use of our expertise, skills and resources. While we cannot contribute to all cases, we do try to assist several each year.

During 2013, we offered disaster relief assistance following:

- typhoon Haiyan in the Philippines
- · the Ya'an earthquake in China
- · flash floods in Uttarakhand, northern India.

Typhoon Haiyan

Oxfam is one of our strategic partners for society engagement activities, including emergency and relief work. Following the devastation caused to millions when typhoon Haiyan hit the Philippines in November 2013, the Volvo Group immediately donated SEK 7.5 M to Oxfam and offered the loan of trucks to assist in the relief efforts and the recovery phase, equivalent to SEK 2.5 M.

Our financial donation provided emergency life-saving aid for people left without food, shelter or clean drinking water. It will also be used to help people rebuild their lives, help communities learn new skills and build resistance against future disasters.

Fourteen machines mobilized by Volvo CE and its Philippine dealer, Civic Merchandising Inc, are being used by the Philippine government to remove debris in two of the worst affected islands. In the longer term, the machines will be used in site preparation and housing projects in Tacloban city.

Thanks to support from the Volvo Group, Oxfam has also been able to provide support to housing 1,000 families affected by the earth-quake in Haiti. We have also funded a project in Ethiopia to improve water and sanitation facilities in a refugee camp for approximately 25,000 people and a project in Indonesia to strengthen community resilience to natural disasters by training villagers to identify and assess disaster risks.

Ya'an earthquake

A magnitude-7 earthquake hit Lu Shan, near the city of Ya'an in China's Sichuan province on April 20, 2013. Volvo Construction Equipment (Volvo CE) China responded by donating two wheel loaders and skills support to the Sichuan Road and Bridge Construction Group tasked with infrastructure reconstruction.

Eight employees from our dealer Sichuan Dingfeng Co (SCDF) were among the many whose property was affected. Volvo CE col-

leagues in the region responded generously, delivering a donation totaling RMB 33,340 to the trade union representing the affected employees.

Uttarakhand floods

The torrential rains that hit Uttarakhand during June 2013 were among India's most devastating natural disasters in recent times. Thousands of people died or were left homeless after the floods and landslides had destroyed towns, villages and civic infrastructure.

Without a physical presence in Uttarakhand, Volvo Group India employees responded by making cash donations through payroll deductions totaling SEK 60,000, matched with a company donation of SEK 100,000. The majority of these funds were handed over to the Volvo Group's strategic partner, Oxfam. Our company also made a cash donation to the nonprofit organization, Goonj, to cover medical supplies needed in the area. Our employees also collected 28 boxes of food and medicine and 42 boxes of clothing for Goonj to distribute.

CARING FOR THE ENVIRONMENT

Environmental care is one of our corporate core values and we aim to establish programs that encourage society to take a greater interest in the environment globally and locally.

Volvo Environment Prize

The Volvo Environment Prize foundation was established in 1988 and has become one of the world's most prestigious environmental prizes. It is awarded annually to people who have made outstanding scientific discoveries within the area of the environment and sustainable development. The prize consists of a diploma, sculpture and a cash sum of SEK 1.5 M and is presented at a ceremony in Stockholm, Sweden.

The Chinese glaciologist and climate scientist, Dr. Qin Dahe, was awarded the 2013 Volvo Environment Prize. He was a key contributor to the fifth assessment report from the UN climate panel (IPPC) having attracted wide attention through his game-changing report which was the first to scientifically demonstrate that extreme weather and climate phenomena have become more frequent over the last 50 years. The findings gained wide currency since they showed a clear connection between climate change and periods of extreme conditions, such as extended droughts and heat waves, but also torrential storms and rain in other regions.

Volvo Environmental Center

Close to our factory in Curitiba, Brazil, the Volvo Environmental Center lies amid remnants of ancient rainforest that is home to 1,500 botanical species, over 250 bird and hundreds of other animal species. The site includes the Green House (Casa Verde) environmental educational center, several ecological nature and walking trails, and dedicated spaces for courses, arts and organic growing activities. The Center is of both historical and environmental importance, conserving elements of the area's pre-industrial rural character.

Participation in work-related workshops ensures a unique opportunity to bring our company closer to the surrounding community, and ties with the local community are very strong. Monitored visits to the Center have exceeded expectations, attracting more than 600 Volvo



2013 Volvo Environment Prize of SEK 1.5 M was awarded to the Chinese glaciologist and climate scientist, Dr. Qin Dahe, in recognition of his work on climate change.



Volvo Environmental Center in Brazil lies amid remnants of ancient rainforest that is home to 1,500 botanical species, over 250 bird and hundreds of other animal species.



Up-Cycling Design Arts Campaign in China encourages people to transform scrap machinery parts into urban artwork and explore new approaches to environmental protection and city enhancement.

Group employees, family members and customers in addition to 2,600 school and university students, researchers and professors.

Up-Cycling Design Arts Campaign

With the support of the China Resource Recycling Association, Volvo Construction Equipment unveiled 'City Garden' – the first conceptual piece of art designed from scrap machinery parts – to launch a new campaign in Shanghai during 2013. The campaign encourages people to transform scrap machinery parts into urban artwork and explore new approaches to environmental protection and city enhancement.

The competition offers ordinary people and everyday artists across the whole of China a platform to unleash their creativity and imagination while putting recycling and environmental protection into action. The aim is to give everyone an opportunity to consider how we can extend a product's lifestyle through design. Winners will be chosen by professional artists after March 2014.



Moving our business forward

The Volvo Group is in a strong position as one of the world's largest manufacturers of trucks, construction equipment and heavy-duty diesel engines and continues to enjoy good market presence globally with its strong brands. Our employees are key to our value creation and success. We see recruitment of talent and investment in employees as a fundamental part of staying competitive, profitable and sustainable.

Global strength

The Volvo Group has a presence in around 190 markets and employs approximately 110,000 people. Together, we all strive to create efficient and sustainable transport and infrastructure solutions for our customers.

The global presence of the Volvo Group has undergone a dramatic change since the streamlining towards commercial vehicles was initiated in 2000. The Group has significantly strengthened its positions outside the traditionally large markets of Western Europe and North America and has grown considerably in emerging markets, welcoming new companies and employees. The Volvo Group's share of markets outside of Western Europe and North America has grown from 16 percent of Group sales in 2000, to 45 percent in 2013.

Positions have been moved forward by acquisitions, primarily in Asia, and by the expansion of the distribution and service networks in places such as Eastern Europe and South America. In Asia, we have grown through our acquisitions of UD Trucks in Japan and SDLG construction equipment in China as well as our joint venture on trucks and buses with India-based Eicher Motors. We have rapidly expanded our distribution and service networks in emerging markets, including Eastern Europe and South America.

Operating context

The Volvo Group is one part of the transportation industry that connects economic production with consumption. Demand for many of the Group's products is therefore closely linked to overall trends in GDP. Additional factors, such as fuel prices, interest rates, emissions standards and political decisions, all influence industry confidence and expectations about the short-term future. These impact customers' decisions whether to purchase now or wait until later.

According to Consensus Economics, global GDP grew by 2.4 percent in 2013, compared with 2.6 percent in 2012. GDP in the EU was flat following a decline of 0.4 percent in 2012. US GDP increased by 1.9 percent, compared with 2.8 percent in 2012. Japan's GDP expanded by 1.7 percent compared with 1.4 percent growth in 2012. Growth in countries such as Brazil, India and China continued to be relatively subdued in 2013. For 2014, global GDP is expected to grow by 3.1 percent. The expected acceleration in global GDP growth in 2014 is largely driven by improvements in the US and Europe.

The Volvo Group's global presence is an advantage, enabling the company to offset cyclical slowdowns in some markets through strong performance in growing markets. In the longer term, increased global wealth will result in the need for improved infrastructure. This drives sustainable demand for building and construction equipment as well as transportation.

Strategic objectives 2013-2015

In 2012, a new strategy was launched for the period 2013-2015 aimed at achieving the Volvo Group's targets in the short term and staking out the road to the Group's wanted position and ultimately, our vision – becoming the world leader in sustainable transport solutions. We have established a distinct brand portfolio and have moved from a regional focus with individual brands to a globally coordinated approach. In 2013, we launched the Group's biggest renewed product range in our history.

THE KEY STEPS OF THE PERIOD 2012-2015 CAN BE SUMMARIZED AS FOLLOWS:

2012 Reorganization and strategy2013 Extensive product renewal

2014 Execute efficiency program and drive organic growth

2015 Deliver profitability improvements.

Find more information in the Annual Report 2013.

Memberships

Knowledge of legislation, trends and best practice, both in our industry and the wider world, is essential to the Volvo Group's ability to actively meet needs and identify new business opportunities.

The Group is a signatory of the UN Global Compact, a member of the WWF Climate Savers Program and participates in many trade and industry forums including:

- European Automobile Manufacturers' Association (ACEA)
- Committee for European Construction Equipment (CECE)
- Truck and Engine Manufacturers Association (EMA) in the US
- Japan Automobile Manufacturers Association (JAMA)
- · Association of Equipment Manufacturers in the US
- American Trucking Associations
- American Public Transportation Association
- · National Marine Manufacturers Association
- American Bus Association
- European Association of Internal Combustion Engine Manufacturers (Euromot)
- World Economic Forum
- International Transport Forum (ITF)

Economic performance and outlook

The Volvo Group's financial performance for the year ending 31 December 2013 was marked by the most extensive product renewal in the Group's history.

2013 PERFORMANCE

The following information has been extracted from the Volvo Group Annual Report 2013. It is intended as a topline overview of key financial performance indicators. Full financial data can be found in the Volvo Group **Annual Report 2013**, available at **www.volvogroup.com/investors**.

Group net sales

Net sales for the Volvo Group declined by nine percent to SEK 272.6 bn in 2013, compared to SEK 299.8 bn in 2012.

Investment and expenditure

2013 investments in property, plant and equipment amounted to SEK 8.5 billion, compared with SEK 9.5 billion in 2012. Major investments related to new product programs, development costs and production facilities.

Shared economic value

The Volvo Group is dependent on many stakeholders to develop its competitiveness. Similarly, a great number of stakeholders – suppliers, employees, governments, financial institutions and shareholders – are dependent on the value that the Group creates and shares with them.

Value by stakeholder group		
SEK M	2013	2012
To suppliers - Purchases of goods and services	192,198	207,808
To employees - Salaries and remunerations ¹	36,212	39,179
To society - Social costs ¹	8,262	9,686
To society - Pension costs ¹	4,144	3,965
To society - Income taxes paid	2,823	5,366
To creditors - Interest paid	2,437	2,900
To the Volvo Group - Investments in tangible assets	8,281	9,338
To shareholders - Dividend	6,0842	6,083

¹ For further information, please see note 27 to the consolidated financial statements in the Annual Report.

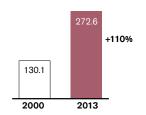
The Volvo business moves in close tandem with macroeconomic development

Euro area GDP and heavy-duty trucks registration growth





Volvo Group net sales 2000-2013, SEK bn



² According to the Board's proposal.

Taxation

In accordance with the Group's Code of Conduct, the Volvo Group shall comply with the tax laws and regulations of each country in which it operates. Where tax laws do not give clear guidance, prudence and transparency shall be the guiding principles. The Volvo Group does not take part in aggressive tax planning by placing subsidiaries in tax havens.

In the period 2009–2012, SEK 11 billion or 79 percent of the Volvo Group's current taxes were paid in emerging market countries, as defined by the IMF. In 2013 approximately SEK 2.2 billion or 70 percent of the current taxes were paid in emerging market countries.

OUR ECONOMIC OUTLOOK

We continued the high pace in implementating measures connected to the Group's strategy for 2013–2015.

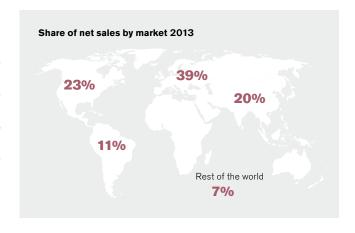
Efficiency measures

We decided to combine a number of measures under a Group-wide efficiency program, including a structural reduction of white-collar employees and consultants, a restructuring of the industrial foot-print in Europe and Japan, a more streamlined sales and service organization for trucks in Europe and a reorganization of the parts distribution globally. These measures are the consequence of the transformation that the Group is undergoing and aim to increase our efficiency and competitiveness. The program will result in restructuring costs totaling approximately SEK 5 billion. Annual savings are estimated at SEK 4 billion which will gradually generate results during 2014 and achieve their full effect by the end of 2015.

Strengthening our core business

During the year, we made a number of strategic decisions aimed at strengthening our core business. In January 2013, we signed an agreement to acquire 45% of the Chinese company Dongfeng Commercial Vehicles. Through this alliance, we will get a very strong position in the Chinese truck market, which is the world's largest. In early January 2014, the National Development and Reform Commission (NDRC) in China approved the strategic alliance. Completion is subject to certain other conditions, including the approvals from other Chinese authorities, but we aim to conclude the deal by mid-year 2014.

In December we decided to divest Volvo Rents in North America, and the transaction was completed at the end of January. As a con-



Key ratios	2013	20121
Net sales, SEK M	272,622	299,814
Operating income, SEK M	7,138	18,069
Operating margin, %	2.6	6.0
Income after financial items, SEK M	4,721	15,495
Income for the period, SEK M	3,802	11,378
Diluted earnings per share, SEK	1.76	5.61
Dividend per share, SEK	3.00 ²	3.00
Return on shareholders' equity, %	5.0	14.7

- 1 Comparative figures for 2012 are restated in accordance with new accounting principles. Read more in Note 31 of the Annual Report, Changes in the Volvo Group's Financial Reporting 2013.
- 2 According to the Board's proposal.

The Volvo Group continued to be ranked among the world's top 300 companies in 2013 and qualifies, once again, for the Dow Jones Sustainability World Index.

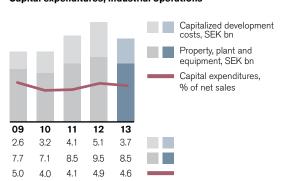
Dow Jones Sustainability Indices

In Collaboration with RobecoSAM ••

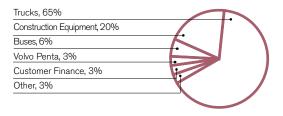
sequence net financial debt in the Volvo Group's Industrial Operations was reduced by SEK 7.0 billion. Volvo CE will continue to sell products to Volvo Rents under the new ownership.

We also announced the acquisition of the Terex Corporation's rigid and articulated hauler business, which will strengthen Volvo CE's position in the important earthmoving segment and extend the

Capital expenditures, industrial operations



Share of net sales



presence in light mining. The deal, which is subject to regulatory approval, is expected to be finalized during the second quarter of 2014.

More information and detail can be found in the Volvo Group **Annual Report 2013**, available at **www.volvogroup.com/investors**.

Our employees

The Volvo Group's employees are key to our value creation and success. We see recruitment of talent and investment in employees as a fundamental part of staying competitive, profitable and sustainable.

Being an attractive employer with a global and diverse team of high-performing people, with more women and minorities in leader-ship positions, is part of our long-term ambitions. The Group's goal is to offer interesting opportunities and a unique corporate culture that attract and retain the best individuals from diverse backgrounds.

To achieve this – for both current and future employees – the Volvo Group aims to offer competitive remuneration and benefits and be an attractive employer in the key areas of diversity and equity, health and safety, training and competence development. We are actively pursuing policies and best practice in these areas.

Global workforce

The Volvo Group had 95,533 permanent employees and 14,794 temporary employees and consultants at the end of 2013, compared to 96,137 permanent employees and 13,452 temporary employees and consultants at the end of 2012.

