Freedom to Move
in a personal, sustainable
and safe way.

VOLVO CAR GROUP

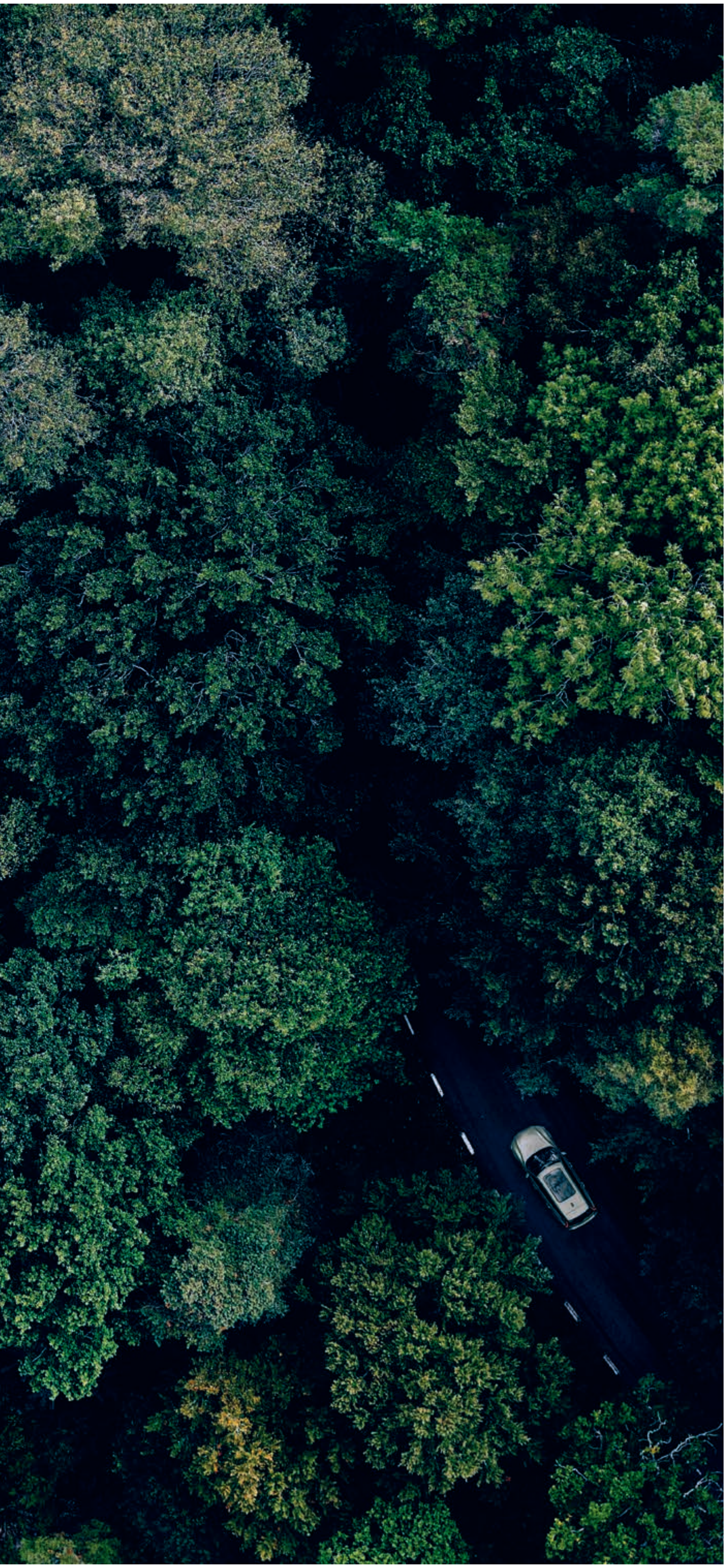
ANNUAL REPORT 2018

FREEDOM TO MOVE

IN A PERSONAL, SUSTAINABLE AND SAFE WAY

A GLOBAL FOOTPRINT

Our cars are produced in factories around the globe; Gothenburg in Sweden, Ghent in Belgium, Chengdu, Daqing and Luqiao in China and Charleston in the US. Our mobility and subscription services are developed in Stockholm and Gothenburg in Sweden for consumers all over the world. Together our operations deliver on consumer demand for current and future mobility. Volvo Car Group is headquartered in Gothenburg, Sweden.



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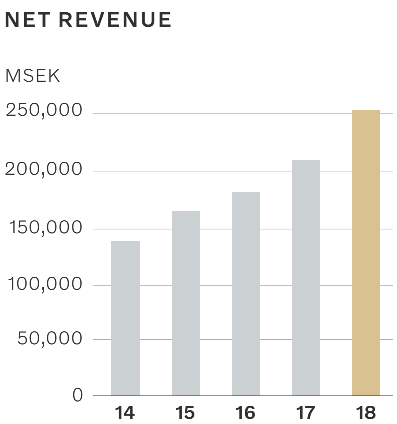
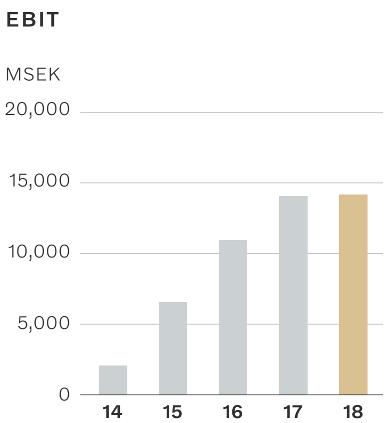
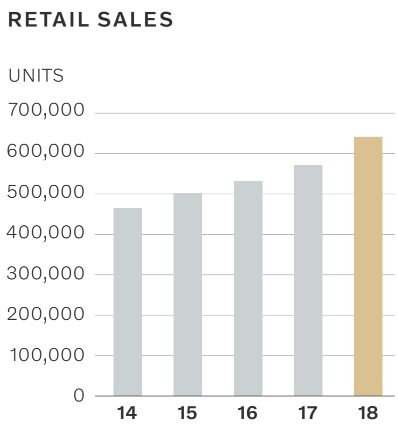

NET REVENUE
MSEK
250,000
200,000
150,000
100,000
50,000
0
14
15
16
17
18


EBIT
MSEK
20,000
15,000
10,000
5,000
0
14
15
16
17
18


RETAIL SALES
UNITS
700,000
600,000
500,000
400,000
300,000
200,000
100,000
0
14
15
16
17
18

2018 in Brief

First US manufacturing plant inaugurated

The production start of the new S60 in the Charleston plant was a proof point of our strategy to build where we sell. The Charleston plant confirms our expanded manufacturing footprint and established the company as a truly global car manufacturer with plants in all three regions.

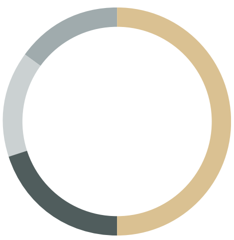
Portfolio renewal completed

With the S60 and V60 launched, our portfolio renewal was completed.

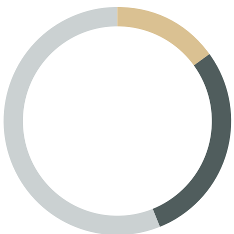
For the second consecutive year ...

Volvo Cars was recognised as one of the World's Most Ethical Company® by the Ethisphere Institute.

RETAIL SALES BY MARKET



RETAIL SALES BY CARLINE



KEY FIGURES

MSEK	2018	2017
Net revenue	252,653	208,646
Research and development expenses	–12,098	–10,187
Operating income, EBIT	14,185	14,061
Net income	9,781	10,225
EBITDA	28,593	26,159
Operating and investing cash flow	4,705	–3,800
Net cash	18,029	12,513
Gross margin, %	20.0	22.4
EBIT margin, %	5.6	6.7
EBITDA margin, %	11.3	12.5

Market Highlights

Volvo Cars reached a new milestone in 2018, selling over 600,000 cars for the first time in its history. This key step in our ambitions follows double digit growth across 7 of our top 10 markets, contributing to a global growth of 12 per cent.

EUROPE	CHINA
↑ 7%	↑ 14%
318,235 (298,948) UNITS	130,593 (114,410) UNITS

INDUSTRY DEVELOPMENT

The auto industry in Europe recorded a slight decline, marked by new WLTP (Worldwide Harmonised Light-duty Vehicles Test Procedure) rules which were implemented in September 2018, creating a sell-off prior to the implementation and testing bottlenecks post the implementation.

The auto industry in China experienced its first decline in auto sales in over 20 years, dipping 5.7 per cent during 2018. Despite softening, the premium market delivered growth of 8.5 per cent.

SALES PERFORMANCE

Volvo Cars' sales growth remained resilient, driven by SUV sales following the introduction of the popular Volvo XC40 during the year. All main markets resumed growth apart from Sweden, due to one-off events in the market.

Despite market headwinds, strong demand continued for Volvo cars in China, achieving double digit growth and driven by the locally produced S90 and XC60, followed by the XC90.

US

↑ 21%

98,263 (81,504) UNITS

The US car market recorded a small 0.3 per cent growth, as growth in the light truck segment was offset by a decline in the passenger car segment. Despite this, demand for premium XS SUVs was on the rise.

Growing faster than the local market, Volvo Cars recorded growth above 20.0 per cent driven by strong demand for our award-winning SUV line-up, especially our newest models the XC40 and the XC60.

OTHER

↑ 24%

95,162 (76,715) UNITS

In other regions, the auto industry fell in Japan and Canada by 1.5 and 1.9 per cent, and increased in Russia and Brazil by 12.8 and 13.1 per cent, respectively.

Retail sales growth in other markets remained robust at 24.0 per cent, driven by higher demand for our SUV portfolio. The biggest market was Japan whereas the fastest growing market was Brazil at 88.8 per cent.

CEO Comment

For the first time in our history, we broke the 600K mark with 642,000 cars sold. Our award-winning SUV line-up together with our strengthening brand continue to drive demand and we have gained market share across all our regions, despite geopolitical uncertainties.

With the XC40, the Group has successfully entered a new and fast-growing segment. In total, revenue grew 21 per cent, another important step on our growth journey.

Operating income remained flat at SEK 14bn which, considering new tariffs and increasing price competition, especially in China, is an acceptable result. However, our margin decreased, and does not live up to our longer-term ambitions. Encouragingly, our free cash flow for the year remained positive even after our strategic investments in technology and increased capacity.

In Europe, one factor driving our growth was we offered all cars in line with the new WLTP emission standards without delay, which very few competing brands managed. Investments in our global manufacturing structure, including the new US plant, have been well timed considering emerging tariff issues. In this respect, we have promoted balanced free trade, which we believe is best both for the industry and the consumer.

We continued our electrification transformation as our Twin Engine sales increased by 65 per cent, reaching an 8.5 per cent share of our total SPA car sales. Polestar, our affiliate company revealed its first fully electric car, the Polestar 2, in February 2019. It will be followed by a fully electric Volvo XC40, based on the same technology shared between Volvo Cars and Polestar.

Our sustainable approach to business will continue to influence both our products and our operations. We will focus on minimising our environmental impact and taking social responsibility, while generating economic value. Our commitment and support for the UN Global Compact and to conduct business in a responsible manner remain strong.

Strategic partnerships are a crucial part of our strategy for autonomous driving development. Following our collaboration with Uber, we intend to join forces with Baidu and have deepened our ties with NVIDIA.

Looking ahead, we see a continued positive market segment in Europe and the US. In China, the demand for cars has softened for the first time in recent history, though to a lesser extent in the premium segment.

> "We have a unique opportunity to scale our business and improve our brand awareness."

During 2019, we plan to continue driving growth in our sales globally, and increase our market share, even though this will mean continued pressure on our margins. With our strong and very competitive product offering, we have a unique opportunity to scale our business and improve our brand awareness, which is key for Volvo Cars' strategic development.

Håkan Samuelsson
President and CEO

THE WORLD AROUND US

The automotive industry is currently going through a significant transformation driven by changing consumer behaviours, technology shifts and digitalisation. This will open up interesting opportunities for progressive players who are willing to drive the progress.

Changing Consumer Demands ...

A number of major macro trends are impacting our operations including the importance of convenience, extensive and rapid digitalisation, ongoing urbanisation and an ever growing focus on environmental and social responsibility.

CONSUMER CONVENIENCE

As the world develops, luxury is being redefined as time. Driven by digitalisation and technical innovations, new solutions that increase convenience and free up time, are continuously being offered. An increasing number of people seek access to products and services when they are needed and pay per usage instead of owning a product and having to take care of it. Consumers are now used to buying products and services in a digitised world with 24/7 service access and total transparency in terms of what they are paying for.

Convenient mobility

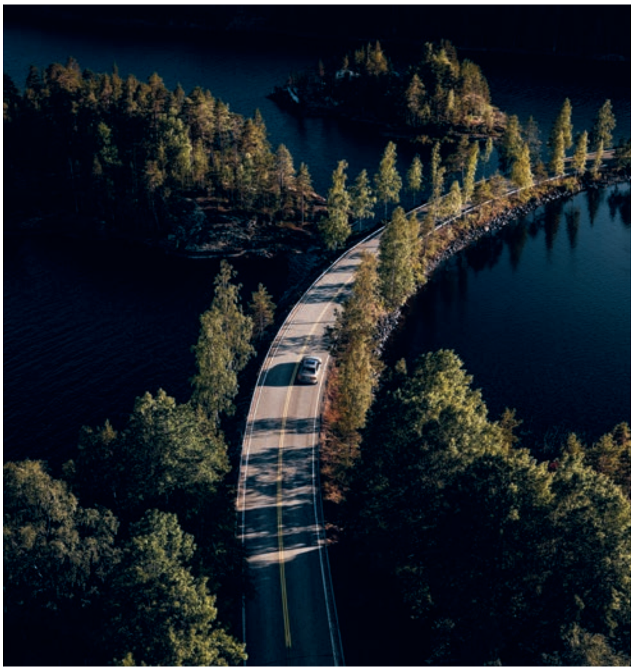
Convenience is becoming increasingly important to mobility as well. People seek flexibility in solving their mobility needs, from always having access to a car, to just getting from A to B. When evaluating and signing up for cars or mobility services, consumers want flexibility in terms of how, where and when they use a car or service. They expect seamless integration with other parts of their lives and a smooth experience.

DIGITAL LIFESTYLES

Smartphones are now naturally integrated into the daily lives of any digital native. The digitally savvy population is connected, open, outspoken (on social media) and look to interact with the world around, acting in digital ecosystems that they expect to access always and everywhere.

Seamless integrations

A digital lifestyle also requires seamless integration with a car. A car should not act as a barrier to connectivity. Consumers want that experience to continue through their daily life. They also expect to have a digital relationship with the car brand, ranging from getting information when evaluating a car or service via making the purchase, to getting service and support while using it.



SUSTAINABILITY

There is a growing global awareness of the importance of making our planet cleaner, safer, fairer and more prosperous. Consumers are increasingly attracted by companies that put sustainability high on their agendas. This is particular true of younger generations, who are increasingly interested in working for environmentally and socially responsible companies.

Environmental industry drivers

The production and usage of cars have a negative impact on the environment. Tailpipe emissions contribute to global warming and pollute the air, particularly in urban areas. This has led to regulatory restrictions on both CO_2 and NO_x emissions, and has helped to push the industry's drive towards electrification. This also applies to manufacturing and logistics operations, suppliers and the selection of materials. Electrification also presents new sustainability challenges for the industry, including the second life of lithium-ion batteries and responsible mineral and metal supply chains.

URBANISATION

Urbanisation as a megatrend is leading to growing cities and today 55.0 per cent (approximately 4 billion) of the world's population lives in urban areas. In 2030, 60.0 per cent (or approximately 6.5 billion) is expected to be urban. Growing populations have an impact on the available city space and pollution levels. For cities to stay attractive, they aim to be increasingly liveable, workable and sustainable. To achieve this, the most progressive cities search for smart solutions across all areas of its scope, including energy, transportation, health, education and security.

Broad scale mobility solutions

With urbanisation, more vehicles are expected in cities, creating increased problems in terms of bad air quality and congestion. The focus on reducing pollution and congestion as well as increasing traffic safety and freeing up space, is therefore high on cities' agendas. As a consequence diesel bans, congestion taxes, incentive schemes for car/ride-sharing and integrated mobility solutions are now being rolled out on a broad scale.

… and Technology Shift …

In recent times, we have seen significant investments in electrification, autonomous driving and connectivity and the trend is expected to continue over the coming years. The shared mobility landscape is evolving very quickly with new products and services launched by incumbents and new players every week.

ELECTRIFICATION
THE NON-NEGOTIABLE FUTURE

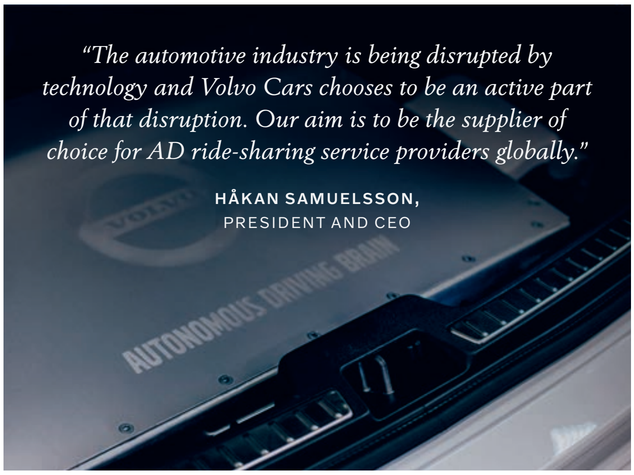
The development around electrified mobility is driven by car OEMs, consumer demands, societal movements and political agendas. Sustainable and clean mobility, and reduced emissions are in focus. The speed of transformation to fully electrified vehicle drivelines depends on multiple factors, amongst which cost and total cost of ownership are critical. As battery prices drops, electrified vehicles are expected to become cheaper which is likely to fuel consumer demand.

THE VOLVO CARS APPROACH

- One of the first brands to be fully compliant with new WLTP testing standards, with one model compliant one year ahead
- All new models to be electrified by 2019 and a longer term ambition of 50 per cent of car sales to be pure electric
- Plug-in hybrid vehicles will be offered on all SPA/CMA models

AUTONOMOUS DRIVING
SAFETY IS KEY

AD has the potential to disrupt the automotive industry by itself and to unlock a number of benefits for the mobility consumer, such as creating a safer traffic environment, enabling a more efficient utilisation of vehicles, and freeing up valuable time for the consumer. Many hurdles are still to be overcome, however both technology companies and traditional car OEMs are now investing heavily in the development of autonomous vehicle technology.

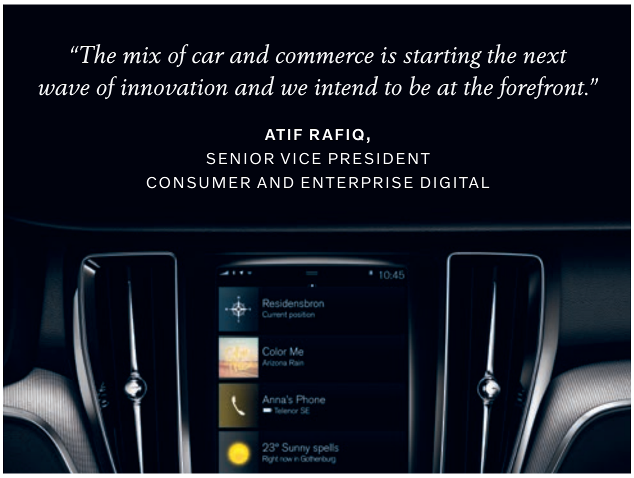


THE VOLVO CARS APPROACH

- Aim to be first to commercialise AD on wide scale to offer our consumers a safe and reliable way of freeing up time behind the wheel
- A leader in safety – brand recognition among current and potential consumers, legislators and partners
- Agreements in place with Zenuity and Uber and ongoing discussions with other possible partners such as Baidu

CONNECTIVITY
KEY ENABLER FOR NEW BUSINESS MODELS

Within a near future nearly all cars are expected to be connected. With connected cars and increased consumer insight through data, new digital services and consumer offerings are likely to emerge. Cars can be upgraded with new software over-the-air. Consumers can manage settings in their cars via their smartphones. Mobility services that connect drivers with riders will grow. With more connected cars, data security and privacy will be key for all actors in the value chain.



THE VOLVO CARS APPROACH

- All new cars produced are internet connectivity enabled
- Shopping deliveries straight to the boot of your car, including via amazon.com
- Our next generation of Sensus will run on Android, making new apps and software updates available in real-time which will allow future Volvo cars to react to customer needs by offering drivers up-to-date information and predictive services
- Transition to direct consumer relationships initiated in constructive dialogues with our retail partners

SHARED MOBILITY
ADDRESSING NEW CONSUMER SEGMENTS

Shared mobility is expected to grow based on changing consumer preferences, urbanisation, technology advancements and political forces. The usage of shared mobility complements private car ownership and public transport by enabling sharing of cars or sharing of rides. The new mobility industry is currently very dynamic. In some market segments, a couple of mega players have gained strong positions. Many new entrants are also present, some being car OEMs or mobility provider spin-offs, while others are tech start-ups. Shared mobility is expected to increase when sharing of autonomous and electrified cars is available.

THE VOLVO CARS APPROACH

- Care by Volvo – no more bargain-hunting for a car; transparent, hassle free way of subscribing to a car
- Full scale international subscription offering
- Volvo Car Mobility AB, which will provide services under the brand M, the mobility service ('M'), aims to offer smooth digital interface for choosing a car on-the-go
- Experience since 1998, with profitable traditional car sharing via Sunfleet
- Develop existing and new business models in parallel

… Opens New Opportunities

The automotive industry is undergoing significant technological and commercial changes. Electrified, autonomous, connected and shared cars are impacting the transformation towards a service based business model.

New business models emerging

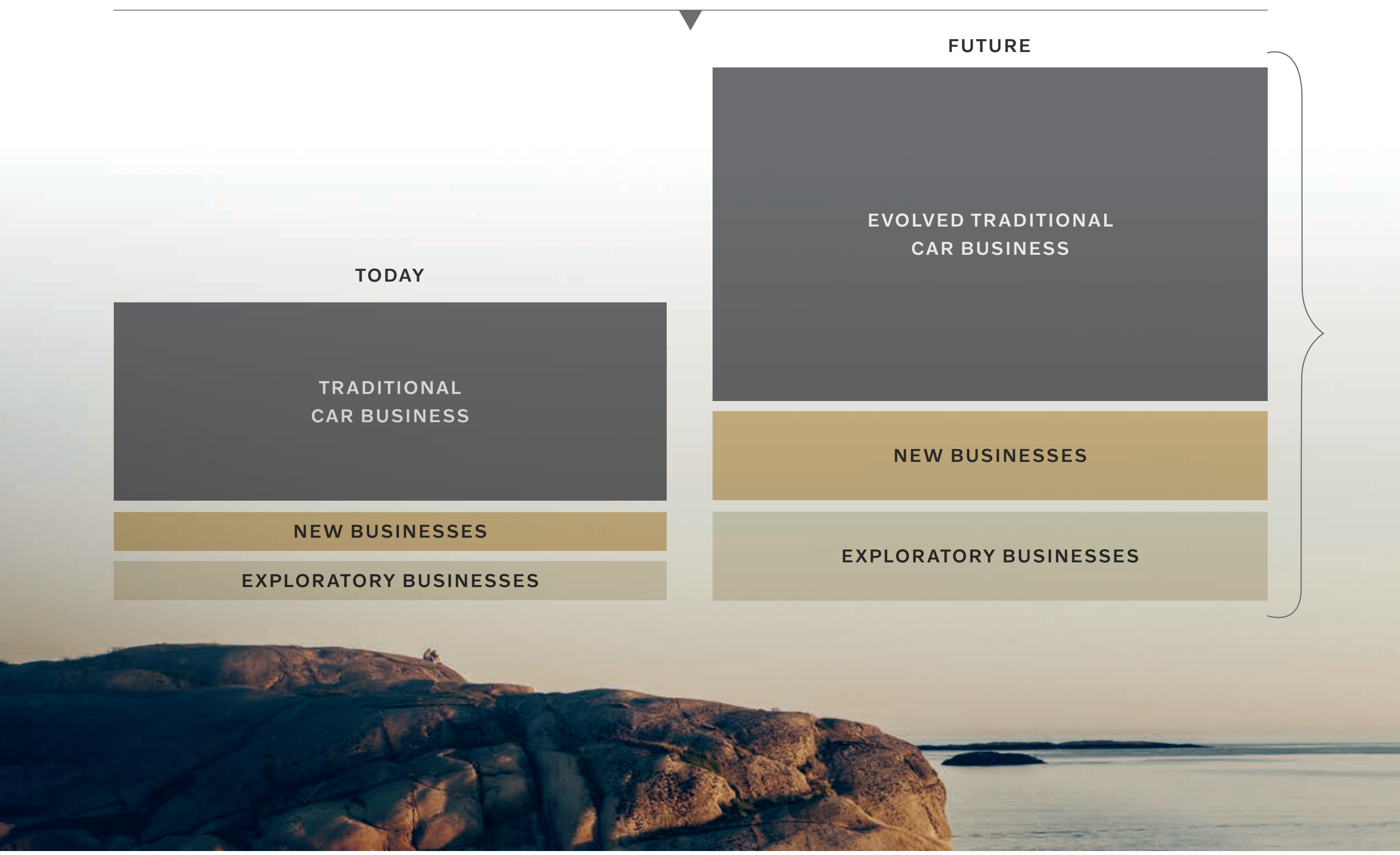
The transition from the traditional core business 'Car-as-a-Product', to the 'Car-as-a-Service' businesses, is driven by new mobility models, connected cars and digitalisation. Related business models are expected to shift from focusing on more or less just selling cars, to also focus on the sales of full and flexible automotive mobility services.

Traditional OEMs are acting to meet the changing needs of consumers in how they access goods and services. Business models are therefore evolving to capture the opportunities and develop more direct relationships with consumers. The transition from running a traditional OEM business, to successfully compete within the mobility segment with direct consumer offerings, may take several years. The way in which consumers access services and companies manage their internal capabilities and processes, needs to evolve.

The Volvo Cars approach – collaboration with our dealers is key

Our dealer network is the principal route to market. Our dealers play a key role in our transition regardless sales channel, as they are delivering and servicing both our cars and consumers. By working in collaboration with our dealers around the world, we evolve our business model to embrace digitalisation. By expanding our car sales business to also include direct consumer businesses, we aim to capture new opportunities that come with the changing automotive industry.

AUTOMOTIVE INDUSTRY

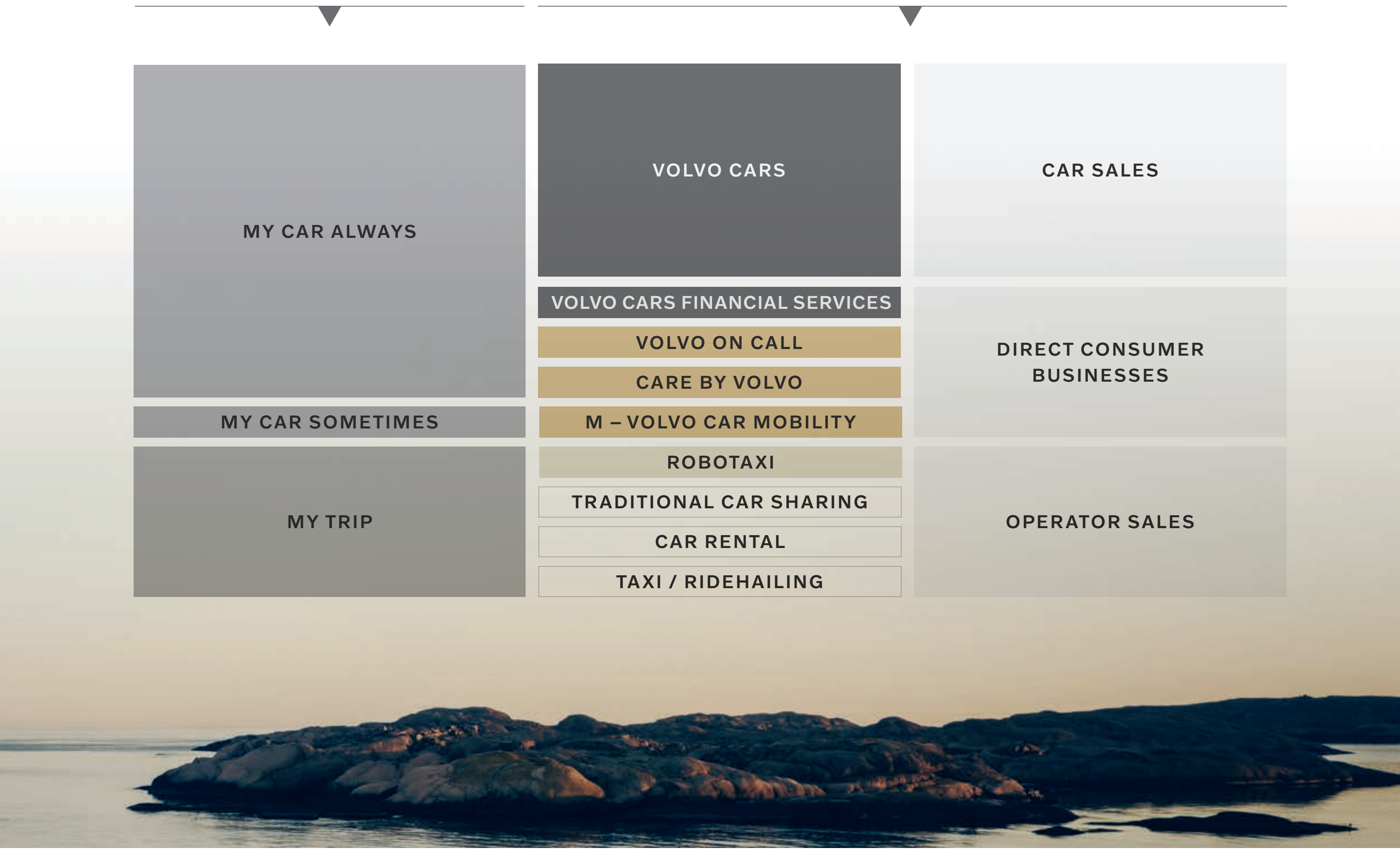


Direct Consumer Businesses – we create direct consumer relations in several ways; through Volvo Cars Financial Services we offer a full range of attractive financing and insurance products, and by Volvo On Call we connect our consumers with their cars and provide connected car services. In addition, we launched Care by Volvo in 2017 as a new subscription-based car access model, which allows our consumers to have a car simply by paying an all-inclusive prescribed monthly subscription fee. Also, we have been present in the car-sharing operations for quite some time and have a 100 per cent ownership of Sunfleet. In 2018, we launched a new mobility brand M – Volvo Car Mobility, which offers leading software solutions with consumer centric software and hardware innovations. M will also contribute to the development of important capabilities for Volvo Cars, such as demand, supply and operational fleet management in addition to building an eco-system of partners to develop additional services to enhance revenue opportunities.

Operator Sales – we are are well-positioned to take a share of the operator sales market as it grows. Our position as a leader in safety, the experience we have gained and the technology the Group has developed through partnerships with disruptive forces, have provided us with a first-mover advantage in the robotaxi market.

CONSUMER'S VIEW OF MOBILITY

INDUSTRY'S VIEW OF CHANNELS AND CORRESPONDING ILLUSTRATIVE BUSINESS MODEL FOR VOLVO CARS



The Volvo Car Group

The shared purpose of the companies within the Volvo Car Group, is to enable Freedom to Move in a personal, sustainable and safe way. We aim to develop strong and innovative consumer offerings from each of the businesses within the Group, but also through cooperations with strategic affiliates and other partners. Working together and making good use of industrial and commercial synergies, are expected to bring benefits to our consumers, as well as to the individual businesses outside the Volvo Car Group.

CAR SALES AND OPERATOR SALES

STRONG BRAND WITHIN THE PREMIUM SEGMENT

Volvo Cars designs, develops, manufactures and sells a range of premium cars and services, including sedans, wagons and SUVs. The range of premium cars is recognised for its design, safety and technological innovation. The cars are designed and developed by award-winning teams at design centres in Sweden, China and the US. Inspired by the design of modern high-tech sports equipment, we believe that our cars are sophisticated, safe and attractive for people with an active lifestyle. In addition, our Swedish heritage and strong connection to the Scandinavian lifestyle are reflected in our Scandinavian design.

- Profitable core car business
- Safety leadership
- Global industrial and commercial presence
- Development and sales of base cars to robotaxi operators
- Strong modular product architectures

DIRECT CONSUMER BUSINESSES

CARE BY **VOLVO**

SUBSCRIPTION SERVICES – MY CAR ALWAYS –

Care by Volvo represents a new business area within the Group capturing a new innovative, direct consumer business. It aims to expand our core business of car sales, by offering consumers the opportunity to subscribe to our cars. With Care by Volvo, we broaden our consumer relationships. We are also aiming for capturing a greater share of the value chain, for Volvo Cars and our retail partners, as we are expanding into new markets and consumer segments.

- Offering a flexible range of services
- Capturing wider part of the value chain
- Recurring revenues

SOLUTIONS AND SERVICES FOR SHARED MOBILITY – MY CAR SOMETIMES –

M – Volvo Car Mobililty, is a global mobility service, which aims to meet the demand of urban consumers who sometimes desire the freedom that a car can provide. With M, we intend to increase our on-demand easy access to Volvo cars, building direct relationships with new consumer groups. We recognise the challenges that large cities face with increasing congestion, accidents and pollution, and want to be a partner in solving urban mobility needs by providing an alternative to car ownership, as well as complementing public transport and taxis.

- Building Volvo Cars brand and consumer base
- Offering ecosystem of services
- Building relationships with progressive cities

OUR STRATEGIC AFFILIATES

Volvo Cars is open to partnerships since we believe that teaming up with other players, is a great way to access technologies, get flexibility and build capabilities. Our partnerships give us access to markets and enable us to focus on enhancing the consumer experience and other key dimensions of our strategy.

The collaborations with our strategic affiliates Polestar, Lynk & Co and Zenuity are strong, and together we create synergies and competitiveness. We will benefit from industrial synergies in the development of next generation technologies, shared procurement costs, joint development processes and economies of scale.

Polestar

PROGRESSIVE ELECTRIFICATION

Polestar is a new progressive electric performance brand, developing and bringing electrified and fully electric cars to the market at a different price point and to a consumer segment not currently served by Volvo Cars. Given Polestar's Chinese production base, and Geely's 50 per cent ownership, Polestar is also well-placed to gain market share in the fast-growing Chinese electric vehicle market.

- Capturing new premium market consumer groups
- Shared electrification development costs with Volvo Cars
- Potential benefits in relation to Chinese electric vehicle market

VOLVO CARS 50% OWNERSHIP

LYNK&CO

CAPTURING NEW MASS MARKET CONSUMER GROUP

Lynk & Co addresses the market with a differentiated, modern mobility brand targeting younger consumers with focus on connectivity, sharing and flexibility. In addition to its current focus on the Chinese market, Lynk & Co plans to launch in Europe with flexible direct sales offerings to its consumers. With the ownership in Lynk & Co, Volvo Cars seeks to benefit from collaboration and other opportunities by having access to a mass market segment that Volvo Cars is not currently in.

- Scale, learning and sharing of experiences related to direct ways to consumers

VOLVO CARS 30% OWNERSHIP

ZENUITY

A MARKET LEADING ADAS/AD SOFTWARE DEVELOPER

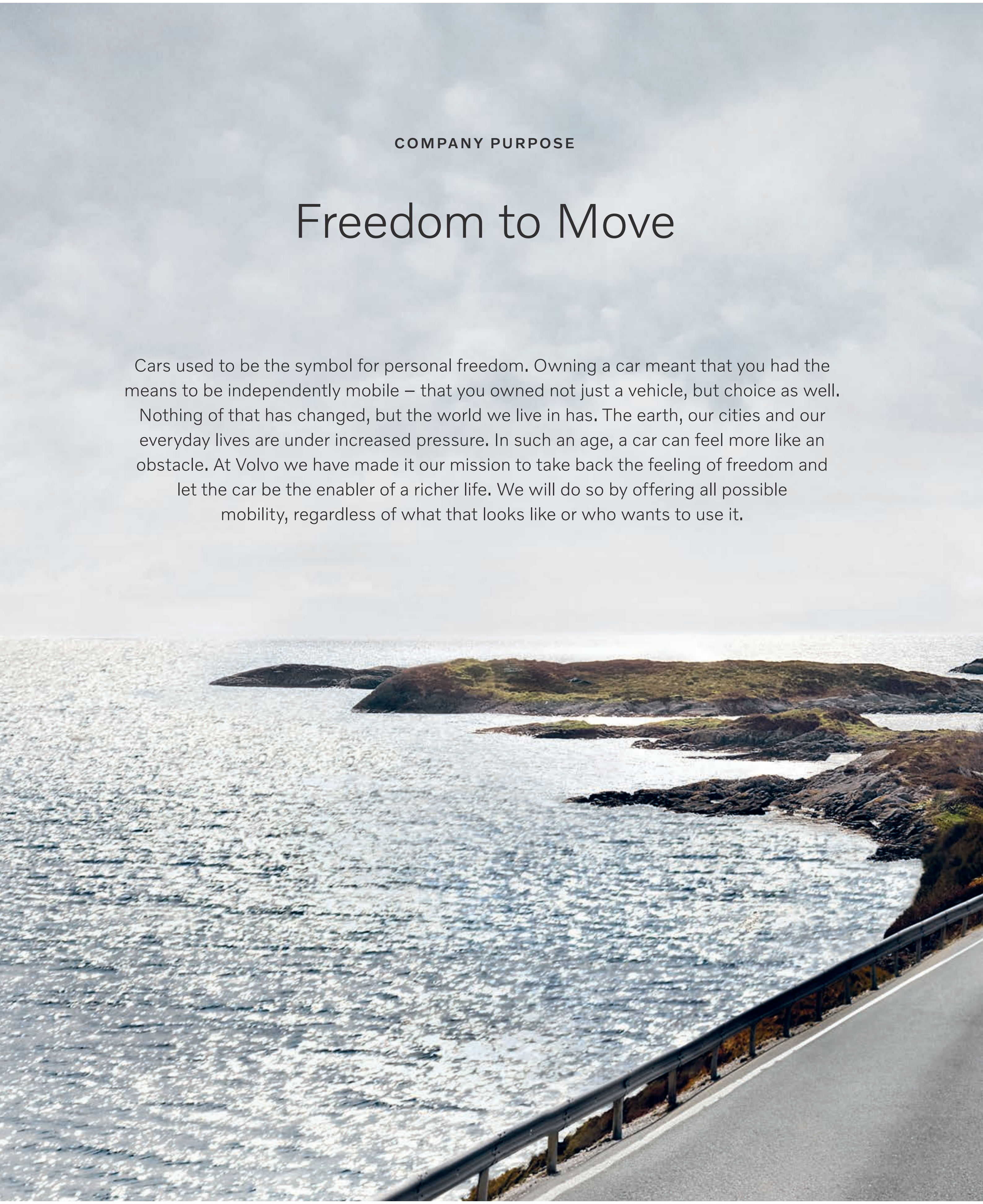
Zenuity is developing advanced ADAS and AD software and is a joint venture with Veoneer (a spin-off from Autoliv). Volvo Cars' expertise in active safety combined with Veoneer's market position as a tier 1 supplier, positions Zenuity well to capture future significant revenue in a growing ADAS and AD market space. Zenuity's full stack software solutions include algorithms for functions ranging from from sensing to vehicle control and target a variety of applications from ADAS to advanced AD cars. Zenuity's software architecture is designed to be scalable. With a scalable software architecture, Zenuity seeks long-term relationships with customers that will enable initial sales of ADAS software to gradually develop into full AD software stack sales.

- Cost sharing synergies within product development
- Revenues from sales to 3rd party

VOLVO CARS 50% OWNERSHIP

OUR STRATEGIC JOURNEY

Guided by our purpose of providing Freedom to Move in a personal, sustainable and safe way, Volvo Cars is transforming from a traditional OEM to a mobility provider with multiple companies and brands joined together, either as subsidiaries or strategic affiliates. Making good use of economies of scale brings benefits to our consumers, the individual businesses and the Group as a whole.



COMPANY PURPOSE

Freedom to Move

Cars used to be the symbol for personal freedom. Owning a car meant that you had the means to be independently mobile – that you owned not just a vehicle, but choice as well. Nothing of that has changed, but the world we live in has. The earth, our cities and our everyday lives are under increased pressure. In such an age, a car can feel more like an obstacle. At Volvo we have made it our mission to take back the feeling of freedom and let the car be the enabler of a richer life. We will do so by offering all possible mobility, regardless of what that looks like or who wants to use it.

PERSONAL

We commit to develop and build the most personal solutions in mobility – to make life less complicated and to protect your freedom to spend time and energy on the things that matter most. Our products and services are personalised, familiar and luxurious.

SUSTAINABLE

We commit to the highest standard of sustainability in mobility to protect the world we share. We are authentic, responsible change-makers. Our ethical values run through everything we do.

SAFE

We commit to pioneering the safest, most intelligent technology solutions in mobility and everyday life to protect what is important to people.

Strategic Framework

COMPANY PURPOSE | **LONGER TERM AMBITIONS AND STATUS 2018**

FREEDOM TO MOVE

IN A PERSONAL, SUSTAINABLE AND SAFE WAY

DIRECT CONSUMER RELATIONS > 5 MILLION

We are building our consumer relations through Volvo Cars Financial Services and Volvo On Call, as well as our new subscription offering Care by Volvo and shared mobility concept M. As we progress, and our new mobility solutions are made available to a larger number of markets, the number of consumer relations are expected to increase. We believe we are well on the way to reach our longer term ambition.

SUBSCRIPTIONS WITH RECURRING REVENUE 50%

During 2018, our subscription offering Care by Volvo was rolled out to 8 markets. Going forward, as we continuously enter a larger number of markets and contracts, we expect the portion of recurring revenue to increase.

PURE ELECTRIC CARS 50%

In 2018, hybrid sales increased by 65%, indicating consumer demand for our electrified products. This also indicates our electrification strategy is delivering according to our expectations, which puts us in a good position for next steps ahead.

AUTONOMOUS CARS 30%

During 2018, work continued with developing AD capability, and so did our collaborations with major players in the soft- and hardware areas, altogether moving us closer to reaching our longer term AD sales target.

NATURALLY HEDGED GLOBAL PRODUCTION

In 2018, we inaugurated the US plant, hereby establishing a global footprint which will support the eventual need of reallocating production capacity to meet challenges in global market conditions.

SUPERIOR GROWTH

2018 was the fifth consecutive year of growth in terms of global retail sales and net revenue. Benefiting from our renewed product portfolio and increased production capacity, we expect that to continue in 2019.

PREMIUM PROFITABILITY

The 2018 EBIT margin reached 5.6 (6.7)%. Due to global market conditions, the pressure on margins is expected to continue in 2019. Our strong and very competitive product offering, and the strategy we have set out, give us however confidence in reaching our longer term profitability ambition.

OUR STRATEGIC JOURNEY

Ever since we started our transformation, we have taken many important steps resulting in clear and positive effects on our operations and finances. The first step on our strategic journey focused on establishing a stable and strong platform for continued profitable and sustainable growth. The second step focuses on the next phase of safe mobility, including a strong focus on direct relationships with consumers, sustainability and AD.

STEP 1: COMPANY TRANSFORMATION

1. STRENGTHENED BRAND
2. COMPLETELY NEW VEHICLE RANGE
3. TRULY GLOBAL PRESENCE
4. STANDALONE GOVERNANCE

STEP 2: GAME CHANGING BUSINESS TRANSFORMATION

5. PERSONAL AND DIRECT RELATIONSHIPS WITH CONSUMERS
6. SUSTAINABLE PRODUCTS AND BUSINESS
7. SAFE MOBILITY WITH LEADING AD TECHNOLOGY
8. PURPOSE DRIVEN ORGANISATION

2018

STEP 1:

Company Transformation

1

STRENGTHENED BRAND

Volvo Cars has a clear purpose; Freedom to Move in a personal, sustainable and safe way. It is delivered through the products and services offered by the consumer brands Volvo Cars, Care by Volvo and M, as well as by the brands of our strategic affiliates Polestar, Lynk & Co and Zenuity, the latter being a business-to-business brand.

Our brand strategy has come a long way, but we have high ambitions and there is more to do to provide a seamless brand and consumer experience across all our global markets.

2

COMPLETELY NEW VEHICLE RANGE

Through a completely new and continuously updated vehicle range, we have improved our positioning as a premium brand in the market. We have narrowed our product portfolio resulting in a product range which now covers a bigger part of the premium market. With our new and updated cars we see a strong effect on our ability to price our cars on par with premium competitors. This is a key enabler for improved profitability. We will continue to optimise and develop our product offering to further strengthen our market position.

3

TRULY GLOBAL PRESENCE

We have established global presence close to key markets to be able to increase responsiveness to new market trends and changing consumer needs. To attract talent, we have established strong R&D centres close to where it can be found. From an industrial point of view, we are located so that we can reap both cost and capital efficiency gains. Our strategy is to have a natural hedging and we aim to apply a build where we sell and source where we build principle. We focus on developing our operational processes to ensure that a larger share of our production is made based on consumer order and a localised supplier base.

4

STANDALONE GOVERNANCE

After 2010 when Volvo Cars was acquired by Geely, a strong standalone governance based on the principles of the Swedish Governance Code has been established, including independent Board of Directors and an Executive Management Team. This provides a solid foundation for our business model transformation and the second step of our strategic journey.

STEP 2:

Game Changing Business Transformation

5

PERSONAL AND DIRECT RELATIONSHIPS WITH CONSUMERS

Human centricity with focus on delivering excellent consumer experience
Being a premium car brand, providing excellent consumer experience is a top priority, regardless of where our consumers meet us; in real life, online, in our advertising or through our products. We have full attention on all touch-points in the consumer journey to further strengthen the consumer experience, and enhance our brand positioning. We are building more direct consumer relationships to increase our opportunities to develop the consumer experience.

Connectivity and digitalisation are fundamentals for premium experience and safety
Connectivity and digitalisation are key enablers in our ambition to simplify consumers' lives. With Volvo On Call we pioneered technologies to be connected to and communicate with our consumers. Connected services are services enabled through a connected car and a connected consumer. They are services with high potential creating significant consumer value.

All new cars produced are enabled for internet connectivity. Connected services play an important role in creating a true premium experience for our consumers and the quality of it will differentiate us from competition. Connectivity and digitalisation are not only key for the premium experience, but also very important enablers for safety. We leverage digital solutions and connected cars to create smart systems and active safety solutions that enable vehicles to communicate with each other and for example warn about hazards on the road. To get speed and ensure ease of integration, we believe in open ecosystems to deliver on our connectivity and digitalisation ambitions.

Direct relations with consumers enable us to create true value through new business models
As consumers change the way they solve their mobility needs, we must change our way of distributing cars. While we continue to improve our traditional business model of selling cars via our retail partners, we also offer new mobility models and move towards a direct consumer business to attract new consumer groups and expand our range of products and services.

We address consumers directly via our car subscription offer Care by Volvo and our shared mobility solution M. Regardless of the way our consumers prefer to access their car – through ownership, subscription or shared mobility services – we have an offer that suits their needs. In the transition to an omnichannel distribution system with direct consumer relations, we build on the strengths of both our retail partners and ourselves. We see substantial value in continuing this partnership and capturing the business opportunities together.

Our retail partners – changing with us to better serve our consumers
Our dealer network is the principal route to market and core to ensure that the Volvo Cars brand is widely represented and well-positioned in the premium car segment globally. Our network plays a key role in our transition regardless of how our cars are accessed, as the dealer network is delivering, as well as servicing both cars and consumers.

By working in collaboration with our dealer network around the world, we aim to expand digital commerce activities to enhance the online buying experience, as well as the physical network and ownership experience.

UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS

The UN Sustainable Development Goals (SDGs) are a series of 17 goals agreed on by world leaders in 2015 which aim to help end all forms of poverty, reduce inequality and tackle climate change. Governments, civil society and business will work towards meeting them up until 2030. The SDGs act as our guide, with 13 out of the 17 directly addressed through our sustainability programme, Omtanke.