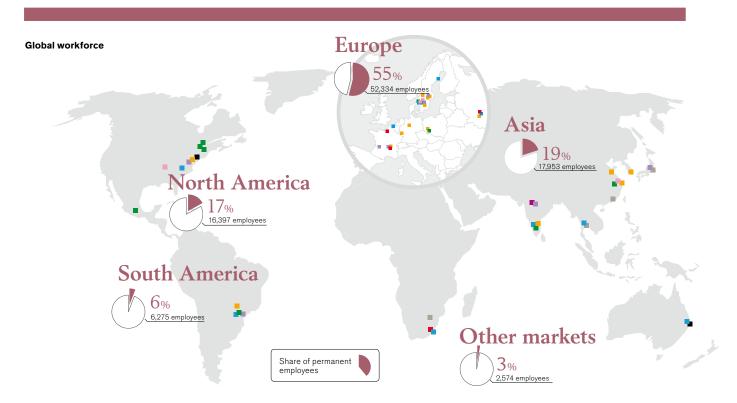
As part of the Group's 2013-15 efficiency and restructuring program, we opened the Group's first China Remanufacturing Center in Shanghai and an excavator plant in Kaluga, Russia, during 2013.

We closed the Volvo Buses plant in Säffle, Sweden, with the loss of 328 jobs. Here, we worked closely with the trade unions and local authorities on employee consultation and programs offering information and advice on new employment opportunities.

We also provided support for the establishment of new companies with high expansion potential. As a result, contract manufacturer Hanza and Cellcomb – specialized in developing and manufacturing environmentally-friendly disposable products – will invest in the former buses plant. By the end of the year, 248 former Säffle employees had taken on new roles or were offered occupational pension.

In 2013, we announced plans to downsize, relocate and close several manufacturing, distribution and logistics centers across Europe and North America. We also announced plans to reduce the number of support staff and consultants globally. Following detailed analysis of our efficiency programs, we now estimate that a total of 4,400 white-collar employees and consultants will be affected. The majority of reductions will be implemented during 2014. All cutbacks are subject to trade union negotiations.

These structural changes are necessary for improving our competitiveness and profitability, which will enable us to invest more in new products and services and be less sensitive to fluctuations in the economy.



VALUES AND CULTURE

The continued availability of a skilled workforce is of high importance to the Volvo Group's business success. The Volvo Group's values and culture are also ranked highly in our materiality index. These issues are linked, as a company's values and culture influence its ability to attract and retain a sustainable workforce.

Quality, safety and environmental care are the Volvo Group's corporate core values. They are embedded into the Volvo Way – our company culture, which every employee is responsible for upholding. We can measure how well we are living up to our values and culture through our annual employee survey.

Employee survey

We have carried out an employee survey – the Volvo Group Attitude Survey (VGAS) – every year since 1999, with the exception of 2010. The Employee Engagement Index (EEI) measures pride, satisfaction, commitment and referral level of employees. In 2012, we added a Performance Excellence Index (PEI) to measure customer satisfaction, speed and quality of results and this year we added the Leadership Effectiveness Index (LEI). Combining all three indices, we are able to evaluate our employees' engagement levels, key drivers of performance and leadership's success in communicating and aligning the workforce with business objectives.

We compare the Volvo Group against an international database of approximately 15 million employees, representing over 80 countries. Our aim is to be among the world's high-performing companies.

Managers are responsible for analyzing their teams' results and, together, establishing and following through on action plans to further improve engagement and performance excellence.

Employee survey 2013	Volvo Group 2013	Volvo Group 2012	High performing company norm 2013	Global norm 2013
EEI (Employee Engagement Index) %	76	76	77	70
PEI (Performance Excellence Index) %	75	74	77	71
LEI (Leadership Effectiveness Index) %	71	-	74	68

The response rate for the 2013 VGAS was 93 percent, up from 92 percent in 2012.

The Volvo Group's EEI was in the 2013 top quartile of global companies surveyed. Our PEI result was 75 percent, moving closer to the high-performing norm of 77 percent. The new Leadership Effectiveness Index was 71 percent, resting midway between the global norm of 68 percent and high-performing norm of 74 percent.

DIVERSITY, EQUAL OPPORTUNITIES AND OTHER HUMAN RIGHTS

The Volvo Group is a large multinational company and as such, diversity and inclusion are fundamental to our long-term success. We are a signatory of the UN Global Compact and work actively to uphold the UN's principles on human and labor rights. It is stated in our Code of Conduct that we shall support and respect the protection of internationally proclaimed human rights and make sure the Group is not complicit in human rights abuses.

We seek to recruit and retain a broad spectrum of employees with different backgrounds, experience and perspectives. Our long-

term target is for all levels and operations of the Group's employee and management pool to reflect the diversity of the world in which the Volvo Group does business.

The Volvo Group does not tolerate discrimination on the grounds of gender, gender identity, race, religion, age, sexual orientation, nationality, political opinion, union affiliation, disabilities, social or ethnic origin. The Volvo Way is to work with energy, passion, and respect for the individual.

Diversity and inclusion are promoted in the Group's Code of Conduct and in our Diversity and Inclusion Policy, which underlines managerial responsibility for working to increase diversity and create an inclusive environment. Diversity is a key factor in business performance and work on it is coordinated on a global scale. Targets are set at corporate level and broken down by division. Tailored plans are enacted at country and local level.

Measurement

The Volvo Group uses two key performance indicators to measure diversity – the Balanced Team Indicator and the Inclusiveness index:

- The Balanced Team Indicator is a quantitative measure covering nationality, gender, age and experience across different Volvo Group companies
- The Inclusiveness index is more qualitative, gauging the extent to which employees judge their workplace to be inclusive.

The results for 2013 show the diversity mix of our top level management teams, overall gender equality and the perceived management focus on diversity are stable, but gaps remain to meet targets. In terms of inclusiveness, we made significant progress in 2013. These results drive improvement action plans, which are followed up in management forums.

Diversity training for managers

The Group Executive Team (GET) takes ultimate responsibility for diversity and inclusion leadership (DIL), ensuring they are part of business as usual. In 2013, GET members participated in a specially focused DIL training seminar to deepen their knowledge and establish common understanding of the topic.

The Group's target is to train all managers down to CEO-3 level in DIL by the end of 2015. The training is run in-house and in 2013, we trained an additional 38 training facilitators from seven different countries. In total, we now have 157 DIL facilitators worldwide. They are responsible for running internal DIL seminars and supporting our daily work on highlighting the importance of inclusion to realize the benefits of diversity. More than 50 additional facilitators are set to be trained mainly in Asia as well as the other regions of operation.

Employee diversity networks

The Volvo Group has used employee diversity networks to help empower minorities and provide feedback to management on how best to improve inclusiveness and remove roadblocks. Since 2011, the number of groups has increased from eight to 11.

Gender diversity	2013	2012
Share of women, %	17	17
Share of women, presidents and other senior executives; %	19	20*

*The data originally reported in 2012 did not include Volvo Penta executives.

EMPLOYER AWARDS

External recognition is an excellent indicator of performance and the Volvo Group was honored with the following 2013 employer awards:

Brazil: Editora Abril's 'Best company to work for in Brazil's automotive sector'.

Poland: CRF Institute's 'Top Employer' award, for the fourth consecutive year and Polityka magazine's 'CSR Silver Leaf' award.

Working either locally or globally, the Volvo Group diversity networks have addressed multi-cultural issues and inclusion of women employees, women managers, women in technical fields, LGBT (lesbian, gay, bisexual and transgender) employees.

LGBT landmark

In addition to the Volvo Group's internal worldwide LGBT 'V Eagle' network, the Volvo Group in France has joined the country's 'Other Circle' association and publicly signed its charter. In this pilot initiative for the Volvo Group, the company commits to:

- · creating an inclusive environment for LGBT staff members
- ensuring equality of rights and treatment for all the workforce, regardless of sexual orientation, identity or gender
- · supporting staff who are victims of discriminatory remarks or actions
- measuring progress made and sharing best practice to improve the overall professional environment.

US early career professional network

The Early Career Professional Group was initiated in Greensboro by several young employees who felt a need to connect with peers to develop professionally and help establish networks. For the Volvo Group, this network will help the 'Y Generation' achieve their full potential in the organization. The concept is open for development at other sites.



Battle of the Numbers program in Sweden involved 100 women from 10 leading companies to study how best to attract, develop and retain more female talent in decision-making and operative management positions.

Gender balance

It is a challenge for the entire automotive industry to attract women in sufficient numbers. The Volvo Group has a long-term ambition to increase the number of women in executive teams, while taking into account all other important diversity parameters.

At the end of 2013, women accounted for 17 percent of the Volvo Group's global workforce, unchanged from 2012. The share of women in senior executive positions slightly decreased.

The Volvo Group believes that one way of overcoming the industry's gender imbalance is to focus on diversity at the recruitment stage. Group policy requires all white-collar positions to be openly posted for at least ten business days – to prevent recruitment through exclusive networks – and at least one woman and one man to sit on each recruitment panel.

Battle of the Numbers

The Battle of the Numbers program – a unique project to get more women into operative management positions – delivered its proposals and conclusions in 2013. The Volvo Group was one of 10 large companies headquartered in Sweden to take part. Ten women from each company joined forces to study how organizations should work to attract, develop and retain more female talent in decision-making roles.

The Volvo Group team held workshops and meetings with the CEO and Group Executive Team (GET) members during the year. Among various plans put forward to the GET, the Volvo Group's team recommended integrating a Female Talent Review in the current Talent Review process. The specific focus will be carried out at all management levels, including the top talent review conducted by the GET.

Leadership forums

In October 2013, the Volvo Group organized the Female Leader Forum with two of our strategic academic partners in China – Tongji University and Tsinghua University. Four senior female leaders from different Volvo Group divisions and businesses were invited to events in Beijing and Shanghai to share their experiences with female engineering students. They told packed auditoriums about their challenges; their personal journeys of learning and growth; how they leverage their own strengths and how they balance a successful career with marriage and a family.

SAFETY, HEALTH AND WELLBEING

Occupational health and safety is viewed as an important material issue, both by the Volvo Group and our external stakeholders. We believe that increased employee wellbeing leads to raised productivity, reduced costs and increased competitiveness. We therefore strive to eradicate workplace risks and promote a safety culture by taking a holistic approach to workplace safety, health and wellbeing. This is part of the Volvo Group strategy.

In accordance with the Volvo Group's Code of Conduct, all employees have the right to a safe and healthy working environment and should have access to information, support and other tools to reduce or eradicate health risks associated with work, lifestyle or emotional stress.

Managers at all levels share the responsibility of ensuring safety. Managers are responsible for adherence to Volvo Group safety policy and precautions, national requirements and regulations.

The Volvo Group's global health and wellbeing programs cover various initiatives including medical examinations, rehabilitation support, ergonomics, and health promotion programs such as smoking cessation activities. These programs and activities sometimes extend to the employees' family members.

Management systems

The Volvo Production System provides tools including occupational risk assessment, indicators for measuring health and safety, and methodology for ergonomic workplace assessment.

OHSAS 18001 (Occupational Health and Safety Assessment Scheme) is an international standard for processes that control and improve company workplace safety and health performance. In 2013, 37 percent of our production sites were certified to the standard.

Improved approach

The Volvo Group has a global presence through different companies, brands and joint ventures. Over the past decade, we have grown significantly through mergers and acquisitions in different countries at different levels of maturity. This has resulted in various ways of working and reporting on health and safety across our Group.

In order to create a more structured and harmonized approach to health and safety across the Volvo Group, a new Group function for safety, health and wellbeing was established in December 2012. The future direction is to strengthen the Volvo Group health and safety focus, to enable and stimulate global health and safety collaboration, and to establish our position as the industry benchmark in health and safety.

Human resource data

Employees are responsible for reporting all work-related accidents and incidents to enable the investigation and identification of the root causes so that immediate corrective action can be taken. Depending on the conditions, a detailed analysis of the incident may conclude in specific long-term measures.

Regrettably, one fatal accident occurred at one of our plants in Bangalore, India, in 2013. Immediate measures have since been taken to review risk evaluation and visual management, and to update employee training.

Data relating to absence due to illness is collected on a country level, based on national legislation. The difference in definitions and national reporting requirements currently makes it difficult to aggregate the information on a corporate level. We are, however, able to calculate a lost time accident rate (LTAR) covering 40 percent of our employees and 70 percent of our plants. We achieved a LTAR of two for 2013.*

The 2013 employee survey, which had a very high participation rate of 93 percent, shows a positive trend on most items related to safety, health and wellbeing.



Ergonomic improvements on assembly lines for new Renault trucks have transformed 50% of workstations that previously had an average 'high' and 'heavy' ergonomic quotation to the lowest level.



Health coaches are Volvo Group employees who volunteer to help colleagues improve their physical and mental health and wellbeing. We have 93 in Sweden.

Employee survey % of positive answers	Volvo Group 2013	Volvo Group 2012	Volvo Group 2011	High performing company norm 2013	Global norm 2013
My business entity is committed to workplace safety	85	85	84	89	83
My business entity promotes activities and choices that improve employee health and wellbeing	72	71	68	n/a	n/a
I am satisfied with the physical environment at my business entity	70	69	69	74	67
My business entity is flexible, allowing me to balance work and home life	74	73	71	81	72

Ergonomic improvements

In 2013, the Volvo Group launched a new range of Renault trucks where the production line had been carefully analyzed and redesigned to reduce posture issues for assembly workers.

More than 50 percent of workstations that previously had an average 'high' and 'heavy' ergonomic quotation have been transformed to 'green' – the lowest level. This breakthrough has been made possible by the integration of ergonomic requirements in the early phases of the design of the truck.

Health and wellbeing examples

Our award-winning stress prevention program includes management training, risk evaluation, identification of employees needing support and immediate help, as well as work on underlying causes. Actions taken have led to consistent improvement over time. For example, the program has helped to reduce stress levels in France from 33 to 27 percent of the workforce.

^{*} The LTAR is calculated as the number of accidents with lost time multiplied by 200,000 divided by the number of hours worked.

In Sweden, the Volvo Group employees can volunteer to act as health coaches, allocating part of their time to support and encourage colleagues to adopt healthy behaviors. At the end of 2013, we had 93 health coaches, who arranged different activities relating to physical training, nutrition, recovery, happiness and healthy mindset.

REWARDING, RETAINING AND DEVELOPING TALENT

The Volvo Group aims to be a competitive and attractive employer, attracting and retaining talented individuals. Our company culture, values, leadership, reputation and performance are all important drivers. So too are the remuneration and benefits, and the career and personal development opportunities that we offer.

Remuneration and benefits

As stated in our Code of Conduct, the Volvo Group complies with all applicable laws, agreements and industry standards on working hours and compensation. Equal pay for work of equal value is the Volvo Group's guiding principle. In practice, however, individual salaries have traditionally been based on different local practices in different operating countries.

In addition to fixed salaries and variable remuneration, and in accordance with local practice, Volvo Group companies offer, for example, employees health and welfare support, income protection against absence caused by ill health, retirement benefits and programs that promote wellness.

Following the Group's 2013-15 strategic objectives, we have been working on ways to harmonize our remuneration and benefits processes.

Performance-related pay

The Volvo Group is pursuing various strategies to increase the profitability of our business and performance-related pay is one of the strategies we have decided to use. One of the Group's strategic objectives is a reward and recognition program related to individual, team and company performance.

Beginning 2013, we are introducing a harmonized salary structure that links salaries more closely to performance. We are also developing a global framework for compensation and benefits that can be adapted to different countries.

We have begun with our 15 largest countries covering around 85 percent of all employees. Pending further evaluation and refinement, we will roll out the program to all other countries from 2015.

Employee turnover

Overall, the Volvo Group has very low employee turnover, even in growth countries like India where turnover is generally high.