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SUSTAINABLE PRODUCTS AND BUSINESS

Omtanke – our multidimensional sustainability program
We have high ambitions with regards to sustainability and focus on societal as well as environmental aspects of sustainability. We do not wait for regulators to tell us what to do in these areas. Instead, we work continuously to reduce the environmental and social impact of our products and business, and care for our consumers and employees. This is the foundation of our sustainability programme called Omtanke, which is a Swedish word for caring and consideration, but also importantly, to think again. Our sustainability mindset and approach is an integral part of our corporate strategy and culture, and flows through our business operations and product development. Omtanke focuses on three main impact areas:

1. **Impact of our company.** We work to minimise the negative impacts of our business and create the best working environment for our people. This involves reducing the environmental impacts from our own operations, as well as promoting the health and well-being of people working at Volvo Cars, and ensuring a diverse and inclusive working culture.

2. **Impact of our products.** We strive to protect both our consumers and the environment. We do this through our industry leading commitment to electrification and the production of vehicles with improved lifecycle performance and low emissions which have less impact on the planet. From 2019, all new Volvo cars will be electrified. We are aiming for 50 per cent of our sales to come from pure electric vehicles by 2025. Volvo Cars is also focused on improving the sustainability of the material within our vehicles, including through greater use of recycled plastics. We remain committed to making the safest cars in the industry, as well as developing sustainable solutions that promote the well-being of our consumers.

3. **Our impact on society.** Volvo Cars also aims to contribute towards a better society and protect people and our environment. We do this through creating local and international partnerships supporting sustainable development, ensuring we have responsible and secure supply chains and promoting ethical leadership and human rights throughout our value chain. Volvo Cars is committed to conducting business in a responsible and sustainable way and promotes ethical leadership for responsible business.

OMTANKE – OUR SUSTAINABILITY PROGRAMME

IMPACT OF OUR COMPANY	IMPACT OF OUR PRODUCTS	OUR IMPACT ON SOCIETY
RESOURCE EFFICIENT BUSINESS Climate neutral operations by 2025	**LIFECYCLE PERFORMANCE** 50% of sales to be fully electric and 25% of plastic in our cars made from recycled material by 2025	**RESPONSIBLE SUPPLY CHAIN** Full transparency of our 3TG and cobalt supply chain by 2020

CIRCULAR ECONOMY MINDSET

SUSTAINABLE WORK-LIFE No fatalities or serious injuries at Volvo Cars	**REAL-LIFE SAFETY** Our vision is that no one should be killed or seriously injured in a new Volvo car by 2020	**MAKING A WIDER DIFFERENCE** Engage in partnerships to promote sustainable development
DIVERSE AND INCLUSIVE CULTURE ≥ 35% internationally diverse leaders and ≥ 35% female leaders by 2020	**CONSUMER EXPERIENCE** CleanZone leadership	**ETHICAL AND RESPONSIBLE BUSINESS** Ethical leadership for responsible business

SUSTAINABLE PROFITABILITY AND GROWTH

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SAFE MOBILITY WITH LEADING AD TECHNOLOGY

Safety at core

Cars are made for people. The guiding principle behind everything we make at Volvo Cars, is and must remain, safety. Our aim is to continue to be the leader in safety. Safety used to be about what happened to drivers and passengers in the event of an accident. Today, our quest is to build cars that do not crash. Our vision is that no one should be killed or seriously injured in a new Volvo car by 2020.

Well positioned for leading development of autonomous cars

As we move into the era of autonomous cars, safety will be even more crucial. An autonomous Volvo car should always be safe and reliable.

To facilitate the transition to autonomous cars, we place a lot of focus on the human perspective. We drive the development of global standards for communication between autonomous cars and people moving around the car. We ensure a safety perspective in all our consumer offers, with increased focus on our new mobility services Care by Volvo and M, as well as in autonomous base cars and digital services.

To be a leader in the transformation we believe in an open approach where we collaborate with other stakeholders in the cities, the automotive industry and adjacent industries.

Together with a world leading active safety supplier, Veoneer (a spin-off from Autoliv), we have formed the joint venture Zenuity to develop advanced driver assistance systems and AD software technology. Since 2016, we have been working in partnership with mobility provider Uber to jointly develop an AD compliant base vehicle based on the XC90. In 2018 we announced the intention to team up with the Chinese tech giant Baidu for the development of fully autonomous vehicles for fleet usage in China.

We will leverage our leading position in safety as well as AD technology capabilities as we commercialise our solutions. We will offer premium autonomous cars to consumers, where we aim to be first to launch AD cars on a broad scale. We will have a commercial offer for robotaxi fleet operators by aiming to become the preferred partner, base car supplier and total solution provider. We also make our AD technology available for other OEMs by selling hardware agnostic software via Zenuity.

As we move into the era of autonomous cars, safety will be even more crucial. An autonomous Volvo car should always be safe and reliable.

To embrace the changes of our industry and business, we have a purpose driven, consumer oriented organisation with the right set up of competencies and capabilities.

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PURPOSE DRIVEN ORGANISATION

A company with a strong purpose
Our people are creating the next generation of premium cars and services for consumers that value innovative ways to move and connect.

Thanks to our deep understanding of our consumers' needs, we operate a successful global business. Our diverse workforce has a unique ability to develop mobility solutions; products and services that make lives less complicated for people. We have pioneered digitalisation and connectivity, using virtual tools, best-in-class software development and smart communication solutions.

A diverse and inclusive culture
Volvo Cars' proud history of automotive innovations is the result of a collaborative, diverse and curious working environment. What we all have in common at Volvo Cars is our passion for protecting lives and our endless curiosity. Our vibrant culture is not abstract or imaginary. It comes down to very real and visible behaviours. We are committed to understand our consumers and put user experience first, learn from each other and create together. This is how we make the difference.

Leading through purpose
For us, leadership is about creating clarity by leading and inspiring people through purpose. We believe in leaders that show courage by taking ownership and acting with integrity and trust, giving their teams mandate and ensuring accountability. The right leadership brings out the best in our employees, and enables them to face every challenge with confidence.

People make the difference
Our core strength comes from our people. Human centricity is key at Volvo Cars, and our open-minded culture unites us and is our competitive edge. We believe in doing things together, and gather around missions to achieve great results. Our culture improves our engagement, development and performance, and therefore also our business success and our attractiveness as an employer.

BRINGING OUT THE BEST

OUR CULTURE

- We are curious
- We create together
- We make the difference

OUR COMPETENCE

- Drive result
- Build trust
- Collaborate

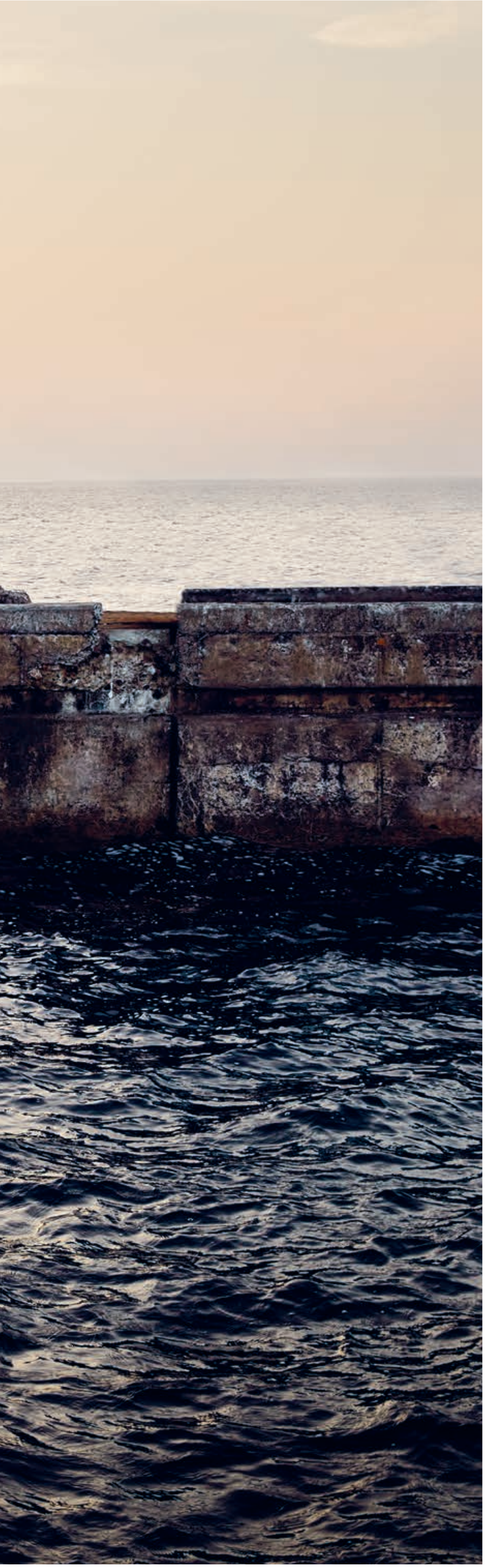
OUR LEADERSHIP

- Create clarity
- Show courage
- Empower teams

OUR ORGANISATION

- Nimble
- Purpose-driven
- Self-organising

- ▶ BUILDING ON EACH INDIVIDUAL'S STRENGTH
- ▶ PURPOSE BASED LEADERSHIP
- ▶ GROUP PEOPLE TO WORK AROUND MISSIONS
- ▶ PRODUCT FOCUS WITH OWNERSHIP
- ▶ REWARD VALUE OF ACHIEVEMENTS



CREATING VALUE

We invest, design, innovate, manufacture and sell products and services to make people's lives better and less complicated. Our human centric focus is at the heart of everything we do.

Creating Sustainable Value and Growth

Creating sustainable value and growth is achieved by investing, and utilising our resources, in a sustainable way throughout our value chain with concern for people, society and the environment in which we operate.

PEOPLE

Our core strength comes from our people. Human centricity is key at Volvo Cars, and our open-minded culture unites us and is our competitive edge. We believe in doing things together, and gather around missions to achieve great results. Our culture sets the scene for our engagement, development and performance, and therefore also our business success and our attractiveness as an employer.

Read more on page 67.

PRODUCT CREATION

DESIGN

TECHNOLOGY

FUTURE MOBILITY

PROCUREMENT

PRODUCTS

We compete in the premium car segment with confidence in design, innovations and niche products and services. Based on our Scandinavian heritage, our products are developed on highly flexible vehicle platforms and powered by our industry leading in-house developed engine technology. Our innovations are designed to simplify and improve life and we are especially proud of our advances in electrification, autonomous driving, safety and connectivity. Our global manufacturing footprint enables us to integrate and optimise our supply chain, building where we sell, and sourcing where we build. We work hard to engineer and produce fuel-efficient and safe cars. Our product portfolio, our engine programs and our electrification strategy show our clear commitment to the environment.

Read more on page 39.

MANUFACTURING AND LOGISTICS

While carefully considering how to minimise the environmental impact of our global expansion, we aim to optimise our production footprint and logistics operations. One of our visions is to be climate neutral in all our manufacturing operations by 2025.

Read more on page 57.

CONSUMER EXPERIENCES

Our human centric focus is at the heart of everything we create and an improved consumer journey aims to improve the user experience. We will achieve this by advancing on digitalisation and experimenting with new retail concepts as well as providing carefree user experiences and personalised technical services. In addition to new car sales, we offer subscription services, shared mobility and a global used car program.

Read more on page 63.

SOCIETY

We aim to contribute to a better society and protect people and the environment by creating partnerships for sustainable development and promoting traffic safety together with local and international organisations.

Read more on page 75.

Product Creation

DESIGN
TECHNOLOGY
FUTURE MOBILITY
PROCUREMENT
PRODUCTS

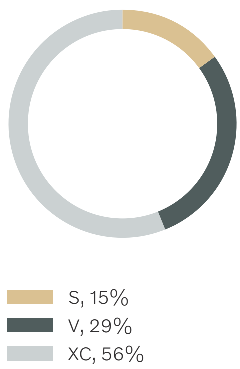
We compete in the premium car segment with confidence in design, innovations and niche products and services. Based on our Scandinavian heritage, our products are developed on highly flexible vehicle platforms and powered by our industry leading in-house developed engine technology. Our innovations are designed to simplify and improve life and we are especially proud of our advances in electrification, autonomous driving, safety and connectivity. Our global manufacturing footprint enables us to integrate and optimise our supply chain, building where we sell, and sourcing where we build. We work hard to engineer and produce fuel-efficient and safe cars. Our product portfolio, our engine programs and our electrification strategy show our clear commitment to the environment.

INCREASE IN SALES OF ELECTRIFIED VEHICLES

↑65%

Retail sales of electrified vehicles increased by 65% compared to last year

RETAIL SALES BY CARLINE



PRODUCT CREATION: **DESIGN**

A New-found Position

2018 marked the completion of a cycle of renewal that began with the introduction of the new XC90 in 2015. Since then, the whole line-up has been replaced by a product line that has elevated the company to a new-found position. For Volvo Cars Design, the journey began with the development of three concept cars – the Concept Coupe, Concept XC Coupe and Concept Estate. These cars embodied our new design strategy and influenced today's production models. Our design strategy focuses on three key areas – Premium Factors, Human Care and Scandinavian Lifestyle.

PREMIUM FACTORS, HUMAN CARE AND SCANDINAVIAN LIFESTYLE

Premium Factors have established Volvo Cars as a maker of desirable premium cars. For example, the use of the new Scalable Platform Architecture (SPA) allowed the introduction of excellent proportions – essential to the perception 'premium', while new technologies such as central touchscreen removed the need for a large number of buttons, allowing a focus on creating jewel-like details for those that remain.

Human Care extends the core Volvo Cars value of safety to encapsulate the idea of creating products that understand the needs of people, and protect what is important to them while creating a sense of well-being.

Meanwhile the idea of capturing **Scandinavian Lifestyle** is what makes Volvo Cars unique. Understanding how people live in our home region allowed us to use this as a springboard for our creativity.

These immensely strong foundations have enabled us to keep pace with a rapidly evolving industry landscape, without sacrificing our core values. On the contrary, Volvo Cars is able to help shape the automotive industry thanks to its strong foundation.

EMBODYING THE CONCEPT OF FREEDOM TO MOVE

The concept of Freedom to Move in a personal, sustainable and safe way has always permeated our products, and our most recent vision, the 360c, embodies this.

The 360c is a concept vehicle that explores the possibilities that AD can bring. The concept represents the idea that personal, sutainable and safe mobility are not only the core values of Volvo Cars as a brand, but also a sustainable business.

Volvo Cars focuses on the advantages that technologies bring to people's lives, rather than celebrating tech for its own sake. And so, the 360c explores what we might do inside a vehicle when we no longer have to drive, creating four spaces for living, working, socialising and sleeping. It is the latter that proved the most disruptive by offering the vision of a future in which we might travel safely through the night via a door-to-door service that makes the stress and complication of short-haul flights obsolete. As a statement of trust in a brand, allowing yourself to sleep in a driverless car would be extremely strong.

As we develop the next generation of cars, our core values will remain the same, but technological and socio-economic advances will allow us to explore this in new and exciting ways.

PRODUCT CREATION: **TECHNOLOGY**

Lifesaving Technology

We are an industry leader in safety, which continues to be a focus area for Volvo Cars. We have developed and introduced many safety features throughout the years, including the three-point safety belt, the rear-facing child safety seat, child booster cushion features, side impact protection and whiplash protection.

THE VOLVO CARS APPROACH TO SAFETY

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

Real-life safety
Volvo Cars has been working with car safety and safety features since the beginning of the company's history. The methodology is called the Circle of Life and it is a procedure where real-life data from accidents are collected and analysed in order to develop cars that are even safer than the ones before.

Real-life data
In 1970, Volvo Cars established a comprehensive traffic accident research programme, the Traffic Accident Research Team, which collects data from traffic accidents with Volvo cars around Sweden. The R&D teams use this data when creating and evaluating design programmes. Additional data is further gathered by the Traffic Accident Research Team through accident reconstructions, computer simulations and crash tests in our state-of-the-art crash laboratory in Torslanda, Sweden, which is used in the design process.

VISION

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

Our vision provides a mindset that enables us to create the safest cars and help improve traffic safety. We will continue to focus on identifying and mitigating road safety risks, and develop partnerships with organisations and companies that share our commitment to road safety.

A HOLISTIC APPROACH TO SAFETY

An important part of the working process is to correlate real-world crash data with laboratory data. By evaluating possible system solutions in the early stage of the development process, we can predict real-world outcomes. The knowledge gained from the analyses forms the basis for internal safety requirements, so we are ready to fulfill them before production.

Furthermore, Volvo Cars has several ongoing collaborations with universities to foster R&D. Some of our employees also teach at universities in Sweden and collaborate with students and researchers on research initiatives.

> “The guiding principle behind everything we make at Volvo, is and must remain, safety.”
>
> **ASSAR GABRIELSSON AND GUSTAF LARSON**
> FOUNDERS OF VOLVO, 1927

FROM R&D TO LIFESAVING PRODUCTS

New Volvo car models offer highly comprehensive and technologically sophisticated safety packages, including two world first safety technologies, a run-off road protection package and autobrake at intersection capability. The majority of our models have been awarded five stars in Euro NCAP tests. Both the Volvo S90 and the Volvo V90 include one of the most advanced standard safety packages on the market, with the world’s first function of large animal detection which provides an intuitive warning and brake support to help the driver avoid or mitigate a collision with large animals. The XC60 introduced city safety with steering support, which assists the driver to take evasive action at speeds between 50 and 100 km/h. With the XC40, we have introduced a so called run-off road mitigation system that detects if a driver is about to leave the road unintentionally.

Run-off road protection package
With run-off road accidents being a common cause of fatal traffic accidents, Volvo Cars has developed a run-off road protection package; the Safe Positioning Capability detects a run-off road scenario and tightens the front safety belts to keep occupants in position, the Lane Keeping Aid applies extra steering torque if the car is about to leave the lane unintentionally, the Driver Alert Control detects and warns inattentive drivers, and the Rest Stop Guidance directs drivers to the nearest rest area. City Safety, our standard offering of autobrake functions, includes collision avoidance and mitigation technologies as well as the world's first autobrake at intersection capability.

PRODUCT CREATION: **FUTURE MOBILITY**

Disrupting the Industry

Volvo Cars is shaping the future of changes driven by technology shifts, digitalisation and consumer behaviours and will continue to develop and invest in the areas of electrification, AD and connectivity. By using our strong heritage in safety, well-founded technology competence and innovativeness, and by being a pioneer in partnerships, we are well on the way of meeting future consumer needs.

ELECTRIC
– LEADING THE WAY –

We firmly believe that electrification is the way forward. Volvo Cars has established electrification at the centre of its future business. From 2019, every new Volvo car will be launched with an electric motor, creating a portfolio of electrified cars across the range, embracing fully electric cars, plug-in hybrid cars and mild hybrid cars.

Powertrains

Volvo Cars' SPA and CMA platforms are designed for electrification.

Fully electric

Polestar 2, the first fully electric vehicle based on technology shared between Polestar and Volvo Cars, has been revealed and will be launched in the beginning of 2020. The first fully electric Volvo car, the XC40, is planned to be rolled out in 2020.

Plug-in hybrids

The twin engine set-up positions the high voltage battery in the tunnel console for maximum safety, improving the weight distribution while providing an enhanced driving experience.

Mild hybrids

The mild hybrid system uses a combination of a 48 volt battery that stores energy, providing a solution that acts as both the starter, generator and electric motor.

While Volvo Cars is committed to electrification, we will continue to offer internal combustion engines for the near future. However, we will no longer develop a new generation of diesel engines, and the launch of the S60 during 2018 was our first model without a diesel option. Our non-complex powertrain family consists of 4-cylinder Drive-E powertrains, and we have introduced a 3-cylinder variant. Our powertrain technology is focused on delivering responsive power, clean efficiency and an exceptional driving experience. Based on the modularity principle, the compact engines can be effectively combined with driveline electrification on our new platforms. All of our powertrains are designed to improve fuel economy and reduce emissions.

Infrastructure engagements

A shift towards fully electric cars is underway, as battery technology improves. However, the charging infrastructure is still limited. We believe that the global automotive industry should strive towards a standardised charging infrastructure for electric cars. To support this drive, we joined the Charging Interface Initiative (CII), a consortium of stakeholders founded to establish a combined charging system as the standard for charging battery powered vehicles. The CII is currently drawing up requirements for the evolution of charging related standards and certification for use with carmakers around the globe.

VISION

50% of sales to be fully electric by 2025

From 2019, every new Volvo car will be launched with an electric motor. By 2025, we expect half of our global sales to consist of fully electric cars.

AUTONOMOUS
– AT THE FOREFRONT –

We believe that we are at the forefront of AD development, and that we are very well positioned in this area. For nearly 60 years, since the invention of the three-point safety belt in 1959, our safety innovations have led the industry and saved countless lives. We are continuing that tradition today with the development of our AD technology as a key element of our safety innovation work up to, and beyond, our 2020 vision – that no one should be killed or seriously injured in a new Volvo car by 2020.

For AD features to be successfully rolled out, it is key for consumers to have complete trust in the car, and we believe leadership in safety is an enabler to be the natural choice for the consumers in search for AD.

We are pursuing a strategy to further develop AD and strive to be a partner of choice in this area. We concentrate our efforts around three pillars; hardware, software and consumers.

Hardware

We work together with Uber to develop new base vehicles with redundant systems able to incorporate the latest developments in AD technologies. The base vehicles are manufactured by us and then purchased by Uber. We expect this will in turn lead to increased economies of scale on the SPA platform and position us as a world leader of hardware solutions for AD.

Software

Together with Veoneer, a spin-off from world leading automotive safety company Autoliv, we have created a jointly owned company, Zenuity, which develops next generation AD software. Zenuity has its headquarters in Gothenburg and aims to be a world leading authority in software development for AD, facilitating the faster introduction of new technologies in our cars.

Consumers

As a means to develop our AD cars, we have had help from Swedish families in the Drive Me project. The families have contributed with valuable data by allowing engineers at Volvo Cars to monitor their everyday use of, and interaction with our test cars.

Provided the legislation allows, Volvo Cars plans to develop and sell fully autonomous cars. The data derived from the Drive Me project will play a crucial role in reaching this ambition.

CONNECTED
– JOINED FORCES –

We are well prepared to meet consumer demand for connectivity related solutions. Through Sensus, our entertainment and driver support solution, and smart collaborations with major players in the market, we provide an intuitive in-car control system designed to meet current and future needs of consumers in their search for premium technology experiences. Sensus enables easy access to phone features, such as Spotify, Yelp and Douban FM, directly via the touchscreen.

In our new cars based on the SPA and CMA platforms, we replaced all the buttons in the control console with a 9-inch tablet-style touchscreen that can be utilised even when wearing gloves. We also teamed up with British audio legend Bowers & Wilkins, to create an industry leading in-car audio experience.

Volvo Cars has provided a glimpse of the future of its in-car control systems – in partnership with Google, next generation of infotainment is developed. Upcoming launches will provide access to a large catalogue of popular apps developed by Google, Volvo Cars or third party app developers, and will offer connective and predictive services in and around the car.

PRODUCT CREATION: **PROCUREMENT**

Procurement as Key Enabler

Global Procurement is an integrated part of Volvo Cars' value chain, managing a large part of the company's cost base. As such, Procurement has a significant impact on the company's profitability, but also on the ability to deliver on our consumer promise and product focus through sustainable technologies and innovations with our supplier partners. Our purpose is to build sourcing relations that strengthen our brand and challenge our ambitions.

COLLABORATIONS

We believe that through collaborations, we will be able to serve the consumers better and tap into profit pools of the future transportation ecosystem. Therefore, we strive to work closely with companies within the Geely Group, as well as with our business partners in strategic technology areas for products and services that will create a competitive advantage.

SUPPLY BASE MANAGEMENT

To support the aspired position for the industrial system – to build where we sell and source where we build – we strive for a higher level of localisation. The ambition is to reduce the environmental footprint from logistics, fulfill local content requirements, achieve natural hedging of currencies, and increase overall speed and flexibility in the value chain. Volvo Cars is committed to achieving Leadership in Supply Chain Sustainability through the strategy set out in our Omtanke framework, and by doing so, deliver on our company purpose – to provide Freedom to Move in a personal, sustainable and safe way.

RESPONSIBLE SUPPLY CHAIN

We are buying for a better world by working with our suppliers to increase the sustainability of our products and services, secure responsible and transparent value chains and to make efficient use of resources. This will support the move towards circular economy and greater use of more sustainable materials. We are working with our supply chain to ensure that it:

- Drives resource efficiency including water, energy, waste and carbon emissions
- Cares for the health and safety of workforce, respect human rights and promote good working conditions
- Conducts business ethically and with integrity

Sustainability requirements for suppliers

Volvo Cars has direct contractual relationships with first tier suppliers, as well as sub-tier suppliers under certain circumstances. Sustainability requirements are an integrated part of our contractual agreements with suppliers. The Volvo Cars Code of Conduct for Business Partners states our basic expectations on their sustainability performance, such as legal compliance, human rights, working conditions, caring for the environment and business integrity. Suppliers must meet the requirements and implement systematic management of all areas, including ensuring that employees and sub-suppliers respect the principles. Our contractual agreements also include a number of other sustainability requirements, such as having a certified management system for quality and environment (ISO9001, IATF16949 and ISO14001), reporting material content to the automotive International Material Data System (IMDS) and to be proactive in addressing issues and driving efficiency. All new suppliers delivering vehicle parts and components are subject to a Supplier Evaluation Model (SEM), where we evaluate the supplier from a broad set of parameters, including financial stability, production set-up and quality assurance. The SEM also includes mandatory parameters regarding sustainability, such as working conditions, business ethics and environment, which the supplier unconditionally must meet to be awarded with contracts.

VISION

Full transparency of our 3TG and cobalt supply chain by 2020

Given our commitment to electrification, we are focused on securing a responsible and transparent 3TG (Tin, Tungsten, Tantalum and Gold) and cobalt supply chain by 2020, and to work towards creating full supply chain traceability of 3TG and cobalt. We aim to use only smelters that have been certified by the Responsible Minerals Initiative (RMI), and we will work towards full compliance with the OECD Guidance for Responsible Supply Chains of Minerals from Conflict-affected and High-risk Areas.

Supply chain sustainability risk awareness

To ensure awareness of potential risks and prioritise suppliers for sustainability assessments, we analyse them according to a Volvo Cars specific risk scoring method. In addition to the scoring method, we have a regular forum to address risks that are identified during the year. We consider a number of risk factors such as financial performance, country risk, certification status and existing supplier assessment results. The country risk data is based on external sources such as the UN Human Development Index and the EIU Democracy Index, which relate to aspects regarding civil and political rights, corruption and living standards. Because of the extensive variety of purchased commodities within bought services and indirect supply, Volvo Cars uses two additional risk parameters to assess this category of suppliers, which includes environmental impact and social responsibility on commodity level.

For suppliers identified in the risk scoring method, we gather additional information and plan for activities such as on-site sustainability audits. During 2018, 1,853 supplier sites were included in the risk scoring which corresponds to 100 per cent of active first tier supplier and directed sub-tier supplier sites delivering vehicle parts and components to Volvo Cars at the time of evaluation. In the sustainability audit selection for 2018, we also considered critical suppliers, which is defined as suppliers delivering strategically important components. The awareness of sustainability risks in the emerging supply chain, such as the origin of raw materials, can call for targeted action plans to address sub-tier supplier risks in collaboration with our contractual suppliers. We work with battery suppliers to implement responsible sourcing of key metals and minerals, such as cobalt and 3TG (Tin, Tungsten, Tantalum and Gold). Another example is our collaboration with leather suppliers to reach traceability in the leather supply chain down to farm level and verify good husbandry practices.

Supplier sustainability assessments

Volvo Cars is committed to ensuring that the people who make our products and components, or provide services, are treated with dignity and respect. Our alignment with suppliers on these principles is essential. Volvo Cars applies different kinds of sustainability assessments to verify compliance with

requirements, but also to identify improvement areas which could lead to increased sustainable business practices throughout the supply chain.

Sustainability Self-Assessment Questionnaire
The Self-Assessment Questionnaire (SAQ) on CSR/Sustainability has been developed in conjunction with the automotive industry as part of a collaborative initiative called Drive Sustainability. The questionnaire applies to both corporate and manufacturing site level, and covers several sustainability areas such as business ethics, human rights, environmental management and responsible sourcing.

Suppliers complete the SAQ upon request. All answers are validated by an external assessor before the final evaluation is created. Based on the SAQ evaluation, the supplier will be provided recommendations on how to improve its sustainability performance. The supplier is expected to take action on identified improvement areas and update the SAQ for a new evaluation at least bi-annually. By the SAQ, we drive improved sustainability performance in the supply chain. Our target is that all active supplier sites delivering production materials to Volvo Cars shall have completed a SAQ by 2020. During the reporting year, 587 supplier sites completed a SAQ for Volvo Cars. In total, 1,212 supplier sites have completed a SAQ which corresponds to 57.0 per cent of active sites delivering production material.

Supplier sustainability audits
The purpose of Volvo Cars Sustainability Audit Program is to make comprehensive on-site evaluations of suppliers' sustainability performance that is based on the Code of Conduct for Business Partners. Volvo Cars' audit protocol has been developed to be in line with existing best practice systems. Most audits are conducted by an accredited third party auditor, but we also have qualified in-house capacity to perform supplier audits. The auditor will collect and assess information on-site from management interviews, document reviews, site walkthroughs and interviews with employees. In 2018, we have also performed a number of pilot sustainability audits in relation to the Responsible Business Alliance (RBA) audit protocol. Our target is to perform sustainability audits on all suppliers identified in the risk scoring method by 2022. During 2018, we conducted 38 supplier audits prioritised from a list of 181 suppliers receiving a risk score in the upper quartile using the risk scoring method, or was prioritised for other commercial reasons. Since 2015, we have performed 100 sustainability audits amongst our first tier and directed sub-tier suppliers.

If non-conformities are identified during an audit, the supplier is required to develop a corrective action plan with the support from Volvo Cars. We will continuously follow up the improvement progress to ensure that findings are closed. As of 2018, we have addressed approximately 90 per cent of the improvement findings identified in our audit program for 2017. For the remaining 10 per cent, we continue to work for improvements in close collaboration with our suppliers.

During 2018, we have also focused on logistic drivers' work situation in Europe. With the basis on our Code of Conduct for Business Partners, we have conducted unannounced interviews with drivers entering some of our European plants to increase awareness and assess compliance on drivers' working conditions. The feedback from the interviews has encouraged us to review requirements, instructions and signs when entering the plant. We intend to enhance collaborations within the area to scale efforts.

Supply of minerals and metals

Volvo Cars is committed to the responsible sourcing of minerals and metals within our supply chain, including cobalt. We work hard to ensure that we only use minerals and metals whose extraction, processing, trade and transportation have not directly or indirectly resulted in human rights abuses, severe environmental harm or provided funding to conflicts. As part of that commitment, we fully support the OECD Guidance for Responsible Supply Chains of Minerals from Conflict-affected and High-risk Areas. In this respect, we are working with our suppliers and sub-suppliers to secure full transparency and traceability of our cobalt and 3TG supply chain. All our suppliers are expected to comply with our Code of Conduct for Business Partners, which includes the observation of human rights, including labour rights.

Our position statement on metals and minerals is publically available through our website. We use the Conflict Mineral Reporting Template (CMRT) established under the US Dodd Frank Act, to collect information about smelters, refiners and other entities in our supply chain. As a member of the Responsible Mineral Initiative (RMI), we gain access to additional data, most importantly audit status, on a high number of smelters upstream the supply chain. All smelters and refiners are required to undergo audits, which will determine and validate their compliance with human rights and the OECD Guidance. The aggregated information from the RMI and CMRT forms our due diligence process for conflict minerals where we identify potential discrepancies and follow-up on mitigation action plans.

Volvo Cars target is to have 100 per cent RMI approved 3TG smelters by 2020. Around 100 suppliers have reported 3TG content in production materials delivered to Volvo Cars. In 2017, Volvo Cars started together with our suppliers to investigate how many smelters these suppliers have in their supply chains and how many which are conformant with RMI approved smelter list. At that time, around 50 per cent was conformant. For 2018, we have reached 75.0 per cent conformant smelters which is in line with our target for 2018. For 2019, we have set a target on 90.0 per cent approved smelters to be able to reach our end target of 100 per cent by 2020.

SUSTAINABILITY INTEGRATION IN SUPPLY CHAIN MANAGEMENT STRATEGY

Sustainability in VQE

Since 2012, Volvo Cars has used the Volvo Cars Quality Excellence process (VQE) to monitor suppliers' performance in relation to our requirements and expectations, such as delivery performance and quality. An award is given to acknowledge suppliers that are successful in all evaluated sets of quality, manufacturing and delivery performance disciplines. As of 2018, sustainability is a new separate element in the VQE evaluation, showing that high sustainability performance is an absolute criterion to become an awarded supplier. The VQE sustainability element is based on the SAQ, with a Volvo Cars unique rating.

Supplier Sustainability Day

Volvo Cars' annual Supplier Sustainability Day brings together hundreds of our suppliers to discuss how we can become a more sustainable industry together. This year's theme was the circular economy. Material production emissions is a large CO_2 contributor, and we need each part of the supply chain to look at resource efficiency to reduce their environmental footprint. Other topics on the agenda were grievance mechanisms, conflict minerals and the UN Sustainable Development Goals (SDGs).

UN Action Platform on Decent Work in Supply Chain

Volvo Cars has a LEAD Global Compact status and during 2018 we have been an active participant in UN Global Compact Decent Work in Global Supply Chains Action Platform. It brings companies together to take action to advance decent work in the supply chain by sharing knowledge, mobilising collective action and by creating a business-led advocacy effort. As part of this work, Volvo Cars has made a commitment to start a Supplier Engagement Forum. In 2018, a selection of suppliers were invited to participate in the forum to scale efforts on decent working conditions in our supply chains. We aim to learn, share experiences and collaborate to further support the UN SDGs.

PRODUCT CREATION: **PRODUCTS**

Get to Know Our Products

Volvo Cars designs, develops, manufactures and sells a range of premium cars and is recognised for its design, safety and technological innovation. We categorise our models by model range (40, 60, and 90) as well as body type (Sedan (S), Wagon (V) and SUV (XC)). In addition, we offer variants such as R-Design, Inscription, Cross Country and Excellence on certain models to cater for consumer demands in respect of driving experience, comfort and styling.

FOUNDATION FOR RENEWAL AND GROWTH

The foundation of our product renewals and growth strategy rests on the development of our platforms; the Scalable Product Architecture (SPA) and the Compact Modular Architecture (CMA).

SPA

SPA is one of the cornerstones of Volvo Cars' product strategy. SPA was introduced with the XC90 in 2015. The platform is highly flexible and allows enhancement of technological features such as driveability, electrification, safety, connectivity and interior space. Furthermore, SPA facilitates the vertical integration and thus economies of scale for our product development – a wide range of cars including all the 60 and 90 models, powertrains, electrical systems and technologies of differing complexity can be fitted on the same architecture.

CMA

The XC40 was launched in 2017 and was the first car to be produced on the CMA platform, a platform developed in collaboration with CEVT and Geely Automotive. Shared technologies between SPA and CMA will include powertrains as well as the infotainment, climate and safety systems.

THE LIFECYCLE PERFORMANCE OF OUR PRODUCTS

Volvo Cars is constantly working to minimise the impact of our products on our planet and human health. We have made an industry leading commitment to electrification that from 2019 all newly launched Volvo cars will be electrified. For us, it is not only about reducing tailpipe emissions, but also about the material that goes into our vehicles. In this respect, we are moving towards a circular economic approach, including making greater use of sustainable materials and post 1st life electric vehicle battery management.

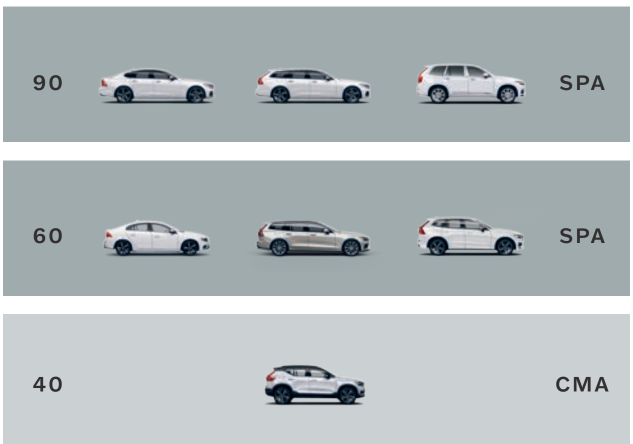
We have a long history in carrying out environmetal analyses with a holistic perspective. This work has been strengthened in recent years. We carry out LifeCycle Assessments (LCAs) on all our models and we continuously develop and improve our methods. Additionally, we participate in several research projects and networks and have recently engaged with the Swedish Lifecycle Centre.

CO_2 tailpipe emissions

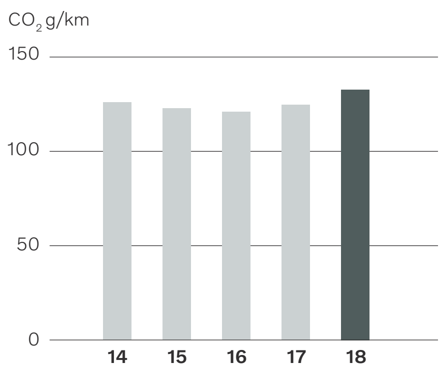
Limiting CO_2 emissions is a challenge for the entire automotive industry. We keep ahead of current and future emission standards in all our markets by developing efficient technological solutions and a thorough follow-up of legal compliance twice a year.

Our EU fleet average CO_2 emissions (based on NEDC correlated figures from WLTP tests) showed an increase to 133 g/km for 2018. This was an expected increase mainly due to an increased sales share of XC model cars, an increased sales share of petrol powertrains (versus diesels), and a change in the testing methods from NEDC to NEDC correlated. We track our CO_2 fleet average continuously. With our electrification strategy, we expect to fulfill the current Volvo Cars 2021 EU target of approximately 110 g CO_2/km (total EU fleet industry target is 95 g CO_2/km).

In 2018, we continued the roll-out of our electrification strategy. In addition to sales of the V60 Classic Twin Engine variant, we also launched the new hybrid versions of the V60 and S60. The XC40 will be available as Twin Engine variant in 2019.



CO_2 EMISSIONS – EU FLEET AVERAGE VOLVO CARS –



VISION

25% of plastic in our cars made from recycled material by 2025

Our ambition is that at least 25% of all the plastics in every newly launched Volvo car by 2025 will be made from recycled material. This will be achieved by working closely with suppliers and the recycling industry.

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
12 RESPONSIBLE CONSUMPTION AND PRODUCTION
13 CLIMATE ACTION
14 LIFE BELOW WATER

Worldwide Harmonised Test Procedure – WLTP

The recently introduced test procedure, WLTP, has replaced the former NEDC in Europe. All our carlines offered in Europe, are homologised according to the new procedure.

NEDC and WLTP figures can be presented to consumers and dealers already during configuration. By doing so, we present the CO_2 impact on every configuration step. Volvo Cars was the first automotive company to communicate WLTP figures for our entire range to our EU consumers.

Circular economy

We recognise the value of the circular economy in reducing waste, carbon emissions and driving profitability. In this respect, Volvo Cars is committed to taking a more circular approach to product design, development and production. This will be a focus area moving forward, and includes making greater use of sustainable materials in our vehicles.

Recycled plastics

In June 2018, we announced our 2025 Recycled Plastics Vision that by 2025, at least 25 per cent of the plastics used in every newly launched Volvo car will be made from recycled material. This will be achieved by working closely with suppliers and the recycling industry. Our vision is to help drive supply of more sustainable plastics within the automotive industry, and are working on an efficient way to measure and follow up on relevant KPIs. To demonstrate the viability of the vision, we revealed an XC60 T8 plug-in hybrid demo car with more than 170 parts made from recycled material. Our vision was commended by UN Environment as an example for other companies to follow, particularly in terms of reducing virgin plastic production and plastic pollution.

Remanufacturing

Volvo Cars' remanufacturing program restores replaced parts to their original specifications to realise both environmental and financial savings. A remanufactured part requires up to 85 per cent less raw materials and 80 per cent less energy compared to a new part. In 2018, the program saved approximately 420 tonnes of steel and 210 tonnes of aluminium. The energy saved corresponds to a carbon dioxide emission reduction of 4,700 tonnes a year. In terms of recyclable materials, we design our cars so that 95.0 per cent of the materials can be recovered, either reused or recycled.

Post 1st life strategy for electric vehicle batteries

Volvo Cars is aiming for a three step strategy for handling electric vehicle batteries after their original use in the cars, i. e. post 1st life. The purpose of the strategy is to maximise battery utilisation, minimise environmental impact by enabling circular material flow, and decrease cost. The strategy follows the waste hierarchy and is in line with Volvo Cars' sustainability programme Omtanke.

1st life ends

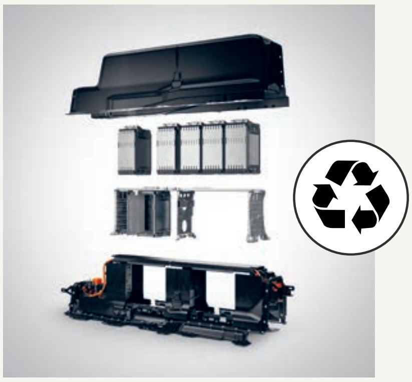
1 **REUSE IN CAR**

Reuse batteries in car after remanufacturing.

2 **2ND LIFE**

Utilise batteries in non-aggressive energy storage applications outside of vehicle.

3 **RECYCLING**



Recover battery materials to enable new batteries to be produced.

VISION

CleanZone leadership

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

CONSUMER EXPERIENCE AND HEALTH – CLEANZONE LEADERSHIP

We work to protect consumers' health and, thereby, improve the consumer experience. This is done by improving the environment in our vehicles, with the aim of ensuring that the air in a Volvo car meets our strict air quality standards and is cleaner than the air outside.

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

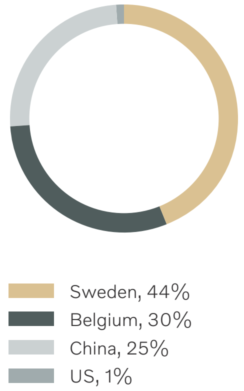
Manufacturing and Logistics

While carefully considering how to minimise the environmental impact of our global expansion, we aim to optimise our production footprint and logistics operations. One of our visions is to be climate neutral in all our manufacturing operations by 2025.

REDUCTION IN GLOBAL MANUFACTURING CO_2 EMISSIONS

16%

CARS PRODUCED BY COUNTRY



MANUFACTURING AND LOGISTICS

A Global Footprint Established

We continued the expansion of our global manufacturing footprint, inaugurating the first US manufacturing plant in Charleston, South Carolina, establishing the company as a truly global car manufacturer with plants in all our sales regions. Volvo Cars also operates two manufacturing plants and an engine plant in Europe, three car factories and an engine plant in China, and assembly plants in India and Malaysia.

EXECUTING ON PLAN

The Charleston plant started production of the new Volvo S60 on the company's Scalable Product Architecture (SPA) platform, in the autumn of 2018. From 2021, the factory will also build the next generation of the Volvo XC90.

Our S90 cars are being built in Daqing in northern China, while the classic S60, as well as XC60 are built in Chengdu. In 2019, we start production of the XC40 in the Luqiao plant. Lynk & Co 01 is built in the same plant, which is specialised on cars based on the Compact Modular Architecture (CMA).

The European plants produce a major part of our yearly volumes. Sweden builds the V90, V90 Cross Country, XC60, V60 and V60 Cross Country, as well as the XC90 on our SPA platform. In Belgium we are building the classic V40, as well as the XC40, the first Volvo car on the CMA platform. Belgium also contributes to V60 volumes with the V60 final assembly. In Europe, production of the classic V60 and S60 models (including the Cross Country version), ended in 2018.

LOGISTICS

Increased use of rail to shorten lead time and lower CO_2 emissions

Our continued global expansion has meant that the CO_2 emissions from transports have increased from 1,136 kg CO_2/car in 2017, to 1,389 kg CO_2/car in 2018. In order to minimise this increasing trend, our focus is to look into new transport solutions, including shifting transport mode to greater use of rail.

For example, in 2018 Volvo Cars began to transport cars from Europe to China via train with a regular service using the International Inland Port of Xi'an as the hub for distribution of vehicles to dealers in North, West and South China. This reduces lead time and shortens distances for truck transportation in China. In addition, a new rail service has started for transportation of vehicles from our factory in Ghent, Belgium, to Italy. As of February 2019, trains with a capacity of around 200 cars each, depart twice a week and replace approximately 60 trucks every week. The switch reduces the CO_2 emissions from that route by around 190 kg/car.

PRODUCTION 2018 IN BRIEF

APRIL
The Torslanda plant in Sweden starts production of the new V60

JUNE
Inauguration of the US plant and launch of the new S60 in Charleston, South Carolina

AUGUST
The Chengdu plant in China celebrates its 5-year anniversary delivering its 300,000th car

SEPTEMBER
The Ghent plant in Belgium starts final assembly of the V60

DECEMBER
The 100,000th S90 built in our Daqing plant in China rolls off the production line

DECEMBER
The assembly plant in Malaysia opens a new supply chain facility ready for in-house kitting activities

DECEMBER
Volvo Cars Engine in Skövde in Sweden builds the 10,000,000th engine since the start of operations of its East Plant in 1990

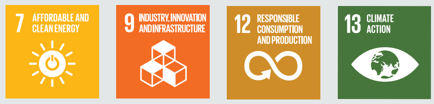
RESOURCE EFFICIENT OPERATIONS

Volvo Cars is committed to minimising its impact on the environment and contributing to global efforts to combat climate change. As part of this commitment, we are working continuously to reduce our plants' energy and water usage, as well as improve our waste management processes. Our total use of resources (e. g. energy, water) and generation of waste and emissions increases with increased production volumes. We work continuously to make our production more efficient in order to reduce our impact per produced vehicle. The environmental performance of our new and existing operations is managed in accordance with ISO14001 (Environmental Management System), which involves third party certification, regular environmental risk analyses and continuous improvement.

VISION

Climate neutral operations by 2025

We aim to be climate neutral (in terms of CO_2) in all our own manufacturing operations by 2025. This is a global commitment that we will achieve through energy efficiency and by securing climate neutral energy supplies.



Towards climate neutral operations

As part of our sustainability programme Omtanke, our vision is to be climate neutral (in terms of CO_2) in all our own manufacturing operations by 2025. Our plan is based on three general activities:

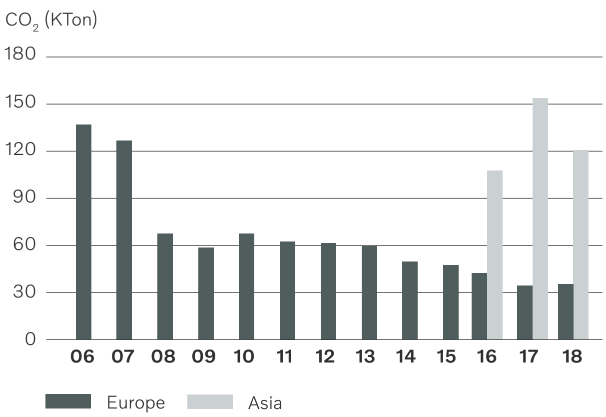
- Energy efficiency projects to reduce the energy usage
- Increase share of purchased renewable energy
- Increase own production of renewable energy

In Europe, we have successfully reduced our CO_2 emissions over a number of years and they have now stabilised at a low level. In Asia, we now see a positive trend with a 20.0 per cent reduction year-on-year, as well as a 40.0 per cent reduction in CO_2 emissions per vehicle produced. We continue to look into new ways to further reduce our operational emissions.

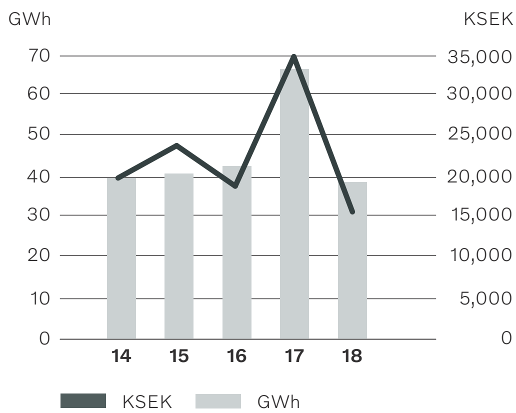
We are actively investigating climate neutral electricity and heating solutions. As an example of progress made, Volvo Cars' engine factory in Skövde, Sweden, became the company's first climate neutral manufacturing plant, having switched to renewable heating as of January 1st, 2018. The successful implementation was possible thanks to long and consistent work to reduce the energy usage, which, in turn, gave the possibility for internal heat recovery and purchase of climate neutral district heating.

During 2018, we installed 15,000 solar panels on the roof of our Ghent production plant. The panels provide energy to cover approximately 5 per cent of the plant's energy usage. The electricity cost reduction is around MSEK 2.1 per year. The Ghent factory already uses wind power to supply around 11 per cent of the plant's power consumption. Moreover, in 2016 the factory introduced a heating system that reduced carbon emissions by 40.0 per cent. Our energy efficiency actions in

NET CO_2 EMISSIONS
– MANUFACTURING OPERATIONS –



ENERGY EFFICIENCY SAVINGS



our production plants during 2018 have resulted in a reduction in energy use of 39 GWh. This also means a reduction of our CO_2 footprint by 5,800 tonnes. The total CO_2 emissions of Volvo Cars' production sites are 158,500 tonnes.

Energy consumption

Our direct use of energy is in the form of natural gas, Liquefied Petroleum Gas (LPG) and oil, and indirectly in the form of purchased electricity and district heating. Each plant has annual energy efficiency targets, which are regularly monitored. Volvo Cars started focusing on energy savings in 2007 and has worked with structured energy saving projects since 2010. This has resulted in both direct and indirect accumulated savings of MSEK 476. Some examples of the most significant energy conservations completed in 2018 are:

- Replacement of hot water main pipes in the Daqing plant that reduces natural gas usage by roughly 9.3 GWh/year, corresponding to around MSEK 2.1/year
- Close down of repair spray booth in the Torslanda plant paint shop that results in a reduction of natural gas, electricity and district heating usage by 7.5 GWh/year in total, corresponding to MSEK 3.8/year
- VOC abatement equipment upgrade with upconcentrating rotor and catalytic purification, resulting in a reduction of natural gas and electricity usage by 5.5 GWh/year which corresponds to MSEK 1.4/year

Managing other emissions

We continuously work to minimise emissions of Volatile Organic Compounds (VOCs). Our paint shops in Torslanda, Sweden and Ghent, Belgium are among the most advanced in the world, with emissions over four times less than the EU standards require. When building a new paint shop in the new production site in Charleston, Volvo Cars took the opportunity to install abatement equipment that leads to extremely low emissions of VOCs and significant reductions of energy usage.

Water management

We focus our freshwater management efforts on the sites we have identified as having water scarcity issues. The total water consumption at our plants in Asia is increasing due to a ramp-up in production. However, the water consumption per produced car in Asia is decreasing; 6.9 m^3/vehicle in 2018, compared to 8.7 m^3/vehicle in 2017. Water consumption in Europe has stayed approximately the same in 2018 as in 2017 at 1.5 m^3/vehicle.

Waste management

We work to reduce waste by applying our waste management hierarchy in decision making. Our largest waste stream is metal from car production, which is entirely recycled. In 2018, this amounted to 239,000 tonnes of metal scrap for recycling. Furthermore, initiatives were launched to reduce the amount of used metals within the body components plant in Sweden.

Volvo Cars is working to increase the amount of recycled waste at our production sites and decrease the amount of waste that is landfilled or incinerated. Our waste management aims to have new solutions for waste streams with the philosophy 'every single step counts'. In 2018, we increased our material recycling from 91.0 per cent to 94.0 per cent and the amount of landfilled waste decreased from 3.0 per cent to 1.0 per cent by steering more and more waste streams towards material recycling instead of incineration. We have also created a more closed loop solution in our aluminium scrap value chain with a new sustainable partnership with our supplier. The outcome of this solution is an improvement in the transport solution, the transparency and that our aluminium is now recycled into premium products.

Consumer Experiences

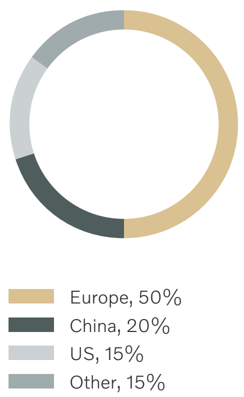
Our human centric focus is at the heart of everything we create and an improved consumer journey aims to improve the user experience. We will achieve this by advancing on digitalisation and experimenting with new retail concepts as well as providing care-free user experiences and personalised technical services. In addition to new car sales, we offer subscription services, shared mobility and a global used car program.

RECORD RETAIL SALES

↑12%

With 642,253 (571,577) cars sold 2018 sets a new annual sales record

RETAIL SALES BY MARKET



CONSUMER EXPERIENCES

Providing Freedom to Move

We believe that we create great products and services that simplify people's lives, and we combine the skillset we have gained over the past 90 years with a curiosity of what lies ahead in an undefined tomorrow. We believe that we need to collaborate with others to challenge ourselves to excel. Everything we do starts and ends with our company purpose – to provide Freedom to Move in a personal, sustainable and safe way.

BRAND AND CONSUMER EXPERIENCES

Our promise, communicated through our brand strategy, is to make our consumers feel special and rewarded by choosing the Volvo Cars brand. By doing so we believe consumers contribute positively to the environment while protecting what is important to them and others.

Our unique Volvo Cars brand proposition to support this, is by offering refined Scandinavian luxury, our aim to simplify life with a human touch, better environmental technology solutions, and the most advanced mobility safety innovations.

To support our longer term ambition of reaching additional direct consumer relationships, we have developed a full program around the consumer experience journey. It measures and prioritises the most important touchpoints that will deliver real value to our consumers. This includes a continued strong relationship with our dealers, creating relevant digital marketing touchpoints, and also accelerate the roll-out of new and complementary digital products and service offerings.

Care by Volvo

The needs of consumers have changed with respect to car ownership in recent years, and they continue to change. Seamless, personalised and simple forms of mobility are of great importance, and the time and effort associated with owning a car is distracting. Consumers require smooth mobility, flexibility, effortless ownership and a simple digital shopping experience. Care by Volvo is our answer to the changing needs.

At the same time, the mobility market is currently in a state of ever-faster transformation. New competitors and ownership offers are forcing their way into the market, and we are challenged to develop new business models in order to reinforce our position in the market and emphasise our strengths as a premium brand with a strong, comprehensive network of retail partners. Against this background, we have developed Care by Volvo.

We want to act proactively and be early with new ownership offers. With Care by Volvo we build direct consumer relationships and capture a greater share of the value chain, both for Volvo Cars and our retail partners. With Care by Volvo we offer Freedom to Move in a personal, sustainable and safe way. Personal, by offering a car tailored to ones needs, at any time. Easy to start, open ended, less committed. Sustainable, by taking responsibility throughout the life of the car. And safe – Volvo cars are not only the safest – we take all the other hassle and worry out of car ownership.

By year end 2018, Care by Volvo was launched in 8 markets.

M – A new concept for global shared mobility

Driven by changing consumer preferences, increased urbanisation, technological innovations and progressive political forces, shared mobility is expected to grow significantly in coming years. As an alternative to private car ownership, we expect shared mobility to become a reliable everyday option for urban consumers.

M is the global shared mobility venture within Volvo Cars. In 2018, M made strides forward with six alpha tests in Sweden, testing all major service elements with target consumers. Preparations for launch in 2019 includes a comprehensive transformation of Sunfleet into M in Sweden, as well as a local launch in one US market. Sunfleet is a traditional car sharing company with 40,000 active users.

AD

The guiding principle behind everything we make, is and must remain, safety. Our aim is to continue to be the leader in safety and build cars for people who care about other people. AD has the potential to further advance safety by creating a more safe traffic environment, both in and around the car. We ensure safety in all our consumer offers, including our new mobility services provided by Care By Volvo and M, as well as in autonomous base cars and digital services. We aim to offer premium autonomous cars to consumers. Via agreements with for example Uber and ongoing discussions with other possible partners, our aim is to be the supplier of choice for AD ride-sharing service providers globally.

> We have developed a full program around the consumer experience journey, delivering real value to our consumers.

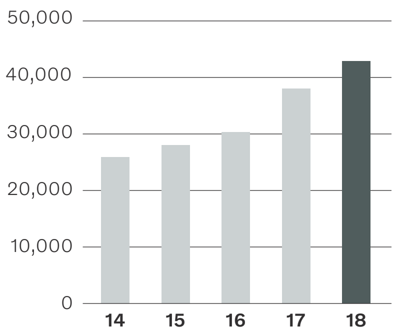
PROGRESSIVE DIGITALISATION

Volvo Cars continues to invest in the consumer experiences area to build strong relationships with our consumers. Digital channels enable us to reach people in new ways, and offer a much simpler experience in signing up to and using our products and services. Improved user experience, mobile channels and new connectivity services will make life easier and save time. At the same time, we are making digital investments to sharpen our engineering and manufacturing capabilities to be ready for the future and drive higher efficiency.

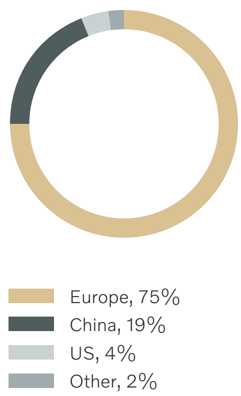
People

Our core strength comes from our people. Human centricity is key at Volvo Cars, and our open-minded culture unites us and is our competitive edge. We believe in doing things together, and gather around missions to achieve great results. Our culture sets the scene for our engagement, development and performance, and therefore also our business success and our attractiveness as an employer.

AVERAGE NUMBER OF EMPLOYEES



EMPLOYEES BY PRESENCE



PEOPLE

People Make the Difference

Our people are global and diverse, they are central to maintaining the strong Volvo Cars culture. Attracting talent all over the world and bringing out the best in people will positively impact our business, which is crucial if we are to remain a leading player in the highly competitive premium automotive industry. We want to be the Employer of Choice where people make the difference.

In 2018, Volvo Cars was ranked as the number one Employer of Choice among bachelor engineering students in Sweden. The Universum survey polls 225,000 business and engineering/IT students in the world's 12 largest economies about who the world's most attractive employers are. We improved our position on the global list for Master of Science engineering students from 51 to 34, the greatest improvement of any business on the list.

A RESPONSIBLE BUSINESS

Volvo Cars employs around 43,000 people and in 2018 we expanded our workforce by adding approximately 3,500 people, or 8.9 per cent, to the organisation globally. Our People Policy ensures that we secure health and safety, that diversity and inclusion is encouraged, labour rights are embraced and adhered to, and that we are embodying compliance and ethics.

VISION

No fatalities or serious injuries at Volvo Cars

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

3 GOOD HEALTH AND WELL-BEING

8 DECENT WORK AND ECONOMIC GROWTH

HEALTH AND SAFETY

A sustainable work life

As a human centric company, our aim is to offer a safe, motivating and attractive workplace where people are able to grow and contribute to the company's development. Sustainable work-life is about addressing the life balance as well as health and safety for everyone working at Volvo Cars.

We have an open and inclusive culture and strive to be a truly global and diverse company.

Our approach to health and safety

We have the same approach to health and safety regardless of geographic location that transcends our entire organisation. All our operations, employees and contractors are governed by our global standards. Health and safety specialists work strategically within all parts of Volvo Cars according to Volvo Cars Work Environment Directive.

During 2018, we continued to have a global focus on risk observations as well as safe and secure behaviour. We also continued to implement the Volvo Cars Health and Safety Global Procedures in the US operations and promoted our safety culture through leadership training with focus on behaviour. During the year, there have been many local health initiatives such as Health and Safety Month in Asia, flu vaccination offers, seminars, substantial increases of health benefit promotions and participations in external sport events.

DIVERSITY AND INCLUSION

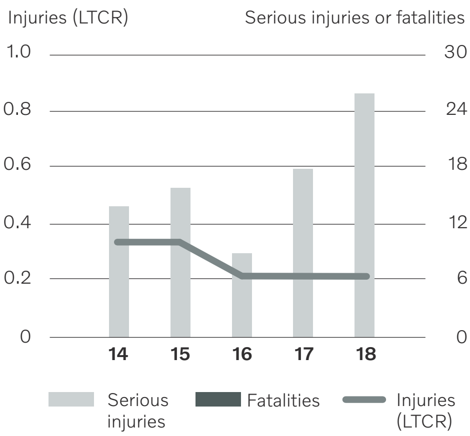
A diverse and inclusive culture

We have an open and inclusive culture and strive to be a truly global and diverse company by promoting inclusiveness and leading by example. Diversity and inclusion is about attracting and leveraging people with different competencies, backgrounds, culture, gender, experience and personalities. This helps build an innovative, ethical and inclusive global culture and organisation and supports our aspiration of being the Employer of Choice where people make the difference.

Diversity governance

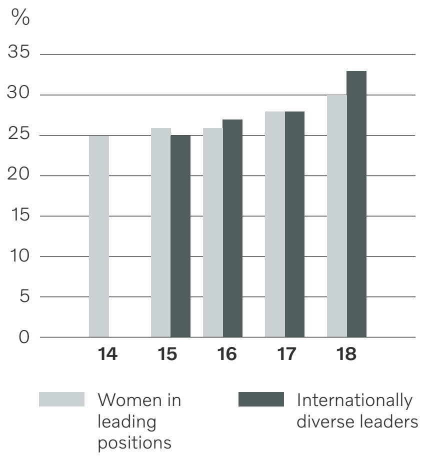
Volvo Cars People Policy outlines the values and expectations that we have for diversity and equal opportunities. Our Global Diversity and Inclusion Catalyst Team with representatives

FATALITIES AND INJURIES

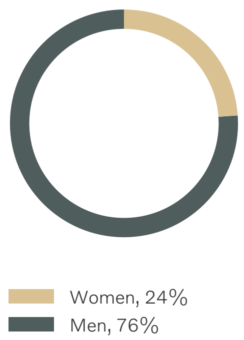


Injuries (LTCR) – Volvo Cars employees
Serious injuries – All personnel
The 2018 increase is due to increased number of personnel, and start-up of new production site.

DIVERSITY IN LEADERSHIP POSITIONS



GENDER DISTRIBUTION – ALL EMPLOYEES –



from each function and region, serve as the governing body to ensure continuous improvement.

Promoting inclusiveness, gender balance and international experience

We work actively in promoting inclusiveness so that everyone working at Volvo Cars is respected for who they are. During the year, we have conducted an extensive Training Program on Discrimination, Harassment and Bullying throughout the organisation (for further information, see Labour Rights).

In our annual employee survey, the Global People Survey, awareness of what constitutes harassment scored second and third highest of all areas. The survey also indicated that 71.0 per cent of Volvo Cars' employees consider the organisation to value diversity (e. g. gender, gender identity or expression, ethnicity, religion or other belief, disability, sexual orientation and age).

Furthermore, we have conducted the extensive Inclusive Leadership Programme for about 275 leaders in the Torslanda manufacturing plant, which started in 2017 and was finalised by the end of 2018.

VISION

≥ 35% internationally diverse leaders and

≥ 35% female leaders by 2020

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

5 GENDER EQUALITY

10 REDUCED INEQUALITIES

In August 2018 Volvo Cars participated as one of the official partners of EuroPride 2018 in Gothenburg. More than 400 employees with families and friends, including members of our Pride@Volvo Cars employee network, participated in the EuroPride parade through the city centre of Gothenburg, celebrating our passion for people and everyone's right to be their authentic self.

We are also working to improve our gender balance by attracting new female employees through our career site, targeted job adverts and partnership initiatives. In March 2018 we hosted 80 young females at our R&D centre in Gothenburg during the IGEDay (Invite a Girl to Engineering Day). At the Girl Geek X event in September at our office in Mountain View California, we had over 200 attendees with a variety of tech backgrounds and also hosted a Girl Geek X dinner. Internally, we are developing strategic succession planning, female leadership mentoring programmes and strengthening our internal and external communication on diversity and inclusion. We are dedicated to creating a diverse and multi-cultural Top Management Team that brings international experience and global perspective with varied competencies, backgrounds and cultures, and that is valued in industry leading, innovative and consumer focused organisations. By the end of 2018, about 33 per cent of our top 300 managers were non-Swedish. The increase since 2017 is mainly due to an increased share of leaders with American and Chinese nationality. Females in leading positions increased to 29.3 per cent. To deliver on our Omtanke Vision of diverse leadership, we have now taken action by committing to 50/50 male/female in all external leader recruitments.

Fair and equal pay

An important aspect of diversity is to ensure fair and equal pay to all employees. To ensure this, we have implemented clear remuneration principles and a structured salary process. According to Volvo Cars People Policy, wages and benefits shall be commensurate with legal and/or industry standards and always be equal to, or above the defined living wage.

LABOUR RIGHTS

Freedom of association and social dialogue

Volvo Cars People Policy clearly states that all employees have the right to form or join labour organisations of their choosing and to bargain collectively. Results from People Policy assessments at our plants, suggest those rights are well established among the employees. Volvo Cars encourages dialogue with its employees, either by cooperation with the unions, other employee representatives or employees directly. Approximately 75 per cent of our workforce is covered by collective labour agreements.

The social dialogue between Volvo Cars and the unions regarding information and consultation, is considered to create value and contribute to the development of the company. Globally, entities with established unions or work councils in general have a good social climate.

Zero tolerance towards harassment and discrimination
We have zero tolerance towards harassment and discrimination as defined in the Volvo Cars People Policy. The extensive Training on Discrimination, Harassment and Bullying has taken place throughout the organisation and further training needs where identified in the People Policy assessments of our plants. In 2018, a limited number of cases of suspected discrimination and 69 cases of harassment were reported globally. All cases were investigated, and corrective and supportive actions were taken in all instances.

PEOPLE POLICY ASSESSMENT

In order to further strengthen our commitment to and ensure compliance with our People Policy, we decided to carry out the People Policy Assessment. The project started in 2017 and is still ongoing.

During 2018, the plants in Ghent, Gothenburg, Skövde and Olofström were assessed. The process is in line with the United Nations Guiding Principles on Business and Human Rights and assesses both potential and actual human rights impacts. The assessment involves desktop assessments, interviews conducted with key external and internal stakeholders, on-site verification and assessment of risks, analysis of impacts and creation of action plans. The assessments in Belgium and Sweden have identified improvement opportunities in the following key risk and impact areas:

- Health and safety; ergonomic and nearby traffic conditions
- Discrimination and harassment; diversity processes to be further strengthened
- Working hours; leave and rest periods

At the end of each plant assessment, a report is developed, including proposed actions to prevent, mitigate and remediate negative risks and impacts. The Compliance and Ethics Office is monitoring and following up these actions with local management. These actions include:

- Increased ergonomic routines, traffic improvements in dialogue with the City of Gothenburg Sweden and work to further strengthen the safety culture
- Continuous discrimination awareness and training
- Follow-up of routines regarding salary setting

COMPLIANCE AND ETHICS

Ethical and responsible business
Responsible business has been a fundamental part of Volvo Cars' culture since its inception. It also makes business sense – conducting business in a responsible manner is an enabler for sustainable profitability and growth and for attracting and retaining talents.

We strongly believe that leaders play a key role in Volvo Cars´ commitment to responsible business by being role models for ethical behaviour and professional integrity at all times.

Leaders are supported in this role by the Compliance and Ethics Office, whose mission is to manage the Compliance and Ethics Programme with initiatives and controls that aim to prevent, detect and mitigate legal and ethical risks in the areas of anti-corruption, anti-trust, data protection, human rights and trade sanctions and export control as further outlined in the Corporate Governance Report.

A risk-based approach to compliance

A regular compliance risk assessment allows us to identify and understand the main risk fields to which we are exposed and, in each of these fields, the high-risk areas. This risk assessment also serves as the basis for identifying the appropriate improvement and mitigation measures and to ensure that our Compliance and Ethics Programme is customised to address the areas within the scope of our programme where our main risks are to be found.

Compliance and Ethics Framework

Our Code of Conduct, Our Code – How We Act, is at the heart of our Compliance and Ethics Programme. It is based on Volvo Cars´ strong ethical values and commitment to conduct business in a responsible manner, as well as relevant international conventions and standards. It describes what is expected from Volvo Cars' employees when performing their work by summarising Volvo Cars' behavioural commitments, and the corporate policies and directives. It is our way of ensuring that business is conducted with integrity.

Our corporate policies and directives are available and apply to all employees in their daily business activities. They are supplemented by specific guidelines that explain how the principles stated in the policies and directives can be implemented.

We also expect that our business partners follow the same or similar principles and, for this purpose, we have developed a specific Code of Conduct for Business Partners that outlines

Volvo Cars´ requirements, in particular regarding human rights and working conditions, caring for the environment and business integrity including zero tolerance for bribery and corruption. The Code of Conduct for Business Partners is contractually binding upon our business partners.

Reported Code of Conduct violations

In 2018, 76 suspected violations of our Code and our policies were reported to the Compliance and Ethics Office. Following investigation, 25 of these reports were substantiated, and disciplinary actions were taken in 22 cases, including employee dismissals and termination of supplier contracts.

Compliance and Ethics training

Compliance and Ethics training and communications are our tools to embed responsible business within operations. A new mandatory Code of Conduct e-learning was launched in connection to the update of Our Code – How We Act, and the rest of the Compliance and Ethics Framework. The e-learning, which also includes the yearly Code of Conduct Certification, uses dilemmas to increase the understanding of, and potential risks connected to, the areas covered by the Code.

Leaders are also trained, via the leadership programmes, to develop their ethical behaviours and culture of ethics. More than 1,200 leaders have been trained since the launch of the leadership programmes and we will continue to focus on these trainings in 2019.

During the past two years, all production employees have received an introduction to the Code of Conduct, the Tell Us Reporting Line, and the responsibilities of being an employee at Volvo Cars.

In 2018, we particularly focused on communication around GDPR and responsible business in general. We launched the Responsible Business Discussions, where managers lead discussions with their team members around ethical challenges based on real scenarios, and the Monthly Ethical Highlights which is a monthly series based on real dilemmas and cases that the Compliance and Ethics Office has dealt with.

In 2018, Volvo Cars was recognised as one of the World's Most Ethical Company® by the Ethisphere Institute for the second year in a row.

VISION

Ethical leadership for responsible business

Our commitment is supported by our focus on purpose driven leadership. This involves our leaders setting the tone and being role models for sustainable, responsible, ethical behaviour and decision making. By showing professional integrity, we create trust which is a fundamental strength of our business and culture. We are transparent and foster a speak-up culture. We take ownership – it is our shared responsibility as employer and employee.

Continuous improvement of Volvo Cars Compliance and Ethics Programme

The Compliance and Ethics Programme is continuously improved thanks to a regular analysis of the internal and external audits and assessments that are made.

Our main focus in 2018 was to enhance our Data Protection Compliance Programme in order to adapt our requirements for the protection of personal data with a view to comply with the new data protection regulations that came into force in the course of 2018. The People Policy Assessment initiated in 2017 continued and led to actions in 2018. An improved risk assessment process was implemented (for further information, see People Policy Assessment).

Society

We aim to contribute to a better society and protect people and the environment by creating partnerships for sustainable development and promoting traffic safety together with local and international organisations.

JOBS CREATED WORLDWIDE

↑ 3,500

During 2018 Volvo Cars employed an average
of 43,000 (39,500) people

SOCIETY

Making a Wider Difference

We are working to ensure that our company and our employees contribute to creating a better and more prosperous society, as well as protecting people and our planet. We do this in several ways, including through creating strong partnerships with international, national and local organisations. Many of our people also work to improve the quality of life in the communities in which we operate. Our continued growth creates jobs and prosperity. We want to create a better world, but we are limited in what we can achieve by ourselves. By forming partnerships we can increase the impact of our efforts.

UNITED NATIONS GLOBAL COMPACT

We are a founding member of the United Nations Global Compact, the world's largest corporate sustainability initiative, focused on ensuring that business supports the delivery of the Sustainable Development Goals (SDGs).

Volvo Cars is an active member of two of the United Nations Global Compact's Action Platforms; one focused on ensuring that companies can make a meaningful contribution to the targets set under the Paris Climate Change Agreement, and the second on taking action to advance decent work in global supply chains. In both, Volvo Cars is working with like-minded companies and specialists to demonstrate leadership in these issues. In recognition of this heightened engagement, and our industry leading electrification strategy, the United Nations Global Compact awarded Volvo Cars LEAD Member status in 2017. The recognition continued in 2018. This is granted to the most committed, engaged and ambitious companies within the Global Compact. Volvo Cars is one of only 34 LEAD companies out of a total of 9,500 members – and one of only two car makers.

VISION

Engage in corporate partnerships to promote sustainable development

Volvo Cars will continue to support organisations and initiatives promoting sustainable development. We will also work to improve the quality of life in the communities in which we operate, including through:
- Enhancing social mobility and promoting diversity
- Promoting international and local environmental initiatives
- Increasing knowledge and awareness of traffic safety

17 PARTNERSHIPS FOR THE GOALS

ENHANCING SOCIAL MOBILITY AND PROMOTING DIVERSITY

In 2018, Volvo Cars continued its project with the aim of reducing social segregation in the Gothenburg area, and broadening the future talent base for recruitment. The objective is to increase interest among youth and young adults to work in the automotive industry, motivate young people to enter higher education, as well as increase diversity and inclusion within local society. Some examples of activities are:

- Volvo Experience Program (VEP) – a 7-month work experience internship program open to long-term unemployed people in Sweden between the ages of 18 and 24
- Mentor programs (Mitt Liv and Öppet Hus) – social enterprises that support recent immigrants to Sweden by helping them integrate into the local job market
- Cooperation with targeted secondary schools – Volvo Cars' employee role models have inspired and motivated students through school visits
- Homework and study support – Volvo Cars' employees have helped local children in their educational development

Additionally, Volvo Cars continued its Number 10 initiative together with the Swedish Football Association and Swedish football legend, Zlatan Ibrahimovic. This annual award is

designed to recognise and support people or organisations that help develop Swedish football at the grassroots level. Our ambition is to play a part in shaping the future of Swedish football, based around the Volvo Cars' values of equality, diversity and care for people. In 2018, MSEK 1 was presented to the organisation Grunden Bois in recognition of their principles of inclusion regardless of athletic ability or level of disability.

PROMOTING INTERNATIONAL AND LOCAL ENVIRONMENTAL INITIATIVES

Volvo Ocean Race Science Programme

Volvo Cars pledged to donate EUR 100 from the sales of each of the 3,000 V90 Cross Country Volvo Ocean Race cars it has built for the 2017–2018 Volvo Ocean Race Science Programme – a total donation of EUR 300,000.

The programme equipped boats in the race with a variety of sensors that captured data from some of the remotest parts of the world's oceans. This included temperatures, barometric pressure, currents and wind speed, levels of salinity, dissolved CO_2 and algae in the sea water around them. Combined with other data on micro-plastics, these measurements have helped create an unprecedented picture of the scale of plastic pollution and its impact on ocean life. The data is being used by scientists and research institutes to consider how we can tackle the problem of marine plastic pollution, as well as contribute to more accurate weather forecasts and climate models.

Volvo Cars Beach Clean Up

In support of the United Nations Environment's Clean Seas campaign to tackle marine plastic pollution, our CEO, Håkan Samuelsson, set out a challenge to all employees to go out with their teams and clean local beaches and shorelines. Volvo Cars is proud to be the first global company to mobilise our workforce in support of the initiative. So far, around 2,000 employees and dealer staff from 20 countries have taken part in the Volvo Cars Beach Clean Up campaign, including activation on World Environment Day where 850 employees and dealer staff from 16 countries mobilised in June 2018 to #BeatPlasticPollution.

Removal of single-use plastics

In May, Volvo Cars announced that we will remove single-use plastics from all our offices, canteens and events across the globe by the end of 2019. This reflects our active support of the United Nations Environment Clean Seas campaign, and means we will replace over 20 million single-use plastic items per year. Items such as cups, food containers and cutlery are being replaced with more sustainable alternatives, including biodegradable products made of paper, pulp and wood.

KNOWLEDGE SHARING TO IMPROVE TRAFFIC SAFETY

We continue to actively cooperate and partner with key organisations and society that help to share our knowledge on traffic safety. We share our real-life safety perspective, our experiences and our unique way of working in partnership with stakeholders. Our approach benefits both international and national authorities as well as the societies that have a need for development in this area.

Our collaboration with the Swedish Transport Administration, based on an agreement signed in 2008, has made significant progress in terms of using a holistic approach to traffic safety and how to divide the responsibilities between vehicle manufacturers and public authorities responsible for the infrastructure. In 2018, the template created in this cooperation has successfully been cascaded to other government and multilateral organisations working on traffic safety.

Board of Directors Report

The Volvo Car Group

Volvo Car AB (publ.), with its registered office in Gothenburg, is majority owned (99 per cent) by Geely Sweden Holdings AB, a subsidiary of Shanghai Geely Zhaoyuan International Investment Co., Ltd., registered in Shanghai, China, with ultimate majority ownership held by Zhejiang Geely Holding Group Co., Ltd, registered in Hangzhou, China.

Volvo Car AB (publ.) holds shares in its subsidiary Volvo Car Corporation and provides the Group with certain financing solutions. Volvo Car AB (publ.) indirectly, through Volvo Car Corporation and its subsidiaries, operates in the automotive industry with business relating to the design, development, manufacturing, marketing and sales of cars and thereto related services. Volvo Car Group and its global operations are referred to as “Volvo Cars” or “the Group”.

Volvo Cars sales development

Volvo Cars’ sold 642,253 (571,577) units, an increase of 12.4 per cent year-on-year, following double digit growth across seven of our top 10 markets. SUV sales accounted for 56.0 (47.7) per cent of total retail sales. Wholesales increased by 12.2 per cent to 656,688 (585,307) units. The best-selling model for the year remains the XC60 which grew 2.4 per cent to 189,459 (184,966) units, despite a strong development in 2017 when both the XC60 Classic as well as the new XC60 were available to the market. Demand for the XC90 remained strong with retail sales growing at 7.6 per cent during the period. The successful ramping up of the Volvo XC40 continues selling 75,828 units inthe year, now fully introduced in all main markets with the exception of China. Conversely, V40 sales decreased, also driven by the phase-out of the car.

Europe

Market

The passenger car market in Europe recorded a slight decline in car registrations for the full year of 0.8 per cent. New Worldwide Harmonised Light Vehicle Test Procedure (WLTP) rules created a sell-off prior to implementation during the first half of the year, resulting in testing bottlenecks post implementation during the second half of the year.

Volvo Cars

Despite a decline of passenger car sales in Europe, Volvo Cars’ sales growth remained resilient at 6.5 per cent year-over-year to 318,235 (298,948) units. SUV sales drove the growth, increasing by 22.8 per cent to 159,014 following the full introduction of the Volvo XC40 during the year, offsetting contractions in the S and V lineups. Apart from a 9.8 per cent decline in Sweden, mainly due to the Bonus Malus programme (new tax regulations) implemented in July. All main markets reported growth mainly due to the demand of XC40. Growth resumed in the UK with retail sales increasing 8.6 (–1.4) per cent and in Germany sales grew 11.8 (2.4) per cent. SUV sales accounted for 50.0 (43.3) per cent of total retail sales.

China

Market

The passenger car market in China declined by 5.7 per cent, the first annual decline in auto sales in over 20 years. Despite this, the premium car market continued to grow, increasing 8.5 per cent during the period.

Volvo Cars

Strong demand continued for Volvo Cars in China, with a retail sales growth of 14.1 per cent 130,593 (114,410) units, despite a slowing market backdrop. Sales growth was mainly driven by the locally produced S90 and XC60, followed by the XC90. SUV sales accounted for 50.0 (45.6) per cent of total retail sales.

Reversal of unutilised amounts

Key ratios, MSEK	Full year 2018	Full year 2017[1]	Full year 2016[1]	Full year 2015[1]	Full year 2014
Net revenue	252,653	208,646	178,586	160,515	137,590
Operating income, EBIT	14,185	14,061	11,014	6,620	2,128
Net Income	9,781	10,225	7,460	4,476	508
EBITDA	28,593[2]	26,159	21,541	16,019	9,491
Operating and investing cash flow	4,705	–3,800	6,515	7,234	–4,766
EBIT margin, %	5.6	6.7	6.2	4.1	1.5
EBITDA margin, %	11.3	12.5	11.9	9.8	6.9
Equity ratio, %	29.0	28.7	26.8	26.2	27.8
Net cash	18,029	12,513	18,873	7,721	–856

1) In 2018 there has been a change related to sale of certain cars accounted for as operating leasing. The comparative periods 2017, 2016 and 2015 have been changed accordingly, reducing net revenue and cost of sales with an amount of MSEK 2,266 for 2017, (2016: MSEK 2,316) (2015: MSEK 1,999). 2014 figures have not been restated. The change has not had any effect on gross income.

2) Including effects of additional amortisation related to assets sold to Polestar Group of MSEK 1,195.

US

Market

Total light vehicle sales in the US grew by a small 0.3 per cent, as growth of 8.0 per cent in the light truck segment was offset by a 13.1 per cent decline in the passenger car segment. The light truck segment encompassed 68.2 (63.3) per cent of total light vehicle sales and increased 17.0 per cent year-over-year Demand for premium XS SUVs is on the rise and recorded 27.3 per cent growth.

Volvo Cars

Growing faster than the local market, retail sales in the US increased by 20.6 per cent to 98,263 (81,504) units. Growth was driven by strong demand for our XC line-up, mainly the XC40 and XC60 with retail sales of 12,427 and 32,689 (22,516) units, respectively. Growth was offset to some extent by the decline in S line-up sales of 31.0 per cent. Overall, SUV sales accounted for 78.1 (65.7) per cent of total retail sales.

Other

Retail sales growth in other regions remained robust at 24.0 per cent to 95,162 (76,715) units, driven by higher demand for Volvo Cars' SUV portfolio, offset to some degree by moderate declines in the S and V line-up. The largest markets were Japan, Russia and Canada, but the fastest growing market was Brazil at 88.8 per cent.

Retail sales (units)	2018	2017	Change %
Europe	318,235	298,948	6.5
China	130,593	114,410	14.1
US	98,263	81,504	20.6
Other	95,162	76,715	24.0
Total	**642,253**	**571,577**	**12.4**

Retail sales by model (units)	2018	2017
XC60/XC60 Classic	189,459	184,966
XC90	94,182	87,518
V40/V40 Cross Country	77,587	95,370
XC40	75,828	96
S90/S90L	57,142	46,602
V60/V60 Cross Country	54,095	51,911
V90/V90 Cross Country	53,461	50,575
S60/S60L/S60 Cross Country	40,499	54,197
Other (discontinued models)	—	342
Total	**642,253**	**571,577**

Top 10 Retail sales by market (units)	2018	2017
China	130,593	114,410
US	98,263	81,504
Sweden	67,128	74,397
UK	50,065	46,089
Germany	45,134	40,364
Belgium	21,201	19,094
France	18,825	16,263
Italy	19,340	17,628
Japan	17,389	15,751
Netherlands	16,312	12,216

Significant events

Polestar a stand-alone group

The Polestar Group consists of the parent company Polestar Automotive (Shanghai) Co., Ltd based in China, with subsidiaries in China, Sweden and the US. Previously all entities in the Polestar Group were wholly owned by Volvo Cars through its subsidiary Volvo Cars (China) Investment Co., Ltd, with the exception of the Chinese manufacturing subsidiary that has been under joint ownership with certain Geely Group companies, although still consolidated into Volvo Car Group. During the third quarter 2018, Volvo Cars acquired the non-controlling interest of 50 per cent related to the Chinese manufacturing entity Polestar New Energy Vehicle Co., Ltd previously jointly owned with the Geely Group. Further, Geely Group subscribed for 50 per cent of the equity in Polestar Automotive (Shanghai) Co., Ltd the parent company in the Polestar Group. After these transactions Geely Group and Volvo Cars are joint owners of the Polestar Group, with 50 per cent each. The investment by Geely amounted to MCNY 1,500. In connection with the Geely investment a shareholders agreement was entered into between Volvo Cars (China) Investment Co., Ltd and Zhejiang Geely Holding Group Co., Ltd, giving the owners joint control over the Polestar Group. Considering this agreement the assessment is that Volvo Cars no longer has control over the Polestar Group and, as a result, it is no longer consolidated into Volvo Car Group. Polestar Group is considered to be a joint venture and have been accounted for in accordance with the equity method. During the fourth quarter, Geely has paid an additional capital contribution to Polestar Group of MCNY 1,300, which has been reflected in Volvo Car Group consolidated equity to the shareholding of 50 per cent.

Other events during the year

Mobility brand launched

Volvo Car Mobility launched M – the mobility service. The company's mobility operations will expand to include providing dependable, on-demand access to cars and services through an intuitive app.

Technology start-up investment fund launched

The launch of the fund is supporting Volvo Cars' ambition to invest in strategic technology and mobility such as artificial intelligence, electrification, autonomous driving and digital mobility services. It is part of a continued push for innovation, and accelerates the Group transformation.

Upgraded credit rating

Volvo Cars credit rating was upgraded In May by the rating agency Moody's. The global credit rating agency upgraded Volvo Cars from Ba2 to Ba1 with a stable outlook. In addition, Volvo Cars is also rated BB+ by S&P, and the rating agency upgraded the outlook on the credit rating from stable to positive in 2018.

First US manufacturing plant inaugurated

The production start of the new S60 in the Charleston plant was a proof point of our strategy, "Build where we sell". The Charleston-plant confirms expanded manufacturing footprint established the company as a truly global car manufacturer with plants in all three regions.

Portfolio renewal completed

With the S60 and V60 launched, our portfolio renewal is completed.

First manufacturing plant became climate neutral

As part of Volvo Cars' Sustainability Programme Omtanke, the engine factory in Skövde, Sweden has become the Group's first climate neutral manufacturing plant, having switched to renewable heating as of January 1, 2018.

Changes in Board of Directors and the Executive Management Team

New appointments to the Board of Directors

During the year the following appointments to the Board of Directors have been made;

- Michael Jackson, new board member
- Jim Zhang, new board member
- Lone Fønss Schrøder, new role within the Board as Vice Chairman
- Peter Zhang, resigned from the Board of Directors
- Mikael Olsson, resigned from the Board of Directors

Significant events after the reporting period

No significant events after the reporting period.

Research and development

Volvo Car Group constantly invests in research and development to strengthen its product portfolio and develop new cutting edge technologies. In 2018, the company completed the renewal of its product portfolio with the launch of the new S60 and V60/V60 Cross Country, based on Volvo's in-house developed SPA modular product architecture. The next generation of SPA, called SPA 2, is already under development and will underpin the next generation of Volvo cars. Each model in that next generation of cars will be electrified: during 2018, the company laid the foundation for a comprehensive electrification strategy that will take it to a future beyond the era of the internal combustion engine. Volvo Car Group also continues its development of driver assistance systems and future autonomous drive technology, in close collaboration with selected partners. All of the above illustrates the company's agile way of working when developing new products, in order to increase quality and speed to market as well as incorporate consumer experiences early on in its development work.

Environment

Volvo Cars has a longstanding commitment in being a responsible company with a clear focus on sustainable development. This commitment is reflected throughout the Annual Report in line with international reporting guidelines set out in the Global Reporting Initiatives (GRI). All our businesses have permits regulating the environmental impact of their operations. Continuous reporting on this impact is undertaken according to guidelines and requirements submitted by local and national environmental authorities.

Employees

During the year Volvo Cars has employed on average approximately 43,000 (39,500) full-time employees. Furthermore, on average approximately 4,500 (4,000) consultants were employed. The total increase relates mainly to higher production volumes, startup of the Charleston plant in the US, development of future technologies such as electrification and autonomous driving, as well as continuous development of current and future car models.

Proposed distribution of non-restricted equity

The parent company

The following funds are at the disposal of Annual General Meeting (AGM):

Share premium reserve	SEK	11,405,115,511
Retained earnings brought forward	SEK	–4,023,550,505
Net income for the year	SEK	–517,073,159
At the disposal of the AGM	**SEK**	**6,864,491,847**

The Board proposes the following allocations of funds:

To the preference shareholders, a dividend of SEK 250.00 per share	SEK	125,000,000
To the common shareholder, a dividend of SEK 27.75 per share	SEK	1,387,500,000
Carried forward	SEK	5,351,991,847
Total	**SEK**	**6,864,491,847**

Enterprise Risk Management

Enterprise Risk Management is performed to protect and increase the value of Volvo Car Group. It creates awareness and preparedness for business decisions and activities.

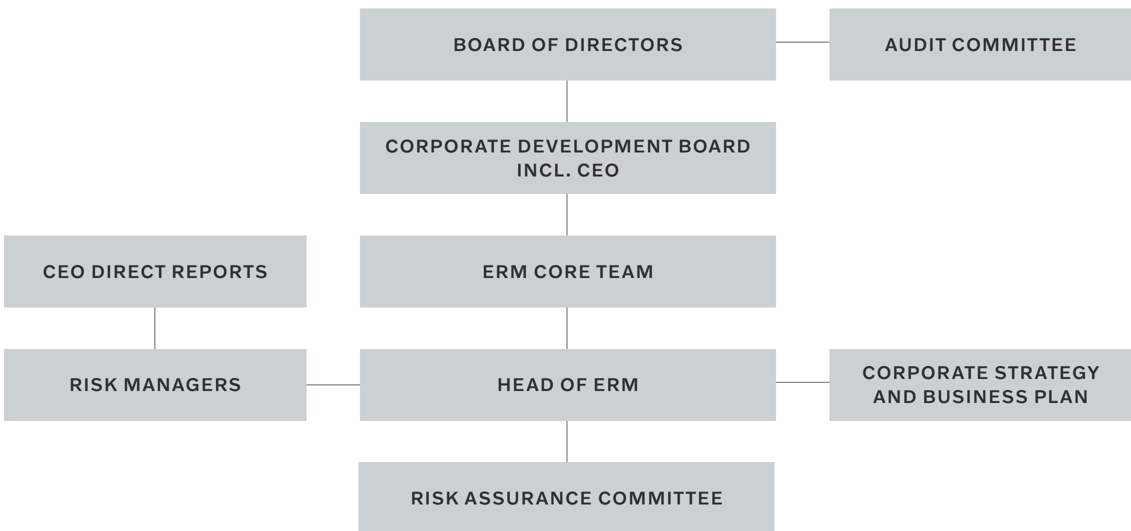
The best risk management is to have the correct strategy. It protects and increase the value of Volvo Cars. The foundation for our Enterprise Risk Management (ERM) is our: Code of Conduct, Corporate Policies, Core Value Statements, Sustainability Program and Company Culture. Openness, transparency and diversity are fundamental parts of risk management. ERM creates awareness and preparedness regarding risks and their potential impact on our business.

The automotive industry and Volvo Cars are continuing to transform, based on: customer expectations, technical development and political decisions. To meet our ambitions new co-operations, joint ventures and partnership are created. With the investments needed change and increased complexity comes risk. Timing is a crucial risk management parameter based on: global economic development, technical progress and consumer preferences and acceptance. The investments needed are significant, development spans over many years and the competence needed, in some instances, is high in demand. However, not ceasing these opportunities can create bigger risk. The description of the risks and mitigation activities, below, reflects the transformation forward, including the risks that the present business contains, in combination with Volvo Cars' longer term ambitions.

Enterprise Risk Management Governance

The Board of Directors is ultimately responsible to ensure that the risks of Volvo Cars are handled, although certain thereto related tasks have been delegated to the Audit Committee according to the "Regulations for the work of the board of Directors". The Chief Executive Officer is responsible to ensure there is an appropriate level of risk management in place on an operational level. The ERM top risks, the risks considered to best reflect the current risk situation for Volvo Cars, are presented to and discussed by the board of Directors and Audit Committee twice every year. Risks are categorised based on the timing of their potential occurrence. The level of risk acceptance is decided for individual risks and for the overall risk situation. The Head of ERM creates the top risk report, based on input from the organisation, which is discussed and agreed by the ERM Core Team. The ERM Core Team consists of responsible for the Corporate Strategy document and responsible for the Corporate Business Plan, among others. The ERM Core Team is one part of integrated risk management. The ERM top risk report is presented to, and approved by Corporate Development Board represented by e. g. the President and CEO, General Counsel (Chairman) and CFO. The ERM governance structure is described below.

Volvo Car Group ERM Governance



Risk area	Mitigation
CYBER SECURITY AND DATA PRIVACY **Cyber security breaches could cause severe disruption including but not limited to operational disturbances, affecting customers as well as the company, loss of intellectual property and data breaches.** A growing number of activities with regards to cyber security have been identified during the year, even though the efforts in the area have increased. Volvo Cars is subject to personal data and privacy laws and regulations and related security protocols with respect to the use, transfer and disclosure of personal data. Also, the company's collection, use, retention, security and transfer of personal information of our customers, are subject to consumer and data protection laws in the jurisdictions in which we operate. Personal data might be compromised due to mistakes, lack of understanding, hacking, malware or other reasons.	Implementation of additional technology and enforced classification of information increases the effectiveness of cyber security. Resources and competence dedicated to the cyber security area have increased during the year. This has strengthened Volvo Cars' work with monitoring, predicting and continuity/crises planning related to cyber security. A General Data Protection Regulation (GDPR) compliance program is in place, with the objective to ensure corporate compliance short and long term.
CONNECTED CAR **Major partial outage of connected services, unauthorised control or manipulation of cars' systems may cause them to operate improperly or not at all.** The IT networks and communications with Volvo cars may be vulnerable to interception, manipulation, damage, disruption or shutdown due to attacks by hackers or breaches caused by personnel having access to the networks and systems. Any such attacks or breaches could result in unexpected control of, or changes to the functionality of the cars, user interfaces and performance characteristics. A secure solution today might be unsecure tomorrow due to the rapidly changing threat landscape. The main risk areas that might be affected are traffic safety and customer privacy.	A Volvo car is a technologically advanced product requiring interaction between a number of complex hardware and software systems. The company has designed, implemented and tested security measures to prevent unauthorised access to its cars and their systems. Functionalities have been implemented in order to secure the communication channels to and from the cars, security design in the Sensus Cloud and communication units in the car as well as in the processes implemented to support security. There are ongoing risk mitigating activities in order to keep the security level needed as well as efforts to increase incident response readiness capabilities. A security framework is being implemented throughout the responsible organisation in order to increase the overall level of security.

Risk area	Mitigation

AUTONOMOUS DRIVING

Autonomous driving will change the requirements on cars and business models. Three factors are considered with regards to autonomous driving; technical development, legislation and consumer acceptance. The lack of coinciding timing of these three is a risk factor in itself.

Autonomous driving will require new expertise, attract competitors from outside the automotive industry and shift supply chains. Autonomous cars, more specifically robotaxis, have the potential to significantly change the future automotive industry. The very complex technological development, legislation, and consumer acceptance for autonomous driving might evolve faster or take longer than predicted. All three components require significant effort and boundary leaps. Part of the challenge is that such development cannot take place successively.

Volvo Cars strive for a leading position in unsupervised autonomous driving. Thorough coordination of future vehicle plans, technical delivery plan with market development and introduction of new legislation, is conducted. Individual incidents and political agendas can effect market roll-out and are difficult to predict and control. To overcome this, we are working closely with road authorities in our key markets. We are also studying user interaction and acceptance parameters through several initiatives, including the Drive Me project and other collaborations.

RELEVANT COMPETENCE

Volvo Cars is changing faster than ever before and new competencies are required to innovate, operate new business models and more.

To be able to leverage on our strategy and secure investments, profitability and market shares, we need to match our internal competencies to our strategic ambitions. That is how we will be able to keep developing business offers, products and services with speed and quality. If Volvo Cars cannot attract, train and retain qualified personnel, the company may be unable to expand its business in line with its strategy, which could adversely affect its business.

Volvo Cars is a human centric company, it is the core of our company culture. By utilising our People strategy in combination with our business plans, operational plans, as well as competence and resource plans, we expect to attract the relevant competence. Some examples of measures taken to support the work are:

- Identification of strategic competences
- A geographically global organisation
- New recruiting methods
- Competence transfer tools for succession

CONSUMER PREFERENCES AND BUSINESS MODELS

Volvo Cars' business is impacted by changes in consumer preferences and automotive trends.

To an extent, the continued success of Volvo Cars depends on our ability to offer attractive cars and services as well as our ability to interact with consumers. This is done by anticipating and responding promptly to changing consumer demands and automotive trends. Competition comes from both the traditional automotive industry, from existing and new companies that identify business opportunities in the transforming automotive industry. Direct consumer interaction is new to Volvo Cars and consumer expectations are predicted to change very quickly with many new market offerings emerging. Evaluating and responding to consumer preferences has become even more complex in recent years.