In the future, the changing demographics of some countries – with an aging population and too few young people with the right skills – will be a challenge for the Volvo Group. In addition to attractive remuneration and benefits, we will need development strategies to attract a young generation interested in a positive balance between work and life

Reviewing and developing talent

Performance reviews, development programs and self-managed learning methods are essential elements for developing the competence of the Volvo Group employees.

Performance reviews

We expect all Volvo Group employees to have a personal business plan that translates our corporate strategic objectives into individual objectives and contributions. It includes business-related and competence development targets, and provides essential feedback for both short and long-term individual development.

All employees review their plan annually with their manager to ensure everyone clearly understands their role in the team and what is expected of them.

Talent review

The talent review is an established management process to systematically and transparently identify, assess and develop leadership talent throughout the company and ensure a sufficient and diverse supply of talent and skills, based on the leadership pipeline model.

The talent review starts at unit level – market, company, plant, site or a function – and moves up level by level in the organization. All managers in a management team participate in the talent review meeting and the Volvo Group executive management team concludes and reviews top key talent and succession planning.

Career development

The Volvo Group offers various career opportunities across the company. There are training programs at all levels for employees, aimed at both professional and personal growth. The activities range from traditional and e-based training to individual coaching and mentoring.

Leaders

The Volvo Group's leadership pipeline has been set up in collaboration with research institutes to develop and prepare our current leaders, and potential leaders, for future roles.

Our leadership pipeline is divided into four levels, each with a specific development program:

- The Exploration program targets 'emerging leaders'
- · The Foundation program is for managers on the 'leading people' level
- The Looking Glass Experience looks at managers on the 'leading leaders' level
- · The Edge is for those on our leading business level.

During 2013, around 960 employees in all major countries of operation participated in the Volvo Group's Leadership Pipeline programs, an increase from the 650 who took part in 2012.

L We see recruitment of talent and

investment in employees as a funda-

itable and sustainable"

mental part of staying competitive, prof-

Project managers

The Volvo Group Institute for Project Management (VGIPM) aims to establish a clear career path for project managers equipped with the necessary skills at all levels. The institute provides standard training, assessments and a forum for sharing experiences and best practice.

In 2013, some 1,120 participants attended VGIPM training, with 400 certified as project management professionals by the PMI, one of the world's leading professional associations for project management. This compares with 1,250 participants and 330 who achieved certification in 2012.

During the year, the VGIPM successfully rolled out its knowledge database and assessment center to support recruitment and personal development across the Volvo Group.

Specialists

The objective of the Volvo Group's Specialist Recognition Program is to raise visibility and offer career opportunities to engineers with extensive experience and expertise in their field. Specialists are appointed for three years with the aim of developing their field of

expertise, supporting the Group's strategies and transforming discoveries into increased business value across the Group.

Specialists take a lead role as an internal and external technology consultant, partner and mentor. Networking, both internally and externally, is a basic tool for gaining and driving progress and development. Specialists are encouraged to give lectures, seminars and training courses in his/her field of expertise.

Globetrotters

In 2011, the Volvo Group launched a global mobility program, aimed at making mobility between countries, functions and companies a motivating, productive and enriching experience for employees, their families and the Volvo Group.

New graduates

In January 2013, a group of 21 graduates from Sweden, France, Germany, China, Japan, the UK and the US – selected from a pool of 2,232 applicants – embarked on the latest round of the Volvo Group International Graduate Program. This 12-month training program aims to develop future leaders through a variety of avenues, such as job rotation, international work experience, common training modules and project work.

Mentors-mentees

Mentorship is strongly encouraged at the Volvo Group and is considered to be an important development tool for leaders. Mentoring is used as a long-term, tailored development aid for an individual, which also benefits the organization. It builds a visible talent pool, increases loyalty and commitment and supports organizational development. The Group has published an online guide to support both parties.

The mentor is, in general, senior in the organization and helps a mentee outside their normal line management duties by sharing his/her professional and personal knowledge, skills and experience.

International Internship Program

The Volvo Group International Internship Program was piloted in 2013, as part of the Preferred Talent Partnerships under the

Academic Partner Program with selected top universities. Twelve students from partner universities were selected and offered the opportunity to join the Volvo Group for an international internship assignment in Sweden, France, China or the US. The purpose is to give the interns

international work experience and increase their knowledge about the Volvo Group. The program also creates opportunities for the Volvo Group to benefit from talented students in our Preferred Partner Universities.

Self-managed learning

The Volvo Group's learning strategy emphasizes workplace learning, including classic training courses and self-managed learning. We have created a number of resources to support managers in helping employees find their most suitable individual learning style.



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Managing our business risks and impacts

■ Behaving responsibly is the only

foundation upon which we can build

a truly sustainable business"

Realizing the Volvo Group's ambition of becoming the world leader in sustainable transport solutions requires the trust of all our stakeholders. Trust is based on reputation, which our company earns by consistently striving to behave in a responsible manner.

We firmly believe that sound business practices are profitable in the long run as they help to establish our company's reputation as a reliable business partner.

The Volvo Group's approach to CSR and sustainability is based on:

- conducting business in a responsible manner
- taking stakeholders' perspectives into account
- creating value for our shareholders and society
- contributing to sustainable development.

For us, behaving responsibly is the only foundation upon which we can build a truly sustainable business. Our approach to CSR and sustainability – starting with compliance with

the principles in the Code of Conduct and risk management – is integrated into our policies and implemented through our everyday business decisions and actions.

Issues such as business ethics, corporate governance, human rights, environmental impacts, safety, responsible sourcing and lifecycle management are all ranked highly in the Volvo Group's materiality matrix. They are of significant importance to our business and our stakeholders expect us to report on how we manage and mitigate these risks.

Stakeholder engagement and governance

Everything starts with our stakeholders, and we strive to manage and meet our stakeholders' expectations across our organization and operations. Our stakeholders include customers, employees, trade unions, suppliers, investors, governmental officials and policymakers, academic and research partners, and non-governmental organizations.

STAKEHOLDER ENGAGEMENT

To help us identify and prioritize corporate social responsibility (CSR) and sustainability issues for the Volvo Group, we hold round-tables with selected stakeholders and continue ongoing dialogue

with all stakeholders. This engagement enables us to better understand the internal and external expectations of the Volvo Group, and helps to ensure that our business operations build value both for the company and society.

Society market days

In 2013, we held a Society Market Day for the second time. To achieve a good discussion, we invited a broad audience including politicians, authorities, academia and media. The discussion focused on the importance of production close to research and development and how to keep the competitiveness of production in Sweden. The day resulted in mutual understanding and a roadmap for further strengthening the competitiveness of Swedish production.

Ongoing dialogue

In addition to regional stakeholder initiatives, we maintain ongoing contact with all stakeholder groups to help us shape our direct business operations and activities. All stakeholders are invited to use the contacts listed on **www.volvogroup.com** to raise questions or share opinions with the Group on any issue, at any time.

Customers

We have long-term relationships with most of our customers, and increasing numbers want information about our CSR performance. We communicate with our customers in various ways, including:

- · interaction in daily operations
- dialogue forums such as customer focus groups during product development
- dialogue via social media
- · customer satisfaction surveys.

Once a customer satisfaction interview is completed and the results evaluated, the market research company informs the dealer of any alerts. The dealer will contact the customer to follow-up on any dissatisfaction within 48 hours. We have systems for handling complaints, market quality requests and dealers' quality requests for each brand and business in the Group. Issues registered in the customer database are fed into product development. The Group also tracks customer satisfaction and brand image through established industry surveys.

Employees and trade unions

The Volvo Group has formalized systems for employee dialogue and development, such as the annual review of personal development plans and employee engagement survey. We also use various channels for communication among employees, including:

- intranet
- in-house magazines
- · team meetings
- videos and webcasts.

Our managers practice top-down cascading of company information, but all employees can put questions directly to the Group's CEO and management team via the intranet. Internally we communicate in many different languages.

The Volvo Group also maintains close relationships with a number of labor unions, in both formal forums – such as the Volvo Global Dialogue – and informal meetings.

Prospective employees

It is increasingly important for employees that the company they work for has sound values and actively engages with its stakeholders. The Volvo Group participates in university career days, industry conferences and other events in order to meet potential employees, map their areas of interest and make sure that the Group is regarded as a preferred employer.

Suppliers

The Volvo Group works closely with its suppliers and values long-term relationships, and the transfer of knowledge and understanding of each other's processes, procedures and values. Our forums for formal supplier engagement include:

- · regular face-to-face meetings
- our web-based supplier portal
- training sessions
- · dedicated supplier days.

Capital market

We communicate regularly with shareholders, other investors and financial analysts who take an active interest in CSR and sustainability issues. We hold a capital market day at least once a year and hold regular investor meetings. We issue a number of publications, including:

- · annual reports
- · interim reports
- · press releases.

Compliance issues remain of high interest among socially responsible investors. They also want to see how CSR, sustainability and our sustainable transport solutions strategy are being integrated into the Group's business model. Banks and capital lenders are increasingly focusing on corruption and sanctions as part of their contractual pre-requisites for doing business with the Volvo Group.

Decision-makers

The Volvo Group communicates with politicians, authorities and institutions on an ongoing basis, including responding to proposed legislation and regulations. The Group also communicates with local authorities on issues such as employment and working conditions. We deal with most regulatory issues related to our products via our membership of industry organizations.

Non-governmental organizations

The Volvo Group welcomes dialogue with civil society stakeholders and NGOs and engages with hundreds of organizations on a mix of global, national and local activities. The Group has two worldwide strategic partnerships – WWF and Oxfam – but most cooperation is on a local level with local NGOs and aid organizations.

Universities and research institutes

The Volvo Group is involved in a comprehensive series of cooperative ventures with research bodies and academic institutions, aiming to advance the technologies needed for future product development. Forums include the Volvo Group Academic Partner Program. Our involvement with universities is also important for creating relationships with students as potential employees thus securing access to future talent.

GOVERNANCE

Sound governance is key for building a trusting relationship with shareholders and other stakeholders. Here we report on governance of our sustainability related issues. For the Group's complete corporate governance report, see the Volvo Group **Annual Report 2013** at www.volvo.com/investors.

Our president and CEO, Olof Persson, has ultimate ownership of the Volvo Group's vision, and governance issues.

Governance body for CSR and sustainability

The Volvo Group's Sustainability and Public Affairs Council takes organizational responsibility for CSR and sustainability. Niklas Gustavsson was appointed Executive Vice President Sustainability and Public Affairs in April and took over as chair of the Council. He is a

member of the Volvo Group Executive Team and is responsible for decisions on sustainability and ensuring their implementation throughout the organization.

The purpose of this governing body is to establish strategies and direction and to follow up on performance. It also supports and advances the Volvo Group's business in areas related to its corporate core values, CSR and sustainability, public affairs and relevant emerging issues.

CSR and sustainability committee

The Volvo Group CSR and Sustainability Committee is tasked with supporting and developing the Group's CSR and sustainability work, coordinating this work and making recommendations to the Sustainability and Public Affairs Council.

The CSR and Sustainability Committee is chaired by the Volvo Group's Senior Vice President, Corporate Social Responsibility Management, Malin Ripa. The committee's members include CSR managers from across the Group who represent different parts of the organization and relevant processes for the implementation of internal CSR work.

CSR supply chain

A new Volvo Group CSR Supply Chain Steering Group was formed in September 2013 to oversee the work of the Volvo Group CSR Supply Chain Network. The steering group's membership comprises management team members from the Group's different purchasing organizations as well as the chair of the Group's CSR and Sustainability Committee.

The Volvo Group CSR Supply Chain Network reports to and implements the decisions made by the steering group. The network includes representatives from all the Group's purchasing organizations. Each representative is responsible for reporting to their organization's decision-making forum to ensure all CSR sourcing requirements are applied by each organization.

2014 priorities

The Volvo Group's CSR and sustainability work will continue throughout 2014. Some of the activities planned include:

- continued implementation of the updated Code of Conduct
- review of the Responsible Supply Chain Management Program
- · continued work towards integrated reporting
- · stakeholder dialogues
- · development of the Creating Shared Value strategy
- · start of the implementation of our CSR Africa agenda.

Risk management

At the Volvo Group work is carried out daily to identify, measure and manage risk. In some cases the Group can influence the likelihood that a risk-related event will occur. In cases beyond the Group's control, we strive to minimize the consequences.

The Volvo Group classifies its risks into three main categories:

• **External risks** including the cyclical nature of the commercial vehicles business, intense competition, commercial vehicle price changes and government regulations.

- **Financial risks** including currency fluctuations, interest level fluctuations, market value of shares or similar instruments, credit risk and liquidity risk.
- Operational risks including market reception of new products, reliance on suppliers, protection of intangible assets, complaints and legal actions by customers and other third parties, human capital risks.

A full description of the Group's external, financial risks and operational risks, can be found in the Volvo Group's **Annual Report 2013**, available on **www.volvogroup.com/investors**.

This is an extract of some external and operational risks.

The commercial vehicles industry is cyclical

The Volvo Group's markets undergo significant changes in demand as the general economic environment fluctuates. Investments in infrastructure, major industrial projects, mining and housing construction all impact the Group's operations as its products are central to these sectors. Adverse changes in the economic conditions for the Volvo Group's customers may also impact existing order books through cancellations of previously placed orders. The cyclical demand for the Group's products makes the financial result of the operations dependent on the Group's ability to react quickly to changes in demand, in particular to the ability to adapt production levels and production and operating expenses.

Intense competition

Continued consolidation in the industry is expected to create fewer but stronger competitors. Our major competitors are Daimler, Iveco, MAN, Navistar, Paccar, Scania, Sinotruk, Brunswick, Caterpillar, CNH, Cummins, Deere, Hitachi, Komatsu and Terex. In recent years, new competitors have emerged in Asia, particularly in China. These new competitors are mainly active in their domestic markets, but are expected to increase their presence in other parts of the world.

Prices may change

The prices of commercial vehicles have, at times, changed considerably in certain markets over a short period. This instability is caused by several factors, such as short-term variations in demand, shortages of certain component products, uncertainty regarding underlying economic conditions, changes in import regulations, excess inventory and increased competition. Overcapacity within the industry can occur if there is a lack of demand, potentially leading to increased price pressure.

Extensive government regulation

Regulations regarding exhaust emissions levels, noise, safety and levels of pollutants from production plants are extensive within the industry.

Most of the regulatory challenges regarding products relate to reduced engine emissions. The Volvo Group is a significant player in the commercial vehicle industry and one of the world's largest producers of heavy-duty diesel engines. The product development capacity within the Volvo Group is well consolidated to be able to focus resources for research and development to meet tougher



Code of Conduct training continued Group-wide during 2013 to ensure all employees are aware of the updates. Nearly half of all white-collar employees have had web-based training.

emissions regulations. Future product regulations are well known, and the product development strategy is well tuned to the introduction of new regulations.

Profitability depends on successful new products

The Volvo Group's long-term profitability depends on the Company's ability to successfully launch and market its new products. Product life cycles continue to shorten, putting increased focus on the success of the Group's product development.

Reliance on suppliers

The Volvo Group purchases raw materials, parts and components from numerous external suppliers. A significant part of the Group's requirements for raw materials and supplies is fulfilled by single-source suppliers. The effects of delivery interruptions vary depending on the item or component. Certain items and components are standard throughout the industry, whereas others are internally developed and require unique tools that are time-consuming to replace.

The Volvo Group's costs for raw materials and components can vary significantly over a business cycle. Cost variations may be caused by changes in world market prices for raw materials or by an inability of our suppliers to deliver.

Complaints and legal actions

The Volvo Group could be the target of complaints and legal actions initiated by customers, employees and other third parties alleging health, environmental, safety or business related issues, or failure to comply with applicable legislation and regulations. Information about legal proceedings involving entities within the Volvo Group are found in note 24 Contingent Liabilities of the Annual Report 2013.

Even if such disputes are resolved successfully, without having adverse financial consequences, they could negatively impact the Group's reputation and take up resources that could be used for other purposes.

Risk related to human capital

A decisive factor for the realization of the Volvo Group's vision is our employees and their knowledge and competence. Future development depends on the company's ability to maintain its position as an attractive employer. To this end, the Volvo Group strives for a work

environment in which energy, passion and respect for the individual are guiding principles. Every year a Group-wide survey is conducted, and according to the survey the share of satisfied employees has been on a high level in recent years.

Code of Conduct policy

The Code of Conduct is the Volvo Group's mandatory, group-wide policy for appropriate business behavior and responsibility towards our stakeholders. Its content is based on international charters, including the UN Global Compact and the OECD's guidelines for multinational companies. The Code applies to all employees and Boards of Directors. The Volvo Group managers are responsible for communicating and demonstrating the content and spirit of the code, and for complying with its rules and objectives.

The code includes the business ethics, human rights, social justice and environmental principles to be applied in all our policies, decisions and activities, and outlines the Group's principles and minimum standards for conducting business in an appropriate, responsible and transparent manner. It is complemented by around 20 other policies – relating to areas such as accounting and reporting, anti-corruption, anti-discrimination and environmental care – that describe in more detail how to address the code's minimum standards.

Our Code of Conduct is reviewed annually and was updated in 2012 to reflect internal and external changes. It is publicly available on **www.volvogroup.com/responsibility**.

During 2013, we continued with the rollout of the Group-wide training program that accompanied the updated code. The training is available in twelve languages as an e-learning course and a workshop with open discussions. We have also adapted training for specific target groups, such as buyers. Since the launch of the updated Code of Conduct in November 2012, 23,513 white-collar employees (out of around 50,000) have participated in the web-based training. This is the third round of Group-wide training on the Code of Conduct since 2006.

Compliance with our Code of Conduct is monitored through management systems, audits, assessments and the annual employee survey.

Whistleblower procedure

All employees are expected and encouraged to report suspected violations to our Code of Conduct to their superiors. If reporting to the superiors is not feasible or possible, the whistleblower procedure is available, which gives employees recourse to the Head of Corporate Audit. The Volvo Group does not tolerate retaliation against a person for making complaints of suspected improper behavior in good faith. All incidents are investigated and appropriate action taken.

In total, 56 cases were reported in 2013 under the Whistleblower procedure. Twenty-seven of these were dismissed following investigation, as there were no grounds for the allegation.

In 19 cases we found grounds for the allegations and proceeded with appropriate actions. Ten of these cases are still under investigation. All cases were investigated and reported to the Audit Committee of the AB Volvo Board of Directors.

Company culture

The Volvo Group aims to build a responsible culture and has developed tools covering conduct, operational processes and production systems to set the standard of excellence and guide people across the Group on responsible social, business and environmental behavior.

THE VOLVO WAY

The Volvo Way is a fundamental Volvo Group policy that defines our company culture. The values and principles it contains guide everyone's daily efforts to effectively realize the Group's business strategies. Its purpose is to set a standard of excellence and build high commitment and performance across our organization. The Volvo Way addresses business critical issues, including value creation, customer focus, and the way we work. The core principle is about enabling people.

Every manager within the Volvo Group is responsible for sharing the Volvo Way with their team and discussing how our values and principles affect their daily work.

OPERATIONAL DEVELOPMENT AND VOLVO PRODUCTION SYSTEM

Operational Development (OD) and Volvo Production System (VPS) are complementary and reinforce each other as a complete continuous improvement system. Operational Development (OD) is a system with clear steps that is used by management and employees to formulate a future position, set objectives, deploy targets and define an action plan. In times of crisis, OD helps teams react quickly and can shift the focus and activities of an entire organization. Volvo Production System (VPS) is an improvement system based on lean principles. It was initially used to improve the production flow of the assembly line, but is now also used for many business processes throughout the organization, such as product development, business services, and at dealerships and logistics.

These combined systems offer tools and methods to make improvements in a systematic way. They focus on everyone's contribution – either as an individual or as a team – to generating improvement ideas, implementing them and ensuring the contribution to the end customer is measured.

Business ethics

For many sectors globally, business ethics was a hot topic during 2013, with various stakeholders demanding greater transparency from corporations. As part of our materiality assessment, business ethics emerged as one of the most important issues for our stakeholders and our business.

As a global company operating in many countries at diverse stages of development, we are aware that corruption is a higher risk in some markets where we operate. We have robust systems in place to ensure we respond and adapt our business practices and activities to address higher-risk areas.

ANTI-CORRUPTION

The Volvo Group conducts business on a global scale and consequently operates in a number of countries where corruption risks

are higher. The Volvo Group does not tolerate corruption in any part of its business. Our work on anti-corruption is guided by the following principles, contained in our Code of Conduct:

- The Volvo Group shall not participate in or endorse any corrupt practices
- Representatives of the Volvo Group shall not offer customers, potential customers, suppliers, consultants, governments, agencies of governments, or any representative of such entities, any rewards or benefits in violation of applicable laws or established business practices stricter than applicable laws, in order to obtain or retain business or to gain any other improper advantage
- The Volvo Group employees shall not accept payments, gifts or other kinds of reimbursement from a third party that could affect or appear to affect their objectivity in their business decisions.

Responsibility for compliance with our anti-corruption policy rests with line management.

Policy and program

The Volvo Group has an Anti-Corruption Compliance Policy that has been adopted by the Group's Audit Committee. In addition to this policy, our three-part Anti-Corruption Compliance Program covers corruption prevention, detection and response. It aims to prevent the Volvo Group or any of its business partners from participating in corrupt activities.

The program is continuously developed to detect and mitigate emerging corruption risks faced by our business. The program is designed to the strictest standards and is aimed at ensuring the Volvo Group meets all legal requirements in the countries where we do business. The majority of our sales are made through third-party distributors who represent the Group and our brands in the market-place. A major part of our anti-corruption efforts are thus directed at ensuring we choose distributors who share our views on business conduct. This is done through anti-corruption due diligence and similar measures.

All white-collar employees (approximately 50,000) are expected to participate in an e-learning course related to anti-corruption every three years. The Volvo Group's anti-corruption e-learning was updated in 2013 to take account of new legislation and issues.

Face-to-face meetings and discussions are important for creating awareness and the Chief Compliance Officer and members of the compliance network conduct onsite training for selected groups every year.

In 2013, 37,277 employees were trained in anti-corruption via e-learning and approximately 500 employees via face-to-face training.

Compliance reporting

The Volvo Group's Audit Committee monitors compliance with our anti-corruption policy. The Chief Compliance Officer is responsible for overseeing the implementation of the program, leading and participating in training and audits, and leading investigations into alleged non-compliance.

The Chief Compliance Officer reports to the Audit Committee three times a year on current incidents and investigations. In addition, annual reports are submitted to the Audit Committee on activities in the Anti-Corruption Program. Regular reports are made to



Fair competition e-training is mandatory for all white-collar employees. Face-to-face training is mandatory for employees in certain departments, including sales and marketing and purchasing.

Group management. The General Counsel of each division or business area is responsible for the program activities in their respective area.

During 2013, three investigations into potential corruption were carried out.

FAIR COMPETITION

The Volvo Group's work to ensure fair competition is guided by the following principles, contained in the Code of Conduct, which applies to all employees and members of Boards of Directors:

- The Volvo Group shall comply with the laws and regulations of each country in which it operates and shall compete in a fair manner and with integrity
- The Volvo Group shall not exchange information or enter into agreements or understandings with competitors, customers or suppliers in a way that improperly influences the market place or the outcome of a bidding process
- The Volvo Group shall use legitimate methods to gather information about its competitors.

 $\label{lem:rests} Responsibility for compliance rests with line management.$

Policy and program

The Volvo Group's Competition Law Compliance Policy outlines our principles of behavior towards competitors, distributors, customers and suppliers and relates to both the Volvo Group's employees and the company. All employees in contact with the Group's competitors are expected to be familiar with the policy and apply it at all times.

The Group's Competition Law Compliance Program includes detailed guidance, handbooks and related tools aimed at supporting all employees and preventing the Volvo Group from participating in activities that are contrary to competition law. It aims to provide employees with an overall understanding of acceptable behavior, and to promote free and open competition in the markets where the Group is present.

The Chief Compliance Officer, under the supervision of the General Counsel of AB Volvo, supports the Volvo Group management on compliance with competition law. Each division and business area is responsible for following the program and complying with competition laws. The General Counsel of each division or business area is responsible for counseling on the law and program and for program activities in their respective area.

All white-collar employees, approximately 50,000, must participate in an e-learning course on competition law. All employees working in sales and marketing, and managers within purchasing, research and development and product development must also participate in mandatory face-to-face training.

In 2013, 1,855 employees completed the competition law compliance e-learning course and 1,139 employees were trained face to face, in addition to 31,025 and 5,685 trained respectively in 2012.

For further information on ongoing investigations by competition authorities, see Note 24 in the Annual Report 2013.

GOVERNMENTAL SALES

Governmental Sales is a relatively new business area for the Volvo Group covering all sales we have in the areas of defense, safety and international collaboration. Customers include the armed forces in France, Sweden and the US, police forces, and various UN organizations.

The segment includes commercial trucks to variants with bullet-proof cabs, as well as construction equipment and buses. It includes vehicles that have been developed specifically for use by the armed forces, such as armor-plated special vehicles for troop transport, surveillance and support. Customer procurement is an extensive process, with strict legal rules and procedures. For this reason, these sales are collected into a separate business area.

The Volvo Group's sales of defense material – as defined in the Swedish Military Equipment Ordinance (1992:1303) section A – amounted to 0.55 percent of net sales in 2013, compared to 0.66 percent in 2012.

Human rights and labor relations

The Volvo Group is a global employer and strives to comply with the increasing requirements, guidelines and frameworks set by international organizations including the United Nations, International Labor Organization and OECD.

During 2013, we continued to take a more active and global stance towards human rights and labor relations by:

- strengthening the Group's labor relations function with the appointment of new personnel
- holding a Volvo Global Dialogue Day between the Executive Management Team and 60 unions and employee representatives from around the world
- convening a three-day meeting of the Volvo Global Works Council and conducting numerous discussions, including Code of Conduct related issues.

As a global organization, we need to better understand our different operating countries and to have better measures and analysis. We have therefore begun work on developing a new diligence approach, which will be continued in 2014.

HUMAN RIGHTS

The Volvo Group supports the aims of the United Nations Guiding Principles on Business and Human Rights and its 'protect, respect and remedy' framework, also known as the Ruggie principles. Our position on human rights is part of our Code of Conduct and is supported by training on:

- · non-discrimination
- · non-tolerance of forced labor
- · non-tolerance of compulsory or child labor
- · freedom of association
- the right to collective bargaining
- the right of all employees to a healthy and safe work environment
- · working hours and compensation.

LABOR RELATIONS

The Volvo Group respects the right of all employees to join an association to represent their interests as employees, to organize and to bargain collectively or individually. We respect recognized unions and maintain a close relationship with a number that represent employees. An employee's right to refrain from joining a union is equally respected.

Board representation

There are three employee representatives on the AB Volvo Board of Directors and two deputies appointed by labor organizations.

Volvo works councils

The Volvo Global Works Council (GWC) was created in 2013 as the global version of the Volvo European Works Council (EWC), which has been running since 1991. The GWC is chaired by Board Director, Mikael Sällström, and includes representatives from the existing EWC and from wholly-owned Volvo Group companies in countries outside Europe with more than 500 regular employees.

Volvo Global Dialogue

The Volvo Global Dialogue was set up in 2013 and is held once a year. The forum is led by our President and CEO, Olof Persson, and employee representatives from the Volvo Global Works Council meet Group management. The new forum is based on the Volvo European Dialogue, established in 1996, and reflects the expansion and globalization of the Volvo Group. Volvo Global Dialogue does not replace normal escalation or the Whistleblower procedures.

It is a forum for information and dialogue, and to discuss our global observance of the principles on human rights and social justice contained within our Code of Conduct. It is not a forum for any negotiations.

The 2013 Volvo Global Dialogue included the participation of 60 trade unions and employee representatives from all around the world.

Freedom of association and collective bargaining

The Volvo Group now reports on collective bargaining agreements in 14 countries, up from seven in 2012. The latest study covered countries where the Group has its largest operations – corresponding to 87 percent of all permanent employees. Overall, 75 percent of permanent employees in these 14 countries were covered by collective bargaining agreements and a minimum of 43 percent were members of an independent trade union, where known.

During 2013, there were only a few strikes across the Volvo Group globally. The main cause differed from country to country, but



Volvo Global Dialogue was set up in 2013. It enables employee representatives from the Volvo Global Works Council to meet Group management.

included issues such as collective bargaining over wage increases. In some cases, in France and Germany, strikes were called to show general labor solidarity, they were not directed against the Volvo Group specifically as an employer. In total, strikes during 2013 resulted in the loss of approximately 0.08 percent of available working days and remain on a very low level. All strikes were resolved through negotiation with trade unions and acceptable compromise.

Job losses

The automotive industry is cyclical. To remain competitive and profitable over the long term, the Volvo Group needs to adapt, reorganize and restructure its operations. In 2013, we made redundancies among about 1,200 permanent Volvo Group employees globally in response to economic conditions and forecasts.

In accordance with our Code of Conduct and legal requirements, we notify employees' representatives and relevant government authorities of major changes in our operations.

As planned, we closed the Volvo Buses plant in Säffle, Sweden, during 2013 with the loss of 328 jobs. We worked closely with the trade unions, local authorities and local businesses on employee consultations and opportunities. At the end of year, 248 had taken retirement or found new jobs.

As part of the Group's efficiency program, we have announced plans for structural reductions in staff and support functions, to be implemented mostly in 2014. We will also downsize, relocate and close several manufacturing, distribution and logistics centers across Europe and North America. Approximately 4,400 mainly white-collar employees and consultants will be affected.

The Volvo Group complies with all legal requirements in the respective countries and all cutbacks are subject to trade union negotiations.



Managing our value chain risks and impacts

What we produce and how we produce it is at the core of the Volvo Group's sustainability commitment. We look at our entire value chain and manage sustainability issues at every stage of the lifecycle of our products - from product development to recycling.



The Volvo Group has 67 production sites in 18 countries around the world. In 2013, we delivered 200,300 trucks, 8,900 buses, 70,800 units of construction equipment, 17,500 marine engines and 17,700 engines for industrial applications.

All wholly-owned production facilities are certified by a thirdparty auditor in accordance with the ISO 9001 quality management system and 94 percent are certified in accordance with the ISO

14001 environmental management system. In 2013, our Macungie plant in the US became the second Volvo Group factory to be certified to the international energy standard, ISO 50001 - New River Valley, US, was certified in 2012.

■ We manage sustainability issues at every stage of the lifecycle of our products

- from product development to recycling"

WWF's Climate Savers Program involves multinational companies in the effort to reduce carbon dioxide emissions. Each company pledges to reduce its carbon dioxide emissions following a Memorandum of Understanding made with WWF. The results are reviewed by independent technical experts. The agreed target is more ambitious than the company would have set on its own, and must also signify that the company is leading its sector in the

reduction of greenhouse gas emissions.

The Volvo Group became the world's first automotive industry manufacturer approved by WWF to participate in the Climate Savers Program in 2010. In 2012, Volvo Construction Equipment

(Volvo CE) and Volvo Bus Corporation joined the Climate Savers program. SDLG, Volvo Group's joint-venture company manufacturing construction equipment in China, became the first Chinese company to be approved as a partner of the program.

WWF Climate Savers

WWF is one of the world's largest and most respected environmental organizations. Its vision is to stop the degradation of the planet's natural environment and build a future in which humans live in harmony with nature.