The transformation of Volvo Cars aims to address the changes of our industry. Our products and services are developed to meet customer preferences and automotive trends in a personal, sustainable and safe way. Extensive global market research and cooperations are used as input to decide the content and timing of our strategies and activities. Two examples of this are Care by Volvo, our subscription service and M – Volvo Car Mobility, which provides car sharing. Both of these new businesses adds to our longer term ambition of increased amount of direct consumer relationships. Furthermore, Volvo Cars intend to sell cars to large scale fleet operators who will provide mobility to end consumers. Our experience in providing services directly to customers, will be useful in our offering to these large scale operators.

Risk area	Mitigation
PROPULSION SHIFT **We anticipate a drastic increase in battery electric vehicle car demand, driven by an expected decrease in total cost of ownership, increased supply of different types of battery electric vehicles, simplified usage and/or regulatory action.** From an industry perspective, the propulsion shift is rapid. Volvo Cars is adjusting its business with regards to product development, procurement, manufacturing, and sales and service to meet this new demand. Availability of a charging experience that meets the needs of our consumers is an important enabler for them to convert to electric vehicles. The anxiety related to range capacity and concerns for planning long journeys need to be removed. If not, it will have a direct impact on electric vehicle sales. The charging network market is very immature and different depending on region, where EU is the most fragmented.	From 2019, all Volvo cars will be equipped with an electric motor. The shift is continuous and our vision is that by 2025, 50 per cent of total sales should come from electric cars. The pace and timing of the activities are of crucial importance. Some of the activities and investments to support the shift are: • Supply of batteries and technology • Charging possibilities • Software development • Manufacturing set-up • Collaborations with battery suppliers
LAWS AND TRADE AND TARIFFS **New or changing laws, regulations and government policies will affect our business. Volvo Cars' products, services and operations are subject to comprehensive and constantly changing laws, regulations and policies throughout the world.** The number and extent of legal and regulatory requirements, and the costs occurred as a consquence, are expected to increase within the automotive industry. The imposition of any additional taxes and levies designed to limit the use of automobiles could adversely affect the automotive industry, and potentially the demand for our cars and services. Changes in corporate and other taxation policies, as well as changes in export/import policies and other restrictions/incentives given by various governments on tariff policies, could also adversely affect Volvo Cars' operational results and financial condition.	To minimise the effect of potential changes, legal and regulatory awareness and preparedness is established in all areas that might affect Volvo Cars' operations and financial condition. Regarding tax and duty reforms, Volvo Cars has an ongoing dialogue with legislators concerning unforeseen consequences. Simultaneously we develop internal and external mitigating actions, strategic as well as operational. As an example, this can be done by using the flexibility within our manufacturing system, moving production closer to its intended market. With regards to the law World Harmonized Light Vehicle Test Procedure (WLTP, an EU law measuring CO_2 emissions) that affects the vehicle industry and will do even more so in 2021 and beyond, Volvo Cars is working on compliance through a number of different activities. These activities are for example: • Car efficiency; weight, aerodynamics, rolling resistance and friction • Share of electrification • Increased focus on the post 2021 legislation

Corporate Governance Report

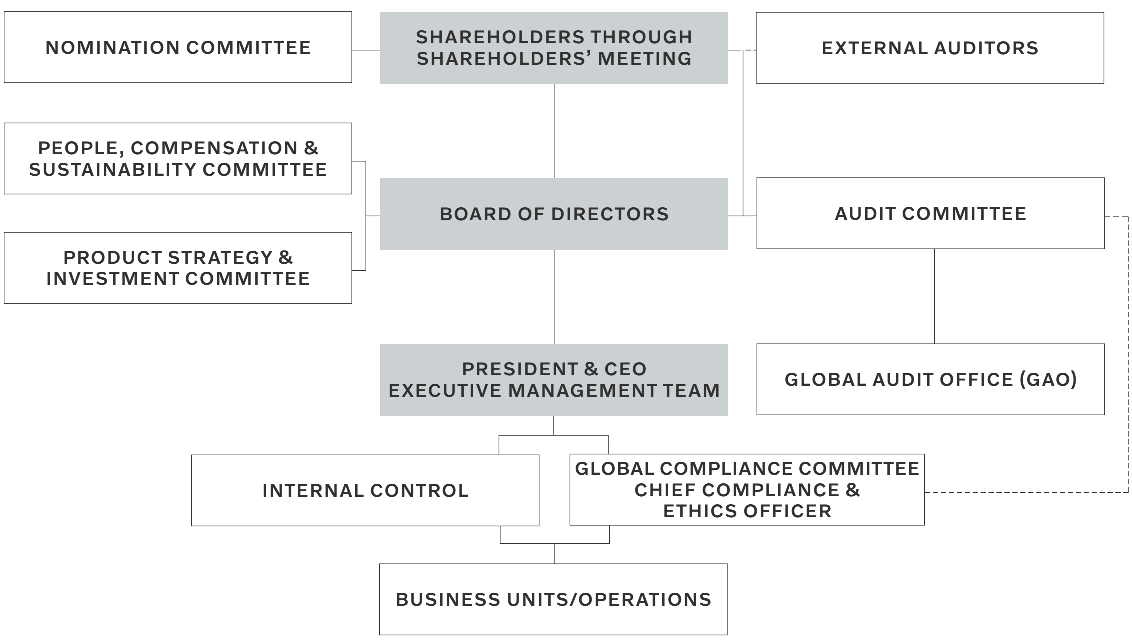
Introduction to Volvo Car Group's Corporate Governance
The purpose of corporate governance in Volvo Cars is to create a good foundation for active and responsible ownership, a proper distribution of responsibility between the different Company bodies, as well as good communication with all of the Company's stakeholders. The corporate governance principles adhered to by Volvo Cars are based on Swedish law (Swedish Companies Act and Swedish Annual Accounts Act). Volvo Cars applies the principles of sound corporate governance and responsible business practice and has decided to follow relevant parts of the Swedish Code of Corporate Governance (the "Code"). Being a company not listed on the stock market, Volvo Cars acknowledges it is not required to do so, and that some principles are not relevant to Volvo Cars.

The shareholders execute their influence at the shareholders' meetings, the highest decision-making body of the Company, where an annual general meeting shall be held at least once a year within six months after the end of the financial year. Some of the decisions made by the shareholders' during the shareholder's meeting are (i) election of a Nomination Committee which nominates members to the Board of Directors of the Company (the "Board" or the "Volvo Cars Board"), (ii) determination upon number of Board members, composition of the Board and remuneration for the members of the Board, based on suggestions by the Nomination Committee, (iii) election of external auditors, (iv) determination of the distribution of dividends and (v) determination of amendments to the Articles of Association.

The Board is responsible for the organisation of Volvo Cars and the management of its business worldwide and is obliged to follow directives provided by the shareholders' meetings. The Volvo Cars Board may appoint committees with specific areas of responsibility and furthermore authorise such committees to decide specific matters in accordance with regulations established by the Volvo Cars Board. Currently, the Volvo Cars Board has established the Audit Committee, the People, Compensation and Sustainability Committee and the Product Strategy and Investment Committee. The Chairman of the Board shall direct the work of the Board and monitor that the Board fulfils its obligations and may elect to seek support from the Vice Chairman when so is required. The Board annually adopts the Regulations for the work of the Volvo Cars Board, which sets out the principles as regards the governance of the Board, see below under the heading "The Volvo Cars Board" for further information. The President of the Company, who is also the Chief Executive Officer (CEO), is appointed by the Board to handle the day-to-day management of Volvo Cars and to lead the Executive Management Team (EMT) as overseen by the Board. EMT's role is to assist the CEO in the operation of Volvo Cars' business. The EMT has appointed boards of the EMT to assist in carrying out decisions and actions, but the CEO will retain responsibility for the actions of the boards of the EMT.

The above mentioned corporate governance functions can be described in the below model:

Volvo Car Group Corporate Governance



Nomination Committee

The shareholders' meeting has elected a Nomination Committee, which shall nominate members to the Volvo Cars Board, propose appropriate remuneration principles for the Volvo Cars Board and on a yearly basis propose the remuneration and other terms for the Volvo Cars Board to be decided by the Annual General Meeting. Please see the table under The Volvo Cars Board, regarding relevant remuneration for 2018. Any changes to the Nomination Committee's duties are subject to approval at a shareholders' meeting. Appointment or removal of a member of the Volvo Cars Board shall be proposed by the Nomination Committee but is subject to the approval of the shareholders' meeting. The Nomination Committee shall comprise of three representatives. Currently Li Shufu, Mikael Olsson and Hans Olov Olsson (chairman) are members of the Nomination Committee. The Nomination Committee has adopted a framework for nomination of members to the Board, which stipulates that the composition of the Board shall be diverse in terms of gender, nationality, professional background and other competences to ensure that the Board has the appropriate balance of expert knowledge, which matches the scale and complexity of Volvo Cars, supports a sustainable development and meets the independency requirements of Volvo Cars. It is Volvo Cars' aim to have a balanced composition when it comes to gender and by 2020 it is the ambition that each gender shall have a share of at least some 40 per cent of the Board members elected by the shareholders' meeting. The Unions represented in the Volvo Cars Board shall be encouraged to apply the corresponding goal when appointing their representatives. The Nomination Committee evaluates the performance of the members of the Board once a year.

The Volvo Cars Board

Composition of the Board

At all times, the Volvo Cars Board shall consist of a minimum of three and a maximum of twelve members and in addition thereto the number of employee representatives as is required under Swedish law. The Regulations for the work of the Board stipulates that the majority of Volvo Cars Board members shall be independent of Volvo Cars and the management and at least two of these independent members shall also be independent of the shareholders.

At the end of December 2018, the Board (excluding the employee representatives) consisted of ten members as further detailed below as well as in Note 9 - Employees and remunerations. No member of the management other than the CEO is a member of the Board. Details of the remuneration principles for the Board can be found in Note 9 – Employees and remuneration.

Each new Board member is provided with an introduction programme to learn about the Volvo Car Group and the Board visits at least once every year a Volvo Car Group site other than the headquarters.

Conflicts of interest

The Board members shall immediately disclose to the Chairman and/or the Vice Chairman if they find themselves to have a conflict of interest. A Board member having a conflict of interest in relation to any matter to be dealt with by the Board may not participate in the discussions or decisions regarding such matter.

Board meetings

The Volvo Cars Board is, according to the Regulations for the work of the Board, expected to meet four to eight times per year at venues to be agreed by the Volvo Cars Board. The Volvo Cars Board has held eleven meetings during 2018, of which eight were ordinary and three extraordinary. The Volvo Cars Board will meet the statutory auditor at least once a year without the CEO or any other member of EMT present. In addition, the Volvo Cars Board will hold non-executive meetings with regular intervals.

Generally there is high level of attendance of the Board members at the Board and Committee meetings. The CEO, CFO and the General Counsel, who is the secretary of the Board, are also present at the Board meetings. The table below shows the Board members'

Name of the Board members	Independence in relation to the company/senior management	Independence in relation to the major shareholder of the company	Attendance at meetings of the Board	Attendance at meetings of the Committees	Remuneration Board and Committees[1] TSEK
Li Shufu (Chairman of the Board)			2/11	0/2	—
Lone Fønss Schrøder (Vice Chairman of the Board)	X	X	11/11	9/9	2,400
Winnie K.W. Fok	X	X	8/11	9/9	775
Håkan Samuelsson (CEO)		X	11/11	4/4	—
Li Donghui	X		10/11	5/9	—
Carl Peter Forster	X		10/11	4/4	—
Thomas Johnstone	X	X	10/11	10/10	875
Betsy Atkins	X	X	11/11	8/10	875
Michael Jackson*	X	X	4/4	—	625
Xingsheng (Jim) Zhang**	X	X	3/4	—	625
Mikael Ohlsson***	X	X	2/2	2/2	—
Peng (Peter) Zhang***	X		2/2	2/2	—

* Member of the Volvo Cars Board from July 31, 2018.
** Member of the Volvo Cars Board from August 20, 2018.
*** Members of the Volvo Cars Board until the annual shareholders' meeting held on March 22, 2018.
1) Remuneration for Board and Committees on a yearly basis as agreed at the Annual Shareholders' Meeting 2018.

attendance to the Board meetings and Committee meetings in addition to their independence according to the requirements of the Code in relation to (i) the Company and (ii) the major shareholder.

Matters for the Board

The Volvo Cars Board is responsible for the organisation of Volvo Cars and the management of its business worldwide. The Board continuously monitors Volvo Cars' performance, evaluates Volvo Cars' strategic direction and business plan as well as other aspects such as Volvo Cars' adherence to Code of Conduct. The Board further monitors Volvo Cars' sustainability efforts based on our sustainability programme (Omtanke) being the framework for Volvo Cars sustainability work and conduct in society. Matters that have not been expressly reserved to the Board as set out in the Regulations for the work of the Volvo Cars Board are delegated to the Board's Committees or to the CEO.

The work of the Board follows a yearly cycle in order to allow the Board to address the matters within the responsibility of the Board on a yearly basis. To ensure that the Board has a good visibility of the business of the Volvo Car Group, the CEO and President of the Volvo Car Group gives a report on the business of Volvo Cars, including reporting from the Group's strategic affiliates, as applicable, at all Board meetings. The CFO also gives a report on the financials of the Volvo Car Group, including relevant matters relating to treasury, hedging, risk management, insurance etc. In addition thereto the Board discusses specific strategic topics of relevance and the Board Committees gives a report of their work. Furthermore, at each Board meeting the Board is presented with a number of decision items for them to consider and approve as set out in the Regulations for the work of the Board.

Evaluation of the work of the Board

The Board conducts a yearly survey regarding its performed work during the year. The survey covers areas such as the climate at board meetings and the allocation of time spent on different topics, the work of the Board committees, the efficiency of the work of the Board, the Board leadership and the relations with the executive management team. Based on the result of the survey the Board will evaluate the performance and identify possible areas of improvements. In addition to the yearly survey, the Vice Chairman conducts meetings with each individual Board member during the year.

Audit Committee

The Board of Volvo Cars has assigned an Audit Committee to oversee the corporate governance, financial reporting, risks and compliance with external and internal regulations. The Audit Committee has held nine meetings during 2018, whereof four ordinary and five were extraordinary interim meetings. The Audit Committee is responsible for identifying and reporting relevant issues to the Volvo Cars Board within the Audit Committee's areas of responsibility. The Audit Committee shall monitor the integrity of Volvo Cars' financial reporting system, internal controls, operation procedure and enterprise risk management framework, recommend to the Volvo Cars Board the appointment, removal and remuneration for the statutory auditors (subject to approval at the shareholders' meeting) in accordance with the Swedish Companies Act, monitor the independence of the statutory auditors and review the effectiveness of the Internal Audit and Compliance and Ethics' function. Both the Internal Audit function and Compliance and Ethics have a direct reporting line to the Audit Committee. Lone Fønss Schrøder (Chairman), Winnie K.W. Fok and Li Donghui are currently members of the Audit Committee.

People, Compensation and Sustainability Committee

The Board has assigned a People, Compensation and Sustainability Committee to determine the remuneration to the CEO and the EMT members. The People, Compensation and Sustainability Committee has held six meetings during 2018, whereof five ordinary and one extraordinary. The duties of the People, Compensation and Sustainability Committee are to prepare, propose and/or decide and present to the Volvo Cars Board matters related to remuneration, remuneration principles, performance and succession planning of the CEO and the EMT and other matters related thereto. The Committee is also responsible for supervising and providing guidance with regard to the People strategy. The Company's progress in delivering on its Omtanke programme is also on the agenda for the People, Compensation and Sustainability Committee twice a year, in addition to the Board's review of sustainability matters and the Committee is responsible for supervising Volvo Cars' Sustainability strategy. Thomas Johnstone (Chairman) and Betsy Atkins are currently members of the People, Compensation and Sustainability Committee.

Product Strategy and Investment Committee

The Board has assigned a Product Strategy and Investment Committee to oversee Volvo Cars' product strategy and the investments linked to it. The Product Strategy and Investment Committee has held four meetings during 2018, all ordinary. The purpose of the Product Strategy and Investment Committee is to review Volvo Cars' product strategy, cycle plan and product programmes to confirm that the strategy and the plans as well as programmes for the overall strategy, meet customer demand and market development and addresses new technology and business opportunities in all segments relevant to Volvo Cars. The duties of the Product Strategy and Investment Committee are furthermore to ensure that the changes in society, peoples view on mobility and cars as well as changes in the automotive market are reflected in Volvo Cars' strategic product plans and when choosing technologies. Thomas Johnstone (Chairman), Carl Peter Forster, Betsy Atkins together with Håkan Samuelsson are members of the Product Strategy and Investment Committee.

Global Audit Office

Volvo Cars has an independent Internal Audit department with the assignment to determine whether Volvo Cars' governance, internal control and risk management processes, as designed, operated and represented by management, are adequate and effective. The scope for the internal audit is determined by means of a risk assessment process and any additional requirements by the Board. The head of the Internal Audit function reports to the Audit Committee.

Corporate Compliance and Ethics Office

The Compliance and Ethics Office supports the business operations in conducting business in a responsible and ethical manner, by developing, implementing and maintaining Volvo Cars' Compliance and Ethics Programme. This Programme consists of ten elements designed on the basis of guidelines describing "effective compliance programme" and "adequate procedures," such as the US Sentencing Guidelines and the UK Bribery Act Guidance (supporting respectively the Foreign Corrupt Practices Act and the UK Bribery Act) as well as guidance from Anti-Trust Offices throughout Europe. Among these ten elements are: a regular risk assessment that leads to identify, understand and prioritise the main risk fields to which Volvo Cars is exposed, so as to customised the Compliance and Ethics Programme with a view to minimise the Group's exposure to risks; implementation of a Compliance and Ethics framework (Code of Conduct and Corporate Policies, Directives and Guidelines); Compliance and Ethics training, awareness and communication; Internal reporting and investigations; and monitoring and assessment with a view to continuously improve the Compliance and Ethics Programme.

In 2018, Volvo Cars' Code of Conduct (called Our Code – How We Act) was revised to reflect Volvo Cars' culture and way of doing business in a responsible manner, by putting the emphasis on our values and commitments in addition to focusing on the requirements set out in our corporate policies.

The Chief Compliance and Ethics Officer reports to the General Counsel and further continuously reports on compliance issues to the Global Compliance Committee. The Chief Compliance and Ethics Officer also reports to the Audit Committee of the Board of Directors and provides compliance training to the Board of Directors. The Global Compliance Committee is chaired by the General Counsel and the other members are the SVP Human Resources, the CFO, the SVPs heading the regions (APAC, EMEA and Americas), and the Head of Internal Audit (Secretary).

External Auditors

Volvo Car Groups' external auditors are elected by the Annual Shareholders' Meeting. Deloitte AB was appointed auditor in Volvo Car Group in the financial year 2010. The Annual Shareholders' Meeting has then re-elected Deloitte AB, and the current audit engagement period is ending at the 2019 Annual Shareholders' Meeting. Lead Audit Partner is the authorised public accountant Jan Nilsson. The external auditors discuss the external audit plan, audit findings and risk management with the Audit Committee. The auditors review the interim report for the period January 1 to June 30 and present the result of the work to Audit Committee in July. The auditors present the result from their review for the period January 1 to September 30 to the audit Committee in December. The result from their financial year audit and audit of the Annual Report of the parent company and the consolidated financial statements is presented to the Audit Committee and the Board of Directors at meetings after year-end. When Deloitte is asked to provide services other than the external audit, it is done in accordance with general independency rules. Annually Deloitte assures its impartiality and independence in writing to the Audit Committee in accordance with the Swedish Companies Act and ISA 260.

Disclosure Committee

Volvo Car AB is required to comply with certain disclosure obligations following from the listing rules of the Luxembourg Stock Exchange's Euro MTF market and the Market Abuse Regulation (MAR) and other applicable regulations related to trading in the securities issued by Volvo Car AB. In order to ensure that Volvo Cars follow the relevant requirements Volvo Cars has established a Disclosure Committee and the Board of Directors have adopted a set of procedures for the Disclosure Committee. The Audit Committee is kept updated on the discussions and decisions by the Disclosure Committee via sharing of the minutes kept at the meetings of the Committee. The members of the Disclosure Committee are the General Counsel (chairman), the CFO and the Head of Corporate Communication. The Head of IR is a permanent participant as a rapporteur and other senior company representatives attend the meetings on an agenda-driven basis. The Legal Counsel, Corporate Governance Office acts as secretary. The Disclosure Committee has been established to i.a. implement required disclosure controls and procedures, resolve whether information shall be categorised as inside information or not and consider whether there is a reason to delay disclosure of inside information or if immediate disclosure is required. The Disclosure Committee also monitors the Company's fulfilment of its disclosure obligations under IFRS and MAR related to transactions with related parties.

Internal control over financial reporting

According to the Swedish Companies Act, the Board is ultimately responsible for ensuring that an effective internal control system exists within the Group. In order to assist the Board and management in their internal control responsibilities, Volvo Cars has implemented an internal control function over financial reporting (ICFR), with the purpose to ensure that the external financial reporting is reliable and that the financial reports follow generally accepted accounting principles. The Internal Control function reports to the Audit Committee on a periodic basis.

Volvo Cars bases its internal control on the framework for internal control issued by the Committee of Sponsoring Organisations of the Treadway Commission (COSO) and it consist of five components; Control Environment, Risk Assessment, Control Activities, Information and Communication and Monitoring activities.

Control Environment

The foundation of Volvo Cars' control environment is the Code of Conduct, which is the guiding principle of Volvo Cars, as well as the Group's corporate policies and directives. The foundation of the control environment over financial reporting are further based upon functional policies, directives and guidelines and the Delegation of Authority directive.

Control activities

Control activities are the procedures that help to ensure that Volvo Cars' policies, directives and instructions are implemented. Control activities are performed throughout the organisation, at all levels, and in all functions to manage risk and to detect and correct errors in the financial processes. Control activities are documented in Volvo Cars' Internal Control framework.

Risk assessment

See page 82 for information related to Joint Risk Assessment. From an ICFR perspective, the outcome of the risk assessment will be the internal control reviews for the coming year.

Information and communication

The information and communication component within Volvo Cars includes the systems and processes that support the identification, capture and exchange of information that enable personnel to carry out their responsibilities and that financial reports are generated completely and accurately. Information around the planning, risk areas and results of the self-assessment and internal control reviews are communicated within various fora and to the Audit Committee on a periodic basis.

Monitoring

In addition to the Internal Audit function described above, a separate Internal Control function performs internal control reviews and coordinates evaluation activities through the annual self-assessment programme. This assessment programme focuses on management and transaction levels as well as self-assessments of IT general controls. When control deficiencies are identified through self-assessments, regular operations, internal or external audits, such deficiencies are tracked and appropriate corrective actions undertaken to resolve these deficiencies. The Head of the Internal Control reports directly to the CFO.

Volvo Cars' approach to sustainability management

Volvo Cars is committed to protecting and improving the environment and wider society, as well as the lives of our own customers and employees. Volvo Cars' sustainability programme (Omtanke) and commitments guide the strategic and operational decisions. Volvo Cars has a clear governance structure to ensure that the company is delivering on these commitments, and take actions in order to improve the performance. Volvo Cars is always looking to identify new ways to measure sustainability performance and seek out strong external partnerships that will improve the performance. We realise that our existing customers, and potential customers, expect us to deliver on our commitments. Finally, Volvo Cars recognise that a sustainable approach not only brings environmental and social benefits, but also enhances the appeal of our products, enhances profitability, engages employees and helps attract the best talent.

International commitments

Volvo Cars is proud of the fact that it was a founding member of the UN Global Compact in 2000. Since then, Volvo Cars has endeavoured to observe the Ten Principles of the Global Compact. This includes Principle 7, the adoption of a precautionary approach to environmental challenges. Furthermore, Volvo Cars is committed to supporting the Sustainable Development Goals (SDGs), which guide our sustainability approach. In addition to the UN Global Compact, our own Code of Conduct reflects the following international conventions and guidelines:

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

Sustainability Governance

Volvo Cars has a clear governance structure to monitor both our progress against our sustainability commitments, and develop our existing programme. This includes the designation of an EMT member responsible for the delivery of each of our Omtanke commitments.

The Sustainability Board

Sustainability at Volvo Cars is governed by the Sustainability Board, which is a decision making body responsible for directing and monitoring the delivery and communication of our sustainability programme. The Board members also ensure that our sustainability programme is aligned with the corporate strategy and the Volvo Cars business plan, and that the company operates in accordance with Volvo Cars' values and Code of Conduct. The Board consists of the CEO as well as a number of EMT members. The Board is chaired by the General Counsel.

The Sustainability Working Group

The Sustainability Working Group consists of the operational leads responsible for the delivery of our Sustainability Programme, Omtanke. It meets fortnightly to discuss emerging opportunities and challenges, and share best practice and ongoing initiatives. The Working Group is chaired by the Director, Sustainability and reports to the Sustainability Board.

The Global Compliance Committee

The Global Compliance Committee consists of members of the EMT and oversees the effectiveness and continuous improvement of Volvo Cars' Compliance Programme. The Committee supervises the commitment Ethical Responsible Business through the Corporate Compliance and Ethics Office.

Sustainability reporting

Volvo Cars has been reporting on environmental, health and safety aspects of its products and production since it signed the UN Global Compact in 2000. In 2003, the company produced its first Sustainability Report in line with the international reporting guidelines from the Global Reporting Initiative (GRI). By applying and living up to the GRI's international guidelines for sustainability reporting, Volvo Cars aims to ensure transparent reporting based on content that is relevant to its stakeholders. The 2018 report is prepared in accordance with GRI Standards, accordance level Core. Volvo Cars reports on an annual basis, and this report covers the period January 1 to December 31, 2018. Volvo Car Group's sustainability report has been prepared to meet the statutory requirements in accordance with the Swedish Annual Accounts Act 6 chap. 11§. The scope and content of the sustainability report is defined by the GRI index presented on pages 161–162 in this document. Definitions regarding boundaries as well as measuring techniques and calculations for each performance indicator are given in respect to the disclosure concerned. No significant changes occurred during the reporting period or from previous reporting periods. Deloitte AB has performed a limited assurance of the sustainability report in line with ISAE 3000, see page 163 for the limited assurance report. As a signatory to the UN Global Compact, the Sustainability Report is also our Communication on Progress.

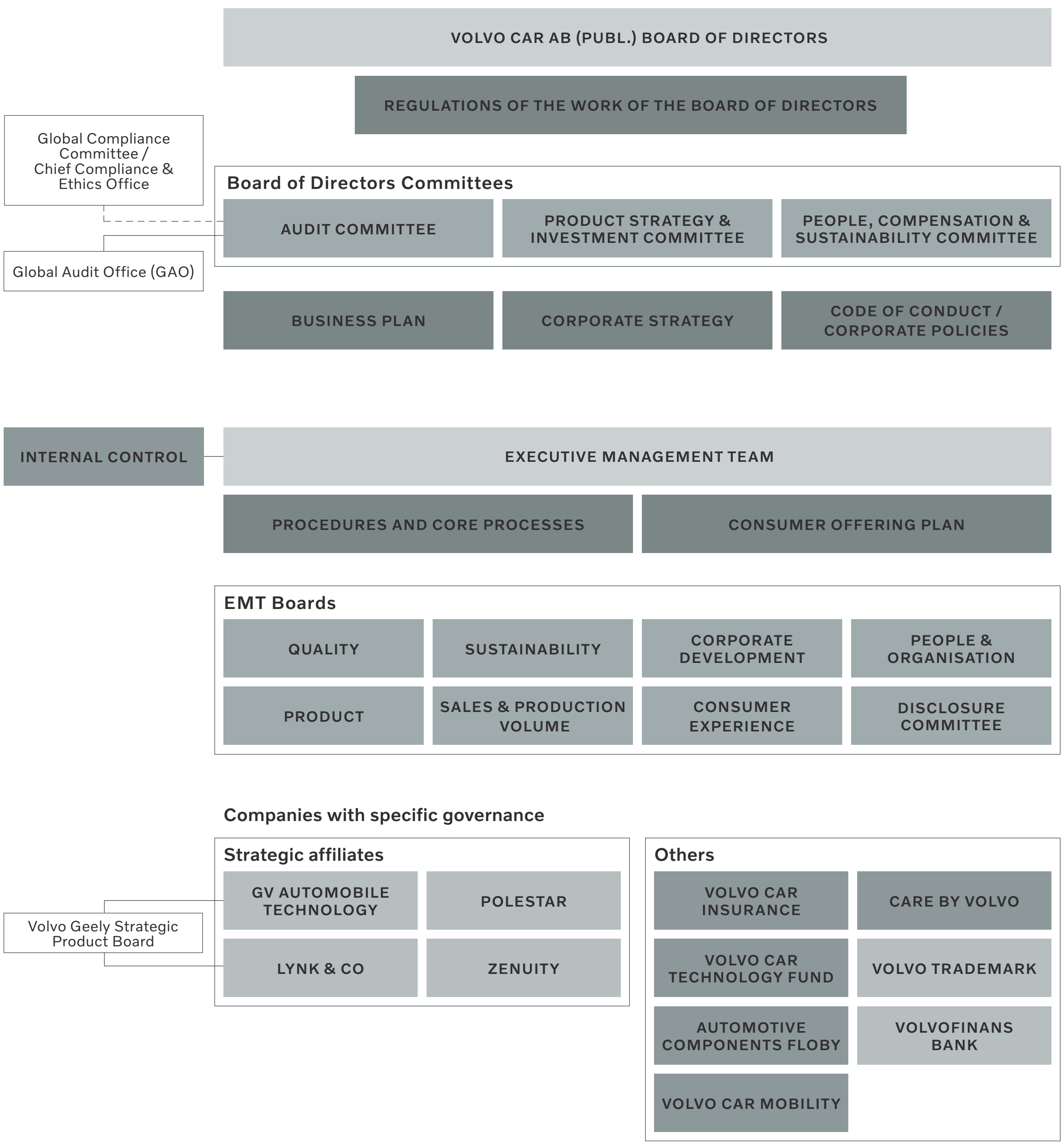
Stakeholder Engagement and Materiality Analysis

Our stakeholder involvement provides guidance on how we should develop and communicate our sustainability work. One indicator of our success, is whether our stakeholders chose to buy our products and/or do business with us. We have an open dialogue with our major stakeholders not only through networks, conferences, our website or at citizen@volvocars.com, but also through deeper interviews, surveys and analysis. Over the past few years, we have gathered analysis and input from our stakeholders and aligned them with our internal strategies, together with the Sustainability Board, in order to define what we consider to be our most relevant material topics. The Sustainability Board then developed the structure and focus areas of our Sustainability Programme – Omtanke, with clear priorities and commitments. In 2018, we continued to promote our Sustainability Programme to our stakeholders through press releases, updated websites, presentations at conferences and in individual meetings. We will carry on doing so in 2019.

Joint Risk Assessment

Each entity and function is responsible for identifying risks, which are then consolidated and reported according to the Enterprise Risk Management Directive, see page 82. Additionally, on a yearly basis, the functions of Internal Control, Corporate Compliance & Ethics office, Consumer & Enterprise Digital and Sustainability jointly perform a risk assessment to evaluate and determine risks that could hinder the achievement of Volvo Cars' business objectives. The outcome from the joint risk assessment is reported to various EMT boards and to the functions having the operational responsibility.

CORPORATE GOVERNANCE STRUCTURE



Contents Financial Report

Consolidated Income Statements

MSEK	Note	2018	2017
Net revenue[1]	3	252,653	208,646
Cost of sales[1]	4	–202,127	–161,988
Gross income		**50,526**	**46,658**
Research and development expenses	4, 16	–12,098	–10,187
Selling expenses	4	–17,371	–15,266
Administrative expenses	4	–8,001	–8,182
Other operating income	7	3,386	3,054
Other operating expenses	7	–2,324	–2,216
Share of income in joint ventures and associates	14	67	200
Operating income	5, 6, 8, 9, 10, 11	**14,185**	**14,061**
Financial income	12	407	355
Financial expenses	13	–1,675	–1,269
Income before tax		**12,917**	**13,147**
Income tax	15	–3,136	–2,922
Net income		**9,781**	**10,225**
Net income attributable to			
Owners of the parent company		6,840	7,960
Non-controlling interests[2]		2,941	2,265
		9,781	**10,225**

1) In 2018 there has been a change related to sale of certain cars accounted for as operating lease. The comparative period has been changed accordingly, reducing net revenue and cost of sales with an amount MSEK 2,266 for 2017. The change has not had any effect on gross income.
2) The non-controlling interest related to the consolidated Chinese entities refers to Zhejiang Geely Holding Group Co., Ltd, which is also the ultimate parent company of the Volvo Car Group.

JANUARY—DECEMBER 2018 INCOME AND RESULT

Volvo Cars generated net revenue of MSEK 252,653 (208,646), an increase of 21.1 per cent, reflecting growth in Volvo Cars' business across all regions. Wholesales increased by 12.2 per cent to 656,688 (585,307) units and contributed together with a positive carline mix and pricing effect, mainly driven by the XC40, to the net revenue MSEK 34,859. The exchange rate development contributed with MSEK 6,830 to net revenue. The positive effects have been offset by a decrease of sold licences amounting to MSEK 2,542 (4,023).

Gross income increased to MSEK 50,526 (46,658), while gross margin decreased to 20.0 (22.4) per cent. The increased cost of sales of MSEK –202,127 (–161,988) was mainly related to higher sales volume and product mix together with a negative foreign exchange rate effect in cost of sales of MSEK –6,934. Material costs, freight and distribution as well as labour and overhead increased as production and sales increased. Furthermore, gross margin compared to previous year is effected by the decrease in sold licences, an increase in custom duties and a slightly negative net exchange rate effect of MSEK –104. The negative effect was partly offset by received government grants of MSEK 498 (69) .

Research and development expenses increased to MSEK –12,098 (–10,187). The increase was driven by product development of new car models and new technology, as well as from effects of intangible assets sold to Polestar. For details regarding research and development expenses, see table below.

Selling and administrative expenses increased to MSEK –25,372 (–23,448). The increase was mainly driven by an increase of advertising and sales promotion expenses to MSEK –10,301 (–9,279). The change was related to the launch of new car models and advertising campaigns, and an increase of selling expenses to MSEK –7,070 (–5,987), as new sales personnel were hired to support growth.

Other operating income and expense, net, increased to MSEK 1,062 (838), mainly due to an increase of sold services and increased royalty expenses. Foreign exchange rate effects on operating assets and liabilities amounted to MSEK 62.

Operating income (EBIT) increased to MSEK 14,185 (14,061). EBIT margin decreased to 5.6 (6.7) per cent. The decrease in EBIT margin compared to prior year was a result of a decrease in the net effect of sold licences which amounted to MSEK 1,346 (4,023) but also a result of the decrease in gross margin and increased selling and research and development expenses. The negative effect was offset by a positive volume and sales mix and by government grants which amounted to MSEK 2,243 (1,608). The exchange rate effect had a negative net impact of MSEK –478.

Net financial items decreased to MSEK –1,268 (–914). The change was mainly driven by increased financial expenses related to strategic financing projects, partly offset by positive exchange rate effects from financing activities.

The income tax increase is a result of increased current tax due to decreased witholding tax credits related to decreased licence sales partly offset by decreased current tax cost due to changes in EBT in between markets with variances in corporate income tax rates. The effective tax rate increased to 24.3 (22.2) per cent mainly due to timing in withholding tax. Net income amounted to MSEK 9,781 (10,225). Net income in relation to net revenue decreased to 3.9 (4.9) per cent.

Research and development spending, MSEK	2018	2017
Research and development spending	–14,020	–13,665
Capitalised development costs	7,680	7,639
Amortisation and depreciation of Research and development[1]	–5,758	–4,161
Whereof additional amortisation related to assets sold to Polestar	–1,195	—
Research and development expenses	**–12,098**	**–10,187**

1) Includes amortisation of capitalised development cost and a portion of depreciation of other intangible assets, see Note 10 – Depreciations.

Consolidated Comprehensive Income

MSEK	2018	2017
Net income	9,781	10,225
Other comprehensive income		
Items that will not be reclassified subsequently to income statement:		
Remeasurements of provisions for post-employment benefits	–1,925	–422
Tax on items that will not be reclassified to income statement	404	62
Items that may be reclassified subsequently to income statement:		
Translation difference on foreign operations	805	–318
Translation difference of hedge instruments of net investments in foreign operations	–16	–121
Change in fair value of cash flow hedge related to currency and electricity risks	–3,236	3,040
Currency and electricity risk hedge contracts recycled to income statement	–603	1,413
Tax on items that may be reclassified to income statement	815	–953
Other comprehensive income, net of income tax	**–3,756**	**2,701**
Total comprehensive income	**6,025**	**12,926**
Total comprehensive income attributable to		
Owners of the parent company	2,965	10,777
Non–controlling interests	3,060	2,149
	6,025	**12,926**

NET FINANCIAL POSITION AND LIQUIDITY

Cash flow from operating and investing activities amounted to MSEK 4,705 (–3,800). Cash flow from operating activities amounted to MSEK 27,969 (24,933). The change is due to the positive operating income of MSEK 14,185 (14,061), adjusted for depreciation and amortisation of MSEK 14,408 (12,098) together with the tax paid of MSEK –4,132 (–3,471), and a positive working capital development of MSEK 5,248 (2,754). Cash flow from working capital includes increased inventory of MSEK –3,706 (–10,536), as the Group continues to expand its global footprint, growing sales volume, ramping-up production and launching new products. A change in logistics flows also led to increased inventory turnover. Further, accounts receivable has a negative effect MSEK –2,627 (–2,069) due to sold licences. The negative effects of working capital have been offset with an increase of accounts payable of MSEK 4,372 (8,220) which is due to the increase of volumes and the carmodel mix. Increase of contract liabilities has generated a positive working capital of MSEK 6,093 (2,054) reflecting increased volumes of sales under operating lease. Other working capital assets and liabilities have a net positive effect on working capital with MSEK 1,724 (2,687).

Cash flow from investing activities amounted to MSEK –23,264 (–28,733). The decrease in investment is mainly due to the finalisation of the construction of the US plant. Investments in tangible assets amounted to MSEK –13,574 (–17,037) and is mainly driven by investments related to launch and ramp up of production of new car models, such as the XC40 and the V60, and investments in the US plant during the first half of the year. Investments in intangible assets amounted to MSEK –8,487 (–9,651) as a result of continuous investments in new and upcoming car models and new technology. Included in net investments in shares and participations is a capital contribution to Zenuity AB of MSEK 600, which is offset by a capital contribution of MSEK 662 from non-controlling interests within Polestar New Energy Vehicle Co., Ltd. and the acquisition of the remaining 50 per cent of the shares in Polestar New Energy Vehicle Co., Ltd in July with an amount of MSEK 1,288.

Cash flow from financing activities amounted to MSEK –743 (1,333). The change is mainly attributable to repayment of liabilities to credit institutions of MSEK –7,354 (–3,658), whereof MSEK 5,790 was an early repayment of a bank loan. The negative change was offset by matured marketable securities of net MSEK 2,558 (785) and by drawn down of credit facilities of MSEK 3,087 (1,291). Further, other cash flow from financing activities has increased to MSEK 1,033 (271) mainly due to cash flow from realised hedges. Total cash and cash equivalents including marketable securities have increased to MSEK 41,747 (39,394). Net cash increased to MSEK 18,029 (12,513). Including undrawn credit facilities of MSEK 13,328 (15,203), liquidity is at MSEK 55,075 (54,597).

Total equity increased to MSEK 61,251 (54,660), resulting in an equity ratio of 29.0 (28.7) per cent. The change is attributable to the positive net income of MSEK 9,781 and group contributions received from related companies, partly offset by negative effects in other comprehensive income. The latter is related to change in cash flow hedge reserve of MSEK –3,025 (net of tax), mainly due to a weakened SEK against USD and re-measurements of provisions for post-employment benefits of MSEK –1,521 (net of tax) due to changes in actuarial assumptions. This has partly been offset by a positive foreign exchange translation effect, including hedges of net investments in foreign operations of MSEK 790 (net of tax). The acquisition of the remaining 50 per cent of Polestar New Energy Vehicle Co., Ltd is included with an amount of MSEK –1,288. Further, during the year capital contributions from the non-controlling interests of the same company has had a positive effect in equity of in total MSEK 1,508 whereof 846 is the effect during the fourth quarter. A dividend of MSEK 67 has been paid to shareholders, whereof MSEK 63 was distributed to the holders of preference shares.

Consolidated Balance Sheets

MSEK	Note	Dec 31, 2018	Dec 31, 2017
ASSETS			
Non-current assets			
Intangible assets	16	29,626	29,157
Property, plant and equipment	8, 17	61,208	55,245
Assets held under operating leases	8, 17	2,523	2,577
Receivables on parent company		54	54
Investments in joint ventures and associates	14	7,003	5,480
Other long-term securities holdings		190	80
Deferred tax assets	15	6,586	4,558
Other non-current assets	18	2,982	3,704
Total non-current assets		**110,172**	**100,855**
Current assets			
Inventories	19	35,163	30,665
Accounts receivable	5, 20	13,704	10,832
Current tax assets		573	463
Other current assets	20	9,875	7,955
Marketable securities	22	1,577	3,992
Cash and cash equivalents	22	40,170	35,402
Total current assets		**101,062**	**89,309**
TOTAL ASSETS		**211,234**	**190,164**
EQUITY & LIABILITIES			
Equity	23		
Equity attributable to owners of the parent company		52,873	48,729
Non-controlling interests		8,378	5,931
Total equity		**61,251**	**54,660**
Non-current liabilities			
Provisions for post-employment benefits	24	8,425	6,525
Deferred tax liabilities	15	1,688	1,977
Other non-current provisions	25	6,189	4,962
Liabilities to credit institutions	27	8,273	6,622
Bonds	21, 27	13,200	12,735
Non-current contract liabilities to customers	26	4,184	3,662
Other non-current liabilities	5, 27	4,609	2,636
Total non-current liabilities		**46,568**	**39,119**
Current liabilities			
Current provisions	25	6,936	6,513
Liabilities to credit institutions	27	2,175	7,426
Current contract liabilities to customers	26	17,511	14,507
Accounts payable	5	43,633	38,536
Current tax liabilities		1,645	1,380
Other current liabilities	28	31,515	28,023
Total current liabilities		**103,415**	**96,385**
TOTAL EQUITY & LIABILITIES		**211,234**	**190,164**

Changes in Consolidated Equity

MSEK	Share capital[1]	Share premium	Other contributed capital	Currency translation reserve	Other reserves	Retained earnings	Attributable to owners of the parent	Non-controlling interests	Total
Balance at January 1, 2017	**51**	**11,424**	**8,034**	**38**	**–2,203**	**22,192**	**39,536**	**3,774**	**43,310**
Net income	**—**	**—**	**—**	**—**	**—**	**7,960**	**7,960**	**2,265**	**10,225**
Other comprehensive income									
Remeasurements of provisions for post-employment benefits	—	—	—	—	—	–422	–422	—	–422
Translation difference on foreign operations	—	—	—	–202	—	—	–202	–116	–318
Translation difference of hedge instruments of net investments in foreign operations	—	—	—	–121	—	—	–121	—	–121
Change in fair value of cash flow hedge related to currency and electricity risks	—	—	—	—	3,040	—	3,040	—	3,040
Currency and electricity risk hedge contracts recycled to income statement	—	—	—	—	1,413	—	1,413	—	1,413
Tax attributable to items recognised in other comprehensive income	—	—	—	27	–980	62	–891	—	–891
Other comprehensive income	**—**	**—**	**—**	**–296**	**3,473**	**–360**	**2,817**	**–116**	**2,701**
Total comprehensive income	**—**	**—**	**—**	**–296**	**3,473**	**7,600**	**10,777**	**2,149**	**12,926**
Transactions with owners									
Capital contribution from non-controlling interest[2) 3)]	—	—	—	—	—	—	—	631	631
Issue of preference shares[2)]	—	–19	—	—	—	—	–19	—	–19
Dividend to shareholders[4)]	—	—	—	—	—	–1,565	–1,565	–623	–2,188
Transactions with owners	**—**	**–19**	**—**	**—**	**—**	**–1,565**	**–1,584**	**8**	**–1,576**
Balance at December 31, 2017	**51**	**11,405**	**8,034**	**–258**	**1,270**	**28,227**	**48,729**	**5,931**	**54,660**
Net income	—	—	—	—	—	**6,840**	**6,840**	**2,941**	**9,781**
Other comprehensive income									
Remeasurements of provisions for post-employment benefits	—	—	—	—	—	–1,925	–1,925	—	–1,925
Translation difference on foreign operations	—	—	—	696	—	—	696	109	805
Translation difference of hedge instruments of net investments in foreign operations	—	—	—	–16	—	—	–16	—	–16
Change in fair value of cash flow hedge related to currency and electricity risks	—	—	—	—	–3,249	—	–3,249	13	–3,236
Currency and electricity risk hedge contracts recycled to income statement	—	—	—	—	–602	—	–602	–1	–603
Tax attributable to items recognised in other comprehensive income	—	—	—	1	816	404	1,221	–2	1,219
Other comprehensive income	—	—	—	**681**	**–3,035**	**–1,521**	**–3,875**	**119**	**–3,756**
Total comprehensive income	—	—	—	**681**	**–3,035**	**5,319**	**2,965**	**3,060**	**6,025**
Transactions with owners									
Group contributions[4)]	—	—	418	—	—	—	418	—	418
Capital contribution from non-controlling interest[2) 3)]	—	—	—	—	—	—	—	662	662
Divestment of non-controlling interests[2) 3)]	—	—	—	—	—	–17	–17	–1,271	–1,288
Change in the Group's composition[3) 5)]	—	—	—	—	—	–5	–5	—	–5
Capital injection into joint venture under common control[3) 5)]	—	—	—	—	—	846	846	—	846
Dividend to shareholders[4)]	—	—	—	—	—	–63	–63	–4	–67
Transactions with owners	—	—	**418**	—	—	**761**	**1,179**	**–613**	**566**
Balance at December 31, 2018	**51**	**11,405**	**8,452**	**423**	**–1,765**	**34,307**	**52,873**	**8,378**	**61,251**

1) Share capital amounts to SEK 50,500,000 (50,500,000).
2) For further information, see Note 23 – Equity.
3) For further information, see Note 8 – Participation in subsidiary (Parent company).
4) For further information, see Note 5 – Related parties.
5) For further information, see Note 1 – General information and significant accounting principles.

Consolidated Statement of Cash Flows

MSEK	Note	2018	2017
OPERATING ACTIVITIES			
Operating income		14,185	14,061
Depreciation and amortisation of non-current assets	10	14,408	12,098
Interest and similar items received		408	303
Interest and similar items paid		–818	–1,016
Other financial items		–203	–383
Income tax paid		–4,132	–3,471
Adjustments for items not affecting cash flow	31	–1,127	587
		22,721	**22,179**
Movements in working capital			
Change in inventories		–3,706	–10,536
Change in accounts receivable		–2,627	–2,069
Change in accounts payable		4,372	8,220
Change in provisions		–608	2,398
Change in contract liabilities to customers		6,093	2,054
Change in other working capital assets/liabilities		1,724	2,687
Cash flow from movements in working capital		**5,248**	**2,754**
Cash flow from operating activities		**27,969**	**24,933**
INVESTING ACTIVITIES			
Investments in shares and participations, net[1]	14, 32	–1,565	–2,081
Dividends received from joint ventures and associates	14	240	37
Investments in intangible assets		–8,487	–9,651
Investments in property, plant and equipment		–13,574	–17,037
Disposal of property, plant and equipment		122	—
Other		—	–1
Cash flow from investing activities		**–23,264**	**–28,733**
Cash flow from operating and investing activities		**4,705**	**–3,800**
FINANCING ACTIVITIES			
Proceeds from credit institutions	27	3,087	1,291
Proceeds from bond issuance	21	—	4,914
Proceeds from issuance of preference shares, net	23	—	–82
Repayment of liabilities to credit institutions	27	–7,354	–3,658
Dividend paid to shareholders	5	–67	–2,188
Investments in marketable securities, net	22	2,558	785
Other	31	1,033	271
Cash flow from financing activities		**–743**	**1,333**
Cash flow for the year		**3,962**	**–2,467**
Cash and cash equivalents at beginning of year		**35,402**	**38,635**
Exchange difference on cash and cash equivalents		806	–766
Cash and cash equivalents at end of year	22	**40,170**	**35,402**

1) Investments in shares and participations, net, includes; investments in shares and participations and effects from loss of control of Polestar Group.