2 1. The objective is to reduce the total amount of carbon dioxide emitted by trucks, construction equipment and buses manufactured by the Group through 2014 by more than 30 million tons, compared with vehicles manufactured in 2008. 2. The Volvo Group will also reduce carbon dioxide emissions from its production plants by 0.2 million tons (12 percent) before 2014, compared with 2008.

In our arrangement with WWF, the Volvo Group is committed to reducing:

- the total amount of carbon dioxide (CO₂) emitted by the Group's trucks, construction equipment and buses by more than 30 million tons by 2014, compared with vehicles manufactured in 2008
- CO₂ emissions from our production plants by 0.2 million tons (12 percent) before 2014, compared with 2008.

Our arrangement also states that:

- the Volvo Group will develop a new truck prototype with 20 percent lower fuel consumption than a corresponding truck manufactured in 2008 and offer commercial trucks that operate on renewable gas before 2014
- Volvo Construction Equipment will prepare a new prototype with considerably improved fuel efficiency compared with existing models
- Volvo Buses will expand the number of field tests with plug-in hybrid buses.

Interim results

We have now completed five of the program's six years and independent technical experts verify how the Volvo Group is complying with its commitments annually. Figures for the year ending 2013 will be available in June 2014, but the results for the period 2009-2012 indicate that we are already on or ahead of target in key areas:

- CO₂ emissions from the Group's facilities have been reduced by 0.3 million tons, making them 13 percent lower than 2008
- total lifetime ${\rm CO_2}$ emissions of the Group's products have been reduced by 29 million tons.

Product development

The Volvo Group has a long history of developing pioneering products and services for the transport and the construction industries. Its research has resulted in cutting-edge technologies in the areas of safety, energy efficiency and emission reductions.

We have research and development (R&D) facilities close to our main production sites, with approximately 60 percent of people working in R&D located in Sweden.

R&D investment

In 2013, investments in R&D amounted to SEK 15.1 billion, compared with SEK 14.6 billion in 2012, which corresponds to 5.5 percent of net sales (4.9 percent in 2012). A large part of the Group's investments were related to reducing exhaust emissions, lowering fuel consumption and developing electromobility solutions.

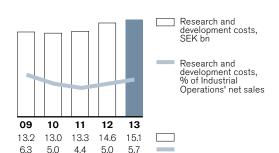
Grants and tax credits

In 2013, government grants of SEK 400 M (SEK 492 M in 2012) were received, and SEK 467 M (SEK 342 M) was recognized in the income statement. The amount includes tax credits of SEK 245 M (SEK 165 M) related to product development, which were primarily received in France and in the United States. Other grants were mainly received from Swedish, Chinese and US governmental organizations and from the European Commission.

PRODUCT DEVELOPMENT PROCESS

There are six stages to the Volvo Group product development cycle. Each stage has different environmental, quality and safety objectives that need to be met before proceeding to the next stage.

Research and development costs



THREE areas of focus

Energy-efficient drivelines

Electromobility
Alternative fuels

Developing a completely new vehicle can take up to four years, sometimes longer if a new powertrain is included. Customers are actively involved in the project providing input through surveys, clinics and field tests. For each new vehicle developed, the Volvo Group keeps track of all project experience in a white book, with the learnings serving as a basis for future projects.

During product development, we take into account driver ergonomics, accessibility of parts for technicians and the ergonomics for employees working on the product's assembly line.

LIFE CYCLE ASSESSMENT

The Volvo Group was one of the first companies in the automotive industry to use life cycle assessment (LCA) during the 1990s to map a product's environmental impacts as part of the product development decision process. The basic principle is that each of the Group's new products will have less environmental impact than the product it replaces.

Our LCAs are based on adding up all impacts from the use of raw

materials, energy and water consumption and the creation of waste, as well as emissions to air and water. Over the long lifetime of a truck, fuel is consumed, making it the most important impact, both on raw materials and emissions. Our LCAs clearly demonstrate that the vast majority of a product's environmental

impact results from its use - more than 90 percent. The Volvo

■ The basic principle is that each new product should have less envi-

ronmental impact than the product it replaces"

Group's efforts therefore focus on reducing the environmental

impact of our products during their use, which means a higher focus on fuel efficiency.

As part of our assessments, the Volvo Group uses Environmental Load Unit (ELU) weighting methodology, developed by our academic partner, Chalmers University. Based on this, the LCA for a Euro 6 truck includes an increased environmental impact at production and recycling. This is due to the weighting of platinum and palladium, which are used in the after-treatment system of Euro 6 engines.

Platinum and palladium are precious materials whose scarcity constitutes a high environmental impact, which becomes a high material ELU in producing the truck. We also assume a high recycling rate, once it is sold, even though it may not be possible to control the end of life of a truck. This is an industry-wide resource issue, which we are monitoring.

EMISSIONS AND FUEL CONSUMPTION

Over the past two decades, a significant part of the Volvo Group's

investment has been allocated to product development to ensure compliance with regulated emissions of nitrogen oxides (NO_v) and particulate matter (PM). Regulations have been imposed for on and off-road vehicles and engines by authorities around the world aiming to reduce their negative impact

on local air quality and health. They affect the Volvo Group's trucks, buses, machines and Volvo Penta products.

We have made vast progress on NO_x and PM emissions across all our product ranges. For example, since the early 1990s, emissions of NO_x and PM from a Volvo truck have been cut by more than 95 percent.

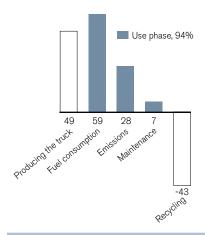
The latest regulation for trucks and buses is Euro 6, which came into effect on 1 January 2013 for new type approvals and 1 January 2014 for all registration of new vehicles in the EU. The most recent regulation in the US - EPA 2010 - became effective in 2010.

Volvo Construction Equipment and Volvo Penta were among the first to certify engines compliant with the Tier 4 final emissions regulation in the US and Stage IV in Europe. Nitrogen oxide emissions are reduced by 80 percent in these products compared with the previous emissions regulations. Volvo Penta has also finalized the introduction of engines compliant with the most stringent marine emissions regulation, US EPA Tier 3.

Having reached these ultra-low levels of NO_x and PM emissions, regulation and product development in this area is forecast to flatten.

Environmental impact of a Renault truck

Model: T High tractor 4x2 Euro 6. %



Product development cycle



- 1. Definition of the project's scope
- 2. Choice of concept
- 3. Technical feasibility study
- 4. Development phase including building, verifying and validating the product solution
- 5. Industrialization and commercialization phase to enable production
- 6. Launch of the product and aftermarket products and services

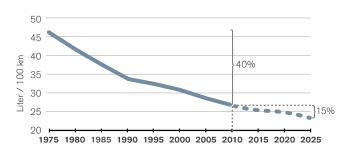
New trends in legislation are increasingly focusing on ${\rm CO}_2$ emissions and fuel consumption. The Volvo Group is aligning its product development investment to take account of the following regulations.

Fuel consumption has already been regulated in China, and Japan will enforce fines for non-compliance with its 2006 regulation from 2015. Taiwan and South Korea are also considering regulations. The US will introduce a greenhouse gas emissions regulation in 2014 – for which Volvo and Mack trucks were among the first to be certified – and a corresponding fuel consumption regulation in 2016.

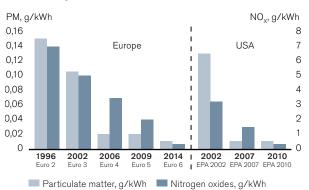
The Group is also monitoring and participating in the EU debate regarding greenhouse gas and fuel consumption certification of heavy-duty vehicles. There is currently no legislation for buses and trucks, but there are targets for the transport sector as a whole. The EU targets a 20 percent reduction in greenhouse gases by 2030, based on 2008 levels, and at least 60 percent by 2050, from a 1990 baseline. In urban transport, the target is to achieve essentially carbon-neutral city logistics in major urban centers by 2030.

The European Union has stated that new technologies for vehicles are necessary to reduce transport-related emissions. These

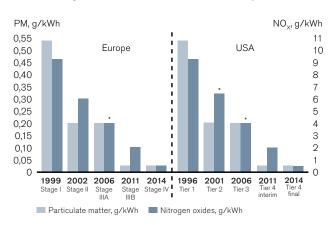
Fuel consumption of a Volvo truck



Emissions regulations for trucks and buses

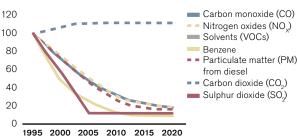


Emissions regulations for non-road mobile machinery¹



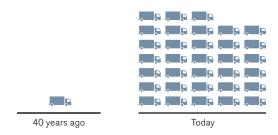
¹These regulations affect both Volvo Penta's industrial variable speed engines and Volvo Construction Equipment's products.

Significantly reduced emissions



Within the EU all road transport emissions except for CO_2 are expected to decrease in the future. This is the result of stringent emissions regulations. Source: ACEA – European Automobile Manufacturer's Association.

Reduced PM and NO_x



40 years ago one truck emitted as much particulate matter and nitrogen oxides as 33 trucks today.

FACTS ABOUT EURO 6

- One fifth the nitrogen oxide emissions of a Euro 5 engine
- Half the particulate emissions of a Euro 5 engine
- Emissions legislation encompasses nitrogen oxides (NO_x), particulates (mass), particulates (quantity), ammonia (NH₃), carbon monoxide (CO) and hydrocarbons (HC)
- Mandatory measurement and limit of exhaust emissions in real driving conditions.

^{*}Including also hydrocarbons (g/kWh)

include engines, materials and design, traffic management features, and cleaner energy use through new fuels and drivelines. These are all prioritized research areas within the Volvo Group with significant resources dedicated to them.

By 2025, we aim to further reduce fuel consumption by 15 percent, from a 2010 baseline.

NOISE

Noise is a growing problem in urban areas. The European Union estimates that some 20 percent of its population suffers from noise levels that scientists and health experts consider unacceptable. There are different regulations around the world for noise from the transport sector. The current noise emissions limit for heavy trucks in most parts of the world including the EU, India and South Korea is 80 decibels (dB).

The Volvo Group is continuously working to measure noise and vibration characteristics in engine and driveline components. Sound engineers use both insulation and alternative design solutions to make everything from engines and transmissions to axles, fans and air intakes guieter.

At speeds above 50 km/h, noise created from the contact between tire and road is higher than noise emissions from the driveline. This means that effective control of road traffic noise requires a holistic approach with coordinated efforts between vehicle and tire manufacturers, road builders and infrastructure architects.

Purchasing

In 2013, the Volvo Group purchased goods and services worth SEK 192 billion. Since 1996, the Group has consistently increased supplier requirements on environmental issues, business ethics, human rights and social issues.

SUPPLIER BASE

The Volvo Group's suppliers can be divided into two groups:

- suppliers of automotive products
- suppliers of indirect products and services.

Automotive products are materials and components used in the production of the Group's trucks, buses, construction equipment and engines. Indirect products and services include any products or services that are not used in automotive products. This encompasses everything from cleaning services to office furniture, travel,

education or training, communication services and corporate merchandise.

In 2013, more than 36,000 suppliers delivered products and services to the Volvo Group, of which approximately 6,900 supplied automotive products.

As a general rule, we stipulate that sales to the Volvo Group should account for less than 30 percent of a supplier's turnover. This approach decreases a supplier's exposure when delivering to a cyclical industry such as ours.

The Volvo Group has long-term partnerships with suppliers and shares common tools. Generally we source close to our production sites to ensure efficient flow of supplies. This means that most suppliers are located in Europe and North America. At the same time, the Group's expansion in Asia has led to an increased number of new suppliers located in Asia.

RESPONSIBLE SOURCING

Responsible supply chain management enables the Volvo Group to meet growing customer expectations, and reduce the risk of incidents that may interrupt supply flow or damage the Group's reputation. The Volvo Group's responsible sourcing processes aim to manage risk, promote responsible behavior and build long-term relationships with suppliers to improve social, environmental and business ethics across our supply chain.

Strategy and implementation

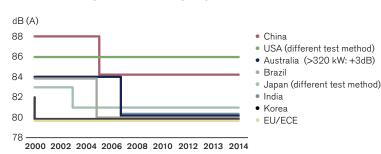
Our long-term CSR supply chain strategy was developed in March 2012, and updated in February 2013. We publish an annual plan covering supplier processes and systems, communication, measurement and targets, evaluation process, and benchmarking.

A new Volvo Group CSR Supply Chain Steering Group was formed in September 2013, with members of management teams from the Group's different purchasing organizations and the chair of the Group's CSR and Sustainability Committee. The steering group oversees the Volvo Group CSR Supply Chain Network, which includes representatives from all the Group's purchasing organizations.

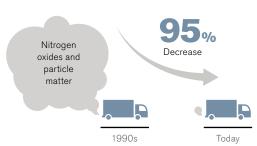
Minerals extraction

In 2013, a Swedwatch report on human rights issues in the platinum extraction industry in South Africa highlighted the issue of platinum extraction. The report aimed to investigate stakeholder responsibilities based on the principles in the UN report on Human Rights. The Volvo Group's responsibility as one part in the value chain was

Noise emission requirements for heavy-duty vehicles



Reduced exhaust emissions





CSR purchasing roadshows were launched in 2013 to train purchasers on business ethics, social and environmental issues affecting our supply chain.

investigated. The report concluded that we have limited opportunity to affect the human rights situation in and around mining opera-

tions, but more could be done in the form of collaboration with various networks and trade organizations to try to influence the situation. The Volvo Group has initiated activities based on these recommendations.

₲ Country risk assessments include factors such as human rights, labor standards and perceived corruption"

CSR purchasing roadshow

In 2013, the Volvo Group launched a brand new series of global roadshows to train purchasers on CSR issues. Attendees were trained mostly on business ethics and social issues, but also some environmental issues affecting our supply chain. We conducted training in Ageo in Japan, Shanghai in China, Bangalore in India, Eskilstuna in Sweden, and in Greensboro, Hagerstown and Shippensburg in the US – covering 60 percent of the total number of purchasers.

As well as buyers, we also invited selected quality people and managers. Additional training was given for those preparing to become key contacts for their site and deliver training to other employees. Its rollout will continue and be completed in 2014.

European Automotive Working Group

The Volvo Group became one of the nine founding members of the European Automotive Working Group on Supply Chain Sustainability, established in 2013 and overseen by the European Automobile Manufacturers' Association (ACEA).

It is of great importance to the members of this Working Group that the individuals making vehicles, components, or providing services, are afforded decent working conditions and are treated with dignity and respect, while minimizing the environmental impact of the industry. The group believes in the benefits of a common approach in this regard, such as training and common messages, while maintaining the management of their independent supply chains and complying strictly with competition law.

The group's goal is to develop common tools to improve sustainability in the supply chain.

Requirements on suppliers

The Volvo Group's supplier requirements are based on the principles contained in the Group's Code of Conduct. All suppliers are requested to appoint a senior executive as their contact person for

the Volvo Group. They are also responsible for deploying the same requirements on their own suppliers.

Environmentally, the Volvo Group requires most suppliers to be certified by a third-party environmental management system – such as ISO 14001 – and to be committed to our objectives of continuous improvement. More than 94 percent of Volvo Group spending on automotive products comes from suppliers that are certified in accordance with ISO 14001 or its equivalent.

In the EU, suppliers must also comply with the Volvo Group's position on chemicals and harmful substances, in accordance with REACH legislation.

Full information for suppliers is available on the Volvo Supplier Portal website **www.volvogroup.com/suppliers**.

Risk evaluation

Approximately 13 percent of our automotive products suppliers are located in countries assessed as 'high risk'. Risk assessments are

based on analyses conducted by internationally recognized institutions and include factors such as human rights, labor standards and perceived corruption.

For indirect products and services, the Volvo Group also takes into account the risk

level of each product or service segment. For instance, merchandise, personal safety equipment, construction work and waste management are associated with high risks.

Assessments

Since 2009, most new suppliers to our company have to be approved by the Group's Global Sourcing Committee. Potential suppliers of automotive products are evaluated by a quality engineer, using the Group's Supplier Evaluation Model.

As the Volvo Group's purchases should not account for more than 30 percent of any supplier's total business, many of our suppliers also supply our competitors, who demand equally high standards. In line with general automotive industry practice, the Volvo Group uses a self-assessment approach to evaluate supplier performance and compliance with the Group's ethical requirements.

The supplier assessment poses approximately 40 questions on issues relating to:

- · social performance
- · work environment and conditions
- workforce rights, including freedom of association and non-discrimination
- · child and forced labor
- · environmental care
- · business ethics.

The assessment includes minimum standards of performance and a requirement for an action plan where a supplier does not achieve the critical aspects. In addition to these assessments, we conduct regular site visits during product development, which gives us more direct control over our supply chain.

Automotive product suppliers

Some 72 percent of the Volvo Group purchasing spend derives from suppliers that completed the self-assessment during 2010–2013.

Eighty-seven percent of suppliers that completed the assessment passed it.

The main reason for not passing was a lack of adequate systems to enforce the requirements down the chain to their sub-suppliers. The rest failed due to a lack of other processes to comply with requirements.

Sixty-eight percent of suppliers from countries considered to be 'high risk' from a CSR perspective completed the self-assessment. Of these suppliers, 87 percent were approved. In terms of spend, 62 percent of the goods bought came from suppliers that passed in the self-assessment.

Indirect products and services suppliers

Owing to the large number of suppliers in this category – more than 30,000 – the focus is on suppliers in high and medium-risk countries, as well as on high-risk segments, according to the Volvo Group's risk model.

In 2013, the Group sent out approximately 600 requests to fill in the self-assessment form to prioritized suppliers, suppliers in high risk countries or those operating in high-risk segments. All of these suppliers completed the assessment and 58 percent passed.

In 2014, the Volvo Group will continue with supplier self-assessments in identified high and medium-risk countries and work with non-compliant suppliers to ensure our requirements are met.

Production

The Volvo Group has 67 production sites in 18 countries around the world. In 2013, the Group delivered 200,300 trucks, 8,900 buses, 70,800 units of construction equipment, 17,500 marine engines and 17,700 engines for industrial applications. In addition to our production sites, our industrial operations worldwide include several product development centers, and a large number of parts distribution centers and logistics centers.

Environmental care is one of our corporate core values. Ever since the United Nations Conference on the Human Environment was held in Stockholm, Sweden, in 1972, we have had an environmental position on mobility and the environment and have continuously conducted management and employee training on environmental responsibility. Today, environmental issues are an integral part of the Volvo Group's vision, business strategy and daily work.

We have many strategies in place to manage and mitigate the environmental impacts of our production. This includes greenhouse gas emissions, air and noise pollution, energy and water usage, chemicals and harmful substances, and waste.

ENVIRONMENTAL MANAGEMENT

The Volvo Group was one of the first companies in the world to have an environmental management system certified to ISO 14001. Today, 94 percent of our major production facilities – all but four – are certified to ISO 14001.

As part of our commitment under the WWF Climate Savers Program, the Volvo Group has pledged to reduce carbon dioxide (CO₂) emissions from our production plants by 0.2 million tons (12 percent) by 2014, compared with 2008. Results indicate that we are already

ahead of target, with ${\rm CO}_2$ emissions reduced by 0.3 million tons between 2009 and 2012 – 13 percent lower than in 2008.

The Volvo Group has production sites in 18 countries. Regardless of size and location, every production unit must comply with the Group's minimum requirements for environmental performance and have an improvement program. The requirements include monitoring of energy consumption, waste levels and emissions to air and water, as well as specifying maximum emission levels to air and water.

In accordance with the Volvo Group's global environmental standard for production plants, each production facility must:

- · define environmental goals and follow up on them
- implement an environmental management system, assessing the environmental impact of new projects and examining ways of reducing such impact
- apply the Group's environmental requirements to suppliers and contractors.

Environmental risk management

The consideration of environmental risk represents a component of the Volvo Group's risk process. When assessing potential acquisitions of companies and real estate, audits consider environmental and social factors in addition to financial, legal and other aspects. The information provides the basis for action plans, if required.

Environmental audits

To ensure adherence to our environmental policy, the Volvo Group has conducted internal environmental audits since 1989. The audits monitor the environmental activities and examine the data. Priority is given to auditing newly-acquired operations, or operations where improvements in environmental performance has ceased.

Data collection

The Volvo Group had 67 majority-owned production plants around the world at the end of 2013. We will disclose detailed environmental data on these plants in a separate environmental data report, available from May on www.volvogroup.com/responsibility.

The Group has reported detailed environmental data since 1991 and has continually developed indicators and tools since that time. Our key performance indicators cover the following areas:

- · use of chemicals
- · energy consumption
- · water consumption
- · emissions to air and water
- waste
- noise.

Our energy data includes data from our worldwide development centers, larger parts distribution centers and logistics centers. In total 125 sites report energy data.

Remediation programs

Audits may reveal a need for remedial work at contaminated properties used for former or current operations. Through an ongoing program of remedial measures, contamination discovered in refurbishment or rebuilding projects is dealt with immediately. Installa-



Carbon-neutral sites within the Volvo Group now number four in total. Our Braås factory is the world's first construction equipment production facility powered entirely by renewable energy.

tions posing the greatest risk of causing soil and groundwater contamination – such as underground storage tanks and underground piping systems – have been targeted for rebuilding work under an internal directive focusing on such installations.

GREENHOUSE GAS EMISSIONS

The Volvo Group's long-term ambition is to make all its production facilities carbon neutral, which means only having facilities using energy produced from renewable sources – for example, solar, hydro, wind and biomass.

In 2013, carbon emissions from the Volvo Group's production facilities increased from 234,800 tons to 279,900 tons. This is partly due to a plant in China which is still using fossil energy.

Carbon-neutral production

Volvo Trucks' plant in Ghent, Belgium, became the automotive indus-

try's first carbon-neutral production facility in 2007. The plant invested in wind power and a biofuel plant to produce electricity and heat, resulting in an annual reduction in CO_2 emissions of 10,000 tons.

Since May 2011, Volvo Penta's engine plant in facilities carbon neutral" Vara, Sweden, has been powered without using any fossil fuel and is considered to be carbon neutral. Volvo Trucks' 2,536 GW plant in Tuve, Sweden, also became carbon neutral in 2011.

Carbon-neutral Braås facility

The Volvo Construction Equipment's factory in Braås, Sweden, produces articulated haulers. It was certified carbon neutral at the end of December 2013, becoming the first construction equipment production facility in the world to be powered entirely by biomass and hydropower.

This was the culmination of collaborative efforts that began back in 1999 and involved the local energy supplier, Växjö Energi AB, Volvo Group employees and the local community. Carbon neutrality has been achieved by switching heating and burners from gas to renewable electricity supplies and substituting diesel forklifts with electromobility models.

OTHER EMISSIONS

In addition to carbon dioxide emissions, the Volvo Group manages other emissions of pollutants – sulphur dioxide (SO_2), nitrogen oxides (NO_x) and solvents – to the air.

The amount of sulphur dioxide and nitrogen oxide emissions is largely affected by the use of energy for heating, so the Group requires that no oil or coal shall be used for heating purposes. Emissions of organic solvents stem mainly from painting and surface treatment processes. This is a high priority issue that is subject to regulatory control in most countries.

Our strategy to decrease emissions of sulphur dioxide and nitrogen oxides involves using low-sulphur fuels and/or purification equipment. The availability of low-sulphur fuels determines emissions. Nitrogen oxides are very much dependent on the use of energy and the amount of product testing.

SO_2 and NO_X emissions

Emissions of SO_2 decreased from 26 tons in 2012 to approximately 23.4 tons in 2013. Nitrogen oxides decreased from 413 tons to 347 tons

Solvent emissions

Solvent emissions totaled 2,221 tons in 2013, representing a slight decrease of 137 tons.

ENERGY

△ △ Our long-term ambition

is to make all our production

The Volvo Group's environmental requirements for our plants include a mapping of all energy-consuming processes, implementation of efficiency utilization on a continuous basis, and a focus on energy usage in new projects.

Energy consumption

Most of the recorded energy usage is for heating and production processes, with approximately 20 percent used at the engine and driveline production facilities.

Between 2004 and 2013, the Volvo Group has decreased energy consumption in its own production processes by 29 percent and carbon dioxide emissions by 93 percent per produced unit.

The Volvo Group's energy consumption was 2,536 GWh in 2013, compared with 2,518 GWh in 2012. Our energy efficiency index – comparing energy consumption with net sales – was 9.6 MWh/SEK M, compared with 8.6 MWh/SEK M in 2012. The 2013 efficiency index has risen compared to previous years, mainly due to lower net sales in 2013.

Energy efficiency

Reducing energy usage per manufactured unit is a priority target, as it means both reduced costs and lower emissions. Energy efficiency initiatives – such as controlled lighting and ventilation, turning off equipment from idle running and replacing old machinery – have contributed to the result.

Between 2010 and 2013, measured in MWh per MSEK, total energy use at the Volvo Group level has increased.

Individual plants have been able to considerably reduce energy use during times of no production, known as idling losses. For example, the Volvo Penta factory in Vara, Sweden, has reduced its level of energy consumption at nights and weekends by approximately 70 percent since 2008, by carefully tracking and shutting down all unnecessary energy-consuming equipment.

At our Renault Trucks' cab paintshop in Blainville, France, a cross-functional team set up in 2011 has successfully mapped energy consumption and executed a plan to make significant energy and cost savings. Between 2011 and 2013, the project has saved EUR 320,000, equating to an average annual reduction of 4,513 MWh of energy and a 1,170 tons reduction in CO_2 emissions.

Positive progress in the US

In 2013, the Volvo Group joined the US Department of Energy's Better Plants program. We have committed to reducing energy usage per unit built by 25 percent over a 10 year period, compared to 2009. All six of our manufacturing and both our remanufacturing sites in the US are participating. As part of the program, we are partnering with the US Department of Energy to establish energy performance baselines, in line with their guidance and consistent with ISO 50001.

ISO 50001 is the leading international certification program for driving continuous improvements in energy efficiency. In early 2012, the Volvo Trucks' New River Valley (NRV) plant in Virginia became the first US facility to be certified to ISO 50001 standards under a pilot program supported by the US Department of Energy. The plant improved its energy performance by 25.8 percent over three years while maintaining daily truck production levels.

The Mack Trucks' Macungie plant in Pennsylvania, US, gained ISO 50001 certification in 2013. Over the past 10 years, the Macungie plant has improved its energy performance by 41.9 percent.

Both NRV and Macungie are certified to the Superior Energy Performance (SEP) – the most stringent US energy specification. SEP certification requires energy improvements of at least 15 percent. Due to improvements in excess of this, both Macungie and NRV have been awarded SEP's platinum level – the highest available.

CHEMICALS AND HARMFUL SUBSTANCES

To restrict the use of chemicals and harmful substances, the Volvo Group closely monitors all parts and components used in the vehicles produced.

Chemicals

The Group's global environmental standard for production plants requires processes for health and environmental assessment of all chemicals, paying attention to our 'black list' and 'grey list'.

Black and grey lists

Since 1996, to restrict the use of chemicals, the Volvo Group has maintained a 'black list' of prohibited chemicals and a 'grey list' of products whose use must be limited. The lists are revised annually and serve as tools for substituting harmful substances from our production processes. The databases MOTIV and FLECS contain detailed information on more than 6,000 chemical products and aims to make it easier to choose chemicals.

The Volvo Group has a process in place to fulfill the EU REACH (Registration, Evaluation, Authorization and Restriction of Chemicals) legislation, and has conducted projects to ensure compliance with it. REACH aims to evaluate and limit the risks of chemicals to health and to the environment through the implementation of control measures, including registration, restrictions, prohibitions and communication requirements. The Volvo Group is continuing its



Macungle improved its energy efficiency by 42%, earning it a platinum rating – the highest Superior Energy Performance rating available in the US.

work to streamline the internal processes for REACH compliance and adapt existing tools to reflect the content of REACH.

Harmful substances

In addition to the Volvo Group's basic requirements on our black and grey lists of chemicals, we are also required to comply with regulations covering the automotive industry.

In 2009, we adopted the Global Automotive Declarable Substance List (GADSL), which was devised between global automotive manufacturers and subcontractors. The GADSL list includes substances designated as prohibited and/or declarable within the industry.

Substrack

Substances present in parts and components are controlled through a system called Substrack, under which Volvo Group suppliers can report the material composition through the International Material Data System (IMDS). Using the Substrack system, the Volvo Group can secure compliance with global material and chemical regulations. For instance, the EU REACH regulation includes special control measures for substances in articles.

WASTE

The Volvo Group's minimum requirements on production plants include:

- sorting and quantifying all waste at source
- implementing measures to reduce the quantity of waste, increase reuse, material recycling and energy recovery
- reducing the quantity of waste consigned to landfill.

In an effort to improve material efficiency, resource usage and accounting for waste related to specific raw materials, the Volvo Group implemented a system for assessing key material usage in 2009.

Waste is usually classified as either hazardous or non-hazardous, although definitions vary from country to country and change over time. Although the Volvo Group's total amount of waste has decreased over time, changes in definitions have resulted in an increase in the amount of hazardous waste in recent years.

The total amount of hazardous waste in 2013 was 28,395 tons, compared with 32,547 tons in 2012 – a decrease of 13 percent.



New River Valley is a 1.6 million square-foot truck assembly plant. It is one of our largest manufacturing facilities in the world and our first in North America to achieve zero landfill status.

Zero landfill

The Volvo Trucks' New River Valley (NRV) assembly plant in Dublin, Virginia, in the US, is a 1.6 million square-foot truck assembly plant. It is one of the Volvo Group's largest manufacturing facilities in the world, and the company's first in North America to achieve zero landfill status.

NRV's journey began in 2003 by identifying and evaluating all solid and liquid waste streams, followed by a new framework to better coordinate recycling efforts and expand reuse, recycling and composting opportunities. Intensive evaluation of materials flow and work with parts and raw materials vendors resulted in the elimination of styrofoam and foam rubber from parts packaging. NRV also changed its paint process to capture, reconstitute and reuse solvents typically used to flush paint lines, and utilize paint sludge to help power a cement kiln. Waste reduction efforts also extend to NRV's onsite cafeteria, where all food waste, utensils, cups and containers are compostable.

WATER

Since 2010, each plant establishes targets related to water use, which will eventually lead to aggregated targets at a Group level.

The main issues in relation to water include inefficient water use and industrial wastewater treatment systems. Water consumption and emissions to water have been measured since 1990. Water is also included in the Group's minimum environmental requirements for production. This refers to substances in process water, where process water with organic content must be treated chemically or by an equivalent method. The standard also requires all plants to address sustainable usage of water resources.

Compared with net sales, water consumption continues to decrease every year, from 24.9 $\rm m^3/SEK~M$ in 2012 to 21.9 $\rm m^3/SEK~M$ in 2013.

Every one of the Volvo Group's majority-owned plants has either installed its own water treatment facilities or discharges its effluents to external treatment plants. An increasing number of plants are also installing closed process water systems.

NOISE

Noise levels from most of the Volvo Group's production plants are generally very low. The target is to ensure that the external noise level from plant operations, measured at the nearest residential property, does not exceed 60 dB(A).

There were no reported violations in 2013.

TRANSPORT AND LOGISTICS

The total volume of the Volvo Group Logistics Services in 2012 was 18,526 million ton/km. 2013 data will be available and presented during the second quarter of 2014.