Notes to the Consolidated Financial Statements

All amounts are in MSEK unless otherwise stated.
Amounts in brackets refer to the preceding year.

NOTE 1 – GENERAL INFORMATION AND SIGNIFICANT ACCOUNTING PRINCIPLES

Basis of preparation

The financial statements of Volvo Car AB (publ.) and its subsidiaries, the Volvo Car Group, have been prepared in compliance with the International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board (IASB), as adopted by the European Union. This Annual Report is prepared in accordance with IAS 1 Presentation of Financial Statements and the Swedish Annual Accounts Act. In addition, RFR 1 Supplementary Rules for Groups has been applied, which is issued by the Swedish Financial Reporting Board. RFR 1 specifies mandatory additions to the IFRS disclosure requirements in accordance with the Swedish Annual Accounts Act.

The consolidated financial statements have been prepared on the historical cost basis except for certain financial instruments that are carried at fair value, as explained in the accounting policies below.

Preparing the financial reports in compliance with IFRS requires that Management makes judgements and estimates as well as assumptions that affect the application of accounting principles and amounts recognised. Areas involving a higher degree of judgement or complexity, or areas where assumptions and estimates have significant impact on the consolidated financial statements are disclosed in Note 2 – Critical accounting estimates and judgements.

As required by IAS 1, the Group companies apply uniform accounting rules, irrespective of national legislation, as defined in the Group accounting directives, which are in compliance with IFRS. The accounting principles stated below have been applied consistently for all periods, unless otherwise indicated.

For information on new accounting principles, see section Changes in accounting principles and disclosures.

Basis of consolidation

The consolidated accounts have been prepared based on the principles set forth in IFRS 10 – Consolidated financial statements. Volvo Car Group includes Volvo Car AB (publ.) and its subsidiaries. Subsidiaries are all entities (including structured entities) over which the Group has control. The Group controls an entity when the Group is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. Volvo Car Group consists of, in addition to wholly owned subsidiaries, certain companies owned to 50 per cent, mainly in China, that are consolidated as subsidiaries, see Note 8 – Participation in subsidiary (parent company). In those cases, an assessment has been made whether the Group has control based on, in addition to the ownership, contractual arrangements between the owners. Subsidiaries are fully consolidated from the date on which control is transferred to the Group. They are deconsolidated from the date that control ceases.

Business combinations – IFRS 3

Volvo Car Group applies IFRS 3, Business Combinations, for acquisitions. All business combinations, except for common control transactions, are recognised in accordance with the acquisition method. Volvo Car Group measures acquired identifiable assets and liabilities at fair value. Any surplus amount from the purchase price, possible minority interest and fair value of previously held equity interests at the acquisition date compared to the Volvo Car Group's share of acquired net assets is recognised as goodwill. Any deficit amount (bargain purchase), so called negative goodwill, is directly recognised as income in the income statement. In step acquisitions, a business combination occurs only on the date control is achieved. Transactions with the minority are recognised as equity as long as control of the subsidiary is retained.

All acquisition-related costs are expensed. Companies acquired are consolidated as of the date of acquisition. Companies that have been divested are included in the consolidated financial statements up to and including the date of the divestment. Intercompany transactions, balances and unrealised gains or losses on transactions between group companies are eliminated.

Common control transactions

Common control transactions are acquisitions where the acquired company has the same ultimate parent company as the acquiring entity. Common control transactions are not explicitly regulated under IFRS and therefore the company needs to apply a principle that is considered to best reflect the transaction. Volvo Car Group has elected to apply predecessor accounting, meaning that the acquirer incorporates predecessor carrying value. These are the carrying values that are related to the acquired entity from the consolidated financial statements of the highest entity that has common control for which consolidated financial statements are prepared. When applying predecessor accounting, Volvo Car Group has chosen to include acquired entities under common control for the entire period. An adjustment has also been made of the comparative period. This means that the consolidated financial statements include the acquired entity's results as if both entities (acquirer and acquiree) had always been combined. The consolidated financial statements will reflect both entities' full year's results, even though the business combination have occurred part way through the year. The corresponding amounts for the previous years also reflect the combined results of both entities, even though the transaction did not occur until the current year. The effect in the opening balance of the comparative period due to this application of predecessor accounting is accounted for directly in equity.

In the third quarter 2018, Volvo Car Group derecognised the Polestar business, i.e. Polestar Automotive (Shanghai) Co., Ltd and its wholly-owned subsidiaries. According to the accounting principles derecognition was made from the date that control of these subsidiaries ceased, subsequent to an assessment of level of ownership and contractual arrangements between the owners. In the case of Polestar control ceased as an effect of the Geely Group subscribing for 50 per cent of the equity in Polestar Automotive (Shanghai) Co., Ltd, the parent company in the Polestar Group, combined with joint control contractual arrangements. In the consolidated balance sheets, Polestar's assets and liabilities have been derecognised, and replaced by an investment in joint venture. The joint venture is reported in accordance with the equity method.

As stipulated in IFRS 10, the investment retained in Polestar shall be recognised at its fair value at the date when control is lost, with the difference between fair value and book value reported in profit and loss. In the case of Polestar, this difference has been recorded directly in equity as a transaction with the owner, as this is a common control transaction. The remeasured value the date that control is lost is regarded as the cost on initial recognition of the investment in the joint venture.

In the fourth quarter 2018, subsequent to initial recognition of the investment in the joint venture, Geely Group has injected capital into Polestar Automotive (Shanghai) Co., Ltd. As this capital injection is an integrated part of above common control transaction, the capital injection by Geely Group has increased Volvo Car Group's investment in the joint venture, and increased equity in Volvo Car Group, reflecting a transaction with the owner.

This principle was applied when Volvo Cars during 2015 gained control over the Chinese industrial entities Daqing Volvo Car Manufacturing Co., Ltd, Zhangjiakou Volvo Car Engine Manufacturing Co., Ltd and Shanghai Volvo Car Research and Development Co., Ltd through an acquisition of an additional 20 per cent, creating a 50 per cent ownership in these companies. Additionally, Daqing Volvo Car Manufacturing Co., Ltd. acquired 100 per cent in three other companies, among them Volvo Car (Asia Pacific) Investment Holding Co., Ltd which holds 100 per cent of Zhongjia Automobile Manufacturing (Chengdu) Co., Ltd. After the acquisitions, Volvo Car Group holds 50 per cent of Volvo Car's Chinese industrial entities and has been assessed to have gained the power to control these entities based on the ownership and shareholder agreements. Those entities are therefore classified as subsidiaries within Volvo Car Group and thus fully consolidated.

Balances and transactions with Zhejiang Geely Holding Group Co., Ltd and its subsidiaries, companies that are not part of Volvo Car Group, are classified in the consolidated financial statements as balances and transactions with related companies.

Joint ventures and associated companies

Joint ventures refer to joint arrangements whereby Volvo Car Group together with one or more parties that have joint control, have rights to the net assets of the arrangements.

Associated companies are companies in which Volvo Car Group has a significant but not controlling influence, which generally is when Volvo Car Group holds between 20 and 50 per cent of the shares, but it also includes investments with less participation if significant influence is proven.

Investments in joint ventures and associated companies are reported in accordance with the equity method and are initially recognised at acquisition cost. The Group's share of post-acquisition profit or loss is recognised in the income statement, and its share of post-acquisition movements in other comprehensive income is recognised in other comprehensive income, with a corresponding adjustment to the carrying amount of the investment. When the Group's share of losses in an associate equals or exceeds its interest in the associate, the Group does not recognise further losses unless it has incurred legal or constructive obligations in relation to the associate or joint venture.

Foreign currency

Translation of foreign group entities

The primary economic environment is the one in which a group company primarily generates and expends cash. Normally the functional currency is the currency of the country where the company is located. Volvo Car Group's and Volvo Car AB's (publ.) presentation currency is Swedish krona (SEK).

When preparing the consolidated financial statements, items in the income statements of foreign subsidiaries (except for subsidiaries in hyperinflationary economies) are translated to SEK using monthly average exchange rates. Currently none of the entities within Volvo Car Group operates in a hyperinflationary economy. Balance sheet items are translated into SEK using exchange rates at year-end (closing rate). Exchange differences arising are recognised in other comprehensive income and accumulated in equity.

The accumulated translation differences related to certain subsidiaries, joint ventures or associated companies are reversed to the income statement as a part of the gain/loss arising from disposal of such a company.

Assets and liabilities in foreign currency

Assets and liabilities in currencies other than the functional currency (foreign currencies) are translated to the functional currency using the balance sheet closing rate. Exchange rate differences arising from translation of currencies are recognised in the income statement, except when deferred in other comprehensive income as net investment hedges.

Translation differences on operating assets and liabilities are recognised in other operating income and expenses, while translation differences arising in financial assets and liabilities are recognised in financial income and expenses. The main exchange rates applied are shown in the table below:

Exchange rates

		Average rate		Close rate	
Country	Currency	**2018**	2017	**2018**	2017
China	CNY	1.32	1.26	1.30	1.26
Euro zone	EUR	10.27	9.62	10.25	9.84
Great Britain	GBP	11.60	11.02	11.35	11.09
United States	USD	8.69	8.56	8.95	8.20
Japan	JPY	0.08	0.08	0.08	0.07

Segment reporting

Operating segments are defined as components of the Group about which separate financial information is available that is evaluated regularly by the chief operating decision maker, a decision making group, in deciding how to allocate resources and in assessing performance.

Volvo Car Group, as a whole, operates in the automotive business. The automotive business includes all activities related to development, design, manufacturing, assembly and sale of vehicles, as well as sale of related parts and accessories from which the Group derives its revenues.

The regional organisation implemented in 2015 is not considered to constitute reporting segments. The main purpose of the regional organisation is to emphasise the responsibility for the regional market from a sales perspective, with an increased focus on sales with more direct involvement from Group Management. All substantial decisions regarding allocation of resources as well as the assessment of the performance is based on the group as a whole. The allocation of resourses is not done by regions, but rather directly to individual markets. Therefore Volvo Car Group is considered to have only one operating segment, hence no separate segment report is given. For further information see Note 33 – Segment reporting.

Accounting principles

Revenue recognition

Revenue is recognised according to IFRS 15, when a customer obtains control of a good or service, and thus has the ability to direct the use and obtain the benefits from the goods or service. Prior to January 1, 2018, Volvo Car Group recorded revenue from contracts with customers in accordance with IAS 18, which Volvo Car Group considers correspond to the standards set out in IFRS 15. Volvo Car Group has concluded that the financial impact of implementation of the new revenue standard is insignificant. Also, there is no transition effect and no restatement of prior year figures. However, certain additional disclosures have been implemented in the financial reporting 2018;

- Contract liabilities to customers are classified on a separate financial statement line. Therefore, as of January 1, 2018, sales generated obligations, deferred revenue from service contracts and extended warranties, deferred revenue from sales with repurchase contracts (recorded as an operating lease) and residual value guarantees as well as advance payments from customers, have been re-classified to the financial statement line Contract liabilities to customers, with no impact on the consolidated income statements. Comparison figures have also been re-classified.

Sale of products and related goods and services

Volvo Car Group manufactures and sells vehicles, parts and accessories mainly to dealers and distributors. There are no material costs in the Group to obtain or fulfil contracts with customers, such as sales commissions. Revenue is recognised when control has been transferred, according to agreed delivery terms. At the point of revenue recognition, there is no material unfulfilled obligation that could affect the dealer's acceptance. Revenue recognition occurs when substantially all indicators of transfer of control have been satisfied. Delivery, revenue recognition and payment take place essentially simultaneously.

The cars may be sold with volume discounts based on aggregate sales over a 3–12 months period, depending on market praxis. Revenue from these sales is recognised based on the price specified in the contract, net of the estimated volume discounts. Accumulated experience is used to estimate and provide for the discounts, and revenue is only recognised to the extent that it is highly probable that a significant reversal will not occur. A contract liability is recognised for expected volume discounts payable to customers in relation to sales made until the end of the reporting period. Volvo Car Group does not have any material loyalty programmes or incentives that grants customers a material right that they would not have received without entering into a contract.

Revenue from sale of a vehicle to a customer, subject to an issuance of a residual value guarantee to an independent financing provider, is recognised at the time of sale, less an amount corresponding to a contract liability to customer reflecting the estimated residual value risk, provided that the control of the vehicle has been transferred to the customer.

Sale of a vehicle to a customer combined with a repurchase commitment (the right or obligation to buy back the car) is recorded as an operating lease, as the customer has not obtained the control of the vehicle. Therefore, revenue is recognised on a straight-line basis over the leasing period. Vehicles sold with a put option, meaning that Volvo Car Group is obliged to repurchase the vehicle at the customer's request, are treated as operating leases since the customers are expected to have significant economic incentives to take advantage of this opportunity.

Volvo Car Group sells maintenance contracts and extended warranties to end customers. Revenue from these sales is deferred and recognised on a straight-line basis over the contract period. Based on experience and historical data, Volvo Car Group considers this to be a good approximate. The deferred revenue is presented as a contract liability to customer, since the customers payment is made before the service is transferred.

When an extended warranty contract is included in the sales price of the car, and it is assessed to be common practise in the market to include such extended warranty, it is accounted for as a provision and the full expense is recognised in the income statement at the time of the car sale as a warranty cost. Where an extended warranty is included in the sale of a car and the offer goes beyond common practise in the market, it is accounted for as a separate performance obligation; a stand-alone selling price is identified and revenue is recognised on a straight-line basis over the contract period. Where the stand-alone selling price is not directly observable, it is in general estimated based on expected cost plus a reasonable margin method.

Sale of licences

Revenue related to licences can be recognised at a point in time or over time, depending on whether the sold licence gives a right to use or a right to access the underlying asset. Volvo Car Group has both types of contracts and revenue is therefore recognised in accordance with the substance of the relevant agreement. income from sold licenses related to intellectual property (IP) and other developed technology is classified as Net revenue.

Royalties are recognised in accordance with the substance of the relevant agreement, generally on an accrual basis.

Revenue from rental and leasing business

Revenues from the rental business is partly a subscription fee recognised on a straight-line basis over the subscription period and partly a rental fee recognised in the period the rental occurs.

Revenues related to an operating lease arrangement are recognised on a straight-line basis over the leasing period. This includes Volvo Car Group subscription product “Care by Volvo”. It also includes sale of vehicles combined with a repurchase commitment.

Significant financing components

Volvo Car Group does not have contracts including significant financing components. Contracts where the period between the transfer of the promised goods or services to the customer and payment by the customer exceeds one year include above all maintenance contracts and extended warranties. These contracts are each of small amounts and stretch over a few years, and therefore do not include any significant financing component. As a consequence, Volvo Car Group does not adjust any of the transaction prices for the time value of money.

Interest income is recognised using the effective interest method. The calculation is made on the basis of the return on underlying assets in accordance with the effective interest method. Dividend income is recognised when the right to receive dividend is obtained.

Leases

Any lease agreement in which the risks and rewards associated with ownership have been essentially transferred to the related company are classified as a finance lease. Other leased assets where ownership is retained by the lessor are classified as operating leases.

Volvo Car Group as lessor

Volvo Car Group currently has no finance leases as a lessor per the closing date. Transactions that include repurchase commitments (see above section Revenue recognition) are recorded as operating leases. Operating lease contracts with a term of twelve months or less are classified as inventory. Assets related to contracts with a term exceeding twelve months are classified as tangible assets as assets under operating lease.

Revenue from operating leases is recognised on a straight-line basis over the leasing period. Depreciation of the asset occurs on a straight-line basis under the terms of the commitment and the residual values are adjusted to conform to the estimated realisable value when the commitment expires. The estimated realisable value at the commitment termination is evaluated continuously.

Volvo Car Group as lessee

In the case of finance leases, the asset is recognised at the inception of the leasing period as a current or non-current asset at the lower of fair value or the present value of the minimum lease payments. The asset is depreciated using the straight-line method over the asset's useful life or over the term of the lease if this is shorter. The commitment to pay future lease payments are discounted to net present value and recorded as a current or non-current liability in the balance sheet. The lease payments made are allocated between amortisation of liabilities and interest expense.

For operating leases, i.e., when the risks and rewards associated with the ownership of the asset have not been transferred to Volvo Car Group, lease and rental payments are expensed as they arise on a straight-line basis over the leasing period.

As stipulated in IFRIC 4, an arrangement that is not in the legal form of a lease is still accounted for as a lease, if the arrangement conveys the right to control the use of the underlying asset.

Government grants

A government grant is recognised when there is reasonable assurance that Volvo Car Group will comply with the conditions attached to the grant and that the grant will be received. Government grants are recorded in the financial statements in accordance with their purpose, either as a reduction of expense or a reduction of the carrying amount of the asset. Government grants are recognised in the income statement on a systematic basis over the periods necessary to match them with the related expenses that they are intended to compensate. Government grants related to assets are deducted from the carrying amount of the asset and are recognised in the income statement over the life of a depreciable asset as a reduced depreciation expense. In cases where the received government grant is not intended to compensate any expenses or the acquisition of assets the grant is recognised as other income. Government grants for future expenses are recorded as deferred income.

Income taxes

Volvo Car Group's tax expense consists of current tax and deferred tax. Taxes are recognised in the income statement except when the underlying transaction is recognised directly in equity or other comprehensive income, whereupon related taxation is also recognised in equity or other comprehensive income.

Current tax is tax that must be paid or will be received for the current year. Current tax also includes adjustments to current tax attributable to previous periods. Deferred tax is calculated according to the balance sheet method for all temporary differences, with the exception of goodwill, that arise between the tax value and the carrying amount of assets and liabilities.

Deferred tax assets and liabilities are measured at the nominal amount and at the tax rates that are expected be apply when the asset is realised or the liability is settled, using the tax rates and tax rules that have been enacted or substantively enacted at the balance sheet date.

Deferred tax assets relating to deductible temporary differences and loss carry forwards are recognised to the extent it is probable that they will be utilised in the future. Deferred tax assets and deferred tax liabilities are offset when they are attributable to the same taxation authority on either the same taxable entity or different taxable entities where there is an intention to settle the balances on a net basis and the affected company has a legally enforceable right to offset tax assets against tax liabilities.

Tax laws in Sweden and in certain other countries allow companies to defer tax payments through allocation to untaxed reserves. These items are treated as temporary differences in the consolidated balance sheet where the untaxed reserves are divided between deferred tax liability and equity. In the consolidated income statement an allocation to, or withdrawal from, untaxed reserves is divided between deferred taxes and net income for the year.

Classification of current and non-current assets and liabilities

An asset is classified as a current asset when it is held primarily for the purpose of trading, is expected to be realised within twelve months after the balance sheet date or consists of cash or cash equivalents, provided it is not subject to any restrictions. All other assets are classified as non-current assets. A liability is classified as a current liability when it is held primarily for the purpose of trading or is expected to be settled within twelve months after the balance sheet date. All other liabilities are classified as non-current liabilities.

Non-current assets held for sale and discontinued operations

Volvo Car Group applies IFRS 5, Non-current Assets Held for Sale and Discontinued Operations. When the criteria for being classified as a non-current asset held for sale are fulfilled and the asset or group of assets are of significant value, the asset or group of assets and the related liabilities are recognised on a separate line in the balance sheet. The asset or group of assets are tested for impairment and, if impaired, measured at fair value after deducting for selling expenses.

Intangible assets

An intangible asset is recognised when the asset is identifiable, Volvo Car Group controls the asset and it is expected to yield future economic benefits. Intangible assets comprise of product development, licences and patents, trademarks, goodwill, dealer network and investments in IT-systems and software. Intangible assets such as trademarks, goodwill and dealer networks are normally identified and measured at fair value in connection with business combinations.

Both acquired and internally generated intangible assets are recognised at acquisition cost, less accumulated amortisation and any impairment loss (with the exception of goodwill and trademark). Goodwill and trademark are recognised at fair value at the date of the revaluation less accumulated amortisation and any accumulated impairment losses. When applicable, internal costs directly related to the development of intangible assets are included in the value of the intangible asset. Borrowing costs are included in the cost of assets that take a substantial period of time to get ready for its intended use. Subsequent expenditure on intangible assets increases the cost only if it is likely that Volvo Car Group will have future economic benefit from the subsequent expenditure. All other subsequent expenditure is recognised as an expense in the period in which it is incurred.

Capitalised product development costs

Volvo Car Group's research and development activities are divided into a concept phase and a product development phase. Costs incurred during the concept phase are normally research costs for developing new products at an early stage, where the outcome of the project is still uncertain and where for example different options and alternatives are still evaluated. Research costs during the concept phase are expensed as incurred.

When a research and development project has developed to the extent that there is a definable future product that is assessed to generate future economic benefits, the project is considered to be in the development phase. Costs for development of new products, production systems and software are recognised as an asset if certain conditions under IAS 38 - Intangible Assets are met. Capitalised development costs is comprised of all expenditures that can be directly attributed to the development phase and that serve to prepare the asset for use. All other development costs are expensed as incurred.

Development costs previously recognised as an expense are not recognised as an asset in a subsequent period.

Development costs incurred by Volvo Car Group that are contractually shared with other parties and where Volvo Car Group remain in control of a share of the developed product, either through a licence or through ownership of patents, are accounted for as intangible assets, reflecting the relevant proportion of Volvo Car Group interests, to the extent they are: part of the asset controlled by Volvo Car Group, are incurred in the product development phase and the conditions for capitalisation are met.

Development costs that are incurred on behalf of another party, charged to the other party including a margin, and do not constitute the share of the developed product controlled by the Volvo Car Group are accounted for as other operating income on a net basis. The revenue is presented as other operating income in the income statement since it is not considered part of the course of the ordinary activities of the Group, such as are presented in the item Net revenue. The revenue is recognised through the percentage of completion method. The degree of completion is based on costs incurred to date.

Amortisation methods for intangible assets

Intangible assets with definite useful lives are amortised on a straight-line basis in the income statement over their respective expected useful lives and are tested for impairment whenever there is an indication that the intangible asset may be impaired. The amortisation period for contractual rights such as licences does not exceed the contract period. All intangible assets are considered to have a definite useful life, with the exception of goodwill and trademarks. Trademarks are assumed to have indefinite useful lives since Volvo Car Group has the right and the intention to continue to use the trademarks for the foreseeable future, while generating net positive cash flows for Volvo Car Group. Intangible assets with an indefinite useful life are not amortised.

The useful lives are to a large extent based on historical experience, expected application as well as other individual characteristics of the asset. The following useful lives are applied:

Dealer network	30 years
Software, mainframe	8 years
Product development costs	3–10 years
Patents, licences and similar rights	3–10 years
Software, cloud	5–7 years
Software, PC	3 years

Amortisation is included in cost of sales, research and development expenses as well as selling or administrative expenses depending on where the assets have been used.

Property, plant and equipment

Volvo Car Group applies the cost method for measurement of tangible assets. Cost includes expenditure that can be directly attributed to the acquisition. Borrowing costs are included in the acquisition value of an asset that takes more than twelve months of time to get ready for its intended use or sale, a so called qualifying asset. Tangible assets are recognised at acquisition cost, less accumulated depreciation and potential impairment loss.

Subsequent expenditure on property, plant and equipment increases the acquisition value only if it is probable that Volvo Car Group will have future economic benefit from the subsequent expenditure. Carrying amount of the replaced part is derecognised. All other repairs and maintenance are charged to the income statement during the financial period in which they are incurred.

Depreciation methods for tangible assets

Depreciation according to plan is based on the acquisition value. Tangible assets are systematically depreciated over the expected useful life of the asset.

Each part of an item of property, plant and equipment, with a cost that is significant in relation to the total cost of the item, is depreciated separately when the useful life for the part differs from the useful life of the other parts of the item. Land is assumed to have an indefinite useful life and is not depreciated. The following useful lives are applied in Volvo Car Group:

Buildings	14.5–50 years
Land improvements	30 years
Machinery	8–30 years
Equipment	3–20 years

Depreciation is included in cost of sales, research and development expenses as well as selling or administrative expenses depending on where the assets have been used.

Impairment of assets

The carrying amounts of intangible and tangible assets as well as all shareholding investments are tested regularly to assess whether there is an indication of impairment. Intangible assets that have an indefinite useful life as well as assets that are not yet available for use are not subject for amortisation and are tested for impairment annually or whenever there is an indication of decline in value. The carrying amount of tangible and intangible assets with definite useful lives are tested whenever events or changes in circumstances indicate that the value of the asset is reduced and there might be an impairment loss.

In performing this impairment test, the asset's recoverable amount is calculated. The recoverable amount is the higher of an asset's fair value less costs to sell or value in use. Value in use is defined as the present value of the future cash flows expected to be derived from an asset. For the purpose of assessing impairment, assets are grouped in cash-generating units (CGUs).

When an indication of impairment is confirmed, an impairment loss is recognised to the extent that the carrying amount exceeds its recoverable amount. Previously recognised impairment loss is reversed, with the exception of goodwill, if reasons for the earlier impairment no longer exist. An impairment loss is reversed only to the extent that the asset's carrying amount after reversal does not exceed the carrying amount, net of amortisation, which would have been reported if no impairment loss had been recognised in prior years.

Financial assets and liabilities

From January 1, 2018, Volvo Car Group has implemented IFRS 9, for accounting of financial assets and liabilities. IFRS 9 replaces IAS 39. Volvo Car Group has concluded that there is no significant transition effect and consequently no restatement of prior year figures. As required by IFRS 9, a provision for expected credit losses has been recorded per 31 December 2018, with an amount of MSEK 20, in addition to the provision for incurred losses. In accordance with IFRS 9, the cost of hedging principle is applied to time value, why time value of options is recorded in other comprehensive income rather than in the income statement in the period ending on December 31, 2018, with an amount of MSEK –5.

Financial instruments are any form of contract that gives rise to a financial asset in one company and a financial liability or equity instrument in another company. For further information regarding financial instruments, see Note 21 – Financial risks and financial instruments.

Financial assets in the consolidated balance sheet of Volvo Car Group encompass interest-bearing investments (marketable securities), accounts receivables, other financial assets, derivative assets and cash and cash equivalents. Derivative instruments include forwards, options and swaps used to cover exposure for currency risks, interest risks and price fluctuations on electricity.

Financial liabilities in the consolidated balance sheet of Volvo Car Group mainly consist of liabilities to credit institutions, issued bonds, accounts payables, other financial liabilities and derivative liabilities, including issued warrants related to share-based incentive programme, see Note 9 – Employees and remuneration.

Classification of financial assets and liabilities

Derivatives with positive or negative values as well as equity instruments are carried at fair value through the income statement. Volvo Car Group does not apply the IFRS 9 exception of equity instruments not held for trading, in which case fair value is recorded over the consolidated comprehensive income.

For all financial assets except derivatives and equity instruments, IFRS 9 establishes three primary measurement categories:

- carried at fair value through the income statement
- carried at amortised cost
- carried at fair value through consolidated comprehensive income

Classification takes place at initial recognition. The basis for classification depends on the entity's business model and the contractual cash flow characteristics of the financial asset.

Financial assets that are held for trade are carried at fair value through the income statement. In Volvo Car Group, this encompass interest-bearing investments such as commercial papers recognised in marketable securities and cash and cash equivalents. All remaining financial assets are held to collect contractual cash flows and are carried at amortised cost. Consequently, Volvo Car Group does not have any financial assets carried at fair value through consolidated comprehensive income.

The Group classifies its financial liabilities in below categories:

- Financial liabilities carried at fair value through the income statement
- Other financial liabilities

Classification takes place at initial recognition for financial liabilities, the only change in IFRS 9 relates to recognition of changes in own credit risk in consolidated comprehensive income, for liabilities designated at fair value through the income statement. Volvo Car Group does not have financial liabilities carried at fair value through the income statement .

Initial recognition and final derecognition of financial assets and liabilities

Financial assets and liabilities are recognised in the balance sheet when Volvo Car Group becomes a party to the contractual terms and conditions, i.e. at the transaction date.

A financial asset or a portion of a financial asset is derecognised in the balance sheet when all significant risks and benefits linked to the asset have been transferred to a third party. Where Volvo Car Group concludes that all significant risks and benefits have not been transferred, the portion of the financial assets corresponding to Volvo Car Group's continuous involvement continues to be recognised.

A financial liability or a portion of a financial liability is derecognised from the balance sheet when the obligation in the contract has been fulfilled, cancelled or has expired.

Financial assets are initially recognised at fair value plus transaction costs, except for those financial assets carried at fair value through the income statement. Financial assets carried at fair value through the income statement are initially recognised at fair value, and transaction costs are expensed in the income statement.

Financial liabilities are initially recognised at fair value less transaction costs, except for those financial liabilities carried at fair value through the income statement. Financial liabilities carried at fair value through the income statement are initially recognised at fair value, and transaction costs are expensed in the income statement.

Invoiced sales are in certain cases subject to contracts for factoring with a third party (bank or financial institution). This enables Volvo Car Group to receive payment for its accounts receivables within a few days after billing and thus free liquidity at an earlier stage. If the criteria for derecognition of accounts receivable are not fulfilled, the receivable remains on the balance sheet.

Financial assets and liabilities carried at fair value through the income statement

In Volvo Car Group's balance sheet, financial instruments carried at fair value through the income statement consists of derivatives, including issued warrants related to share-based incentive programme (see Note 9 – Employees and remuneration), equity investments as well as commercial papers recognised in marketable securities and cash and cash equivalents.

Changes in fair value of these instruments are recognised in the income statement. Changes in fair value are reported as financial income/expense. If a derivative instrument has been designated to a hedge accounting relationship, changes in fair value are reported either in the income statement or in consolidated comprehensive income, depending on the substance of the hedge. In the case of cash flow hedges, changes in fair value are reported in consolidated comprehensive income as long as there is no underlying receivable/payable recorded in the balance sheet. Derivatives with positive fair values (unrealised gains) are recognised as other current, or non-current assets. Derivatives with negative fair values (unrealised losses) are recognised as other current, or non-current liabilities.

Fair value is generally determined by reference to official market quotes in an active market. When market quotes are not available the fair value is determined using generally accepted valuation methods such as discounted future cash flows.

Financial instruments are classified within level 1–3 based on the degree that market data have been utilised when measuring fair value. All financial instruments measured at fair value held by Volvo Car Group are classified as level 2, with the exception of Other long-term securities holdings classified as level 3. For further details see Note 21 – Financial risks and financial instruments. In level 2, valuation of financial instruments is based on market conditions using quoted market data existing at each balance sheet date. For these financial instruments no quoted prices on identical instruments in active markets exist. In level 3, the small amount invested in Other long-term securities holdings is valued at cost, as this is the best approximate of fair value.

Financial assets carried at amortised cost

In Volvo Car Group, all financial assets, other than those carried at fair value through the income statement (described in above paragraph), are recorded at amortised cost. These assets include accounts receivables, other financial assets as well as time deposits recognised in maketable securities and cash and cash equivalents. The business model and the contractual cash flow characteristics for accounts receivables and other financial assets is to collect the payment for these financial assets once they are due. In certain defined cases, accounts receivables are subject to factoring arrangements where Volvo Car Group transfers the risk to the buyer and derecognise the receivables. As these receivables are being derecognised in very close proximity to them being issued, these accounts receivables are also valued at amortised cost.

These financial assets are recognised in the balance sheet at fair value plus transaction costs and subsequently measured at amortised cost. Amortised cost is calculated using the effective interest method, where any premiums or discounts and directly attributable transaction costs are capitalised over the contract period using the effective interest rate. Accounts receivables are recognised at the amount expected to be received, i.e. after deduction of bad debts allowance. A bad debt allowance is incurred when there has been a triggering event for the customer's inability to pay. The bad debts on accounts receivable are recognised as a revenue deduction. In addition to the bad debts allowance, an allowance for expected credit losses is recorded, as stipulated by IFRS 9. The expected credit loss allowance is based on a multiplier consisting of average historical write-offs and forward-looking macroeconomic data.

Other financial liabilities

Financial liabilities to credit institutions, issued bonds, accounts payables and other financial liabilities are assigned to this category. These liabilities are reported as either current or non-current liabilities.

Other financial liabilities are recognised in the balance sheet at fair value less transaction costs and subsequently measured at amortised cost. Amortised cost is calculated using the effective interest method, where any premiums or discounts and directly attributable transaction costs are capitalised over the contract period using the effective interest rate.

Hedge accounting

Hedge accounting is adopted for derivative instruments that are included in a documented hedge relationship. For hedge accounting to be applied, a direct connection between the hedge and the hedged item is required. At the inception of the hedge, the Group documents the relationship between hedging instruments and hedged items, as well as its risk management strategy and objectives for undertaking various hedging transactions. The Group also documents its assessment, both at hedge inception and on an ongoing basis, of whether the derivatives that are used in hedging transactions are highly effective in offsetting changes in fair values or cash flows of the hedged items.

In applying hedge accounting, derivatives are initially recognised at fair value at trade date and subsequently re-measured at fair value. The Group designates certain derivatives as either:

a) Fair value hedges: a hedge of the fair value of recognised liabilities
b) Net investment hedges: a hedge of a net investment in a foreign operation
c) Cash flow hedges: a hedge of currency risk in future commercial cash flows, as well as a hedge of electricity price risk in future electricity consumption

The fair value of a hedging derivative is classified as a non-current asset or liability when the remaining maturity of the hedged item is more than twelve months, and as a current asset or liability when the remaining maturity of the hedged item is less than twelve months.

a) Fair value hedges

The purpose of fair value hedges is to hedge the variability in the recorded fair value adjustment of fixed-rate debt (issued bond) from changes in the relevant benchmark yield curve for its entire term by converting fixed interest payments to a floating rate (e.g. STIBOR or LIBOR) by using interest rate swaps (IRS). The credit risk is not hedged. The fixed leg of the IRS is matched against the cash flows of the hedged loan/bond. Hereby, the fixed-rate bond is converted into a floating-rate debt. Changes in the fair value of derivatives that are designated and qualify as fair value hedges are recorded in the income statement, together with any changes in the fair value adjustment related to the interest component of the hedged liability (issued bond) that are attributable to the hedged risk, when hedge accounting is applied. The Group only applies fair value hedge accounting for hedging fixed interest risk on borrowings. Both gains and losses relating to the interest rate swaps hedging fixed rate borrowings and the changes in the fair value of the hedged fixed rate borrowings attributable to interest rate risk are recognised in the income statement within Financial expenses. If the hedge no longer meets the criteria for hedge accounting, the adjustment to the carrying amount of a hedged item for which the effective interest method is used is amortised to the income statement over the remaining period to maturity.

b) Net investment hedges

Volvo Car Group applies hedge accounting of net investments in foreign operations. Hedging of net investments in foreign operations refers to hedges held to reduce the effect of changes in the value of a net investment in a foreign operation due to changes in foreign exchange rates. The foreign currency gains and losses on hedging instruments are recognised in the consolidated comprehensive income. A gain or loss relating to an ineffective portion is recognised immediately in the income statement within Financial income or expense.

In the event of a divestment, the accumulated result from the hedge is immediately transferred from the hedge reserve in equity to the income statement. For further information regarding accounting treatment related to foreign currency, see section Foreign currency in Note 1 – General information and significant accounting principles. See also Note 21 – Financial risks and financial instruments for more information regarding financial instruments.

c) Cash flow hedges

Hedge accounting is applied for derivative instruments that are acquired for the purpose of hedging expected future commercial cash flows in foreign currencies against currency rate risks, as well as for the purpose of hedging expected future electricity consumption against electricity price risk. In cash flow hedge accounting, the derivative is recognised in the balance sheet at fair value, and changes in the fair value is recognised in the consolidated comprehensive income and accumulated in the other reserves in equity. Fair value accumulated in other reserves in equity is recycled to the income statement in the same period as an underlying sales/cost of sales transaction is being entered in the income statement. The effect from realised cash flow hedges is classified as Net revenue and Cost of sales, respectively, depending on the underlying substance of the transaction.

The hedging relationship is regularly tested up until its maturity date. If the identified relationships are no longer deemed effective, the fluctuation in fair value on the hedging instrument from the last period the instrument was considered effective is recognised in the income statement. If the hedged transaction is no longer expected to occur, the hedge's accumulated changes in value are immediately transferred from comprehensive income to the income statement and are included in Operating income.

Inventories

Inventories consists of raw material, consumables and supplies, semi-manufactured goods, work in progress, finished goods and goods for resale. Assets held under operating lease, with a maturity less or equal to twelve months, are also reported as inventory. Inventories are measured at the lower of cost and net realisable value. Cost of inventories comprise all costs of purchase, production charges and other expenditures incurred in bringing the inventories to their present location and condition. The cost of inventories of similar assets is established using the first-in, first-out method (FIFO) and is based on the standard cost method. The standard costs are updated annually and adjustments are made at the turn of the model year. Net realisable value is calculated as the selling price in the ordinary course of business less estimated costs of completion and selling costs. For groups of similar products a group valuation method is applied. Physical stock counts are carried out annually or more often where appropriate in order to verify the records.

Cash and cash equivalents

Cash and cash equivalents consist of cash and bank balances as well as short-term liquid investments with a maturity of maximum 90 days from the date of aquisition, which are subject to an insignificant risk of fluctuations in value. Cash and cash equivalents are stated at nominal value.

Equity

An equity instrument is any contract that evidences a residual interest in the assets of an entity after deducting all of its liabilities.

In 2016, Volvo Car AB (publ.) issued preference shares, included in equity. Preference shares are equity instruments as long as fundamental criteria for classification as equity is fulfilled, as stipulated in IAS 32. Preference shares have a preferential status compared to common shares, in terms of priority to dividends and priority to net assets in case of a liquidation. However, preference shares are subordinated to financial liabilities. See further information in Note 23 – Equity.

Group contributions and unconditional shareholders' contributions

Distributed group contributions to the main owner are recorded in equity, along with the tax effect. Group contributions received from the main owner and the tax effect on these contributions are recognised in equity in accordance with the principles for shareholders' contributions.

Unconditional shareholders' contributions received from the main owner are recognised in equity.

Post-employment benefits

Volvo Car Group has both defined contribution plans and defined benefit plans. Under a defined contribution plan, Volvo Car Group pays fixed contributions into a separate external legal entity and will have no legal obligation to pay further contributions if the fund does not hold sufficient assets to pay all employee benefits. The contributions are recognised as employee benefit expenses in the income statement when earned by the employee. Some defined contribution plans combine the promise to make periodic payments with a promise of a guaranteed minimum return on investments. Such plans are accounted for as defined benefit plans.

A defined benefit plan is a pension plan that defines the amount of post-employment benefits an employee will receive upon retirement, usually dependent on one or more factors such as age, years of service and compensation. Volvo Car Group has the obligation for the future benefits. For the funded defined benefits plans, the assets have been separated, with the majority invested in pension foundations. The net pension provision or asset recognised in the balance sheet in respect of defined benefit pension plans is the present value of the defined benefit obligation at the balance sheet date less the fair value of plan assets.

The calculation of the present value of defined benefit pension undertakings is performed according to the Projected Unit Credit method, which also considers future earnings. The calculation is performed by independent actuaries. The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using interest rates of high-quality corporate, or when data is not available, government bonds that are denominated in the currency in which the benefits will be paid, and that have terms to maturity approximating to the terms of the related pension liability. The discount rate for the Swedish pension obligation is determined by reference to mortgage bonds. The most important actuarial assumptions are stated in Note 24 – Post employment benefits.

Actuarial gains and losses arising from experience adjustments and changes in actuarial assumptions are charged or credited to consolidated comprehensive income in the period in which they arise. Past service costs are recognised immediately in the income statement when the settlement occurs.

The net interest cost is calculated by applying the discount rate to the net balance of the defined benefit obligation and the fair value of plan assets.

Termination benefits are payable when employment is terminated by the Group before the normal retirement date, or whenever an employee accepts voluntary redundancy in exchange for these benefits. The Group recognises termination benefits at the earlier of the following dates: (a) when the Group can no longer withdraw the offer of those benefits and (b) when the entity recognises costs for a restructuring that is within the scope of IAS 37 and involves payment of termination benefits.

Share-based payments

Volvo Car Group applies IFRS 2, Share-based payments, for long-term share-based incentive programmes (LTVP programme, see also Note 9- Employee and remunerations). IFRS 2 distinguishes between cash-settled and equity-settled payments. Volvo Car Group's LTVP programme include a cash-settled part only.

The fair value of the cash-settled payments is determined at the grant date, and revalued at each balance sheet date, and is recognised as an expense during the vesting period and as a liability. An assessment whether the terms for allotment will be fulfilled is made continuously. Based on such assessment, expense might be adjusted.

The fair value is based on the share price reduced by dividends connected with the share during the vesting period. As Volvo Car Corporation is not listed, no official market value is available. Hence, the LTVP programme is based on a synthetic share price derived from variables known to determine the value of an automotive OEM.

Additional social costs are reported as a liability, revalued at each balance sheet date in accordance with UFR 7, issued by the Swedish Financial Reporting Board.

In 2015, another incentive programme was implemented. In connection to this a number of members of top management and the Board of Directors have been offered to purchase warrants that give a future right to subscribe for shares in the subsidiary Volvo Car Corporation. Consequently Volvo Car Corporation issued warrants during 2015. This incentive programme has been considered as a cash-settled programme. During the duration of the programme the participants, at certain predetermined periods, during 2016 to 2021, have an option to sell the warrants at fair value to the parent company. The warrants have been acquired by the participants at fair value, why the programme will not result in any personnel costs in accordance with IFRS 2.

The fair value of the warrants in this cash-settled programme is determined at the grant date, and is recognised as a financial liability. The liability is revalued at each balance sheet date and changes of the fair value is recognised in the income statement as a financial expense or income. For further information about the share-based payment programme see Note 9 – Employees and remuneration.

Provisions

Provisions are recognised in the balance sheet when a legal or constructive obligation exists as a result of a past event and it is deemed more likely than not that an outflow of resources will be required to settle the obligation and the amount can be reliably estimated. The amount recognised as provision is the best estimate of the expenditure required to settle the present obligation at the balance sheet date. Provisions are regularly reviewed and adjusted as further information becomes available or circumstances change.

If the effect of the time value of money is material, non-current provisions are recognised at present value by discounting the expected future cash flows at a pre-tax rate reflecting current market assessments of the time value of money. The discount rate does not reflect such risks that are taken into consideration in the estimated future cash flow.

Revisions to estimated cash flows (both amount and likelihood) are allocated as operating cost. Changes to present value due to the passage of time and revisions of discount rates to reflect prevailing current market conditions are recognised as a financial cost.

Warranty provisions include the Group's cost of satisfying the customers with specific contractual warranty obligations, as well as other costs not covered by contractual commitments. All warranty provisions are recognised at the sale of the vehicles or spare parts. The initial calculations of the reserves are based on historical warranty statistics considering known quality improvements, costs for remedy of defaults etc. The warranty provision booked at point of sale is adjusted as campaign decisions for specific quality problems are made. On a quarterly basis the provisions are adjusted to reflect latest available data such as actual spend, exchange rates, discounting rates etc. The provisions are reduced by virtually certain warranty reimbursements from suppliers.

Contingent liabilities

When a commitment does not meet the criteria for recognition of a liability or provision in the balance sheet it may be disclosed as a contingent liability. These possible obligations derive from past events and their existence will be confirmed only when one or several uncertain future events, which are not entirely within Volvo Car Group's control, take place or fail to take place. A contingent liability could also exist for a present obligation, due to a past event, where an outflow of resources is not likely or when the amount of the obligation cannot be measured with sufficient reliability.

Changes in accounting principles and disclosures

New accounting principles applied in 2018 – IFRS 15 & 9

As of January 1, 2018, IFRS 15 – Revenue from contracts with customers and IFRS 9 – Financial instruments have been applied. The new accounting principles are, in all material aspects, consistent with those described in the Volvo Car Group Annual Report 2017. For further information, refer to sections; Revenue recognition and Financial assets and liabilities.

New accounting principles to be applied in 2019 – IFRS 16

IFRS 16 – Leasing is effective for accounting periods beginning on or after January 1, 2019. The standard was endorsed by the EU in November 2017 and replaces the current leasing accounting standard, IAS 17 Leases. The new standard provides guidance for lessee accounting on how to bring lease commitments, previously treated off balance sheet, onto the balance sheet. IFRS 16 requires that the current values of lease liabilities that are leased on terms of more than one year to be recorded on the balance sheet, while under current accounting policies they are treated as operating leases.

IFRS 16 will primarily affect Volvo Car Group accounting as a lessee of leases for premises and to some extent forklifts, which are currently classified as operating leases. The application of the new accounting principle will lead to an increase in both assets and liabilities. Further, it will impact the timing of the expense recognition in the consolidated income statements over the period of the lease, and impact the classification of expenses. See Note 8 – Leasing, for the total value of Volvo Car Group's future minimum lease payments under non-cancellable operating leases. See Note 34 – New accounting standards implemented on January 1, 2019, for a description of effects per implementation of this standard, as well as accounting principles attributable to this standard implemented as of January 1, 2019.

NOTE 2 – CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS

Preparation of the financial statements in accordance with IFRS requires the company's executive management and Board of Directors to make estimations and assessments as well as to make assumptions that affect application of the accounting policies and the reported assets, liabilities, income and expenses. Estimates are, typically, based on historical experience and assumptions that are deemed reasonable and realistic in the circumstances. The results of these estimations and assessments are used to establish the reported values of assets and liabilities that are not otherwise clearly documented from other sources. The actual outcome may differ from these estimates and assessments. The estimates and underlying assumptions are reviewed on a regular basis. Changes are recognised in the period of the change and future periods if the change affects both. The estimations and assessments described below are those that are deemed to be the most important for an understanding of Volvo Car Group's financial reports, taking into account the degree of materiality and uncertainty. Changes in estimates used in these and other items could have a material impact on Volvo Car Group's financial statements.

Residual value guarantees and repurchase commitments

In the course of its operations, Volvo Car Group is exposed to residual value risks partly through sales to external rental companies combined with repurchase commitments and partly through sales subject to residual value guarantees.

Residual value risks are reflected in different ways in the consolidated financial statements depending on the extent to which the risk of a sold car remains with the Group. Vehicles sold to an external party, subject to a subsequent issuance of a residual value guarantee to an independent financing provider, are derecognised from the balance sheet, provided that significant risks related to the vehicle have been transferred to the customer. Contract liabilities to customers are recorded for the estimated residual value risk related to the guarantee, provided that the control of the vehicle has been transferred to the customer. In applying IFRS 15 from 1 January 2018, revenue from sale of a vehicle to a customer, subject to an issuance of a residual value guarantee to an independent financing provider, is recognised at the time of sale, less an amount corresponding to a contract liability.

In cases where control of the vehicles remain within Volvo Car Group, which may be the case when the sale of vehicles is combined with a repurchase commitment (the right, or in a few cases the obligation, for Volvo Car Group to buy back the car), the vehicles are recognised in the balance sheet as assets under operating lease or inventories, depending on the maturity of the lease contract. Accumulated depreciation on these vehicles reduces the value of the vehicles from their original acquisition value to their expected residual value, being the estimated net realisable value, at the end of the lease term. Revenue is recognised on a straight-line basis over the leasing period. Vehicles sold with a put option, meaning that Volvo Car Group is obliged to repurchase the vehicle at the customer's request, are treated as operating leases since the customers are expected to have significant economic incentives to take advantage of this opportunity.

Consequently, in both these cases, estimated residual value is based upon estimations of the used vehicles' future net realisable values. The estimated net realisable value of the products at the end of the commitment is monitored individually on a continuing basis and is estimated by evaluating recent car auction values, future price deterioration due to expected change of market conditions, marketing incentive plans, vehicle quality data and repair and reconditioning costs etc. High inventories in the vehicle industry and low demand may have a negative impact on the prices of new and used vehicles. A decline in prices of the vehicles may negatively affect the consolidated income. Refer to Note 1 – General information and significant accounting principles for a description of Volvo Car Group's revenue recognition policy.

Deferred tax assets

The calculation of deferred tax assets requires assumptions to be made with regard to the level of future taxable income and the timing of recovery of deferred tax assets. These assumptions take into consideration forecasted taxable income. The measurement of deferred tax assets is subject to uncertainty and the actual result may diverge from judgements due to future changes in business climate, altered tax laws, etc. An assessment is made at each closing date of the likelihood that the deferred tax asset will be utilised. If needed the carrying amount of the deferred tax asset will be altered. The judgements that have been made may affect net income both positively and negatively. See Note 15 – Taxes for the presentation of carrying values and further information on deferred tax assets.