We transport the majority of freight to and from the Volvo Group plants by sea and road, and a small proportion by air and rail. Carbon dioxide (CO_2) emissions resulting from freight transport and deliveries to customers are more than double the CO_2 emissions from our production plants.

Business travel is also an important contributor to our carbon emissions. We aim to reduce emissions both from our logistics and business travel.

ISO certification

All our 33 distribution centers are certified in accordance with ISO 9001 (quality) and ISO 14001 (environment) standards.

By 2012, 88 percent of the Volvo Group's major transport suppliers were certified in accordance with ISO 14001, or equivalent. Social and business ethics requirements are also included in the Volvo Group's supplier specification requirements.

Group logistics emissions

Volvo Group Logistics Services is responsible for the material logistics flow from suppliers to our plants, the storage and distribution of aftermarket products, and the distribution of new vehicles from our plants to dealers. The carbon footprint for 2012 shows ${\rm CO_2}$ emissions totaling 624,000 tons. The results for 2013 will be calculated and available in the second quarter of 2014.

Between 2009 and 2012, we reduced overall CO_2 emissions (measured in grams per ton of goods transported one kilometer) from road, rail and sea transportation of goods to and from the Volvo Group's plants in Europe by 11 percent. In 2012, we reported an increase of seven percent, which resulted from a change to the scope of our calculations.

Road

The Volvo Group requires suppliers of road transportation to comply with engine class requirements and have their drivers trained in fuel-efficient driving. These requirements are followed up by an annual supplier survey.

Data from the 2013 survey showed:

- In Europe, one percent of trucks were compliant with Euro 6; 55 percent with Euro 5; 21 percent with Euro 4 and 23 percent with Euro 3.
- In North America, 36 percent of trucks were EPA10; 10 percent EPA07; 16 percent EPA04 and 38 percent EPA98 engine-classified.
- In Asia Pacific (China, India, Japan, Korea and Australia), two percent of trucks were Euro 5; eight percent were Euro 4; 48 percent Euro 3 and 42 percent Euro 2.

Sea

A significant portion of the Volvo Group's goods are transported by sea. Since 2010, all contracted sea carriers are required to report the environmental impact of each of their vessels. The Volvo Group is a member of the Clean Shipping Index – a network of large export and import companies in Scandinavia, Germany and the Netherlands. The Clean Shipping Index aims to enhance environmental

development in the maritime industry by providing buyers of sea transport with a tool to evaluate the environmental performance of ships and shipping companies.

Packaging system

The Volvo Group uses a reusable packaging system to transport goods from material suppliers to our plants, and all the way to the production line. When empty, the packaging can be stacked, taking minimal space when freighted. The system comprises over 100 types of packaging in different materials, such as wood, plastics, cardboard and metal.

The Volvo Group has terminals around the world for collecting and cleaning packaging materials, which are reused until they no longer meet quality standards. All packaging is ultimately scrapped, with most parts being recycled into new materials or energy.

Environmental impact is a vital aspect in the development of new packaging. The Volvo Group uses a Life Cycle Assessment tool to compare the environmental impact of different packaging materials.

Business travel

In 2011, the Volvo Group initiated a project to reduce carbon emissions from business travel, including flights, hotels, rental cars, trains and virtual meetings. For instance, employees can now see the CO_2 emissions for proposed flights when booking online. We also have agreements with major rental car suppliers to increase their fleet of environmentally-enhanced cars, which we encourage employees to rent.

To further reduce CO_2 emissions we developed a Green Meeting guideline. It explains how to arrange a meeting with as less environmental impact as possible. Things to consider include locations, venues, transport, accommodation, food, and technical solutions.

Technical solutions – such as teleconferences, video or net conferences, and web cast presentations – are encouraged between meetings of individuals and smaller groups.

Distribution and service

The Volvo Group is present in more than 190 markets and sells its products through both wholly-owned and independent dealerships. The Group's products are sold under different brands, and each brand focuses on different industries and market segments. Some brands are sold globally, while others are marketed in specific regions of the world.

The Volvo Group's customers are professionals dependent on reliable products and 24/7 support if something happens. To support the Group's customers, an extensive network of dealerships and workshops is available along main routes.

More and more of our customers – especially fleet owners – want information about our CSR and sustainability performance. It increasingly influences their decision to do business with the Volvo Group.

TRANSPARENT COMMUNICATION

Clear and honest product, marketing and sales information – especially about new technology – is essential for customers to be able to make an informed choice about products and services.

Anti-greenwashing

The Volvo Group has a directive on how to communicate about environmentally-enhanced products such as hybrid solutions and vehicles that can operate on renewable fuels. The purpose is to ensure that all communication about the environmental performance of the Group's products is accurate, substantiated and does not mislead customers and other stakeholders.

Environmental product information

For many products, our customers receive an Environmental Product Information (EPI) based on the results from its life cycle assessment. The purpose is to help customers better understand the environmental impact of the product and help them make more informed choices when choosing vehicles.

The Volvo Group's EPI is divided into three sections:

- 'Production' provides information about energy consumption, emissions and waste during the production of the products
- 'Use' presents fuel consumption, emissions and spare parts utilization during the use phase of the products
- 'End of Life' deals with the scrapping and recycling of the products.

CUSTOMER SATISFACTION

In the Volvo Group's 2013 materiality assessment, customer satisfaction was ranked as the most important issue for our business and the second highest stakeholder expectation. A strong dealer network is essential for fulfilling these expectations and providing our customers with the best availability, service and parts. Significant investment in the dealership network has been made over recent years.

Quality objectives

Customer satisfaction is linked to our corporate core value of quality. One of our long-term sustainability goals is to be our customers' closest business partner.

Success in the market depends on our ability to always provide our customers with products and services that meet or exceed their expectations. We continuously listen to our customers in order to understand their needs, and promptly implement sustainable improvements in our operations based on these needs.

The success of our business partnerships with customers is based on being best at solving the customers' problems and strengthening their operational performance. To this end, we provide tailored solutions, combinations of products and services that meet their needs.

Customer satisfaction surveys

All companies in the Group measure customer satisfaction as an integrated part of the improvement work at the Volvo Group. We measure customer satisfaction for all our businesses and brands and have strategic targets by markets. Customer satisfaction is measured by established surveys.

In line with the Volvo Group Quality Policy, the Volvo Group aims to be the leader in customer satisfaction, delivering pioneering products and services for the transport and infrastructure industries. Today, in terms of customer satisfaction, we occupy a top three position in all main markets and for all our products.



2012-13 VISTA World Championship involved over 17,000 participants from 93 countries. 32 teams competed in the final in Gothenburg, Sweden.

Proactive service and 24/7 assistance

The Volvo Group's customers depend on reliable products to deliver productivity within their own businesses. By proactively informing customers that their vehicle needs to be repaired, we increase uptime, reduce warranty costs and improve customer satisfaction. If something happens on the road – such as a flat tire or a broken windshield – 24/7 support reduces the customer's downtime

support reduces the customer's downtimer and associated costs.

We use new technologies, such as telematics, to provide feedback on the performance of our products. By using new technologies in a proactive way, we are

able to diagnose early indications of faults and actively contact customers before a fault occurs.

Volvo Action Service – the road assistance service for Volvo trucks customers – is available 24 hours a day, seven days a week. The customer gets support from a case manager who speaks the customer's language and supports them until the issue has been solved. This service can also include financial assistance, trailer repair, driver repatriation or legal assistance.

Renault Trucks 24/7 Assistance service carries out immediate emergency breakdown repairs for its customers anywhere in Europe. Under its GO24 agreement, Renault Trucks undertakes to pay its long distance customers compensation if their vehicle is not back on the road within 12 hours of a breakdown.

Improving aftersales

The Volvo Group organizes local, regional and global competitions to encourage and showcase best practice among our aftermarket personnel.

VISTA

Volvo Trucks and Buses aftermarket competition – The VISTA World Championship – is the biggest competition for aftermarket personnel in the world. It is held every two years and has been running for over 50 years, attracting thousands of participants globally.

Its objective is to encourage teamwork and build team spirit and pride. It also serves as a great way for our aftermarket personnel to increase their knowledge and quality. Through VISTA, thousands of people across the world train themselves to become better at what they do every day.

The latest competition got under way in September 2012 with over 17,000 participants from 93 countries. Following a series of theory rounds and regional semi-finals, 32 teams of four people from authorized dealerships around the world made it through to the 2012-13 VISTA world final, held in June 2013 in Gothenburg, Sweden. Team Harju from Finland, were announced the winners.

Volvo Construction Equipment Masters

Volvo Construction Equipment (Volvo CE) also organizes a global competition for its aftermarket personnel, called the Volvo CE Masters. Each team consists of a team leader and three technicians – two service technicians and a spare parts technician.

Starting summer 2013, each region – Americas, EMEA, China and APAC – organizes qualification rounds, beginning at local dealer level. After advancing through various challenging exercises and heats, the winning team goes on to the regional final. Two teams from each regional final will compete in the Volvo CE Masters 2013–2014 in May in Eskilstuna, Sweden.

SUSTAINABLE DEALERSHIPS

All Volvo Group-owned dealers work according to the Group's envi-

ronmental requirements and towards fulfillment of the ISO 14001 standard. This means they receive, for example, detailed instructions on how used oils and other fluids are to be handled.

among our aftermarket personnel" fluids are to be handled.

During 2013, we completed a study on d actively contact custhe sustainability performance of our dealerships to help us measure progress and implement action plans.

Energy efficiency

▲ We organize global competitions to

encourage and showcase best practice

Since 2008, to evaluate energy saving potential, we have carried out two comprehensive energy mappings for wholly owned Volvo Trucks dealers in the UK and Sweden. This involved a detailed study conducted on site by in-house energy experts, reviewing the heating and electricity use (lighting, compressed air, office equipment, ventilation and cooling) for a period of one year. The survey results suggested an average energy saving potential of 30 percent.

In 2012, the Volvo Group established a reporting system to gather environmental data from approximately 300 Group-owned trucks dealerships in Europe. The system reports two types of figures: the energy consumption in MWh and energy cost in Euro. The aim is to analyze the data and find ways to reduce energy consumption, using the experience of the Group's production facilities. We also plan to extend this reporting to dealers outside Europe, and to independent dealers.

Renewable energy

In addition to reducing energy consumption, the Volvo Group aims to increase the usage of energy from renewable sources in its dealership network. Our dealership in Verona, Italy, was the first to install photovotaic solar roof panels to generate electricity, since then dealers in Switzerland have followed by using wood pellets for heating. In Slovakia, dealers have used thermal solar panels for heating water.

Products in use

More than two million trucks and 100,000 buses manufactured by the Volvo Group in the past ten years, operate on roads globally, and more than half a million units of construction equipment are in operation across construction sites worldwide.

Developing engines with innovative technologies to reduce fuel consumption is not enough. Driver and operator behavior also has a direct impact on the fuel consumption of vehicles, and plays a key role in preventing accidents.

FUEL CONSUMPTION

Typically, the fuel costs for a truck can represent between 25 percent and 35 percent of total haulage firm costs. At the same time, hauliers' profit margins are often very small, which means that all savings make an important difference. The part played by drivers is vital in cutting overall fuel consumption.

Eco driving

The Volvo Group has launched several eco-driving initiatives around

the world and offers a variety of training programs to optimize the skills of drivers and operators of our products. The aim of these programs is to improve vehicle knowledge and reduce fuel consumption.

On average, drivers can save five to 10 percent in fuel consumption after participating in a course on fuel-efficient driving. This reduces customers' costs and environmental impact, while better route planning can also reduce the risk of accidents.

Since 2010, we have delivered more than 76,500 days of eco-driving courses to EMEA customers through Renault Trucks and Volvo Trucks.

In Japan, the Volvo Group's UD Trucks have been running Eco Driving Seminars since 2007. In total, around 19,000 drivers have been trained and in 2013, seminars were held in 190 places with approximately 3,000 drivers participating. The results are usually very impressive, with improved accelerator, gearshift operations and speeds resulting in average fuel savings of some 8.7 percent.

UD Trucks has also built a bus that is specially designed for holding eco-driving seminars. The company plans to increase the total number of these customized training vehicles to 10 by 2015.

FUEL CHALLENGES

The Volvo Group organizes fuel challenges worldwide to stimulate fuel-efficient driving and reward especially skilled drivers and operators. These are just two initiatives that took place in 2013.



Operator Idol China attracted 164,292 excavator operator contestants in 2013 and more than 6,800 people directly participated in 34 city contests nationwide.

Fuelwatch APAC

▲ Fuel-efficient driving reduces cus-

tomers' costs and environmental impact"

The finals of the Asia Pacific (APAC) Volvo Trucks Fuelwatch competition took place in Brisbane, Australia, at the end of October. The final competition among 14 national champions was the culmination of months of challenges across the region, involving a total of

2,500 truck drivers.

The main purpose of Fuelwatch is to encourage maximum fuel efficiency when operating a truck or a fleet of trucks. It is also a competence develop-

ment effort, providing truck drivers with the opportunity to improve safety as well as efficiency skills.

The competition has been run in various formats since 2009. The last global event attracted 3,600 participants from 22 countries. The next global competition will take place in 2014 under the new name of The Drivers' Fuel Challenge.

Operator Idol China

Volvo Construction Equipment (Volvo CE) China's Operator Idol competition continues its success. The 2013 contest attracted 164,292 excavator operator contestants, 6,350 more than last year. More than 6,800 people directly participated in 34 city contests nationwide, and took part in fuel-efficient driving skills training both online and at competition sites.

The competition's Ultimate Fuel-saving Driving Challenge – including Three-ball Challenge and Fuel-saving War programs – simulated actual operating conditions to test operators' construction and fuel-efficiency techniques.

Operator Idol has successfully ignited public attention in China by combining fuel-efficiency and skills training with human interest. It has even spawned a TV spinoff called The Showdown, where viewers watch operators of Volvo excavators show off their operating skills.

Re-use

Recycling of materials and remanufacturing of spare parts is a growing part of the Volvo Group's activities. It minimizes the need for raw materials and limits the depletion of the earth's mineral resources.

REMANUFACTURING

Remanufacturing engines and spare parts is a growing industry trend and a growing part of the Group's activities. In 2013, total Volvo Group sales of remanufactured components increased by 2 percent, compared with the previous year and by 25 percent, compared to three years ago.

Remanufactured components are offered to Volvo Group customers worldwide. Engines, gearboxes, filters and rear axle transmissions can all be renovated to the same condition as new parts and our range continues to increase. Customers benefit from the same quality and a full warranty, delivered at a considerably lower price.

Environmentally, remanufacturing minimizes the need for raw materials. It also significantly reduces energy consumption and emissions. For example, a remanufactured engine saves up to 80 percent of the energy needed to build a new engine and dramatically cuts the emissions of nitrogen oxides and carbon dioxide.

Giving a second life to used engines and components is the mission of the Volvo Group's remanufacturing centers. The Group has

more than 50 years' experience and seven centers worldwide, handling used components from the Group's whole range of products. The first center opened in 1960 in Flen, Sweden. Other centers are located

in France, Japan, Brazil and the US, with the newest one opening in Shanghai, China, at the end of 2013.

eral resources"

China Remanufacturing Center

The Volvo Group continues to demonstrate its commitment to the China market by opening its first remanufacturing center in Shanghai. The initial investment in the center is up to RMB100 M over next three to four years.



Seven remanufacturing centers worldwide handle used components from the Group's whole range of products. The Group has more than 50 years' experience in this area.

The center provides chinese customers of Volvo Construction Equipment, Volvo Trucks, Volvo Buses and Volvo Penta with certified remanufactured components that meet the same quality standards as new parts, but at a considerably lower price.

This not only shares value with our customers, it also advances the practice of remanufacturing in China in general.