Impairment, amortisation and depreciation of non-current assets

Volvo Car Group has substantial values reported in the balance sheet as tangible as well as intangible non-current assets. Tangible and intangible assets with a definite useful life are depreciated on a straight-line basis over their estimated useful lives; see Note 1 – General information and significant accounting principles. Management regularly reassesses the useful life of all significant assets. If circumstances change such that the estimated useful life has to be revised, additional depreciation expense could be the result in future periods.

The carrying amounts of non-current tangible and intangible assets are tested for impairment in accordance with the accounting policies described in Note 1 – General information and significant accounting principles. Impairment is recognised if the carrying value of the asset exceeds the recoverable amount. The recoverable amount is the higher of the asset's net selling price and its value in use. For these calculations, certain estimations must be made regarding future cash flows, required return on investments and other adequate assumptions. The estimated future cash flows are based on assumptions that represent management's best estimate of the economic conditions that will exist during the asset's remaining lifetime, and are based on internal business plans or forecasts. Future cash flows are determined on the basis of long-term planning, which is approved by Management and which is valid at the date of preparation of the impairment test. This planning is based on expectations regarding future market share, the market growth as well as the products' profitability. See Note 16 – Intangible assets and Note 17 – Tangible assets for the presentation of carrying values and further information of impairment of non-current assets.

Shares and participations as recorded in the parent company are recognised at cost and tested for impairment annually.

Post-employment benefits

The value of pension obligations for defined benefit obligations is determined through actuarial calculations performed by independent actuaries based on assumptions about the discount rate, future salary increases, inflation, mortality rates and demographic conditions. Changes in these assumptions affect the calculated value of the post-employee benefits obligations. The discount rate, which is the most critical assumption, is based on market return on high-quality corporate or government bonds that are denominated in the currency in which the benefits will be paid and with maturities corresponding to the related pension liability. The discount rate for the Swedish pension obligation is determined by reference to mortgage bonds. A lower discount rate increases the present value of post-employee benefits obligations while a higher discount rate has the reverse effect. Changing market and economic conditions may lead to significant changes in post-employment benefit obligations. See Note 24 – Post employment benefits for the presentation of carrying values and further information on pension provisions.

Inventories

Inventories are measured at the lower of cost, less deductions for any obsolescence, and their net realisable value. Net realisable value is based on the most reliable evidence of the amount Volvo Car Group expects to realise from vehicles and components on future sales trends or needs (for components) and also takes into account items that are wholly or partially obsolete. A future unexpected worsening in market conditions could result in an adjustment in future expected sales, requirements and in estimated selling prices assumptions, which may require an adjustment to the carrying amount of inventories. See Note 19 – Inventories for the presentation of carrying values and further information of inventories.

Warranties

The recognition and measurement of provisions for product warranties is generally connected with estimates. Estimated costs for product warranties are charged to cost of sales when the products are sold. Estimated warranty costs include contractual warranty, warranty campaigns (recalls and buy-backs) and warranty cover in excess of contractual warranty or campaigns, which is accepted as a matter of policy or normal practice in order to maintain a good business relation with the customer. Warranty provisions are estimated based on historical claims statistics and the warranty period. Quality index improvements based on historical patterns have been reflected in all categories of warranty. Refunds from suppliers that decrease Volvo Car Group's warranty costs are recognised to the extent these are considered to be virtually certain, based on historical experience. See Note 25 – Current and other non-current provisions for presentation of carrying values and further information of warranty provisions.

Legal proceedings

Companies within Volvo Car Group may at times be involved in legal proceedings. Such proceedings may cover a range of different matters in various jurisdictions. These include, but are not limited to, commercial disputes such as alleged breach of contract, insufficient supplies of goods or services, product liability, patent infringement or infringement of other intangible rights. The various matters raised are often of a difficult and complex nature and often legally complicated. It is therefore difficult to predict the final outcome of such matters. The companies within Volvo Car Group work closely with legal advisors and other experts in the various matters in each jurisdiction. A provision is made when it is determined that an adverse outcome is more likely than not and the amount of the loss can be reasonably estimated. In instances where these criteria are not met, a contingent liability has been disclosed provided the risk qualifies as such liability. See Note 30 – Contingent liabilities for disclosure of values related to legal claims.

Tax processes

Volvo Car Group is, like other global companies, at times involved in tax processes of varying scope and in various stages. These tax processes are evaluated regularly and provisions are made according to the accounting principles, i.e., when it is more likely than not that additional tax must be paid and the outcome can be reliably estimated. If it is not probable that the additional tax will be paid but the risk is more than remote, such amounts are shown as contingent liabilities. See Note 30 – Contingent liabilities for disclosure of values related to tax claims.

NOTE 3 – NET REVENUE

The Net revenue allocated to geographical regions:	**2018**	2017
China	54,653	45,254
US	39,366	33,457
Europe[1]	121,671	100,603
of which Sweden	*28,034*	*25,458*
of which Germany	*18,366*	*13,519*
of which United Kingdom	*14,933*	*12,581*
Other markets	36,963	29,332
of which Japan	*6,593*	*5,759*
of which Russia	*3,554*	*2,948*
Total	**252,653**	**208,646**

The Net revenue allocated to category:		
Sale of products and related goods and services	237,934	194,959
Sale of licences	2,542	4,023
Revenue from subscription, leasing and rental business[2]	2,087	1,860
Other net revenue	10,090	7,804
Total	**252,653**	**208,646**

1) Europe is defined as EU28+EFTA.
2) In 2018 there has been a change related to sale of certain cars accounted for as operating lease. The comparative period has been changed accordingly, reducing net revenue with an amount MSEK 2,266 for 2017.

NOTE 4 – EXPENSES BY NATURE

	2018	2017
Material cost incl. freight, distribution and warranty	–170,921	–136,325
Personnel	–33,077	–29,380
Amortisation/depreciation[1]	–14,408	–12,098
Other	–21,191	–17,820
Total	**–239,597**	**–195,623**

Capitalised product development costs as well as received government grants have reduced the amounts presented as personnel and other. See Note 11 – Government grants.

1) Includes additional amortisation of MSEK 1,195 related to assets sold to Polestar.

NOTE 5 – RELATED PARTIES

During the year, Group companies entered into the following transactions with related parties which are not consolidated in the Volvo Car Group. The information in the table below includes all assets and liabilites to related parties. Besides from other non-current liabilities of MSEK — (300) all assets and liabilities are current.

	Sales of goods, services and other		Purchases of goods, services and other	
	2018	2017	**2018**	2017
Related companies[1)3)]	5,715	4,756	–217	–1,613
Joint ventures and associated companies[2)]	981	1,185	–1,659	–1,599

	Receivables		Payables	
	Dec 31, 2018	Dec 31, 2017	**Dec 31, 2018**	Dec 31, 2017
Related companies[1)]	7,999	3,136	4,145	2,935
Joint ventures and associated companies[2)]	465	911	271	345

1) Related companies are companies outside the Volvo Car Group but within the Geely sphere of companies.
2) Joint ventures within the Geely sphere of companies are reported as related companies. For joint ventures and associated companies, see Note 14 – Investments in joint ventures and associates.
3) Licence revenue represent a value of MSEK 2,458 (3,002).

Significant related party transactions

As of September 28, 2018 Volvo Car Group has deconsolidated the Polestar Group. Thereafter, the Polestar Group is a related party and transactions with entities within the Polestar Group are disclosed accordingly[4)]. During 2018, Volvo Car Group sold licences to Polestar Performance AB of MSEK 1,769 and to Polestar New Energy Vehicle Co., Ltd of MSEK 378. In 2018, Volvo Car Group also sold services to Polestar New Energy Vehicle Co., Ltd, generating other income of MSEK 305.

During 2018, Zhangjiakou Volvo Car Engine Manufacturing Co., Ltd, has sold engines to Asia-Europe Automobile Manufacturing (Taizhou) Co., Ltd (Luqiao plant) for the production of Lynk&Co CX11 vehicles. The sales has generated revenue of MSEK 1,691 (-).

During the first quarter 2018, Volvo Car Group invested in a new joint venture, GV Automobile Technology (Ningbo) Co. Ltd, following an agreement established in December 2017. The joint venture is 50/50 per cent owned by Volvo Car Group and Ningbo Geely Automobile Research & Development Co., Ltd, a wholly owned subsidiary to Zhejiang Geely Holding Group Co., Ltd. The purpose of the joint venture is to coordinate engineering of shared technologies and common sourcing in order to reach industrial synergies and economies of scale.

During 2018, Volvo Car AB (publ.) has paid dividend of MSEK 63 (65) to its preference shareholders and MSEK – (1,500) to its shareholder Geely Sweden Holdings AB. Daqing Volvo Car Manufacturing Co., Ltd has paid dividend of MSEK – (623) to its shareholder Zhejiang Geely Holding Group Co., Ltd. Further group contributions amounted to MSEK 65 (-) from Geely Sweden Holdings AB and of MSEK 354 (—) from Geely Sweden Industry Investment AB.

In 2017, Volvo Car Group signed a licence agreement with London Taxi Co., Ltd, a wholly owned subsidiary to Zhejiang Geely Holding Group Co., Ltd, , which has resulted in an income during 2018 of MSEK 300 (100).

In 2014, Volvo Car Group entered into an agreement with Ningbo Geely Automotive Research & Development Co., Ltd, a wholly owned subsidiary to Zhejiang Geely Automobile Co., Ltd regarding certain common development activities. Volvo Car Group is working closely with Geely through its wholly owned subsidiary China - Euro Vehicle Technology AB (CEVT), with whom the next-generation C-segment vehicle platform called CMA has been developed. The accounting principles for these types of agreement are described in Note 1 - General information and significant accounting principles, section Capitalised product development costs. This has resulted in revenues related to sale of licences during 2018 of MSEK 16 (53), other income of MSEK 108 (336) and capitalised intangible assets of MSEK 224 (460).

During 2017, Volvo Car Group sold technology licences to Ningbo Geely Automobile Research & Development Co., Ltd. of MSEK 2,700.

In 2016, Volvo Car Group entered into agreements with Asia-Europe Automobile Manufacturing (Taizhou) Co., Ltd, the Luqiao plant, that will produce the new range of smaller 40-series CMA-based cars. The plant is owned by Zhejiang Geely Holding Group Co., Ltd but is operated by Volvo Car Group. The agreements cover IT manufacturing licences and service agreements and have, during 2017, resulted in an income of MSEK 761. Furthermore, Volvo Car Group sold IT licences and implementation services of after-market systems related to the Luqiao plant to Ningbo Geely Automotive Research & Development Co., Ltd resulting in an income in 2017 amounting to MSEK 240.

Volvo Car Group does not engage in any transactions with Board Members or senior executives except remuneration for services and the share-based programme as described in Note 9 – Employees and remuneration.

4) See the Board of Directors report and Note 8 – Participation in subsidiaries (Parent company).

NOTE 6 – AUDIT FEES

	2018	2017
Deloitte		
Audit fees	–34	–30
Audit-related fees	–18	–5
Tax services	–2	–2
Other services	–12	–5
Total	**–66**	**–42**
Audit fees to others	—	–2

Audit fees involve audit of the Annual Report, financial accounts and the administration by the Board of Directors and the Managing Directors. The audit also includes advice and assistance as a result of the observations made in connection with the audit.

Audit-related fees refer to other assignments to ensure quality in the financial statements including consultations on reporting requirements and internal control.

Tax services include tax-related consultancy.

All other work performed by the auditor is defined as **other services**.

Audit fees to others include audit fees performed by other audit firms than Deloitte.

NOTE 7 – OTHER OPERATING INCOME AND EXPENSES

	2018	2017
Other operating income		
Foreign exchange gain	62	—
Sold services	1,117	1,182
Government grants	776	819
Other	1,431	1,053
Total	**3,386**	**3,054**

	2018	2017
Other operating expenses		
Amortisation and depreciation of intangible and tangible assets	–229	–61
Foreign exchange loss	—	–224
Royalty	–826	–795
Property tax	–109	–97
Other	–1,160	–1,039
Total	**–2,324**	**–2,216**

NOTE 8 – LEASING

Volvo Car Group as lessor

Operating lease contracts with a maturity less or equal to twelve months are recognised as inventory in the balance sheet and mainly relate to vehicles sold with repurchase commitments. The difference between the original sales price and the repurchase price is recognised in the income statement as revenue on a straight-line basis over the lease term. The remaining lease revenue yet to be recognised in income is presented as part of current and non-current liabilities in the balance sheet, see Note 27 – Non-current liabilities and Note 28 – Other current liabilities. The repurchase obligation is considered to be a financial liability and is presented as part of current and non-current liabilities. Volvo Car Group does currently not have any finance lease engagements as a lessor.

Future lease revenue of operating lease contracts	2018	2017
No later than 1 year	973	1,280
Later than 1 year but no later than 5 years	443	429
Total	**1,416**	**1,709**

Volvo Car Group as lessee

Operating lease contracts

The operating lease contracts Volvo Car Group holds are mainly contracts for premises and office equipment around the world. Also some production equipment such as forklifts for the factories are under operating lease contracts.

Operating lease expenses	2018	2017
Minimum lease payments	–1,325	–1,459
Contingent rents	–46	–95
Less subleases	14	7
Total	**–1,357**	**–1,547**

Operating lease commitments per Dec 31, 2018	Minimum lease payments	Less subleases	Total	Present value of operating lease commitments less subleases
No later than 1 year	1,125	22	1,103	1,088
Later than 1 year but no later than 5 years	2,947	80	2,867	2,649
Later than 5 years	1,946	98	1,848	1,499
Total	**6,018**	**200**	**5,818**	**5,236**

Finance lease contracts

Volvo Car Group holds finance lease contracts for production equipment and for some buildings and land used in production. The assets will be owned by Volvo Car Group at the end of the lease contracts at no additional cost. All leases are fixed terms with fixed payments.

Finance lease assets	Asset under Construction	Buildings and land	Machinery and equipment
Acquisition cost			
Balance at January 1, 2017	—	95	75
Additions	—	–1	2
Effect of foreign currency exchange differences	—	3	–2
Balance at December 31, 2017	—	**97**	**75**
Additions	22	47	29
Disposals	—	–82	—
Effect of foreign currency exchange differences	—	4	3
Balance at December 31, 2018	**22**	**66**	**107**
Accumulated depreciation			
Balance at January 1, 2017	—	–79	–4
Depreciation expense	—	–8	–3
Effect of foreign currency exchange differences	—	–2	—
Balance at December 31, 2017	—	**–89**	**–7**
Depreciation expense	—	–10	–4
Disposals	—	82	—
Effect of foreign currency exchange differences	—	–4	—
Balance at December 31, 2018	—	**–21**	**–11**
Net balance at December 31, 2017	—	**8**	**68**
Net balance at December 31, 2018	**22**	**45**	**96**

Gross finance lease liabilities – minimum lease payments	Dec 31, 2018	Dec 31, 2017
No later than 1 year	18	29
Later than 1 year but no later than 5 years	57	17
Later than 5 years	58	9
Total	**133**	**55**
Future finance charges on finance leases	**–20**	**–5**
Present value of finance lease liabilities	**113**	**50**

The present value of finance lease liabilities is as follows:

Gross finance lease liabilities – minimum lease payments	Dec 31, 2018	Dec 31, 2017
No later than 1 year	15	28
Later than 1 year but no later than 5 years	50	14
Later than 5 years	48	8
Total	**113**	**50**

The finance lease liabilities are included in the financial statement as:	Dec 31, 2018	Dec 31, 2017
Non-current liabilities – Note 27	97	22
Non-current liabilities – Note 27, current liabilities to credit institutions	16	28
Total	**113**	**50**

NOTE 9 – EMPLOYEES AND REMUNERATION

Average number of employees by region:	2018	Of whom women	2017	Of whom women
Sweden	24,568	28%	22,679	27%
Nordic countries other than Sweden	834	48%	850	56%
Belgium	5,521	14%	5,918	16%
Europe other than the Nordic countries and Belgium	974	32%	873	29%
North and South America	1,889	29%	707	25%
China	8,253	15%	7,390	16%
Asia other than China	770	17%	820	27%
Other countries	99	31%	97	41%
Total	**42,908**	**24%**	**39,334**	**24%**

Number of Board members and senior executives[1]	Dec 31, 2018 Board members (Chief Executive Officers and senior executives)	Of whom women	Dec 31, 2017 Board members (Chief Executive Officers and senior executives)	Of whom women
Parent company	10	30%	10	30%
Subsidiaries	106 (287)	17% (23%)	99 (269)	15% (19%)
Total	**116 (287)**	**18% (23%)**	**109 (269)**	**17% (19%)**

Salaries and other remunerations	2018 Wages and salaries, other remune-rations	2018 Social security expenses (of which pension expenses)	2017 Wages and salaries, other remune-rations	2017 Social security expenses (of which pension expenses)
Parent company	6	2 (—)	7	3 (—)
Subsidiaries	20,257	8,689 (3,984)	18,193	7,949 (3,590)
Total	**20,263**	**8,691 (3,984)**	**18,200**	**7,952 (3,590)**

Salaries and other remuneration to the Board[2], CEO, Excecutive Management Team (EMT)[3] and other employees	2018 Wages and salaries, other remune-rations (of which variable salaries)	2018 Social security expenses (of which pension expenses)	2017 Wages and salaries, other remune-rations (of which variable salaries)	2017 Social security expenses (of which pension expenses)
Board, Chief Executive Officers and EMT	278 (41)	102 (35)	295 (109)	108 (29)
Other employees	19,985	8,589 (3,949)	17,905	7,844 (3,561)
Total	**20,263 (41)**	**8,691 (3,984)**	**18,200 (109)**	**7,952 (3,590)**

1) Senior excecutives are defined as key personnel within the subsidiaries.
2) The Board includes all board members in the subsidiaries within Volvo Car Group.
3) The Excecutive Management Team (EMT) consists of the CEO in Volvo Car Corporation and key management personnel other than Board members, in total 15 (15).

Compensation to Board members

The shareholders have elected a Nomination Committee, which shall on a yearly basis propose appropriate remuneration principles and remuneration for Volvo Cars Board within the frames of the remuneration principles decided by the Annual General Meeting. The remuneration to the members of the board is determined at the Annual General Meeting. At the Annual General Meeting 2018 it was decided that Board members elected at the meeting who are employed or otherwise remunerated by Volvo Car Group or the Zhejiang Geely Holding Group shall not be entitled to any remuneration. The other board members elected at the Annual General Meeting shall receive remuneration containing the following elements: (i) a market based fixed remuneration decided at the Annual General Meeting (ii) a company car in accordance with the Company´s company car policy in force from time to time and (iii) to Board members who are members of any of the Boards' committees an additional market based fixed remuneration as decided at the Annual General Meeting. Expensed remuneration to the individual Board members during 2018 is specified below:

Boardmember	2018 Ordinary compensation, TSEK
Li Shufu, Chairman	—
Håkan Samuelsson	—
Li Donghui	—
Carl Peter Forster	—
Dr. Peng Zhang (until March 2018)	—
Winnie K. W. Fok	775
Mikael Olsson (until March 2018)	750
Lone Fønss Schrøder	2,012
Thomas Johnstone	875
Betsy Atkins	844
Michael Jackson (from July 2018)	262
Jim Zhang (from August 2018)	229
Total	**5,747**

Terms of employment and remuneration to the CEO

The Board has assigned a People, Compensation and Sustainability Committee to determine the remuneration to the CEO. The CEO is entitled to a remuneration consisting of a fixed annual salary, Volvo Bonus, Long term variable pay (LTVP) and other benefits such as a company car and insurance.

The CEO has a defined contribution pension plan to which Volvo Car Group allocates 50 per cent of the fixed monthly salary on a rolling basis. The CEO agreement is fixed term and there are no severance pay included in the terms of agreement.

Remuneration to Executive Management Team

The Board has assigned a People, Compensation and Sustainability Committee to determine the remuneration to the Executive Management Team (EMT), proposed by the CEO. Volvo Car Group members of EMT are entitled to a remuneration consisting of a fixed annual salary, Volvo Bonus, LTVP and other benefits such as company cars and insurance. In order to retain critical competences and deliveries within Volvo Car Group, some of the members of EMT have an additional variable pay. This variable pay is based on fulfillment of the member of EMT's yearly individual objectives and can vary from 0 up to maximum 45 per cent of the annual salary depending on fulfillment rate.

The notice period for a member of EMT is a maximum of twelve months in case of termination by Volvo Car Corporation and twelve months in case of termination by the member of EMT. Furthermore the member of EMT is, in case of termination by Volvo Car Corporation, entitled to severance pay based on the fixed salary, during a period of maximum twelve months.

Members of EMT employed in Sweden are covered by the ITP plan and, where applicable, a supplementary pension plan – Volvo Management Pension (VMP). On average, the contributions for members of EMT is 28–35 per cent of the pensionable salary. Disability benefits follow the ITP and VMP regulations.

For members of EMT employed outside of Sweden, varying pension terms and conditions apply, depending upon the country of employment.

Volvo Car Group's outstanding post-employment benefits obligations to former CEO's and EMT amount to MSEK 61 (65).

Incentive programmes

Volvo Car Group has two global incentive programmes. Volvo Bonus is a short term incentive programme that includes all employees. The long term incentive programme, Long Term Variable Pay (LTVP) is a programme for the EMT and certain senior executives. The design and payout of the programmes are subject to the Board of Directors' annual approval.

Volvo Bonus

The purpose of the Volvo Bonus is to strengthen global alignment among employees around Volvo Car Group's vision, objectives and strategies and to encourage all employees to achieve and exceed the business plan targets. Depending on function, country and company, all employees belong to a certain plan. The plans contain information about the eligible employees and the specific objectives that control the payout level. The qualifier for the Volvo Bonus is that Volvo Car Group reaches a number of financial thresholds. In order for the Volvo Bonus to be paid out at all, a minimum acceptable performance regarding EBIT margin needs to be met. This is called the threshold level and the remaining two levels (target and maximum) increase the bonus paid out in relation to increased performance. Depending on which plan an employee is eligible for and their position, he/she is eligible for a certain target level that can be either a fixed amount or a percentage of the employee´s annual base salary. The remuneration is paid in cash. For 2018 the threshold level was not met and the Board of Directors decided that no Volvo Bonus should be paid out. For 2017 the cost for the Volvo Bonus programme amounted to MSEK 1,436 including social security cost, of which MSEK 55 related to EMT.

Long term variable pay

The purpose of the LTVP-programme is to attract, motivate and retain key competence within Volvo Car Group. The LTVP-programme is based on calculated market value of Volvo Car Group over three years. As Volvo Car Group is not listed, no official market value is available. Hence, the LTVP programmes for previous years are based on a synthetic share price derived from variables known to determine the value of an automotive OEM. Valuation of Volvo Car Group is based on the 4 year business plan and trading multiplies for listed peers. The business plan is adopted annually by the Board. As from 2016 the valuation of Volvo Cars has been done by an external party and in two ways;

i) through discounted cash flow analysis of Volvo Cars estimated future cash flows, based on Volvo Cars latest business plan four years ahead and certain key assumptions; and
ii) through comparable market analysis based on peer group analysis.

Depending on the participant's position they receive a LTVP bonus award equivalent to a certain percentage of annual base salary. Each LTVP award has a vesting period of three years and is paid out in cash. The cash amount paid depends on the valuation of Volvo Cars on the vesting date, three years after grant.

The programme is capped to a maximum of 200 per cent of the value of the award at grant. To be eligible for pay out, the employee must remain within the company on the pay-out date. The cost for the LTVP-programme amounted to MSEK 149 (182) including social security cost, of which MSEK 41 (39) relates to EMT. The total liability amounted to MSEK 221 (207) as of December 31, 2018.

Share-based incentive programme

During 2015, Volvo Car AB's (publ.) subsidiary Volvo Car Corporation issued 1,359 warrants with the right to subscribe for shares in Volvo Car Corporation, which the parent company decided to offer to a number of members of management and Board of Directors to purchase. The purchase has been made at fair market value in accordance with an external valuation. Each warrant gives the right to subscribe for one share in Volvo Car Corporation for a predetermined amount under certain periods during the years 2016–2021.

In case a participant is no longer employed, and also during other specified circumstances, the parent company has an option to redeem the warrants. During the duration of the programme the participants (i.e. the holders of the warrants) at certain predetermined periods have an option to sell the warrants at fair market value to the parent company.

The terms of the agreement is from 2016 to 2021 and will thereafter be prolonged as long as none of the parties terminates the agreement. The warrants have been valued at fair market value by an external party. The valuation has been made based on all material conditions in the agreement in accordance with the Black & Scholes model. The valuation has been made based on the following assumptions:

- Market value of the warrants has been determined to SEK 244,785 as per December 31, 2018.
- The duration for the warrants has been determined to six years.
- The volatility has been determined as 30 per cent.
- Assessed risk free interest has been determined to –0.30 per cent.

The purpose of the programme is that the participants should have the possibility to purchase shares in the company in the future. Considering a weighted assessment of the conditions in the agreement the programme is accounted for as a share-based payment that will be cash-settled and is therefore accounted for as a financial liability at fair value through the income statement, with changes to fair value recorded as a financial expense or income.

As the participants have been offered to purchase the warrants at fair market value based on all material conditions in the agreement, the programme will not result in any personnel costs in accordance with IFRS 2.

TSEK	Number of warrants	Assessed fair market value
At the beginning of the year	1,305	220,672
Used/redeemed	–31	–5,242
Change in valuation	—	96,426
At the end of the year	**1,274**	**311,856**

Compensation to Executive Management Team (EMT), TSEK	**2018**				2017			
	Salary[4]	Variable pay[5]	Long term variable pay	Social security expenses (of which pension expenses)	Salary[4]	Variable pay[5]	Long term variable pay	Social security expenses (of which pension expenses)
Håkan Samuelsson, CEO in Volvo Car Corporation	12,807	—	6,658	10,647 (7,463)	12,397	12,000	7,200	12,625 (7,456)
Other members of EMT	65,655	7,843	24,273	41,928 (15,748)	60,350	42,102	22,212	55,806 (11,971)
Total	**78,462**	**7,843**	**30,931**	**52,575 (23,211)**	**72,747**	**54,102**	**29,412**	**68,431 (19,427)**

4) Includes benefits such as housing and company car.
5) Includes both Volvo Bonus and additional variable pay in accordance with individual agreements.

As the accounting is made at fair value, there are no differences between book value and fair value. Valuation at fair value is made continuously based on external valuations.

Specification of warrant programme	Number of warrants
CEO and Board of Directors	590
Other members of EMT	684
Total	**1,274**

Other long-term benefits

Apart from the compensation accounted for under Incentive programmes, EMT do not have any other long-term benefits.

NOTE 10 – DEPRECIATION AND AMORTISATION

Operating income includes depreciation and amortisation as specified below:	2018	2017
Software	–213	–168
Capitalised product development cost	–5,758	–3,555
Other intangible assets	–434	–984
Buildings and land improvements	–719	–587
Machinery and equipment	–6,974	–6,438
Assets under operating leases	–310	–366
Total	**–14,408**	**–12,098**

Depreciation and amortisation according to plan by function:	2018	2017
Cost of sales[1]	–7,340	–6,787
Research and development expenses[2]	–6,139	–4,527
Selling expenses[1]	–201	–169
Administrative expenses	–499	–554
Other income and expense	–229	–61
Total	**–14,408**	**–12,098**

1) Of which impairment loss related to Cost of Sales of MSEK –39 (–34) and Selling Expenses of MSEK –27 (–).
2) Of which additional amortisation related to assets sold to Polestar Group amounted to MSEK –1,195.

NOTE 11 – GOVERNMENT GRANTS

Volvo Car Group receives grants from the Swedish Government. Grants are also received in the US, China, Belgium and from the EU. In 2018, the government grants received amounted to MSEK 3,058 (1,583) and the government grants realised in the income statement amounted to MSEK 2,243 (1,608). In China, MSEK 35 (504) of the grants have been received as support for production of new car models and to upgrade the facilities used for the production. The received grants have reduced the carrying amount of the related machinery and equipment. In US, MSEK - (30) of the grants has reduced the carrying amount of the asset relating to the construction of the manufacturing site, of which MSEK 30 (-) has been paid out as of year end.

Non-monetary government grants have been received in China, mainly in the form of rent free office and factory premises, and in the US in the form of reduced lease fees related to office premises and manufacturing site.

NOTE 12 – FINANCIAL INCOME

	2018	2017
Interest income on bank deposits	407	355
Total	**407**	**355**

NOTE 13 – FINANCIAL EXPENSES

	2018	2017
Net foreign exchange loss on financing activities	–96	–309
Interest effect from the measurement of repurchase obligations	–185	–185
Interest expenses related to provisions for post-employment benefits	–175	–171
Expenses for credit facilities	–458	–111
Interest expenses to related companies	–2	–5
Interest expenses	–584	–644
Other financial expenses	–175	156
Total	**–1,675**	**–1,269**

NOTE 14 – INVESTMENTS IN JOINT VENTURES AND ASSOCIATES

	2018	2017
Share of income in joint ventures	65	195
Share of income in associates	2	5
Total	**67**	**200**

Share of income in joint ventures and associates is specified below:	2018	2017
V2 Plug-In Hybrid Vehicle Partnership HB[1]	401	370
Volvofinans Bank AB[2]	187	106
Zenuity AB[3]	–540	–267
Lynk & Co Investment Co., Ltd[4]	218	—
Polestar Automotive (Shanghai) Co., Ltd[5]	–214	—
Other companies	15	–9
Total	**67**	**200**

Investments in joint ventures and associates	Dec 31, 2018	Dec 31, 2017
At beginning of the year/acquired acquisition value	5,480	2,498
Share of net income	67	200
Investment in Zenuity AB[3]	600	105
Investment in Lynk & Co Investment Co., Ltd[4]	—	2,838
Investment in GV Automobile Technology (Ningbo) Co., Ltd[6]	37	—
Reclassification from associates to subsidiaries[7]	—	–2
Reclassification from subsidiaries to joint venture[5]	1,887	—
Elimination of intra-group profit[5]	–1,252	—
Capital injection into joint venture under common control[5]	846	—
Reclassification to Non-current liabilities due to negative participation[3]	–59	162
Capital repayment V2 Plug-In Hybrid Vehicle Partnership HB[1]	–464	–284
Dividends	–240	–37
Translation difference	101	—
Total	**7,003**	**5,480**

Volvo Car Group's carrying amount on investments in joint ventures and associates:	Corp. ID no.	Country of incorporation	% interest held	Dec 31, 2018	Dec 31, 2017
Joint ventures					
Volvo Trademark Holding AB	556567-0428	Sweden	50	5	6
V2 Plug-In Hybrid Vehicle Partnership HB[1]	969741-9175	Sweden	50	197	260
Volvofinans Bank AB[2]	556069-0967	Sweden	50	2,267	2,320
VH Systems AB	556820-9455	Sweden	50	41	29
Zenuity AB[3]	559073-6871	Sweden	50	—	—
VCFS Germany GmbH	HRB 85091	Germany	50	1	1
VCIS Germany GmbH	HRB 86800	Germany	50	3	1
Polestar Automotive (Shanghai) Co., Ltd[5]	91310000MA1FL17P99	China	50	1,288	—
GV Automobile Technology (Ningbo) Co., Ltd[6]	91330201MA2AGKLQ8E	China	50	37	—
Lynk & Co Investment Co., Ltd[4]	91330200MA2AF25Y7B	China	30	3,126	2,828
Associated companies					
VCC Tjänstebilar KB	969673-1950	Sweden	50	3	2
VCC Försäljnings KB	969712-0153	Sweden	50	—	—
Volvohandelns PV Försäljnings KB	916839-7009	Sweden	50	18	17
Volvohandelns PV Försäljnings AB	556430-4748	Sweden	50	11	10
Volvo Event Management Corporation	444517742	Belgium	33	1	1
Trio Bilservice AB[7]	556199-1059	Sweden	33	—	—
Göteborgs Tekniska College AB	556570-6768	Sweden	26	5	5
Leiebilservice AS[7]	879 548 632	Norway	20	—	—
Carrying amount, participation in joint ventures and associates				**7,003**	**5,480**

The share of voting power corresponds to holdings in per cent as per above. All of the above joint ventures and associates are accounted for using the equity method in the consolidated financial statements. For practical reasons, some of the joint ventures and associates are included in the consolidated financial statements with a certain time lag, normally one month.

1) V2 Plug-In Hybrid Vehicle Partnership HB is a joint venture and is reported in accordance with the equity method since none of the holding companies, Volvo Car PHEV Holding AB or Vattenfall PHEV Holding AB, has the decision-making power over the operation. Volvo Car Group and Vattenfall have together developed the world's first diesel-powered hybrid car, which can be driven as an ordinary diesel car, as a hybrid, or as a fully electric car. The car is available on the market since the first quarter of 2013. During 2018, V2 Plug-In Hybrid Vehicle Partnership HB provided a repayment of MSEK 464 (284) to Volvo Car PHEV Holding AB.

2) In August 2016, Volvo Car Corporation was allowed to close the acquisition of the additional 40 per cent of the shares in Volvofinans Bank AB and thereby increased its ownership from 10 to 50 per cent. Volvofinans Bank AB is since then a joint venture company and reported in accordance with the equity method since none of the holding companies, Volvo Car Corporation or AB Volverkinvest, has the decision-making power over the operation. In Sweden, Volvofinans Bank AB is the leading bank within vehicle financing services.

3) In April 2017, the joint venture company Zenuity AB was established between Volvo Car Corporation and Autoliv Development AB. In April 2018, Autoliv Development assigned its shares to Veoneer Sweden AB. The purpose of the company is to develop software for autonomous driving and driver assistance systems. Zenuity AB is reported in accordance with the equity method since none of the holding companies has the decision-making power over the operation. Due to negative participation in the company, the negative participation is specified in Note 27 – Non-current liabilities.

4) In October 2017, the joint venture company Lynk & Co Investment Co., Ltd was established between Volvo Cars (China) Investment Co., Ltd, (30 per cent), Zhejiang Jirun Automobile Co., Ltd (50 per cent) and Zhejiang Haoqing Automobile Manufacturing Co., Ltd (20 per cent). The principal activity of the Lynk & Co Investment Co., Ltd is to engage in the manufacturing and sale of vechicles under the "Lynk & Co" brand, and support after-sale services relating thereto.

5) In September 2018, Zhejiang Geely Holding Group Co., Ltd has subscribed for 50 per cent of the equity in Polestar Automotive (Shanghai) Co., Ltd, the parent company in the Polestar Group, resulting in Polestar Group being jointly owned by Volvo Car Group and Zhejiang Geely Holding Group Co., Ltd. In connection with the Geely investment, a shareholders agreement was signed between Volvo Cars (China) Investment Co., Ltd and Zhejiang Geely Holding Group Co., Ltd giving the owners joint control over the Polestar Group. Polestar Group is since then a joint venture company and reported in accordance with the equity method since none of the holding companies has the decision-making power over the operation. See section Common control transactions in Note 1 – General information and significant accounting principles and Note 8 – Participation in subsidiary (Parent company) for further information.

6) In December 2017, Volvo Car Corporation and Ningbo Geely Automobile Research & Development Co., Ltd established a new joint venture company GV Automobile Technology (Ningbo) Co., Ltd to coordinate engineering of shared technologies and common sourcing in order to reach industrial synergies and economics of scale. GV Automobile Technology (Ningbo) Co., Ltd is reported in accordance with the equity method since none of the holding companies has the decision-making power over the operation. The GV Automobile Technology Group consists of the parent company GV Automobile Technology (Ningbo) Co., Ltd and its subsidiary GV Technology Sweden AB.

7) In December 2016, Volvo Personvagnar Norden AB acquired the remaining 55 per cent of the shares in First Rent A Car AB which included the associated companies Trio Bilservice AB and Leiebilservice AS.

The following tables present summarised financial information for the Volvo Car Group's material joint ventures.

	V2 Plug-In Hybrid Vehicle Partnership HB[1]		Volvofinans Bank AB[2) 11)]		Polestar Automotive (Shanghai) Co., Ltd[5) 12)]		Lynk & Co Investment Co., Ltd[4) 13)]	
Summarised balance sheets	**2018**	2017	**2018**	2017	**2018**	2017	**2018**	2017
Percentage voting/ownership	50	50	50	50	50	—	30	30
Non-current assets	133	205	37,393	33,975	5,691	—	9,211	8,571
Cash and cash equivalents	200	191	1,185	1,834	2,283	—	624	3,445
Other current assets	159	284	4,734	3,599	3,886	—	10,477	1,449
Total assets	**492**	**680**	**43,312**	**39,408**	**11,860**	**—**	**20,312**	**13,465**
Equity[8)]	447	605	3,782	3,888	5,051	—	10,442	9,426
Non-current liabilities[8) 9)]	28	45	37,077	33,281	24	—	430	11
Current liabilities[10)]	17	30	2,453	2,239	6,785	—	9,440	4,028
Total equity and liabilities	**492**	**680**	**43,312**	**39,408**	**11,860**	**—**	**20,312**	**13,465**

8) Equity and Non-current liabilities are adjusted with the portion of untaxed reserves where appropriate.
9) In Volvofinans Bank AB, the non-current liabilities include financial liabilities of MSEK 35,879 (32,572).
10) In Polestar Automotive (Shanghai) Co.,Ltd, the current liabilities include financial liabilities of MSEK 4,737 (–).
11) Volvofinans Bank AB's equity share in the Volvo Car Group is included with a time lag of a quarter.
12) The figures include the consolidated figures from Polestar Automotive (Shanghai) Co., Ltd and its subsidiaries Polestar Performance AB, Polestar Holding AB, Polestar New Energy Vehicle Co., Ltd and Polestar Automotive USA Inc.
13) The figures include the consolidated figures from Lynk & Co Investment Co., Ltd and its subsidiaries Kai Yue Zhangjiakou Component Manufacturing Co., Ltd, Lynk & Co Automobile Sales Co., Ltd, Lynk & Co Auto Technology (Taizhou) Co., Ltd, Lynk & Co International AB, Lynk & Co Hong Kong Investment Co., Ltd and Lynk & Co Europe AB.

	V2 Plug-In Hybrid Vehicle Partnership HB[1]		Volvofinans Bank AB[2) 11)]		Polestar Automotive (Shanghai) Co., Ltd[5) 12)]		Lynk & Co Investment Co., Ltd[4) 13)]	
Summarised income statements	**2018**	2017	**2018**	2017	**2018**	2017	**2018**	2017
Net sales	826	781	4,419	3,853	454	—	22,635	108
Profit/loss from continuing operations[14) 15) 16) 17)]	826	699	319	261	–520	—	764	–56
Profit (loss) for the year	**826**	**699**	**319**	**261**	**–520**	**—**	**764**	**–56**
Other comprehensive income for the year	**—**	**—**	**—**	**—**	**—**	**—**	**–4**	**—**
Total comprehensive income for the year	**826**	**699**	**319**	**261**	**–520**	**—**	**760**	**–56**
Dividends received from joint ventures during the year	—	—	240	37	—	—	—	—

14) In V2 Plug-In Hybrid Vehicle Partnership HB the profit for the year includes depreciation and amortisation of MSEK –73 (–73).
15) In Volvofinans Bank AB the profit for the year includes depreciation and amortisation of MSEK –4 (–4).
16) In Polestar Automotive (Shanghai) Co., Ltd the loss for the year includes depreciation and amortisation of MSEK –33 (–), interest income of MSEK 45 (–) and interest expenses of MSEK –23 (–).
17) In Lynk & Co Investment Co., Ltd the profit (loss) for the year includes depreciation and amortisation of MSEK –877 (–27) and interest income of MSEK 12 (2).

Reconcilation of the summarised financial information presented to the carrying amount of its interest in joint ventures.

	V2 Plug-In Hybrid Vehicle Partnership HB[1]		Volvofinans Bank AB[2,11]		Polestar Automotive (Shanghai) Co., Ltd[5,12]		Lynk & Co Investment Co., Ltd[4,13]	
Reconciliation of summarised financial information	**2018**	2017	**2018**	2017	**2018**	2017	**2018**	2017
Net asset of the joint venture	447	605	3,782	3,888	5,051		10,442	9,426
Proportion of the Group's ownership in the joint venture	50%	50%	50%	50%	50%		30%	30%
Adjustments for differences in accounting principles	–27	–43	—	—	—	—	—	—
Goodwill	—	—	376	376	—	—	—	—
Adjustments for Common control transaction	—	—	—	—	—	—	–7	—
Elimination of intra-group profit, net of foreign exchange rate effect	—	—	—	—	–1,238	—		—
Carrying amount of the Group´s interest in joint ventures	**197**	**260**	**2,267**	**2,320**	**1,288**	**—**	**3,126**	**2,828**

Significant restrictions

For the Chinese joint venture companies, there are some restrictions on the Volvo Car Group's ability to access cash.

NOTE 15 – TAXES

Income tax recognised in income statement	**2018**	2017
Current income tax for the year	–3,982	–3,811
Current income tax for previous years	36	–67
Deferred taxes	929	782
Other taxes	–119	174
Total	**–3,136**	**–2,922**

Information regarding current year tax expense compared to tax expense based on the applicable Swedish tax rate	**2018**	2017
Income before tax for the year	12,917	13,147
Tax according to applicable Swedish tax rate, 22%	–2,842	–2,892
Operating income/costs, non-taxable	–55	–75
Other taxes, non-taxable	–119	176
Capital gains or losses, non-taxable	—	44
Effect of different tax rates	18	–126
Tax effect on deferred tax due to change of tax rate	–84	–62
Revaluation of previously non-valued losses and other temporary differences	–28	–23
Other	–26	36
Total	**–3,136**	**–2,922**

Income tax recognised in other comprehensive income	**2018**	2017
Deferred tax		
Tax effects on cash flow hedge reserve	–814	980
Tax effect of remeasurement of provisions for post-employment benefits	–404	–62
Tax effects on translation difference of hedge instruments of net investments in foreign operations	–1	–27
Total	**–1,219**	**891**

Specification of deferred tax assets	**Dec 31, 2018**	Dec 31, 2017
Goodwill arising from the purchase of the net assets of a business	183	190
Provision for employee benefits	1,715	1,434
Unutilised tax loss carry-forwards	7,194	5,991
Reserve for unrealised income in inventory	19	37
Provision for warranty	1,262	843
Fair value of derivative instruments	528	—
Other temporary differences	5,827	4,014
Total deferred tax assets	**16,728**	**12,509**
Netting of assets/liabilities	–10,142	–7,951
Total deferred tax assets, net	**6,586**	**4,558**

Specification of deferred tax liabilities	**Dec 31, 2018**	Dec 31, 2017
Fixed assets	6,788	6,795
Untaxed reserves	648	248
Auto lease portfolio	3,858	2,016
Fair value of derivative instruments	—	348
Other temporary differences	536	521
Total deferred tax liabilities	**11,830**	**9,928**
Netting of assets/liabilities	–10,142	–7,951
Total deferred tax liabilities, net	**1,688**	**1,977**

Deferred tax assets and deferred tax liabilitites are offset when the item relates to income taxes levied by the same taxation authority on either the same taxable entity or different taxable entities which intend either to settle current tax liabilities and assets on a net basis, or to realise the assets and settle the liabilities simultaneously. Deferred tax assets are only recognised in countries where Volvo Car Group expects to be able to generate corresponding taxable income in the future to benefit from tax reductions.

Significant tax loss carry-forwards are related to countries with long or indefinite periods of utilisation, mainly Sweden and US. Of the total MSEK 7,194 (5,991) recognised deferred tax assets related to tax loss carry-forwards, MSEK 4,136 (4,565) relates to Sweden with indefinite periods of utilisation. MSEK 2,987 (1,343) relates to US where tax loss carry-forwards are expected to be utilised before expiration date. The assessement is that Volvo Car Group will be able to generate sufficient income in the coming years to also utilise the remaining part of the recognised amounts.

Deferred tax that may arise on distribution of remaining unrestricted earnings of foreign subsidiaries has not been booked, hence they can be distributed free of tax or Volvo Car Group may consider them permanently reinvested in the subsidiaries.

Changes in deferred tax assets and liabilities during the reporting period	**Dec 31, 2018**	Dec 31, 2017
Net book value of deferred taxes at January 1	2,581	2,903
Deferred tax income/expense recognised through income statement	929	782
Change in deferred taxes recognised directly in other comprehensive income	1,219	–891
Exchange rate impact	169	–213
Net book value of deferred taxes at December 31	**4,898**	**2,581**

Deferred tax assets regarding tax loss carry-forwards are reported to the extent that realisation of the related tax benefit through future taxable profits is probable also when considering the period during which these can be utilised, as described below.

Deferred tax assets have been considered on all tax losses carry forward as per 2018 and as of December 31, 2018, the recognised tax loss carry-forwards amounted to MSEK 31,682 (26,203). The tax value of these tax loss carry-forwards is reported as an asset. The final years in which the recognised loss carry-forwards can be utilised are shown in the following table.

Tax-loss carry-forwards; year of expiration	Dec 31, 2018	Dec 31, 2017
Due date		
2019	—	—
2020	—	—
2021	6	—
2022	1	136
2023	76	26,067
2024–	31,599	—
Total	**31,682**	**26,203**

NOTE 16 – INTANGIBLE ASSETS

	Capitalised product development cost[1]	Software	Trademark and goodwill[2]	Other intangible assets[3]	Total
Aquisition cost					
Balance at January 1, 2017	25,385	2,953	4,133	11,525	43,996
Additions	7,639	224	5	858	8,726
Acquired through business combinations	—	—	81	—	81
Divestments and disposals	—	–14	—	–13	–27
Reclassifications	—	–1	—	–316	–317
Effect of foreign currency exchange differences	—	5	—	–49	–44
Balance at December 31, 2017	**33,024**	**3,167**	**4,219**	**12,005**	**52,415**
Additions	7,680	726	5	387	8,798
Acquired through business combinations	—	—	22	—	22
Divestments and disposals	–2,724	–47	–507	–22	–3,300
Reclassifications	—	13	–4	2	11
Effect of foreign currency exchange differences	—	–7	—	50	43
Balance at December 31, 2018	**37,980**	**3,852**	**3,735**	**12,422**	**57,989**
Accumulated amortisation and impairment					
Balance at January 1, 2017	–8,815	–1,683	—	–8,130	–18,628
Amortisation expense	–3,555	–168	—	–984	–4,707
Divestments and disposals	—	13	—	12	25
Reclassifications	—	2	—	37	39
Effect of foreign currency exchange differences	–1	–3	—	17	13
Balance at December 31, 2017	**–12,371**	**–1,839**	—	**–9,048**	**–23,258**
Amortisation expense	–5,758	–213	—	–434	–6,405
Divestments and disposals	1,292	31	—	9	1,332
Reclassifications	—	–7	—	—	–7
Effect of foreign currency exchange differences	—	1	—	–26	–25
Balance at December 31, 2018	**–16,837**	**–2,027**	—	**–9,499**	**–28,363**
Net balance at December 31, 2017	**20,653**	**1,328**	**4,219**	**2,957**	**29,157**
Net balance at December 31, 2018	**21,143**	**1,825**	**3,735**	**2,923**	**29,626**

1) Volvo Car Group has capitalised borrowing costs related to product development of MSEK 154 (185). A capitalisation rate of 2.6 (3.2) per cent was used to determine the amount of borrowing costs eligible for capitalisation.
2) Of the total Net balance at December 31 2018, Goodwill amounts to MSEK 134 (590).
3) Other intangible assets refers to licences, dealer network, patents, land-use rights and similar rights.

Intangible assets with indefinite useful lives, i.e. trademark, goodwill, and other intangible assets not yet ready for use, are tested for impairment annually as well as if there are any indications of need for impairment. Assets with definite useful lives are tested if there are any indications of need for impairment. An impairment test is made by calculating the recoverable value. If the recoverable value is less than the carrying value, the asset is written down to its recoverable value. The recoverable amounts are based on a discounted cash flow model, with Volvo Car Group as one single Cash Generating Unit. Assumption of future market share, market growth and Volvo Car Group's expected performance in this environment is the basis for the valuation.

Management's business plan for 2019–2022 is used as a basis for the calculation. In the model, Volvo Car Group is expected to maintain stable efficiency over time and the estimates for the cash flows following the end of the planning period are based on the same growth rate and cash flow as for the last year in the calculation onwards in perpetuity. The business plan is an integral part of Volvo Car Group's financial planning process and represents management's best estimate of the economic conditions that will exist during the asset's remaining lifetime. The business plan process is based on the historic and current financial performance and financial position of the company, i.e. assumptions for margin development, fixed cost and new investments are based on current year financials and balanced towards what is containable given the projection of exogenous factors. Exogenous factors as industry and segment volumes, exchange rates, raw material etc. are based on external assessments from analyst companies and banks. In 2018, the discounted cash flow exceeded the carrying amount and no impairment loss was recognised. A sensitivity test has been performed whether a negative adjustment of one percentage point to the margin development or in the discount rate would result in impairment. The discount rate before tax was 10.3 (11.7) per cent. No impairment loss was recognised as a result of this test.

NOTE 17 – TANGIBLE ASSETS

	Buildings and land[1) 2) 3) 4)]	Machinery and equipment[1) 2) 3) 4)]	Construction in progress[1)]	Assets under operating leases	Total
Aquisition cost					
Balance at January 1, 2017	16 353	84 041	6 909	2 893	110 196
Additions	1 122	11 814	4 420	1 445	18 801
Acquired through business combinations	199	1 168	—	—	1 367
Divestments and disposals	–37	–2 746	–3	–1 333	–4 119
Reclassification	94	2 305	–2 399	—	—
Effect of foreign currency exchange differences	–27	–40	–305	—	–372
Balance at December 31, 2017	**17 704**	**96 542**	**8 622**	**3 005**	**125 873**
Additions	813	9 874	4 610	1 330	16 627
Acquired through business combinations	83	—	—	—	83
Divestments and disposals	–559	–8 207	–179	–1 362	–10 307
Reclassification	3 002	4 726	–7 728	—	—
Effect of foreign currency exchange differences	331	834	462	—	1 627
Balance at December 31, 2018	**21 374**	**103 769**	**5 787**	**2 973**	**133 903**
Accumulated depreciation and impairment					
Balance at January 1, 2017	–8 144	–53 691	—	–410	–62 245
Depreciation expense	–587	–6 438	—	–366	–7 391
Acquired through business combinations	–90	–892	—	—	–982
Divestments and disposals	34	2 319	—	351	2 704
Effect of foreign currency exchange differences	–37	–97	—	–3	–137
Balance at December 31, 2017	**–8 824**	**–58 799**	—	**–428**	**–68 051**
Depreciation expense	–719	–6 974	—	–310	–8 003
Divestments and disposals	156	6 015	—	288	6 459
Effect of foreign currency exchange differences	–144	–433	—	—	–577
Balance at December 31, 2018	**–9 531**	**–60 191**	—	**–450**	**–70 172**
Net balance at December 31, 2017	**8 880**	**37 743**	**8 622**	**2 577**	**57 822**
Net balance at December 31, 2018	**11 843**	**43 578**	**5 787**	**2 523**	**63 731**

1) Buildings and land include finance leases of MSEK 45 (8), Machinery and equipment include finance leases of MSEK 96 (68) and Construction in progress include finance leases of MSEK 22 (–). For further information regarding finance leases, see Note 8 – Leasing.
2) Depreciation expense includes an impairment loss related to Cost of Sales of MSEK –39 (–34) and to Selling Expense of MSEK –27 (–). For further information regarding depreciations, see Note 10 – Depreciation and amortisation.
3) Volvo Car Group has no mortgages in property, plant and equipment. For further information regarding pledged assets, see Note 29 – Pledged assets.
4) Volvo Car Group has capitalised borrowing costs related to Machinery and equipment of MSEK – (30) and Buildings of MSEK 79 (127).

NOTE 18 – OTHER NON-CURRENT ASSETS

	Dec 31, 2018	Dec 31, 2017
Restricted cash	188	134
Endowment insurance for pensions	337	276
Rental deposition	57	59
Derivative assets, non-current	310	1,234
Other receivables, non-current	679	657
Other non-current assets	1,411	1,344
Total	**2,982**	**3,704**

Change in other non-current assets during the year	2018	2017
Balance at January 1	3,704	2,013
Change in restricted cash	54	27
Change in endowment insurance for pensions	61	13
Change in derivative assets	–924	828
Other changes	87	823
Balance at December 31	**2,982**	**3,704**

NOTE 19 – INVENTORIES

	Dec 31, 2018	Dec 31, 2017
Raw materials and consumables	145	139
Work in progress	7,558	7,148
Current assets held under operating lease	6,886	5,482
Finished goods and goods for resale	20,574	17,896
Total	**35,163**	**30,665**
Of which value adjustment reserve:	–522	–542

The cost of inventories recognised as an expense and included in cost of sales amounted to MSEK 195,002 (157,188). Current assets held under operating lease consists of a sale of vehicles combined with a repurchase committment with a maturity less or equal to twelve months.

NOTE 20 – ACCOUNTS RECEIVABLE AND OTHER CURRENT ASSETS

	Dec 31, 2018	Dec 31, 2017
Accounts receivable from non-group companies	7,037	7,696
Accounts receivable from related companies	6,667	3,136
VAT receivables	2,702	2,561
Prepaid expenses and accrued income	2,150	1,723
Other financial receivables	1,001	1,309
Restricted cash	152	410
Other receivables	3,870	1,952
Total	**23,579**	**18,787**

Aging analysis of accounts receivable and accounts receivables from related companies	Not due	1–30 days overdue	30–90 days overdue	>90 days overdue	Total
2018					
Accounts receivable gross	12,787	263	584	156	13,790
Provision doubtful accounts receivable	–15	–1	–59	–11	–86
Accounts receivable net	**12,772**	**262**	**525**	**145**	**13,704**
2017					
Accounts receivable gross	9,876	238	549	234	10,897
Provision doubtful accounts receivable	–13	—	–34	–18	–65
Accounts receivable net	**9,863**	**238**	**515**	**216**	**10,832**

Accounts receivable amounting to MSEK 13,704 (10,832) includes provision for doubtful accounts receivable of MSEK 86 (65). The establishment of credit loss provisions for accounts receivable is recognised as soon as it is probable that a credit loss has incurred. A credit loss has been incurred when there has been an event that has triggered the customer's inability to pay. As of December 31, 2018 the total credit loss reserves for account receivables amounted to 0.62 (0.60) per cent of total accounts receivable. The accounts receivable that are not yet due or subject to impairment are estimated to have high credit quality.

The size and geographical spread of the accounts receivable are closely linked to the distribution of the Group's sales and do not contain any significant concentration of credit risk to individual customers or markets.

Change in provision for doubtful accounts receivable is as follows:	2018	2017
Balance at January 1	65	54
Additions	37	27
Reversals	–3	–2
Write-offs	–14	–14
Translation difference	1	—
Balance at December 31	**86**	**65**

NOTE 21 – FINANCIAL RISKS AND FINANCIAL INSTRUMENTS

In its operations, Volvo Car Group is exposed to various types of financial risks such as currency risk, funding and liquidity risk, interest rate risk, commodity price risk and credit risk.

Volvo Car Group's treasury function is responsible for management and control of these financial risks, it ensures that appropriate financing is in place through capital market transactions, loans and committed credit facilities and manages the Group's liquidity. The management of financial risks is governed by Volvo Car Group's Financial Policy Framework which is approved by the Board of Directors and is subject to annual review. The policy is focused on minimising the negative effects from fluctuating financial markets on Volvo Car Group's financial earnings.

Currency risk

The currency exposure arises from the production in various countries, procurement and the mix of sales currencies. Relative changes in the currency rates have a direct impact on the Volvo Car Group's operating income, finance net, balance sheet and cash flow statement.

The currency risk is related to:

- expected future cash flows from sales and purchase in foreign currencies (transaction risk)
- changes in value of assets and liabilities in foreign currencies (translation risk)
- net investments in foreign operations (translation risk)

Transaction exposure risk

Volvo Car Group Financial Policy Framework

The currency transaction exposure risk arises from cash flows in other currencies than the presentation currency of the Group, which is SEK. Sales to different markets in combination with purchases in different currencies determine the transaction exposure.

The policy for currency transaction risk management states that up to 80 per cent of the future expected cash flows in the coming twenty-four months and up to 60 per cent of the future expected cash flows in the coming twenty-five to forty-eight months can be hedged with adequate financial instruments: options, forwards or combined instruments with maturities matching expected timing of cash flows. Hedging strategies using financial instruments for long term exposures (over forty-eight months) require a Board of Directors decision.

For currency risk management, transaction exposure is expressed in terms of Cash Flow at Risk (CFaR), which is the maximum loss at a 95 per cent confidence level in one year. The CFaR is based on the cash flow forecast, market volatility and correlations.

The steering model for hedging of transaction risk is stipulated in the Group's Financial Policy Framework. The hedging strategy is proposed by Group Treasury and approved by the CFO and is expressed as a strategic hedge level of CFaR with a mandate to deviate from that strategic hedge level. The deviation mandate is given as a tactical mandate in terms of timing. The hedging strategy is revised at least quarterly.

Status at year end

Sales to markets other than Sweden generate transaction exposure. For the majority of the sales Volvo Cars invoices the national sales companies in their local currencies. The total currency inflow and outflow was distributed according to below table:

	Inflow		Outflow	
	2018	2017	**2018**	2017
CNY	23%	23%	27%	23%
EUR	28%	27%	49%	52%
GBP	7%	7%	1%	2%
JPY	3%	3%	7%	7%
USD	20%	20%	10%	10%
Other	19%	19%	6%	6%

Forward contracts, currency options and foreign exchange swaps are used to hedge the currency risk in expected future cash flows from sales and purchase in foreign currencies. The hedging of the currency risk from the Chinese industrial entities is made onshore in China.

The CFaR at year end for the cash flows in one year for the Group, excluding hedges, was approximately SEK 5 (5) billion. The table below shows the percentage of the forecasted cash flows that were hedged expressed both in nominal terms and in CFaR. CFaR has a higher percentage hedge than the nominal cash flow because it leverages the correlation between currencies.

	0–24 months		25–48 months	
	2018	2017	**2018**	2017
Nominal hedge, %	33	29	8	5
CFaR incl hedges, %	51	38	19	11

Maturities of cash flow hedges (forwards and options), nominal amounts in millions, local currency

Maturity	AUD	CAD	CHF	CNY	EUR	GBP	JPY	NOK	PLN	USD
0–24 months	–218	–504	–416	–2,519	717	–1,098	25,478	–4,100	–642	–4,247
25–48 months	—	–109	–174	—	—	–410	—	—	—	–1,600

The average duration of the portfolio was 14 (12) months. The fair value of the outstanding currency derivatives as at December 31, 2018 amounted to MSEK –2,319 (1,620).

Hedge accounting – cash flow hedge

Hedge accounting is applied for cash flow hedging of currency risk. Gains and losses on the effective portions of derivatives designated under cash flow hedge accounting are recognised in other comprehensive income.

The highly probable forecast transactions in foreign currencies that are hedged are expected to occur at various dates during the next forty-eight months. Gains and losses recognised in other comprehensive income and accumulated in other reserves in equity on foreign exchange forward contracts as of December 31, 2018 are recognised in the income statement in the periods when the hedged forecast transaction affects the income statement, which are shown in the maturity table above.

The cash flow hedge reserve related to currency hedges, included in other reserves, in shareholders' equity as at December 31, 2018 amounts to MSEK –2,318 (1,608) before tax. The fluctuation from December 31, 2017 to December 31, 2018 within the hedge reserve that has had an impact on other comprehensive income in 2018 is MSEK –3,926 (4,451) before tax. The balance of MSEK –2,318 (1,608) represents the fair value of derivatives used for cash flow hedging per December 31, 2018. Along with cross currency options, recorded in the income statement, this builds up the total fair value of MSEK –2,319 (1,620). No ineffectiveness has affected net income for 2018 and 2017.

Fair value of currency derivatives for cash flow hedging	**2018**	2017
Hedge reserve	–2,318	1,608
Recognised in other comprehensive income	**–2,318**	**1,608**
Time value in options and cross currency options	–1	12
Recognised in other operating income and expenses	**–1**	**12**
Total fair value	**–2,319**	**1,620**

Translation exposure risk

Volvo Car Group Financial Policy Framework

Translation risk in Volvo Car Group primarily relates to the translation of net investments in foreign operations. This exposure can generate a positive or negative impact on other comprehensive income. Translation risk of assets and liabilities in foreign currencies related to the operations, as accounts receivable, accounts payable and warranty provisions, will generate an impact on the operating income. All translation of assets and liabilities to credit institutions and intercompany loans and deposits are reflected in the finance net.

The translation risk is hedged either by matching the currency composition of debt with the composition of assets or via financial derivatives.

Status at year end

The table below shows the translation exposure of net investments in foreign operations as at December 31, 2018.

	CNY	EUR	USD	JPY	MYR	Other	Total
Investments in foreign operations (MSEK)	21,731	4,465	2,239	959	487	2,795	32,676
Translation exposure	**21,731**	**4,465**	**2,239**	**959**	**487**	**2,795**	**32,676**

A one per cent change in the Swedish krona against major currencies has a net impact on other comprehensive income of approximately MSEK 327 (249). Part of the investments in operations in the Eurozone and Americas are hedged, further explained below. The residual translation risk is part of the strategic risk management and is not hedged with financial instruments, the translation effect is recognised in other comprehensive income.

Total translation effect of net investments in foreign operations was MSEK 805 (–318). This effect does not impact the income statement but is recognised in other comprehensive income.

Hedge accounting – hedge of net investments in foreign operations

Hedge accounting is applied for net investment in foreign operations. Volvo Car Group designates MEUR 320 of the EUR debt and MUSD 200 of the USD debt to reduce the translation exposure on net investments in EUR and USD. The currency gains or losses from the translation of the net investments in operations in EUR and USD used for hedge accounting are recognised in other comprehensive income.

The hedge reserve for net investment in foreign operations, included in equity in the currency translation reserve, as at December 31, 2018 amounts to MSEK –482 (–465) before tax. No ineffectiveness has affected net income for 2018 and 2017.

Fair value of financial instruments for hedging of net investment in foreign operations	**2018**	2017
Hedge reserve	–482	–465
Recognised in other comprehensive income	**–482**	**–465**
Total fair value	**–482**	**–465**

Funding and liquidity risk management

Capital Structure

Volvo Car Group's Financial Policy Framework stipulates that the capital structure shall reflect a reasonable balance between risks and rewards/cost of capital. The medium-to-long term capital structure target for Volvo Cars shall be optimised among cost of capital, rating considerations/peer group comparison and company specific risk factors. The capital structure shall be analysed on a regular basis as part of the overall financial reporting process. The longer term objective is to have a capital structure that enables investment grade rating; Volvo Car Group's current external rating by Moody's is Ba1 and by Standard & Poor BB+. The equity ratio as per December 31, 2018 is 29.0 (28.7) per cent, whereof shareholders' equity amounted to MSEK 61,251 (54,660).

Funding risk management

Volvo Car Group Financial Policy Framework

Funding risk is the risk that the Group does not have access to adequate financing on acceptable terms at any given point.

All draw down on new loans is evaluated against future liquidity needs and investment plans. Volvo Car Group should for the coming twelve months at any given time have available committed financing for investments and maturing loans. To limit the risk of refinancing, debt maturing over the next twelve months should not exceed 25 per cent of total debt. Less than 50 per cent of the long term debt should be re-financeable within three years.

Status at year end

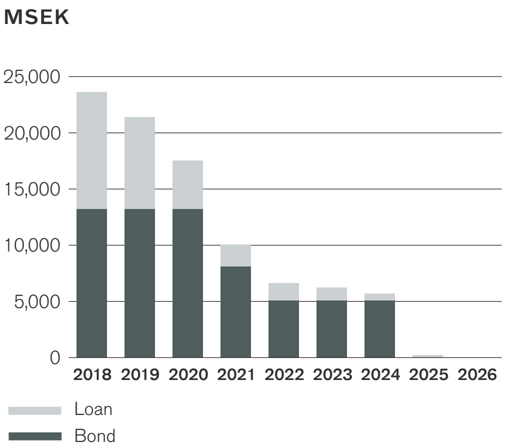
In January 2018, the loan from China Development Bank was partly repaid, MEUR 589. The loan facility with the European Investment Bank was fully drawn up on in May 2018, and amounts to MUSD 304.

The outstanding amount of bonds and liabilities to credit institutions, excluding finance lease contracts and capitalised transaction costs, in Volvo Car Group as per year end 2018 was MSEK 23,615 (26,910). Remaining credit duration of the outstanding facilities was 3.4 (3.1) years. Debt maturing over the next twelve months was at year end 10 per cent. 57 per cent of the Group's long term debt is refinanceable within three years, refinancing activites are ongoing.

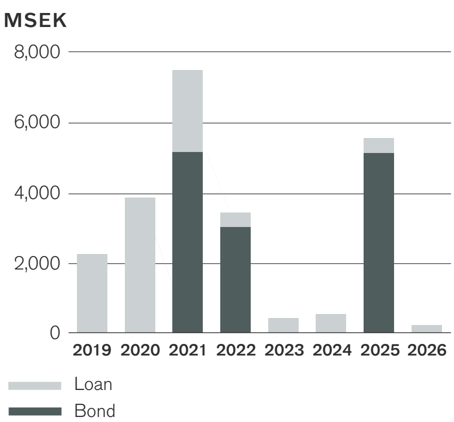
Outstanding debt are shown below.

Funding	Currency	Nominal amount in respective currency (million)	MSEK
Bank loan	USD	808	7,227
Bank loan	SEK	2,100	2,100
Bond	EUR	1,000	10,253
Bond	SEK	3,000	3,000
Other	SEK	—	1,035
Total			**23,615**

Maturity structure of bonds and liabilities to credit institutions



Loan and bond amortisation schedule



In relation to all external financing there are information undertakings and covenants according to Loan Market Association (LMA) and capital market standards. These are monitored and calculated quarterly to fulfil the terms and conditions stated in the financial agreements. Covenants are based on standard ratios such as EBITDA and Net debt.

Liquidity risk management

Volvo Car Group Financial Policy Framework

Liquidity risk is the risk that Volvo Car Group is unable to meet ongoing financial obligations on time. In order to meet seasonal volatility in cash requirements, Volvo Car Group shall always have committed credit facilities or cash and marketable securities available corresponding to 15 per cent or more of Net revenue. The rolling twelve months cash flow forecasts are the basis for the risk assessment of the liquidity risk management.

Status at year end

As at December 31, 2018, Volvo Car Group had committed credit facilities and cash and marketable securities available of MSEK 55,075 (54,597) approximately 22 (26) per cent of Net revenue. The liquidity of the Group is strong considering the maturity profile of the external borrowings, the balance of cash and cash equivalents and marketable securities, and available credit facilities from banks.

The following table presents the maturity structure of the Group's financial assets and liabilities. The figures shown are contractual undiscounted cash flows based on contracted date, when the Group is liable to pay or eligible to receive, and includes both interest and nominal amounts.

Dec 31, 2018	Less than 3 months	3 months to 1 year	1–5 years	Over 5 years
Assets				
Receivables on parent company	—	—	54	—
Derivative assets	—	—	310	—
Other non-current assets[1]	—	—	1,970	574
Total non-current financial assets	—	—	**2,334**	**574**
Accounts receivable	12,751	953	—	—
Derivative assets	356	549	—	—
Other current assets[1]	1,289	2,560	—	—
Marketable securities	—	1,577	—	—
Cash and cash equivalents	40,170	—	—	—
Total current financial assets	**54,566**	**5,639**	—	—
Total financial assets	**54,566**	**5,639**	**2,334**	**574**
Liabilities				
Bonds[2]	90	271	8,928	5,315
Liabilities to credit institutions[2]	—	—	7,775	1,157
Derivative liabilities	—	—	1,610	—
Other non-current liabilities[1]	—	—	2,944	54
Total non-current financial liabilities	**90**	**271**	**21,257**	**6,526**
Liabilities to credit institutions[2]	406	2,156	—	—
Accounts payable	38,738	4,895	—	—
Derivative liabilities	663	1,178	—	—
Other current liabilities[1]	3,882	8,089	—	—
Total current financial liabilities	**43,689**	**16,318**	—	—
Total financial liabilities	**43,779**	**16,589**	**21,257**	**6,526**

1) Pre-payments as well as statutory receivables and liabilities excluded.
2) Including interest.

Interest rate risk management

Changes in the interest rate levels will impact Volvo Car Group's net financial income/expense and the value of financial assets and liabilities. The return on cash and cash equivalents, short term investments and credit facilities are impacted by changes in the interest rates. The exposure can be either direct from interest rate bearing debt or indirect through leasing or other financing arrangements.

Volvo Car Group Financial Policy Framework

According to the policy, the interest rate risk in Volvo Car Group's net debt position has a benchmark duration of twelve months. The policy allows a deviation of –9/+12 months from the benchmark. The interest rate strategy shall be proposed by Group Treasury and be approved by the CFO. The hedging strategy shall be revised at least quarterly.

Status at year end

As at December 31, 2018, Volvo Car Group's interest-bearing assets consisted of cash in the form of cash at bank, short term deposits and marketable securities. The average interest fixing term on these assets was less than one month. The average interest fixing term on debt was around 20 months. At year end the duration of the net debt position was 19 (19) months. The average cost of borrowing was 3.2 (3.9) per cent.

To manage interest rate risk, the Group uses interest rate swaps and forward rate agreements.

The table below shows the estimated effect in MSEK of a parallel shift of the interest curves up or down by one per cent (100 basis points) on all external loans and interest rate swaps.

Interest rate sensitivity, effect on Finance Net	**2018**	2017
Market rate +1%	–44	–47
Market rate –1%	15	3

Hedge accounting – fair value hedge

Hedge accounting can be applied for hedging of changes in the fair value of fixed rate loans (bank loans or issued bonds) due to changes in market interest rate. Changes in the fair value of derivatives that are designated and qualify as fair value hedges are recorded in the income statement, together with any changes in the fair value of the hedged loan that are attributable to the hedged risk. The carrying amount of the hedged loan is adjusted for the gain or loss attributable to the hedged risk, i.e. the loan is recorded at amortised cost with a fair value adjustment. Both gains and losses relating to the interest rate swaps and the changes in the fair value of the hedged fixed rate loans attributable to the interest rate risk are recognised in the income statement within financial expenses.

Volvo Car Group hedges the fair value risk of the MEUR 500 bond issued in May 2016 by using interest rate swaps, the bond with fixed interest payments has been swapped into floating interest. Changes in fair value of the interest component of the bond is hedged through a fair value hedge by means of interest rate swaps. The carrying amount of the bond is MSEK 5,105 (4,854). A fair value adjustment related to the interest component of the bond is included in the carrying amount of the bond. The fair value component of the carrying value amounts to MSEK 14 (–14).

Commodity price risk management

Commodity price risk is the risk that the cost of materials could increase as commodity prices rise in global markets. Changes in commodity prices impact Volvo Car Group's cash flow and earnings.

Strategic commodity price risk arises from the procurement mix of commodities and is primarily managed through contracts with the suppliers using clauses or similar constructions and fixed prices with suppliers. In 2018, Volvo Car Group had cost for raw materials of approximately SEK 16 (15) billion.

A one per cent change in the prices of raw materials has an impact on operating income of approximately MSEK 159 (148).

Volvo Car Group Financial Policy Framework

Forecasted cash flows in commodities for the coming fourty-eight months can be hedged up to 70 per cent with adequate financial instruments. The hedging strategy shall be proposed by Group Treasury and approved by CFO. Hedging strategy shall be revised at least quarterly.

Status at year end

Volvo Car Group manages the changes in prices for electricity by using forward contracts. The hedging is performed for the electricity usage in Sweden and is managed under an advisory contract with Vattenfall Power Management AB.

Hedge accounting – cash flow hedge of electricity price risk

Hedge accounting is applied for cash flow hedging of electricity price risk. Gains and losses on the effective portions of derivatives designated under cash flow hedge accounting, i.e. the value of the hedging instrument that corresponds to the value of forecasted electricity consumption, are recognised in other comprehensive income and accumulated in other reserves in equity. The gains and losses are then recognised in the income statement in the periods when the hedged forecast transaction affects the income statement. Any ineffectiveness in a hedge relationship is recognised in the income statement.

The highly probable forecast transactions in electricity consumption that are hedged are expected to occur in any chosen calendar quarter during the next twenty-four months.

The hedging instruments used are bilateral OTC contracts between Volvo Car Corporation and Vattenfall Power Management AB.

A one per cent change in the electricity spot price has an impact on other comprehensive income of MSEK 4.2 (1.3).

The cash flow hedge reserve related to electricity hedges, included in other reserves in shareholders' equity as at December 31, 2018 amounts to MSEK 109 (22) before tax. No ineffectiveness has affected net income for 2018 and 2017.

Fair value of derivatives for electricity hedging	**2018**	2017
Hedge reserve	109	22
Recognised in other comprehensive income	**109**	**22**
Non hedge accounting	—	3
Recognised in other operating income and expenses	**—**	**3**
Total fair value	**109**	**25**

Credit risk management

Volvo Car Group's credit risk can be divided in financial credit risk and operational credit risk. These risks are described in the following sections.

Financial counterparty credit risk

Volvo Car Group Financial Policy Framework

Credit risk on financial transactions is the risk that Volvo Car Group will incur losses as a result of non-payment by counterparties related to the Group's bank accounts, investments of cash surplus, bank deposits or derivative transactions. All investments must meet the requirements of low credit risk, high liquidity and the exposure with any single counterparty is limited. All counterparties used for bank accounts, investments and derivative transactions shall have credit rating A- or better from one of the well-established credit rating institutions and ISDA agreements are required for counterparties with which derivative contracts are entered. Limits are established according to counterparty credit rating and limit usage is monitored for the Volvo Car Group's treasury counterparties and deposits are diversified between relationship banks. Subsidiaries' bank balances are diversified in order to limit credit risk.

Status at year end

The maximum amount exposed to financial credit risk is the total of cash and cash equivalents MSEK 40,170 (35,402), investments in marketable securities MSEK 1,577 (3,992) and fair value of outstanding derivative assets MSEK 1,215 (2,406). The maximum amount exposed to credit risk for financial instruments is best represented by their fair values, see table 'Financial assets and liabilities by category' in this note.

No financial assets and liabilities are offset in the balance sheet. Derivative contracts are subject to master netting agreements (ISDA). No collateral has been received or posted. The table below shows derivatives covered by master netting agreements (ISDA).

Outstanding net position for derivative instruments	Gross	Offset in Balance sheet	Net in Balance sheet	Master netting agreements	Net position
December 31, 2018					
Derivative assets	1,215	—	1,215	–950	265
Derivative liabilities	3,451	—	3,451	–950	2,501
December 31, 2017					
Derivative assets	2,406	—	2,406	–753	1,653
Derivative liabilities	794	—	794	–753	41

Operational credit risk

The operational credit risk arises from accounts receivables. For the risk in customer and dealer financing, the objective is to have a sound and balanced credit portfolio and to engage in credit monitoring by means of detailed procedures which include follow-up and repossession. In cases where the credit risk is considered unsatisfactory a letter of credit or other instruments are used. The maximum amount exposed to credit risk is the carrying amount of accounts receivable, see table 'Financial assets and liabilities by category' in this note. For quantification of credit risk in accounts receivable refer to Note 20 – Accounts receivable and other current assets.

Financial Instruments – Classification and measurement

Financial instruments are divided into three levels depending on the market information available.

- Level 1: Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities that the entity can access at the measurement date.
- Level 2: Level 2 inputs are inputs other than quoted prices included within level 1 that are observable for the assets or liabilities, either directly or indirectly.
- Level 3: Level 3 inputs are unobservable inputs for the assets or liabilities.

All derivative financial instruments and commercial papers that Volvo Car Group holds as of December 31, 2018 belong to level 2. In level 3, the amount invested in other long-term securities holdings MSEK 190 (80) is valued at cost, as this is the best approximate of fair value. No transfers between the levels of the fair value hierarchy have occurred.

Fair value estimation

Financial assets and liabilities are measured at amortised cost or fair value depending on their initial classification. Fair value is defined as the price that would be received when selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Amortised cost is calculated using the effective interest method, where any premiums or discounts and directly attributable costs and revenue are capitalised over the contract period using the effective interest rate. Valuation of financial instruments at fair value is based on prevailing market data and on a discounting of estimated cash flows using the deposit/swap curve of the cash flow currency and include risk assumptions. For currency option instruments, the valuation is based on Black & Scholes formula. Fair value of commodity contracts is calculated by discounting the difference between the contracted forward price and the contracted forward price that can be obtained on the balance sheet date for the remaining contract period.

The fair value of a financial asset or liability reflects non-performance risk including the counterparty's credit risk for an asset and an entity's own credit risk for a liability. Volvo Car Group has chosen to use Default Probability per counterparty to adjust the positive fair value on derivatives and commercial papers. Own credit risk is adjusted for by taking an average of the Default Probability of a peer group of car manufacturers.

The table below presents Volvo Car Group's financial assets and liabilities that are measured at fair value.

December 31, 2018	Level 1	Level 2	Level 3	**Total**
Derivative instruments for hedging of currency risk in future commercial cash flows	—	1,007	—	1,007
Derivative instruments for hedging of currency risk related to financial assets and liabilities	—	81	—	81
Derivative instruments for hedging of interest rate risk	—	16	—	16
Electricity derivatives	—	111	—	111
Commercial papers[1]	—	2,152	—	2,152
Other long-term securities holdings	—	—	190	190
Total assets	—	**3,367**	**190**	**3,557**
Derivative instruments for hedging of currency risk in future commercial cash flows	—	3,327	—	3,327
Derivative instruments for hedging of currency risk related to financial assets and liabilities	—	122	—	122
Electricity derivatives	—	2	—	2
Total liabilities	—	**3,451**	—	**3,451**

December 31, 2017	Level 1	Level 2	Level 3	**Total**
Derivative instruments for hedging of currency risk in future commercial cash flows	—	2,311	—	2,311
Derivative instruments for hedging of currency risk related to financial assets and liabilities	—	63	—	63
Derivative instruments for hedging of interest rate risk	—	3	—	3
Electricity derivatives	—	29	—	29
Commercial papers[1]	—	2,771	—	2,771
Other long-term securities holdings	—	—	80	80
Total assets	—	**5,177**	**80**	**5,257**
Derivative instruments for hedging of currency risk in future commercial cash flows	—	691	—	691
Derivative instruments for hedging of currency risk related to financial assets and liabilities	—	79	—	79
Derivative instruments for hedging of interest rate risk	—	20	—	20
Electricity derivatives	—	4	—	4
Total liabilities	—	**794**	—	**794**

1) Whereof MSEK 1,064 (991) are reported as marketable securities in the balance sheet and MSEK 1,088 (1,780) are reported as cash and cash equivalents.

Financial assets and liabilities by category	Financial instruments at fair value through the income statement: Instruments held for trading	Financial instruments at fair value through the income statement: Derivatives used in hedge accounting	Financial liabilities	Financial assets carried at amortised cost	Other liabilities	Total	Fair value
December 31, 2018							
Receivables on parent company	—	—	—	54	—	54	54
Other non-current assets[1]	—	—	—	2,544	—	2,544	2,544
Accounts receivable	—	—	—	13,704	—	13,704	13,704
Derivative assets	97	1,118	—	—	—	1,215	1,215
Other current assets[1]	—	—	—	3,849	—	3,849	3,849
Marketable securities	1,064	—	—	513	—	1,577	1,577
Cash and cash equivalents	1,088	—	—	39,082	—	40,170	40,170
Total financial assets	**2,249**	**1,118**	—	**59,746**	—	**63,113**	**63,113**
Bonds and liabilities to credit institutions[2]	—	—	—	—	23,648	23,648	23,687
Other non-current liabilities[1]	—	—	312	—	2,687	2,999	2,999
Accounts payable	—	—	—	—	43,633	43,633	43,633
Derivative liabilities	124	3,327	—	—	—	3,451	3,451
Other current liabilities[1]	—	—	—	—	11,971	11,971	11,971
Total financial liabilities	**124**	**3,327**	**312**	—	**81,939**	**85,702**	**85,741**
December 31, 2017							
Receivables on parent company	—	—	—	54	—	54	54
Other non-current assets[1]	—	—	—	2,406	—	2,406	2,406
Accounts receivable	—	—	—	10,832	—	10,832	10,832
Derivative assets	85	2,321	—	—	—	2,406	2,406
Other current assets[1]	—	—	—	2,303	—	2,303	2,303
Marketable securities	991	—	—	3,001	—	3,992	3,992
Cash and cash equivalents	1,780	—	—	33,622	—	35,402	35,402
Total financial assets	**2,856**	**2,321**	**—**	**52,218**	**—**	**57,395**	**57,395**
Bonds and liabilities to credit institutions[2]	—	—	—	—	26,783	26,783	27,465
Other non-current liabilities[1]	—	—	221	—	2,488	2,709	2,709
Accounts payable	—	—	—	—	38,536	38,536	38,536
Derivative liabilities	103	691	—	—	—	794	794
Other current liabilities[1]	—	—	—	—	8,946	8,946	8,946
Total financial liabilities	**103**	**691**	**221**	**—**	**76,753**	**77,768**	**78,450**

1) Pre-payments as well as statutory receivables and liabilities excluded.
2) The carrying amount of the bonds are presented above including a fair value adjustment amounting to MSEK 14 (–14), which relates to the fair value hedge, see Note 1 – General information and significant accounting principles. Fair value of the bonds is estimated based on level 1 inputs.

The carrying amount essentially equals the fair value for all current items.

For aging analysis regarding accounts receivable refer to Note 20 – Accounts receivable and other current assets. For aging analysis regarding liabilities to credit institutions refer to Funding and liquidity risk management section in this note. Accounts payables are for the most part due within 60 days.

Nominal amounts and fair values of derivative instruments	Dec 31, 2018 Nominal amount	Dec 31, 2018 Fair value	Dec 31, 2017 Nominal amount	Dec 31, 2017 Fair value
Derivative instruments for hedging of currency risk related to financial assets and liabilities				
Foreign exchange swaps and forward contracts				
– receivable position[1]	11,273	81	5,594	63
– payable position[2]	13,928	–122	10,033	–79
Subtotal	**25,201**	**–41**	**15,627**	**–16**
Derivative instruments for hedging of currency risk in future commercial cash flows				
Foreign exchange swaps and forward contracts				
– receivable position[1]	31,900	1,002	57,861	2,294
– payable position[2]	61,750	–3,317	30,407	–689
Currency options				
– receivable position[1]	2,005	5	1,551	17
– payable position[2]	3,152	–10	812	–2
Subtotal	**98,807**	**–2,320**	**90,631**	**1,620**
Derivative instruments for hedging of interest rate risk				
Interest rate swaps				
– receivable position[1]	5,876	16	750	3
– payable position[2]	—	—	4,920	–20
Subtotal	**5,876**	**16**	**5,670**	**–17**
Derivative instruments for hedging of electricity price risk				
Forward contracts				
– receivable position[1]	47	111	80	29
– payable position[2]	3	–2	27	–4
Subtotal	**50**	**109**	**107**	**25**
Total	**129,934**	**–2,236**	**112,035**	**1,612**

1) Financial instruments included in the balance sheet under other non-current assets and other current assets.
2) Financial instruments included in the balance sheet under other non-current liabilities and other current liabilities.

The table below shows how gains and losses as well as interest income and expenses have affected the income statement divided on the different categories of financial instruments.

Net gains/losses, interest income and expenses related to financial instruments	2018			2017		
Recognised in operating income	Gains/ losses	Interest income	Interest expenses	Gains/ losses	Interest income	Interest expenses
Financial assets and liabilities at fair value through the income statement						
Derivative instruments for hedging of currency risk in future commercial cash flows rerouted from the hedge reserve, including time value in options and cross currency options	–796	—	—	–115	—	—
Electricity derivatives	–2	—	—	–5	—	—
Financial assets carried at amortised cost, other financial liabilities						
Accounts receivable/accounts payable[1,2]	76	—	—	–292	—	—
Effect on operating income	**–722**	—	—	**–412**	**—**	**—**
Recognised in financial items						
Financial assets and liabilities at fair value through the income statement						
Derivative instruments for hedging of currency risk related to financial assets and liabilities	669	—	—	223	17	—
Derivative instruments for hedging of interest rate risk	4	11	—	12	7	—
Financial liabilities at fair value through profit and loss	–96	—	—	–90	—	—
Marketable securities	117	62	—	–22	36	—
Financial assets carried at amortised cost, other financial liabilities						
Financial assets carried at amortised cost	408	—	—	–23	—	—
Cash and cash equivalents[1]	357	333	—	–338	251	—
Other financial liabilities including currency effects[1]	–1,648	—	–822	192	—	–995
Effect on financial items	**–189**	**406**	**–822**	**–46**	**311**	**–995**

1) The total income and expenses from items that are not measured at fair value through income statement amounts to MSEK 1,174 (443) and MSEK –2,470 (–1,648) respectively.
2) Unrealised and realised foreign exchange effect on accounts receivable and accounts payable.

NOTE 22 – MARKETABLE SECURITIES AND CASH AND CASH EQUIVALENTS

Marketable securities	Dec 31, 2018	Dec 31, 2017
Commercial papers	1,064	991
Time deposits in banks	513	3,001
Total	**1,577**	**3,992**

Marketable securities comprise of interest-bearing investments with a term of more than three months from acquisition date.

Cash and cash equivalents	Dec 31, 2018	Dec 31, 2017
Cash in banks	24,730	21,421
Time deposits in banks	14,352	12,201
Commercial papers[1]	1,088	1,780
Total	**40,170**	**35,402**

1) Commercial papers which mature within three months of the date of acquisition.

Cash and Cash equivalents includes MSEK 1,913 (1,672) where limitations exist, mainly liquid funds in certain countries where exchange controls or other legal restrictions apply. It is not possible to immediately use the liquid funds in other parts of Volvo Car Group, however there is normally no limitation for use in the Group's operation in the respective country.

NOTE 23 – EQUITY

The share capital consists of 50,000,000 common A-shares and 500,000 preference P-shares. Each ordinary A-share carries ten votes, and each preference share carries one vote. An common A-share entitles its holder to a dividend that is determined in due course. A preference P-share entitles its holder to an annual dividend of SEK 250[1] per share. Board of Directors' proposal of the 250 SEK dividend per preference share is submitted to the annual general meeting for decision. All issued shares are fully paid.

In 2016, a directed new issue of 500,000 preference shares was made, whereby MSEK 5,000 was added to the equity of Volvo Car Group. Pricing of the new shares took into consideration the preferential status (priority over ordinary shares in the payment of dividends and upon liquidation) of these shares over common shares, a pre-stated size of yearly dividend and a future conversion of preference shares to listed ordinary shares in a structure that is not 1:1[2].

The preference shares constitute equity instruments, since payment of dividends is subject to a decision by a general meeting of the shareholders and a possible redemption (exercising of an embedded call option) of preference shares is on Volvo Car AB's (publ.) initiative. Thus, it is discretionary for the company whether payment of dividends or redemption of these preference shares occurs and consequently no contractual obligation exists to pay out funds. In addition, in the event of conversion of preference shares into ordinary shares, the conversion ratio on Volvo Car Group level is fixed 1:1[2].

A conversion of preference shares to ordinary shares is subject to a decision by the annual general meeting. Subject to such a decision, a conversion is mandatory for the shareholders. At the conversion, the preferential status of the preference shares will cease.

Volvo Car AB (publ.) has a call option to redeem the preference shares for a consideration of 112.5 per cent of the nominal amount. This call option is classified as an equity instrument.

1) 36 months after the issue, increased to at least SEK 750 per share.
2) Subject to certain contractual conditions are being met and subject to a decision by the annual general meeting of the shareholders of Volvo Car AB (publ.), the main owner of Volvo Car AB (publ.), Geely Sweden Holdings AB, shall reallocate shares to the investors. If a conversion is carried out, the transaction will occur outside of the Volvo Car Group. The number of potential shares to be transferred is dependent on certain conditions at the time of the conversion.

Share capital trend

Day	Month	Year	Event	Change in number of shares	Total number of outstanding shares	Par value per share, SEK	Change in share capital, SEK	Total share capital, SEK
07	06	2010	Start date	100,000	100,000	1.00	100,000	100,000
04	05	2016	Bonus issue	—	100,000	5.00	400,000	500,000
22	12	2016	Split	400,000	500,000	1.00	—	500,000
22	12	2016	Bonus issue	49,500,000	50,000,000	1.00	49,500,000	50,000,000
22	12	2016	Directed new issue of preference shares	500,000	50,500,000	1.00	500,000	50,500,000

The share premium relates to issue in kind attributable to Zhejiang Geely Holding Group Co., Ltd's acquisition in year 2010. Share premium also includes capital received (reduced by transaction costs) in excess of par value of issued capital.

Other contributed capital consists of Group contributions from Geely Sweden Holding Group and unconditional shareholders' contribution from Shanghai Geely Zhaoyuan International Investment Co., Ltd.

The currency translation reserve comprises exchange rate differences of hedge instruments of net investments in foreign operations and all exchange rate differences resulting from the translation of financial reports of foreign operations that have prepared their financial reports in a currency other than Volvo Car Group's reporting currency. The parent company and Volvo Car Group present their financial reports in SEK.

The other reserve consists of the change in fair value of commercial cash flow hedging instruments in cases where hedge accounting is applied.

Retained earnings comprises net income for the year and preceding years as well as remeasurements of post-employment benefits. Retained earnings also include the effects of business combinations under common control within the Geely Group and dividend to shareholders.

Non-controlling interests refers to the share of equity that belongs to Zhejiang Geely Holding Group Co., Ltd without a controlling influence. Volvo Car Group holds 50 per cent of the equity in the following companies; Daqing Volvo Car Manufacturing Co., Ltd, Zhangjiakou Volvo Car Engine Manufacturing Co., Ltd, Shanghai Volvo Car Research and Development Co., Ltd and up until July 2018 Polestar New Energy Vehicle Co., Ltd and has the decision-making power over the operation. In the consolidated financial statements, these companies are classified as subsidiaries and fully consolidated with a non-controlling interest of 50 per cent. The non-controlling interest increased during the year 2018 through a capital contribution to Polestar New Energy Vehicle Co., Ltd with MSEK 662 (631).

In July 2018, the wholly owned subsidiary Polestar Automotive (Shanghai) Co., Ltd acquired the 50 per cent non-controlling interest in Polestar New Energy Vehicle Co., Ltd, resulting in a divestment of non-controlling interests of MSEK –1,271. See Note 8 – Participation in subsidiary (Parent company) for further information.

At year end 2018, non-controlling interests amounted to MSEK 8,378 (5,931).

Total equity consists of the equity attributable to the owners of the parent company and non-controlling interests. At year end 2018, the Volvo Car Group's total equity amounted to MSEK 61,251 (54,660).

NOTE 24 – POST EMPLOYMENT BENEFITS

Volvo Car Group has various schemes for post-employment benefits, mainly relating to pension plans. Other benefits can in some locations include disability, life insurance and health benefits. Pension plans are classified either as defined contribution plans or defined benefit plans. Volvo Car Group has both defined contribution plans and defined benefit plans.

Defined contribution plans

Under a defined contribution plan, Volvo Car Group pays fixed contributions into a separate entity outside of Volvo Car Group and will have no future financial obligations. The contributions are recognised as employee benefit expense in the income statement.

Defined benefit plans

Defined benefit plans are all plans that are not classified as defined contribution plans. A defined benefit plan is a pension plan where the employee will receive a defined pension benefit upon retirement, usually dependent on factors such as age, years of service and compensation. Volvo Car Group has defined benefit plans for qualifying employees in some subsidiaries and the largest plans are in Sweden and Belgium.

Sweden

In Sweden, Volvo Car Group has six retirement plans of which three are funded. The largest plan overall is the Swedish ITP 2 plan which is a collectively agreed pension plan for white collar employees. ITP 2 is a final salary-based plan. For the defined benefit plans operated, Volvo Car Group has the obligation for the future benefits. Volvo Car Group's defined benefit plans are secured in three ways: as a provision in the balance sheet, assets held in separate pension funds or funded through insurance payments. The "funded through insurance payments" plans are defined benefit plans accounted for as defined contribution plans. These plans in Sweden are secured with the mutual insurance company Alecta.

The portion secured through insurance with Alecta refers to a defined benefit plan that comprises several employers and is reported according to a pronouncement by the Swedish Financial Reporting Board, UFR 10. For 2018, Volvo Car Group did not have access to the information to report it's proportinate share of the plan's obligations, assets under management and cost, that would make it possible to report this plan as a defined benefit plan. The ITP 2 pension plan, which is secured through insurance with Alecta, is therefore reported as a defined contribution plan. The Group estimates it will pay premiums of about MSEK 167 to Alecta in 2019. The Group's share of the total saving premiums for ITP2 in Alecta as at December 31, 2018 amounted to 0.30 (0.27) per cent and the Group's share of the total number of active policy holders amounted to 1.48 (1.41) per cent.

The collective consolidation level comprises the market value of Alecta's assets as a percentage of the insurance obligations calculated in accordance with Alecta's actuarial methods and assumptions, which do not conform to IAS 19. The collective funding ratio should normally be allowed to vary between 125 and 155 per cent. If the consolidation level falls short or exceeds the normal interval one measure may be to increase the contract price for new subscriptions and expanding existing benefits or introduce premium reductions. At year end 2018, Alecta's surplus in the form of the collective funding ratio amounted to 142 (154) per cent.

In case local legal requirements exist, funded or unfunded plans are credit insured with an external party.

Belgium

In Belgium, Volvo Car Group has three retirement – indemnity plans, all are funded. All three are based on the Collective Labour Agreement applicable to the company. The pension plan for white collar employees and the closed plan for blue collar employees who were in service before 2009 are defined benefit plans. The benefits are based on the final salary and seniority within the company. The pension plan for blue collars who are in service as from 2009 is a defined contribution plan. The pension obligations are secured through a transfer of the required funds to a separate pension fund. The funding of the obligations under these defined benefit and defined contribution pension plans is fully externalised through a number of pension funds and through insurance contracts.

In Belgium, Volvo Car Group also has early retirement arrangements (termination benefits – bridge plans) as well as seniority premiums (other long-term benefits). The early retirement arrangements are unfunded and the seniority premiums are funded.

Summary of provision for post-employment benefits

The obligations for post-employment benefits have been recorded in the balance sheet as follows:

	Dec 31, 2018	Dec 31, 2017
Post-employment benefits	8,425	6,525
Other provisions (Note 25)	337	276
Closing balance	**8,762**	**6,801**

The tables below show the Group's obligations for post employment benefits, the assumptions used to determine these obligations and the assets relating to these obligations for employee benefits, as well as the amounts recognised in the income statement and balance sheet. The Group's reported pension provision totals MSEK 8,762 (6,801), which sum includes endowment insurances and similar undertakings totalling MSEK 337 (276) in respect of defined premium pension plans in Sweden.

	Total	of which Sweden	of which Belgium	Total	of which Sweden	of which Belgium
Financial year ending on	**Dec 31, 2018**	**Dec 31, 2018**	**Dec 31, 2018**	Dec 31, 2017	Dec 31, 2017	Dec 31, 2017
Amounts recognised in the statement of financial position						
Defined benefit obligation	22,146	15,064	3,784	19,653	12,916	3,450
Fair value of plan assets	13,721	8,455	2,749	13,128	8,135	2,458
Funded status	**8,425**	**6,609**	**1,035**	**6,525**	**4,781**	**992**
Net liability (asset) as recorded in the balance sheets	**8,425**	**6,609**	**1,035**	**6,525**	**4,781**	**992**
Principal actuarial assumptions						
Weighted average assumptions to determine benefit obligations						
Discount rate, %	2.45	2.50	1.82	2.50	2.70	1.60
Rate of salary increase, %	3.09	3.00	3.16	3.09	3.00	3.08
Rate of price inflation, %	1.91	1.75	2.00	1.92	1.75	1.91
Rate of pension indexation, %	1.88	1.75	N/A	1.89	1.75	N/A

The actuarial assumptions are the most significant assumptions applied when calculating defined benefit obligations at the balance sheet date. The Group determines the discount rate based on AA-rated corporate bonds and mortage bonds that match the duration of the obligations. If no such corporate bonds and mortgage bonds are available, government bonds are used.

Inflation assumptions are based on a combination of central banks targets, implicit market expectations and long-term analyst forecasts.

Assumptions regarding future mortality are set based on actuarial advice in accordance with published statistics and experience in each territory. Mortality assumptions for Sweden are based on the DUS14 (white collar) mortality study, and the DUS14 (white collar) mortality table is generational. Mortality assumptions in Belgium is not significant, since there are lump sum payments.

The actuarial assumptions are annually reviewed by Volvo Car Group and modified when deemed appropriate to do so.