RECYCLING

■ Remanufacturing minimizes the need for raw

materials and limits the depletion of the earth's min-

A truck produced by the Volvo Group is largely recyclable, since almost 85 percent of its weight consists of metal – mostly iron, steel and aluminum. The additional materials are mainly plastic, rubber

and material from electronics components.

The Volvo Group has manuals and other tools to assist disassembly workers extract the most from used vehicles.

The total weight of a truck, such as a Volvo FH tractor, is approximately 7,000 kg. Today, approximately one third (30 percent) of a Volvo Group truck is produced from recycled material. Despite the high recyclability of our products, virgin material is still needed to ensure quality and solidity.



Independent recognition

The Volvo Group is always proud to receive external awards for its practice and performance. Here is a selection of external recognition awarded to the Volvo Group in 2013.

Dow Jones Sustainability World Index 2013

The Volvo Group has qualified for inclusion in the Dow Jones Sustainability World Index (DJSI World) as well as DJSI Euro Stoxx and Nordic. DJSI assesses the world's 3,000 largest companies on the basis of economic, environmental and social criteria, focusing on long-term shareholder value.

The DJSI World includes approximately 300 of the highest ranked companies, one of which is the Volvo Group. The annual assessment includes areas such as corporate governance, risk management, climate change management, sourcing and work environment. The Volvo Group received special recognition for its implementation of environmental policy and management systems.

MEMBER OF

Dow Jones Sustainability Indices

In Collaboration with RobecoSAM (

SPP Global Topp 100

The Storebrand Group's SPP Global Topp 100 fund is a global equity fund which invests in the 100 most sustainable companies in the world according to the company's analysis methodology. The Volvo Group is included in this fund. Storebrand is the Nordic region's leading provider of life insurance and pensions with a longstanding commitment to sustainability. The companies in the fund are selected from the MSCI All Countries Index. The fund is sector neutral and some adjustments are made regarding region representation to ensure that emerging markets' companies are also included.

"Prime-status" by Oekom

Oekom research assessed the Volvo Group's performance to be "Prime" and therefore qualifies the Group's tradable bonds and shares to qualify for ecologically and socially-based investment. The assessment of the social and environmental performance of a company as part of the Corporate Rating is carried out with the aid of over 100 social and environmental criteria, selected specifically for each industry.

Folksam

Folksam, a major Swedish insurance company with four million customers, uses a company's performance in environmental issues and human rights as criteria for their investments. In the assessment for 2013 they evaluated the Volvo Group as the best company on the NASDAQ OMX Stockholm to handle environmental issues. The Volvo Group has been awarded the top score on environmental management for five consecutive years. We were also announced as being among the top six companies for how we deal with human right issues.

STOXX

For the third consecutive year, the Volvo Group remains a component of the STOXX® Global ESG Leaders indices – an innovative series of environmental, social and governance (ESG) equity indices.

China Low Carbon Enterprises

Volvo Construction Equipment China was successfully elected as the one of fifteen 2013 Annual China low-carbon model enterprises, in recognition of its fuel-efficient innovation strategy and achievements in carbon reduction aspects. It was also the only winner from construction equipment industry.

Key data

ENVIRONMENTAL PERFORMANCE OF VOLVO GROUP PRODUCTION PLANTS, INDUSTRIAL OPERATIONS¹

Absolute values related to net sales	2013	2012²	2011	2010	2009	2008	2007³	2006	2005	2004	2003
Energy consumption (GWh; MWh/SEK M)	2,536; 9.6	2,518; 8.6	2,471; 8.1	2,315; 9.0	1,888; 9.1	2,530; 8.6	2,426; 9.6	2,612; 10.5	2,683; 11.6	2,695; 13.3	2,607; 14.9
CO ₂ emissions (1,000 ton; ton/	280; 1.1	235; 0.8	255; 0.8	279; 1.1	213; 1.0	291; 1.0	242; 1.0	282; 11.4	292; 1.3	293; 1.5	298; 1.7
Water consumption (1,000 m³; m³/SEK M)	5,815; 21.9	7,372; 25.2	7,970; 26.2	7,519; 29.2	6,637; 31.8	8,205; 27.8	7,067; 27.9	7,596; 30.6	7,419; 32.1	8,495; 42.2	8,687; 49.1
NO _x emis- sions (ton; kg/SEK M)	347; 1.3	413; 1.4	474; 1.6	719; 2.8	322; 1.5	800; 2.7	542; 2.1	606; 2.4	672; 2.9	645; 3.2	570; 3.3
Solvent emissions (ton; kg/ SEK M)	2,221; 8.4	2,358; 8.1	2,554; 8.4	2,294; 8.9	1,435; 6.9	1,945; 6.6	1,979; 7.8	2,048; 8.3	1,960; 8.5	2,085; 10.3	1,965; 11.2
Sulphur dioxide emissions (ton; kg/ SEK M)	23.4; 0.1	26; 0.1	34; 0.1	33; 0.1	38; 0.2	64; 0.2	58; 0.2	69; 0.3	209; 0.9	184; 0.9	200; 1.1
Hazardous waste (ton; kg/SEK M)	28,395; 107.0	32,547; 111.4	25,943; 85.5	22,730; 88	17,558; 84	27,675; 94	27,120; 107	26,987; 108.8	23,590;	24,675; 122.1	21,613; 124
Net sales, SEK bn	265.4	292.2	303.6	257.4	208.5	294.9	253.2	248.1	231.2	202.1	174.8

¹ Based on data from 67 majority-owned production plants in relation to net sales in industrial operations.

The full Volvo Group Environmental Data Report includes about 40 indicators and will be available on www.volvogroup.com/responsibility from May 2014.

ECONOMIC AND SOCIAL PERFORMANCE OF THE VOLVO GROUP

	2013	2012	2011	2010 ⁶	2009	2008	2007	2006	2005	2004	2003
Net sales (SEK M)	272,622	299,814	310,367	264,749	218,361	303,667	285,405	258,835	240,559	211,076	183,291
Operating income (SEK M)	7,138	18,069	26,899	18,000	(17,013)	15,851	22,231	20,399	18,153	14,679	2,504
Operating margin (%)	2.6	6.0	8.7	6.8	(7.8)	5.2	7.8	7.9	7.5	7.0	1.4
Number of employees ⁴	95,533	96,137	98,162	90,409	90,208	101,380	101,700	83,190	81,860	81,080	75,740
Share of women (%)	17	17	18	16	17	17	17	17	17	16	16
Share of women, presidents and other senior executives (%)	19	20	17	15	19	17	15	15	15	16	14
Employee engagement index (%) ⁵	76	76	76		_	_	_	_	_	_	
Performance excellence index (%) ⁵	75	74	_	_	_	_	_	_	_	_	
Leadership effectiveness index (%)5	71	_	_	_	_	_	_	_	_	_	_
Employee satisfaction index (%) ⁵	_	_	_	_	85	86	85	84	83	81	77

⁴ At year-end. As of 2009 regular employees are shown; previously temporary employees were also included.

² Restarted for new accounting rules.
3 Excluding UD Trucks and Ingersoll Rand Road Development.

⁵ We stopped measuring the employee satisfaction index in 2009 and replaced it with new indices. We introduced the employee engagement index in 2011, the performance excellence index in 2012 and the leadership effectiveness index in 2013.

⁶ There was no employee survey in 2010.



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Reporting scope and boundary

The Volvo Group's Sustainability Report 2013 describes how we address economic, environmental and social challenges and opportunities to contribute to sustainable development. Our aim is to present our work in a straightforward, transparent and informative way for a wide audience.

This report is structured in accordance with the Volvo Group's CSR and sustainability model – visualized as a pyramid – which is based on the ten principles of the United Nations Global Compact initiative, other internationally recognized norms of behavior, and on interviews with internal and external stakeholders. The model is included in the 'Strategic approach' section of this report.

As a member of the International Integrated Reporting Council (IIRC) pilot program on integrated reporting, the Volvo Group's Annual Report 2013 has been influenced by the Integrated Reporting framework currently under development, and includes certain CSR and sustainability information. The Group's Sustainability Report 2013 provides greater detail than the Annual Report on our CSR and sustainability progress.

This report is based on the voluntary G3.1 framework provided by Global Reporting Initiative (GRI). The full GRI Index can be found on our web-based Sustainability Report (www.volvogroup.com/sustainabilityreport) and includes references to where the information may be found.

Dialogue with stakeholders and issues in focus

The Volvo Group is a global company committed to including all our majority-owned companies in our CSR and sustainability work and having a dialogue with those who are impacted by our operations.

We have various processes in place to map stakeholders' expectations and address these issues in our business.

We believe that our Sustainability Report is an efficient channel for providing information about our practices based on our business model, business environment and operational context. By conducting interviews with internal and external stakeholders and analyzing global trends and challenges, we have identified the issues of significant material impact that we need to address, and have reported on them.

Accounting principles

The financial statement of the Volvo Group is included in the Annual Report 2013, with accounting principles detailed in note 1. In this section, we give further guidance on some of the data described in the Annual Report 2013.

Financial data

The financial data is based on the accounting principles described in the Annual Report.

Employee data

The HR data is based on principles described in the Annual Report.

The data on gender diversity originally reported in 2012 did not include Volvo Penta executives.

Number of employees completing e-learning

The Volvo Group has an IT-based system for providing and monitoring employee training. We offer several mandatory Group-wide training programs, including e-learning programs on anti-corruption, Code of Conduct and competition law. The results of this training, presented in this report, are collected from our internal IT system which reaches approximately 50,000 employees. Employees without access to our IT system have received training from their managers

in other ways. We have not included these results in the statistics.

Supplier assessment data

We have based our assessment of supplier performance on data logged on the VSIB IT-support system (Volvo Supplier Information Base). The assessment is carried out on a plant level – on the actual location to which the supplier delivers. The volume performance is calculated on the purchased value of goods used in the products, unless otherwise stated.

The Volvo Group's risk assessment is based on indices and data from internationally recognized institutions and is used to identify and prioritize our efforts on suppliers considered to be facing higher risk due to their location.

Society engagement data

In 2013 we developed a tool for systematic reporting of our society engagement activities, including projects, strategic partnerships, philanthropic donations, volunteering and sponsorships. The tool provides an aggregation of their value. While this was a Group-wide effort, it was not exhaustive and will need to be further refined in 2014.

Environmental data

At the end of 2013, the Volvo Group had 67 majority-owned production plants around the world included in environmental data reporting. In addition to our production sites, our industrial operations worldwide include several product development centers, and a large number of parts distribution centers and logistics centers. The environmental performance for industrial operation is reported in absolute values related to net sales. The Säffle factory in Sweden closed mid-2013 – all figures relating to the factory are from 2012.

Implementing environmental management systems helps to assure the quality of the reported data. Internal monitoring and control are important elements of this activity. As a means of monitoring environmental activities, the Group's environmental auditor also carries out environmental audits. In addition, the auditor is responsible for the examination of environmental data – as part of the normal plant audits and when reporting environmental data for the Group's Annual Report.

Energy consumption

Energy consumption (direct and indirect) is measured on both direct and indirect supply of energy (energy produced by parties other than the Volvo Group). We include all energy used at a plant, except for internally-recovered energy. Consumption is based on meter readings and invoices.

Carbon dioxide emissions

The total amount of energy – including energy used for heating and cooling, processes, product testing and internal transportation – is used to calculate the energy index. Carbon dioxide emissions from inbound and outbound transports and business travel are not included. Consumption is based on meter readings and invoices.

Water consumption

Water consumption includes drinking water, industrial water and

steam. Consumption is based on meter readings and invoices.

Emissions of sulphur dioxide and nitrogen oxides

These emissions are based on the use of energy and the amount of product testing in test rigs. Consumption is based on meter readings and invoices.

Hazardous waste

National regulations in the countries where we operate are used to divide generated waste into hazardous and non-hazardous. Consumption is based on meter readings and invoices.

Emissions of solvents (VOCs)

The emission of solvents arises mainly from painting and surface treatment processes. Consumption is based on meter readings and invoices.

Scope and boundary of the report

Unless otherwise stated, the Sustainability Report 2013 encompasses companies fully consolidated in the Volvo Group. Our financial performance and information regarding the Volvo Group's Corporate Governance is available in the **Annual Report 2013** at www.volvogroup.com/investors.

Data collection and verification

The process for collecting environmental data is audited by a third party and certified in accordance with ISO 14001. Due to the reorganization of the Volvo Group, some data on an aggregated level for the Group is unavailable.

The Volvo Group Sustainability Report 2013 has not been audited by a third party. Although we acknowledge the value of sustainability report auditing, we have opted to give priority to developing our in-house process in an effort to further improve our work. Parts of the data in this report are also presented in our **Annual Report 2013**.

Standards

The Volvo Group's Sustainability Report 2013 adheres to the following internationally recognized voluntary standards and principles:

- · Global Reporting Initiative G3.1 guidelines
- United Nations Global Compact principles for Communication On Progress for the implementation and reporting of the Group's sustainability work.

A table with full GRI indexing for this report can be found at www.volvogroup.com/sustainabilityreport.

GRI index

The Volvo Group applies the GRI (Global Reporting Initiative) G3.1 guidelines for sustainability reporting. This framework (G3.1) sets out principles and indicators for measuring and reporting economic, environmental and social performance.

The table featured in our web-based report provides references

to where the indicated GRI-information can be found in the Sustainability Report 2013. In some cases, reference is made to content in the Volvo Group **Annual Report** or the **Corporate Governance Report** for 2013. The Volvo Group has self-declared this report as meeting the GRI G3.1 Application Level B.

The Volvo Group aims to prepare future sustainability reports in accordance with the GRI's new G4 guidelines that were introduced in 2013.

Communication On Progress

The Volvo Group has been a signatory to the United Nations Global Compact since 2001. We submit our Communication On Progress report annually. This Sustainability Report describes our work to advance the Global Compact's ten principles in our daily operations as well as in our strategies.

References

Annual sustainability reports

The Volvo Group has published annual sustainability reports since 2007. The Sustainability Report 2013 was published end of March 2014 on www.volvogroup.com/sustainabilityreport. More information on sustainability and previous reports are available on the Volvo Group's website: www.volvogroup.com/responsibility.

Environmental Data Report

The Volvo Group has published environmental reports since 1991. These reports are available on **www.volvogroup.com/responsibility** and contain the environmental performance of our industrial operations. The 2013 report will be available in May 2014.

Annual Report

The Annual Report 2013 was published on March 12, 2014 and includes the **Corporate Governance Report**. The report is avail-

The Global Compact

In 2001, the Volvo Group signed Global Compact, the United Nations' initiative on socially responsible business.



able on www.volvogroup.com/investors.

Disclaimer

Any links to external or third-party websites in the Volvo Group Sustainability Report 2013 are included solely for the reader's convenience. You make use of any links, and rely on the information contained on such external websites at your own risk. The Volvo Group does not give any representation regarding, nor accepts any liability for the quality, safety, suitability or reliability of any external websites or any of the content or materials contained therein.

This report contains forward-looking statements. Such statements reflect management's current expectations. Although management believes such statements to be reasonable, no assurance can be given that such expectations will prove correct. Such statements are subject to risks and uncertainties and such future events could differ materially from those set out in the forward-looking statements as a result of, among other factors (i) changes in economic, market and competitive conditions, (ii) success of business and operating initiatives, including research projects, (iii) changes in the regulatory environment and other government actions and (iv) business risk management. This report does not imply that the company will revise the forward-looking statements.

Audrey Grandjean, at the CSR management department at Volvo Group Headquarters, was the project leader for the Sustainability Report 2013.



Our Addis Ababa vocational training pilot project in Ethiopia has been followed by a new 5-year partnership with Sida and USAID to provide vocational training in 10 African countries.

Contact

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Responsibility for the publication of the Sustainability Report 2013 is taken by Niklas Gustavsson, Executive Vice President, Sustainability and Public Affairs, Volvo Group Headquarters.



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