	Total	of which Sweden	of which Belgium	Total	of which Sweden	of which Belgium
Financial year ending on	**Dec 31, 2018**	**Dec 31, 2018**	**Dec 31, 2018**	Dec 31, 2017	Dec 31, 2017	Dec 31, 2017
Change in defined benefit obligation						
Defined benefit obligation at end of prior year	19,653	12,916	3,450	18,420	11,252	3,558
Service cost	771	565	158	526	419	124
Interest expense	490	345	56	474	322	58
Cash flows	–554	–273	–125	–484	–257	–130
Remeasurements	1,500	1,511	101	697	1,180	–261
Effect of changes in foreign exchange rates	286	—	144	20	—	101
Defined benefit obligation at end of year	**22,146**	**15,064**	**3,784**	**19,653**	**12,916**	**3,450**

Financial year ending on	Total Dec 31, 2018	of which Sweden Dec 31, 2018	of which Belgium Dec 31, 2018	Total Dec 31, 2017	of which Sweden Dec 31, 2017	of which Belgium Dec 31, 2017
Change in fair value of plan assets						
Fair value of plan assets at end of prior year	13,128	8,135	2,458	12,072	7,343	2,261
Interest income	446	220	153	320	213	39
Cash flows	422	450	55	500	500	24
Remeasurements	–475	–350	–20	240	79	64
Effect of changes in foreign exchange rates	200	—	103	–4	—	70
Fair value of plan assets at end of year	**13,721**	**8,455**	**2,749**	**13,128**	**8,135**	**2,458**
Components of defined pension cost						
Service cost	771	565	158	526	419	124
Net interest cost	44	125	–97	153	109	19
Remeasurements of Other long term benefits	52	—	50	28	—	27
Administrative expenses and taxes	22	—	18	18	—	15
Total pension cost for defined benefit plans	**889**	**690**	**129**	**725**	**528**	**185**
Pension cost for defined contribution plans	3,095	2,624	266	2,865	2,473	209
Total pension cost recognised in P&L	**3,984**	**3,314**	**395**	**3,590**	**3,001**	**394**
Remeasurements (recognised in other comprehensive income)	1,925	1,861	73	431	1,101	–351
Effect of changes in demographic assumptions	74	—	78	–354	—	–293
Effect of changes in financial assumptions	455	651	–91	982	1,022	6
Effect of experience adjustments	920	861	64	42	158	—
Return on plan assets (excluding interest income)	476	349	22	–239	–79	–64
Total defined benefit cost recognised in P&L and OCI	**2,814**	**2,551**	**202**	**1,156**	**1,629**	**–166**
Net defined benefit liability (asset) reconciliation						
Net defined benefit liability (asset)	6,525	4,781	992	6,348	3,909	1,296
Defined benefit cost included in the income statement	889	690	129	725	528	185
Total remeasurements included in OCI	1,925	1,861	73	431	1,101	–351
Cash flows	–1,000	–723	–200	–1,003	–757	–170
Employer contributions	–660	–450	–167	–689	–500	–139
Employer direct benefit payments	–340	–273	–33	–314	–257	–31
Effect of changes in foreign exchange rates	86	—	41	24	—	32
Net defined benefit liability (asset) as of end of year	**8,425**	**6,609**	**1,035**	**6,525**	**4,781**	**992**
Defined benefit obligation						
Defined benefit obligation by participant status						
Actives	13,289	8,873	3,107	11,484	7,323	2,881
Vested deferreds	3,903	2,718	385	3,676	2,499	323
Retirees	4,954	3,473	292	4,493	3,094	246
Total	**22,146**	**15,064**	**3,784**	**19,653**	**12,916**	**3,450**

Plan assets

			Of which with a quoted market price	
Fair value of plan assets	**2018**	2017	**2018**	2017
Cash and cash equivalents	360	675	360	675
Equity instruments	1,511	2,050	1,511	2,050
Debt instruments	1,920	3,269	1,808	3,269
Real estate	159	124	10	54
Investment funds	8,353	5,700	7,194	5,202
Other	1,418	1,310	1,418	1,309
Total	**13,721**	**13,128**	**12,301**	**12,559**

Responsibility for the management of the pension plans rest with the Group and therefore pension funds have been set up in different countries. Assets in these pension funds are held by long-term employee benefit funds that is legally separate from the Group. These assets are available to fund employee benefits only. Sweden, Belgium and United Kingdom have the largest pension funds. The pension funds are managed by a capital preservation strategy where the risk exposure is adjusted accordingly. The investment strategy is long term and the distribution of assets ensures that investment portfolios are well diversified. Capital is managed in accordance with the investment policies of the pension funds. Continuous monitoring is performed by the trustees monthly to ensure that capital is allocated and managed according to the investment policies. In Sweden the minimum funding target is decided by PRI Pensionsgaranti.

Volvo Car Group has a wholly-owned subsidiary, VCG Investment Management AB ("VCGIM") to manage the Group's pension fund assets. VCGIM is regulated and authorised by the Swedish Financial Supervisory Authority to perform Investment Advisory and Discretionary Portfolio Management Services.

The actual return on plan assets amounts to MSEK –139 (560).

Risks

There are mainly three categories of risks related to defined benefit obligations and pension plans. The first category relates to risks affecting the actual pension payments. Increased longevity and inflation of salary and pensions are the principle risks that may increase the future pension payments and hence, increase the pension obligation. The second category relates to investment return. Pension plan assets are invested in a variety of financial instruments and are exposed to market fluctuations. Poor investment return may reduce the value of investments and render them insufficient to cover future pension payments. The final category relates to measurement and affects the accounting for pensions. The discount rate used for measuring the present value of the obligation may fluctuate which impacts the valuation of the defined benefit obligation. The discount rate also impacts the value of the interest income and expense that is reported in the financial items and the service cost. The risk related to pension obligations, i.e. mortality exposure, discount rate and inflation, are monitored on an ongoing basis.

Sensitivity analysis on defined benefit obligation	Sweden	Belgium
Discount rate +0,5%	–1,543	–203
Discount rate –0,5%	1,766	223

The weighted average duration of the obligation is 21.9 years for Sweden and 11.2 years for Belgium.

NOTE 25 – CURRENT AND OTHER NON–CURRENT PROVISIONS

	Warranties	Other provisions	**Total**
Balance at 1 January 2017	**8,763**	**3,007**	**11,770**
Provided for during the year	7,982	4,597	**12,579**
Utilised during the year	–7,915	–4,477	**–12,392**
Reversal of unutilised amounts	–43	–95	**–138**
Translation differences and other	–320	–25	**–345**
Balance at 31 December 2017	**8,467**	**3,007**	**11,474**
Of which current	4,032	2,480	**6,512**
Of which non-current	4,435	527	**4,962**
Balance at 1 January 2018	**8,467**	**3,007**	**11,474**
Provided for during the year	6,662	4,606	**11,268**
Utilised during the year	–4,702	–4,579	**–9,281**
Reversal of unutilised amounts	–559	–83	**–642**
Translation differences and other	257	49	**306**
Balance at December 31, 2018	**10,125**	**3,000**	**13,125**
Of which current	4,706	2,230	**6,936**
Of which non-current	5,419	770	**6,189**

Warranties

Warranty provisions include the cost for the company of satisfying the customers with specific contractual warranty obligations, as well as other costs not covered by contractual commitments. The provision is comprised of confirmed claims and estimated future obligations.

Other provisions

Other provisions cover a wide range of identified risks and uncertain obligations such as incentive programmes.

For additional information regarding accounting principles for warranties and other provisions and the related risks, see Note 1 – General information and significant accounting principles and Note 2 – Critical accounting estimates and judgements.

NOTE 26 – CURRENT AND OTHER NON–CURRENT CONTRACT LIABILITIES TO CUSTOMERS

Volvo Car Group has decided to disclose contract liabilities on a separate financial statement line in the Consolidated Balance Sheets, Contract liabilities to customers, as non-current and current liabilities respectively. Contract Liabilities to customers are balances related to contracts with customers. Changes in the Income Statement to those balances are recorded in Net revenue. Balances include transactions where the Group either;

- Has an obligation to transfer goods or services to the customer for which the Group has received consideration (or an amount of consideration is due). This is the case of Deferred revenue – extended service business, Deferred revenue – sales with repurchase contracts (recorded as an operating lease) as well as of Advance payments from customers.
- Has transferred goods or services to the customer but a sales generated obligation is yet to be paid out by the Group. This is the case of Sales generated obligations.

	Sales generated obligations	Deferred revenue – extended service business	Deferred revenue – sale with repurchase contract	Advance payments from customers	Total
Balance at 1 January 2017	**8,894**	**1,702**	**1,289**	**1,247**	**13,132**
Provided for during the year	34,589	3,829	4,815	657	**43,890**
Utilised during the year	–31,475	–2,929	–4,416	–652	**–39,472**
Translation differences and other	–168	768	20	—	**620**
Balance at 31 December 2017	**11,840**	**3,370**	**1,708**	**1,252**	**18,170**
Of which current	11,314	1,258	1,279	657	14,508
Of which non-current	526	2,112	429	595	3,662
Balance at 1 January 2018	**11,840**	**3,370**	**1,708**	**1,252**	**18,170**
Provided for during the year	38,161	2,547	4,674	1,311	**46,693**
Utilised during the year	–35,767	–2,208	–5,088	–957	**–44,020**
Translation differences and other	489	243	120	—	**852**
Balance at 31 December 2018	**14,723**	**3,952**	**1,414**	**1,606**	**21,695**
Of which current	14,162	1,421	973	955	17,511
Of which non-current	561	2,530	443	650	4,184

Sales generated obligations

Sales generated obligations refer to all variable marketing programmes not effectuated on the balance sheet date. In previous annual report, sales generated obligations, were classified as provisions.

Deferred revenue – extended service business

Volvo Car Group is on some markets offering service contracts for customers. This is normally referred to as Extended Service Business. The customer signs up for regular services, paid for upfront or by monthly payments. The contracts can also be a marketing promotion. In previous annual reports, Deferred revenue – extended service business was referred to as Service contracts and presented as provisions.

Deferred revenue – sale with repurchase contract

Deferred revenue – sale with repurchase contract, is accounted for as operating lease contracts, where the revenue is recognised over the lease period. In previous annual reports, these contracts have been presented as other liabilities.

Advance payments from customers

Advance payments from customers refer to payments related to customer contracts where Volvo Car Group has received a payment in advance of transfer of control over the product or service. In previous annual reports, advance payments from customers, was presented as other non-current liabilities and current liabilities – advance payments from customers.

NOTE 27 – NON–CURRENT LIABILITIES

	Dec 31, 2018	Dec 31, 2017
Bonds		
Bonds	13,200	12,735
Total	**13,200**	**12,735**

	Dec 31, 2018	Dec 31, 2017
Non-current liabilities to credit institutions		
Bank loans	8,176	6,600
Liabilities related to finance lease contracts	97	22
Total	**8,273**	**6,622**
Current liabilities to credit institutions	**2,175**	**7,426**

Liabilities to credit institutions

Details of the Group's exposure to risks arising from current and non-current borrowings are set out in Note 21 – Financial risks and financial instruments.

Volvo Car Group has the following undrawn committed credit facilities:	Dec 31, 2018	Dec 31, 2017
– Expiring after one year but within five years	13,328	12,792
– Expiring after five years	—	2,411
Total	**13,328**	**15,203**

	Dec 31, 2018	Dec 31, 2017
Other non-current liabilities		
Liabilities related to repurchase commitments	1,307	1,146
Derivative liabilities	1,610	223
Participation in joint venture company[1]	103	162
Other liabilities	1,589	1,105
Total	**4,609**	**2,636**

1) For further information, see Note 14 – Investments in joint ventures and associates.

NOTE 28 – OTHER CURRENT LIABILITIES

	Dec 31, 2018	Dec 31, 2017
Accrued expenses and prepaid income	10,091	10,971
Liabilities related to repurchase commitments	7,869	6,329
Personnel related liabilities	5,026	5,067
VAT liabilities	2,790	2,768
Derivative liabilities	1,841	571
Other liabilities	3,898	2,317
Total	**31,515**	**28,023**

NOTE 29 – PLEDGED ASSETS

	Dec 31, 2018	Dec 31, 2017
Restricted cash	340	544
Inventory	311	312
Real estate mortgages	161	161
Floating charges	154	154
Other pledged assets	666	520
Total	**1,632**	**1,691**

NOTE 30 – CONTINGENT LIABILITIES

	Dec 31, 2018	Dec 31, 2017
Guarantees to insurance company FPG	150	140
Legal claims[1]	111	49
Tax claims[1] [2]	178	144
Guarantee commitments	33	33
Other contingent liabilities[3]	118	161
Total	**590**	**527**

1) Legal proceedings and tax processes are further explained in Note 2 – Critical accounting estimates and judgements.
2) In addition to the contingent liabilities related to tax claims there are also tax related contingent assets amounting to MSEK 33 (32).
3) Apart from the above contingent liabilities, there are other commitments and guarantees that are not recognised since the likelihood of an outflow of resources is very low.

NOTE 31 – CASH FLOW STATEMENTS

	2018	2017
Adjustments for items not affecting cash flow consist of:		
Capital gains/losses on sale of tangible and intangible assets	772	223
Share of income in joint ventures and associates	–67	–200
Interest effect from the measurement of repurchase obligations	–185	–185
Provision for variable pay	334	1,141
Provision for repurchase commitments	–110	–143
Deferred income	–2,566	–623
Inventory impairment	92	542
Effects of the Polestar Group deconsolidation	337	—
Other non-cash items	266	–168
Total	**–1,127**	**587**

"Other" under cash flow from financing activitites is attributable to realised result from financial instruments MSEK 694 (291) and change in other non-current liabilitities MSEK 339 (–20).

		Cash flows	Non-cash changes					
Change in net cash	**Jan 1, 2018**		Acquisition	Reclassi-fications	Foreign exchange movement	Fair value changes	Other non-cash changes	**Dec 31, 2018**
Cash and cash equivalents	35,402	3,962	—	—	806	—	—	40,170
Marketable securities	3,992	–2,558	—	—	144	–1	—	1,577
Liabilities to credit institutions (non-current)	–6,622	–2,706	—	1,559	–412	—	–92	–8,273
Bonds[1]	–12,749	—	—	—	–413	–28	4	–13,186
Other interest-bearing non-current liabilities	–84	—	—	—	—	—	—	–84
Liabilities to credit institutions (current)	–7,426	6,940	—	–1,559	–112	—	–18	–2,175
Net cash	**12,513**	**5,638**	**—**	**—**	**13**	**–29**	**–106**	**18,029**

Change in net cash	**Jan 1, 2017**							Dec 31, 2017
Cash and cash equivalents	38,635	–2,610	143	—	–766	—	—	35,402
Marketable securities	4,738	–785	—	—	–12	51	—	3,992
Liabilities to credit institutions (non-current)	–13,910	–48	—	7,025	326	—	–15	–6,622
Bonds[1]	–7,693	–4,914	—	—	–126	20	–36	–12,749
Other interest-bearing non-current liabilities	–84	—	—	—	—	—	—	–84
Liabilities to credit institutions (current)	–2,813	2,415	—	–7,025	45	—	–48	–7,426
Net cash	**18,873**	**–5,942**	**143**	**—**	**–533**	**71**	**–99**	**12,513**

1) The bonds are presented above at amortised cost. The MEUR 500 bond issued in May 2016 is recognised in the balance sheet with a fair value adjustment and the fair value component amounted to MSEK 14 (–14).

NOTE 32 – BUSINESS COMBINATIONS

Real estate companies Sörred

On December 3, 2018, Volvo Car Group acquired by way of appropriation 100 per cent of the shares in Fastighetsbolag Sörred 8:9 AB and Volvo Car Real Estate and Assets 3 AB. The acquired real estate companies own land, a petrol station and a car wash. The petrol station and the car wash are currently operated by Volvo Bil i Göteborg AB.

Purchase price	**2018**
Purchase consideration	82
Total cost of the combination	**82**
Acquired assets and liabilities at fair value	
Tangible assets	83
Deferred tax liabilities	–16
Current liabilities	–7
Total fair value of net assets	**60**
Goodwill	**22**
Cash effect on business combination	
Purchase consideration	–82
Assignation of receivables to Volvo Car Group	–6
Change in cash and cash equivalents due to acquisitions	**–88**

Goodwill is attributable to the future estimated increased income from the acquired petrol station business. Acquisition-related costs for 2018 amounted to MSEK 0,3 and have been reported as administration costs in the income statement. There were no contingent liabilities assumed or collateral pledges arising from the acquisition. The fair value of the acquired receivables amounts to MSEK 0.

The acquired business contributed revenues of MSEK 0 and net profit of MSEK 0 to the Group for the period from December 3 to December 31, 2018. The total cost of combination and fair values have been determined provisionally, thus, the acquisition analyses may be subject to adjustment during a twelve months period.

Adoption of preliminary acquistion analysis

An acquistion analysis is preliminary until adopted which must take place within twelve months from the acquisition.

The preliminary acquisition analysis previously recognised for Automotive Components Floby AB was adopted in 2018, resulting in a MSEK 5 increase of the goodwill that arose on the acquistion.

NOTE 33 – SEGMENT REPORTING

Operating segments are defined as components of the Group about which separate financial information is available that is evaluated regularly by the chief operating decision-maker, or decision-making group, in deciding how to allocate resources and in assessing performance.

Volvo Car Group is managed by the Executive management team (EMT) with 15 members, led by the CEO and overseen by the Board of Directors. EMT takes all significant operating decisions and members of EMT have the responsibility for implementation of decisions in their respective areas. The operating decision-making is at EMT level as a whole and Volvo Car Group consider the EMT to be the Chief operating decision-making body.

Volvo Car Group, as a whole, operates in the automotive business. The automotive business includes all activities related to development, design, manufacturing, assembly and sale of vehicles, as well as sale of related parts and accessories from which the Group derives its revenues. All substantial decisions regarding allocation of resources as well as the assessment of the performance is based on the Group as a whole. The allocation of resources is not done by regions, but rather directly to individual markets. Volvo Car Group only has one operating segment, so no separate segment report is given.

For further information of the geographic spread of Net revenue, see Note 3 – Net revenue. The geographic spread of non-current assets is disclosed below.

	Sweden	China	Rest of the World
Dec 31, 2018			
Non-current assets	66%	15%	19%
Dec 31, 2017			
Non-current assets	69%	14%	17%

NOTE 34 – NEW ACCOUNTING STANDARD IMPLEMENTED ON JANUARY 1, 2019

IFRS 16 – Leasing

IFRS 16 represents a new framework for how to account for and disclose leasing contacts. For lessees, IFRS 16 will have an impact on the financial statements, as most of the leases previously has been held off-balance sheet as operating leases and will be recognised on the balance sheet. For lessors, IFRS 16 does not contain substantial changes compared to the previous standard IAS 17. The lessor still has to classify leases as either finance or operating leases, depending on whether substantially all of the risk and rewards associated with ownership of the underlying asset has been transferred. IFRS 16 was endorsed by the EU in October 2017 and is effective for accounting periods beginning on or after January 1, 2019. It will supersede the following Standards and Interpretations upon its effective date:

• IAS 17 – Leases
• IFRIC 4 – Determining whether an Arrangement contains a Lease
• SIC 15 – Operating Leases – Incentives
• SIC 27 – Evaluating the Substance of Transactions involving the Legal Form of a Lease

In order to understand the impact of implementing IFRS 16, Volvo Car Group has analysed all significant contracts where Volvo Car Group is the lessee. As a backbone for the analysis, a high level questionnaire has been developed focusing on the following areas: asset category, contract length, number of leased items, if the contract includes service or maintenance fees and how many short-term leases and/or leases of low value assets there are. Volvo Car Group has defined low value assets as asset classes that are typically of low value, for example small IT equipment (cell-phones, laptops, computers, printers) and office furniture. Short term leases are defined as contracts that will expire within 12 month from the balance sheet date. Based on the result from the questionnaire, the following conclusions have been made: the leasing commitments are divided between land and buildings and machinery and equipment as follows: land and buildings 80 per cent and machinery and equipment 19 per cent. Low value assets are common within the group, but represent less than 1 per cent of the total remaining leasing commitment and short-terms leases are not common since the majority of the leasing agreements have a minimum leasing term of more than twelve months.

Volvo Car Group will use the cumulative catch-up approach in its transition to IFRS 16. This means that comparative information will not be restated. For all asset classes, the group will recognise the right-of-use assets at an amount equal to the lease liability, adjusted by the amount of any prepaid or accrued lease payments recognised in the balance sheet immediately before the date of initial application. When applying IFRS 16 for the first time, Volvo Car Group will use the following practical expedients permitted by the standard;

- account for leases ending within twelve months from January 1, 2019 as short-term leases. This means these leases will not be included in the lease liability, but instead accounted for as operating leases.

- exclude initial direct costs from the measurement of the lease liability.

Furthermore, for all contracts entered into before 1 of January 2019, the Group will not reassess whether or not a contract contains a lease or the measurement of any finance leases.

Based on the information received in the questionnaire and the prerequisites according to the transition method described above, the adoption of IFRS 16 will result in an increase in assets of MSEK 6,978 and an increase in liabilities of MSEK 6,698 January 1, 2019. The difference is due to the land-use-rights in China that are prepaid and therefore Volvo Car Group does not have a liability for these. The walk from lease commitments (see Note 8 – Leasing) for operating lease contracts according to IAS 17 and the lease liability according to IFRS 16 is described in the table below:

Furthermore, IFRS 16 requires more extensive disclosure requirements than IAS 17. This impacts Volvo Car Group as follows:

• Certain disclosures shall be implemented in the annual report 2019.
• Additional disclosure about practical expedients and policy choices that have been made.
• Lease payments associated with leases of low value and short-term leases
• Additional disclosure about accounting principles, see below;

IFRS 16 – Information on the transition to the new leasing standard

Lease commitments for operational lease contracts as of December 31, 2018	5,818
Discounted with the Group's average incremental borrowing rate 2,5 %	–1,131
Include liabilities for financial lease contracts as of December 31, 2018	113
Exclude short-term lease contracts with a lease term of 12 months or less as they are expensed on a linear basis	–390
Exclude lease contracts for which the underlying asset is of low value and therefore expensed on a linear basis	–53
Exclude lease contracts that have been classified as service agreements	0
Include/exclude adjustments due to different handling of options to extend or terminate agreements	2,335
Include/exclude adjustments due to changes in index or price attributable to variable lease payments	6
Lease liability as of January 1, 2019	6,698

Accounting principles applied in 2019 – IFRS 16 Leasing

Volvo Car Group as a lessee

Volvo Car Group leases mainly buildings and other items such as IT-equipment and forklifts to use in the production process. At the lease commencement date, a right-of-use asset and a lease liability are recognised on the balance sheet. The lease liability is initially measured at an amount equal to the present value of the lease payments that are not paid at that date. Lease payments included in the measurement of the lease liability comprise of fixed lease payments including in-substance fixed payments, variable lease payments that depend on an index or a rate, amounts expected to be payable under a residual value guarantee and payments related to options that Volvo Car Group is reasonably certain to exercise. The lease payments are discounted using the interest rate implicit in the lease if this can be readily determined. In most contracts this is not the case. In cases where the interest rate is not implicit in the lease, Volvo Car Group generally will use the incremental borrowing rate.

The right-of-use asset is initially measured at cost, which comprises the initial amount of the lease liability adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred and the estimate of costs to dismantle and remove the underlying asset or the site on which it is located, less any lease incentives received. The asset is subsequently depreciated on a straight-line basis from the commencement date to the earlier of the end of the useful life of the underlying asset or the end of the lease term. The right-of-use asset is reduced by impairment losses, if any, and adjusted for certain remeasurements of the lease liability.

Volvo Car Group applies the recognition exemptions regarding short-term leases and leases where the underlying asset is of low value. Hence, payments associated with short-term leases and leases of low-value assets are recognised on a straight-line basis as an expense in the income statement. Short-term leases are leases with a lease term of twelve months or less and low value assets are defined as asset classes that are typically of low value, for example small IT equipment (cell-phones, laptops, computers, printers) and office furniture. Non-lease components are included in the measurement of the lease liability for all asset classes. The group does not apply IFRS 16 on leases of intangible assets.

In the balance sheet, the lease liabilities are presented as other liabilities. The right-of-use asset is presented as part of property, plant and equipment. In the income statement, depreciation charges of the right-of-use asset is presented on the same line item/items in which similar expenses are shown. The interest expense on the lease liability is presented as part of finance cost. In the statement of cash flows, amortizations on the lease liability are presented as a cash flow from financing activities. Payments of interest as well as payments for short-term leases and leases of low value is presented as cash flow from operating activities.

Volvo Car Group as a lessor

IFRS 16 does not contain substantial changes to lessor accounting compared to IAS 17. Volvo Car Group as a lessor still has to classify leases as either finance or operating, depending on whether substantially all of the risk and rewards in relation to ownership of the underlying asset have been transferred. For a finance lease, Volvo Car Group recognises a receivable at an amount equal to the net investment in the lease which is the present value of the aggregate of lease payments receivable by Volvo Car Group and any unguaranteed residual value. If the contract is classified as an operating lease, Volvo Car Group continues to present the underlying assets. Although accounting remains substantially the same for lessors, there is new guidance impacting subleases and the accounting for sale and leaseback transactions. The majority of the subleases in Volvo Car Group are classified as operational subleases. Hence, Volvo Car Group retains the right-of-use asset arising from the head lease in its balance sheet.

Critical accounting estimates and judgements

IFRS 16 requires Volvo Car Group to make judgemental decisions when determining the lease term for buildings. Examples of factors to consider when determining the lease term are if Volvo Car Group, as a lessee, have made investments to improve the asset or have tailored it for our special needs and/or the importance of the underlying asset to Volvo Car Groups operations. When determining the lease term, management in the organisation will consider all facts and circumstances that creates an economic incentive to exercise an extension option, or not exercise a termination option. The assessment is reviewed if a significant event or a significant change in circumstances occurs which affects this assessment.

Definitions of Performance Measures

Performance measures disclosed in the annual report are those that are deemed to give the most true and fair as well as relevant view of Volvo Car Group's financial performance for a reader of the annual report.

Gross margin
Gross margin is Gross income as a percentage of Net revenue and represents the percent of total Net revenue that Volvo Cars retains after incurring the direct costs associated with producing the goods and services sold.

EBIT
EBIT represents earnings before interest and taxes. EBIT is synonymous with operating income which measures the profit Volvo Car Group generates from its operations.

EBIT margin
EBIT margin is EBIT as a percentage of Net revenue and measures Volvo Car Group's operating efficiency.

EBITDA
EBITDA represents earnings before interest, taxes, depreciations and amortisation, and is another measurement of the operating performance. It measures the profit Volvo Car Group generate from its operations without effect from previous periods capitalisation levels.

EBITDA margin
EBITDA margin is EBITDA in percentage of Net revenue.

Equity ratio
Total equity divided by total assets, is a measurement of Volvo Car Group's long-term solvency and financial leverage.

Net cash
Net cash is an indicator of Volvo Car Group's ability to meet its financial obligations. It is represented by liabilities to credit institutions, bonds and other interest-bearing non-current liabilities.

Liquidity
Liquidity consist of cash and cash equivalents, undrawn credit facilities and marketable securities.

RECONCILIATION TABLES OF PERFORMANCE MEASURES

Gross Margin	2018	2017
Gross income in % of Net revenue	**20.0**	**22.4**

EBIT Margin	2018	2017
Operating income (EBIT) in % of Net revenue	**5.6**	**6.7**

EBITDA/EBITDA Margin	2018	2017
Operating income	14,185	14,061
Depreciation and amortisation of non-current assets	14,408	12,098
EBITDA	**28,593**	**26,159**
EBITDA in % of Net revenue	**11.3**	**12.5**

Equity ratio	Dec 31, 2018	Dec 31, 2017
Total equity	61,251	54,660
Total assets	211,234	190,164
Equity in % total assets	**29.0**	**28.7**

Net cash	Dec 31, 2018	Dec 31, 2017
Cash and cash equivalents	40,170	35,402
Marketable securities	1,577	3,992
Liabilities to credit institutions (non-current)	−8,273	−6,622
Bonds[1]	−13,186	−12,749
Other interest-bearing non-current liabilities[2)]	−84	−84
Liabilities to credit institutions (current)	−2,175	−7,426
Net cash	**18,029**	**12,513**

1) The bond loans are presented above at amortised cost. The MEUR 500 bond is recognised in the balance sheet with a fair value adjustment and the fair value component amounted to MSEK 14 (–14).
2) Included in Other non-current liabilities in the Balance sheet.

Liquidity	Dec 31, 2018	Dec 31, 2017
Cash and cash equivalents	40,170	35,402
Marketable securities	1,577	3,992
Undrawn credit facilities	13,328	15,203
Liquidity	**55,075**	**54,597**

Income Statements and Comprehensive Income – Parent Company

MSEK	Note	2018	2017
Administrative expenses	4	–12	–20
Operating income	3, 4, 5	**–12**	**–20**
Income from participation in subsidiary[1]	3	—	1,565
Financial income	6	345	243
Financial expenses	4, 6	–770	–481
Income before tax		**–437**	**1,307**
Income tax	7	–80	43
Net income		**–517**	**1,350**

1) Received dividend from subisidary of MSEK — (1,565,) passed through to the shareholders.

Other comprehensive income and Net income are consistent since there are no items in other comprehensive income.

Balance Sheets – Parent Company

MSEK	Note	Dec 31, 2018	Dec 31, 2017
ASSETS			
Non-current assets			
Participation in subsidiary	8	10,267	10,267
Deferred tax assets	7	2,068	2,148
Receivables from group companies	3	13,208	12,781
Total non-current assets		**25,543**	**25,196**
Current assets			
Receivables from group companies	3	4,650	4,893
Other current assets		59	2
Total current assets		**4,709**	**4,895**
TOTAL ASSETS		**30,252**	**30,091**
EQUITY & LIABILITIES			
Equity	9		
Restricted equity			
Share capital (50,500,000 shares with par value of 1 SEK)		51	51
		51	**51**
Non-restricted equity			
Share premium reserve		11,405	11,405
Retained earnings		–4,024	–5,375
Net income		–517	1,350
		6,864	**7,380**
Total equity		**6,915**	**7,431**
Non-current liabilities			
Bonds	10	13,208	12,781
Non-current liabilities to group companies	3	9,645	9,601
Other non-current liabilities		312	220
Total non-current liabilities		**23,165**	**22,602**
Current liabilities			
Liabilities to group companies	3	6	—
Other current liabilities		—	1
Accrued expenses and prepaid income		166	57
Total current liabilities		**172**	**58**
TOTAL EQUITY & LIABILITIES		**30,252**	**30,091**

Changes in Equity – Parent Company

	Restricted equity	Non-restricted equity			
MSEK	Share capital[1]	Share premium reserve	Other contributed capital	Retained earnings	Total
Balance at January 1, 2017	**51**	**11,424**	**–3,564**	**–246**	**7,665**
Net income for the year	**—**	**—**	**—**	**1,350**	**1350**
Transactions with owners					
Dividend to shareholders	—	—	—	–1,565	**–1,565**
Issue of preference shares	—	–19	—	—	–19
Balance at December 31, 2017	**51**	**11,405**	**–3,564**	**–461**	**7,431**
Net income for the year	**—**	**—**	**—**	**–517**	**–517**
Transactions with owners					
Received Group Contribution	—	—	64	—	64
Dividend to shareholders	—	—	—	–63	–63
Balance at December 31, 2018	**51**	**11,405**	**–3,500**	**–1,041**	**6,915**

1) Share capital amounts to SEK 50,500,000 (50,500,000)

Statement of Cash Flows – Parent Company

MSEK	Note	**2018**	2017
OPERATING ACTIVITIES			
Operating income		–12	–20
Interest received		—	6
Interest paid		–60	–33
Other		–224	
		–296	**–47**
Movements in working capital			
Change in current receivables group companies	3	307	–12
Change in current receivables		–57	—
Change in current liabilities group companies	3	6	106
Change in liabilities		103	35
Cash flow from movements in working capital		**359**	**129**
Cash flow from operating activities		**63**	**82**
Cash flow from investing activities		—	**—**
Cash flow from operating and investing activities		**63**	**82**
FINANCING ACTIVITIES			
Proceeds from bond issuance	10	**—**	4,914
Change in non current receivables group companies	3	**—**	–4,914
Dividend received from subsidiary		**—**	1,565
Dividend paid to shareholders		–63	–1,565
Proceeds from issuance of preference shares, net	9	—	–82
Cash flow from financing activities		**–63**	**–82**
Cash flow for the year		**—**	**—**
Cash and cash equivalents at beginning of year		**—**	**—**
Cash and cash equivalents at end of year		**—**	**—**

Notes to The Parent Company Financial Statements

All amounts are in MSEK unless otherwise stated.
Amounts in brackets refer to the preceding year.

NOTE 1 – SIGNIFICANT ACCOUNTING PRINCIPLES

Basis of preparation

The Parent Company has prepared its financial statements in accordance with the Swedish Annual Accounts Act (1995:1554) and RFR 2, Accounting for Legal entities. According to RFR 2, the Parent Company shall apply all the International Financial Reporting Standards endorsed by the EU as far as this is possible within the framework of the Swedish Annual Accounts Act. Changes in RFR 2 applicable to the fiscal year beginning January 1, 2018, have had no material impact on the financial statements of the Parent Company.

The accounting principles applied by the Volvo Car Group are described in Note 1 – General information and significant accounting principles, to the consolidated financial statements. The main deviations between the accounting policies applied by the Volvo Car Group and the Parent Company are described below.

Shares and participations in Group companies

Shares and participations in Group companies are recognised at cost in the Parent Company's balance sheet and test for impairment is performed annually. Dividends are recognised in the income statement. All shares and participations are related to business operations and profit and loss from these are reported within operating income.

Transaction costs directly attributable to acquisitions of shares and participations in Group companies are accounted for as an increase in the carrying amount of the shares.

Distributed group contributions to subsidiaries are reported as an increase of investments in these subsidiaries. A review is made whether or not there is an impairment need on the shares of the subsidiaries having received the group contributions. Tax effect of these distributed group contributions are reported in accordance with RFR 2 IAS 12 in the income statement. Distributed group contributions to parent company are recorded in equity, along with the tax effect.

Received group contributions from subsidiaries are recorded as financial income. Tax effect on these received group contributions are reported in accordance with RFR 2, IAS 12 in the income statement. Received group contributions from parent company are recorded in equity, along with the tax effect.

Distributed shareholders' contributions are recognised in shares in subsidiaries and as such they are subject to impairment testing.

Mergers of subsidiaries (100 % ownership) are recorded according to BFNAR 1999:1 (recommendation 1999:1 from the Swedish Accounting Standards Board). Downstream mergers are recorded in accordance with RedR9 (recommendation 9 from the Swedish Institute of Authorised Public Accountants).

Financial guarantees

The Parent Company applies the exception in the application of IFRS 9 which concerns accounting and measurement of financial contracts of guarantee in favour of subsidiaries and associated companies. The Parent Company recognises the financial contracts of guarantee as contingent liabilities.

Post-employment benefits

According to RFR 2, application of the regulations in IAS 19 regarding defined-benefit plans is not mandatory for legal entities. However, IAS 19 shall be adopted regarding supplementary disclosures when applicable. RFR 2 refers to the Swedish law on safeguarding of pension commitments ("tryggandelagen") regarding recording of "Provisions for post employment benefits" in the balance sheet and of plan assets in pension foundations. In neither 2018 nor 2017 are there any employees in the parent company.

Income taxes

Deferred tax liability on untaxed reserves are included in untaxed reserves in the parent company.

Equity

In accordance with the Swedish Annual Accounts Act, equity is split between restricted and non-restricted equity.

NOTE 2 – CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS

Preparation of the financial statements in accordance with the Swedish Annual Accounts Act (1995:1554) and RFR 2 requires the Company's Executive Management and Board of Directors to make estimations and assessments as well as to make assumptions that affect application of the accounting policies and the reported assets, liabilities, income and expenses. Critical accounting estimates and judgements applied by the Volvo Car Group are described in Note 2 – Critical Accounting Estimates and Judgements to the consolidated financial statements. None of these critical accounting estimates are applicable to the parent company, with the exception of impairment. Shares and participations in Group companies recognised at cost in the Parent Company are being tested for impairment annually.

NOTE 3 – RELATED PARTIES

During the year, the parent company entered into the following transactions with related parties:

	Sales of goods, services and other		Purchase of goods, services and other	
	2018	2017	**2018**	2017
Companies within the Volvo Car Group	—	—	4%	1%

	Receivables		Payables	
	Dec 31, 2018	Dec 31, 2017	**Dec 31, 2018**	Dec 31, 2017
Companies within the Volvo Car Group	17,794	17,674	9,651	9,601
whereof short-term	*4,586*	*4,893*	*6*	—
Companies within the Geely Sweden Holdings Group	64	—	—	—
whereof short-term	*64*	—	—	—

Business transactions between the parent company and related parties all arise in the normal course of business and are conducted on the basis of arm's length principles. During 2018, Volvo Car AB (publ.) has received group contribution of MSEK 65 (–) from its shareholder, Geely Sweden Holdings AB. Volvo Car AB (publ.) has received dividend of MSEK — (1,565) from its subsidiary, Volvo Car Corporation and has paid dividend of MSEK — (1,500) to its shareholder Geely Sweden Holdings AB and MSEK 63 (65) to its preference shareholders. Volvo Car AB does not engage in any transactions with Board members or senior executives except ordinary remunerations for services. For further information regarding remunerations, see Note 9 - Employees and remuneration in the consolidated financial statements.

NOTE 4 – AUDIT FEES

TSEK	2018	2017
Deloitte		
Audit fees	–103	–83
Audit-related fees	–14,246	—
Other services	–7,227	—
Total	**–21,576**	**–83**

Audit fees involve audit of the Annual Report, financial accounts and the administration by the Board of Directors and the Managing Directors. The audit also includes advice and assistance as a result of the observations made in connection with the audit.

Audit-related fees refer to other assignments to ensure quality in the financial statements including conultations on reporting requirements and internal control.

All other work performed by the auditor is defined as **other services**.

NOTE 5 – REMUNERATION TO THE BOARD OF DIRECTORS

Information on remuneration to Board members by gender is shown in Note 9 – Employees and remuneration, in the consolidated statements.

NOTE 6 – FINANCIAL INCOME AND EXPENSES

	2018	2017
Financial income		
Interest income from subsidiaries	345	243
Total	**345**	**243**
Financial expenses		
Interest expenses to subsidiaries	–44	–218
Interest expenses	–505	–263
Other	–221	—
Total	**–770**	**–481**

NOTE 7 – TAXES

Income tax recognised in income statement	2018	2017
Deferred taxes	–80	43
Total	**–80**	**43**
Information regarding current year tax expense compared to tax expense based on the applicable Swedish tax rate		
Income before tax for the year	–437	1,307
Tax according to applicable Swedish tax rate, 22 %	96	–288
Costs non-deductable	–21	–20
Non-taxable dividends	—	344
Non-taxable income	—	6
Tax effect on deferred tax due to change of tax rate	–141	—
Income tax related to prior year	—	1
Tax effect of Group contributions received reported in equity	–14	—
Total	**–80**	**43**

Total deferred tax assets MSEK 2,068 (2,148) relates to loss-carry forward. Deferred tax assets are only accounted for to the extent there are taxable temporary differences or other factors that convincingly indicate there will be sufficient future taxable profit. The tax loss-carry forward has an unidentified period of utilisation. Tax effect on Group contributions which are reported directly against Equity amounts to MSEK –14 (—).

NOTE 8 – PARTICIPATION IN SUBSIDIARY

	Dec 31, 2018	Dec 31, 2017
At beginning of the year/acquired acquisition value	10,267	10,267
Total	**10,267**	**10,267**

Volvo Car AB's (publ.) investments in subsidiaries:	Corp. ID no.	Registered office	No. of shares	% interest held	Book value Dec 31, 2018	Book value Dec 31, 2017
Volvo Personvagnar AB[1)]	556074-3089	Gothenburg / Sweden	723,530	100	10,267	10,267

Details of Volvo Car Corporation's direct wholly owned subsidiares at the end of the reporting period are presented in below table.

Legal entity	Corp. ID no.	Registered office	% interest held
Sweden			
Automotive Components Floby AB	556981-8874	Falköping / Sweden	100
Care by Volvo Car AB[2)]	556746-9407	Gothenburg / Sweden	100
Fastighetsbolag Sörred 8:9 AB	559176-3890	Gothenburg / Sweden	100
PSINV AB	559140-6409	Gothenburg / Sweden	100
VCG Investment Management AB	556955-7118	Gothenburg / Sweden	100
Volvo Bil i Göteborg AB	556056-6266	Gothenburg / Sweden	100
Volvo Car Australia Holding AB	556152-2680	Gothenburg / Sweden	100
Volvo Car Försäkrings AB	556877-5778	Gothenburg / Sweden	100
Volvo Car Investment and Borrowing AB	556130-4246	Gothenburg / Sweden	100
Volvo Car NSC Holding AB	556754-8283	Gothenburg / Sweden	100
Volvo Car Overseas Corporation AB	556223-0440	Gothenburg / Sweden	100
Volvo Car PHEV Holding AB	556785-9375	Gothenburg / Sweden	100
Volvo Car Real Estate and Assets 1 AB	556205-7298	Gothenburg / Sweden	100
Volvo Car Real Estate and Assets 3 AB	559176-3908	Gothenburg / Sweden	100
Volvo Car Services 4 AB	559140-6417	Gothenburg / Sweden	100
Volvo Car Services 5 AB	559140-6425	Gothenburg / Sweden	100
Hertz Sverige AB[6)]	556601-7843	Gothenburg / Sweden	100
Volvo Car Technology Fund AB	556877-5760	Gothenburg / Sweden	100
Volvo Car Sverige AB	556034-3484	Gothenburg / Sweden	100
Volvo Personvagnar Norden AB	556413-4848	Gothenburg / Sweden	100
M Mobility Services Sweden AB[3)]	559140-6433	Stockholm / Sweden	100
Volvo Car Mobility AB[4)]	556955-6441	Stockholm / Sweden	100
Volvo Car Center Uddevalla AB	556651-0193	Uddevalla / Sweden	100
Volvo Car Uddevalla AB	556232-0142	Uddevalla / Sweden	100
Europe			
Volvo Car Austria GmbH		Austria	100
Volvo Car Czech Republic s.r.o.		Czech Republic	100
Volvo Car Denmark A/S		Denmark	100
Volvo Car Finland Oy Ab		Finland	100
Volvo Car France SAS		France	100
Volvo Car Germany GmbH		Germany	100
Volvo Car Hellas Anonymous[5)]		Greece	100
Volvo Car Hungary Trading and Service Ltd		Hungary	100
Volvo Car Gallery Ltd		Hungary	100
Volvo Car Ireland Ltd		Ireland	100
Volvo Car Italia S.p.A.		Italy	100
Volvo Car Nederland B.V.		The Netherlands	100
SNEBE Holding B.V.		The Netherlands	100
SNITA Holding B.V.		The Netherlands	100
SWENE Holding B.V.		The Netherlands	100
Volvo Car Norway AS		Norway	100
Volvo Car Poland Sp. z.o.o.		Poland	100
Volvo Car Portugal S.A.		Portugal	100
Volvo Car Espana S.L.		Spain	100
Volvo Car Switzerland AG		Switzerland	100
Volvo Car UK Ltd		United Kingdom	100

Legal entity	Registered office	% interest held
North and South America		
Volvo Car Brasil Importacao e Comercio de Veiculos Ltda	Brazil	100
Volvo Car do Brasil Automoveis Ltda	Brazil	100
Volvo Car Canada Ltd	Canada	100
Volvo Car Mexico S.A. de C.V.	Mexico	100
Volvo Car Financial Services U.S., LLC	USA	100
Volvo Car North America, LLC	USA	100
Africa and Asia		
Volvo Cars (China) Investment Co., Ltd.[6)]	China	100
Volvo Cars Technology (Shanghai) Co., Ltd.	China	100
Volvo Auto India Pvt. Ltd	India	100
Volvo Car Japan Ltd	Japan	100
Volvo Car Korea Co., Ltd	Korea	100
Volvo Car Manufacturing Malaysia Sdn Bhd	Malaysia	100
Volvo Car Taiwan Ltd	Taiwan	100
Volvo Car Turkey Otomobil Ltd Sirketi	Turkey	100
Volvo Car Singapore PTE Ltd	Singapore	100
Volvo Car South Africa Pty Ltd	South Africa	100

1) Refered to as Volvo Car Corporation
2) Prior name: VCC Sörred 15:5 Real Estate AB previously indirect wholly owned subsidiary
3) Prior name: Volvo Car Services 6 AB
4) Prior name: Volvo Car Services 3 AB
5) Legal name in full: Volvo Car Hellas Anonymous and Industrial company of car and spare parts imports and trade
6) To be name changed to: Volvo Car Services Sweden AB

The share of voting power corresponds to holdings in per cent as seen in the table above. The countries where the subsidiaries are registered are also where their main operations are carried out.

Significant restrictions

For some subsidiaries there are restrictions on the Volvo Car Group's ability to access or use cash from these subsidiaries, for more information on cash that is not available or with other limitations, see Note 22 – Marketable securities and cash and cash equivalents in the consolidated financial statements.

Change in the Group's ownership interest in a subsidiary

The Polestar Group consists of the parent company Polestar Automotive (Shanghai) Co., Ltd based in China, with subsidiaries, currently in China, Sweden and the US. Previously all entities in the Polestar Group have been wholly owned by Volvo Cars through its subsidiary Volvo Cars (China) Investment Co., Ltd with the exception of the Chinese manufacturing subsidiary that has been under joint ownership with certain Geely Group companies, although still consolidated into Volvo Car Group. On July 12, 2018 Polestar Automotive (Shanghai) Co., Ltd acquired the non-controlling interest of 50 per cent related to the Chinese manufacturing entity Polestar New Energy Vehicle Co., Ltd. Further, on September 28, 2018, Zhejiang Geely Holding Group Co., Ltd subscribed for 50 per cent of the equity in Polestar Automotive (Shanghai) Co., Ltd the parent company in the Polestar Group. A shareholders agreement was entered into between Volvo Cars (China) Investment Co., Ltd and Zhejiang Geely Holding Group Co., Ltd, giving the owners joint control over the Polestar Group. As a result, Volvo Cars no longer has control over the Polestar Group and it will no longer be consolidated into Volvo Car Group. Polestar Group is thereafter considered as a joint venture and accounted for in accordance with the equity method.

Details of non-wholly owned subsidiaries that have material non-controlling interests[6)]

On June 25, 2015 Volvo Car Group has, through one of its wholly owned subsidiaries, Volvo Cars (China) Investment Co., Ltd, acquired an additional 20 per cent in Volvo Cars' Chinese joint venture companies. In the consolidated financial statements, these joint venture companies are classified as subsidiaries and fully consolidated with a non-controlling interest of 50 per cent since Volvo Car Group has the decision-making power over the operations. Additionally, Daqing Volvo Car Manufacturing Co., Ltd has acquired 100 per cent of the shares in Volvo Car (Asia Pacific) Investment Holding Co., Ltd which holds 100 per cent of Zhongjia Automobile Manufacturing (Chengdu) Co., Ltd and Shanghai Zhawo Auto Sales Co., Ltd.

On September 22, 2017 Volvo Cars (China) Investment Co., Ltd has, through one of its wholly owned subsidiary, Polestar Automotive (Shanghai) Co., Ltd, established a new joint venture company Polestar New Energy Vehicle Co., Ltd together with Zhejiang Haoqing Automobile Manufacturing Co., Ltd, 40 per cent shareholding, and Chengdu Zhaoyuan New Energy Vehicle Investment Co., Ltd, 10 per cent shareholding. Both companies are owned subsidiaries to Zhejiang Geely Holding Group Co., Ltd. In the consolidated financial statements up to July 12, 2018 this joint venture company was classified as a subsidiary and fully consolidated with a non-controlling interest of 50 per cent since Volvo Car Group had the decision-making power over the operation. On July 12, 2018 Polestar Automotive (Shanghai) Co., Ltd acquired the non-controlling interest of 50 per cent related to Polestar New Energy Vehicle Co., Ltd and consequently the non-controlling interest ceased.

The table on the next page shows details of non-wholly owned subsidiaries of the Group that have material non-controlling interests.

Legal entity:	Registered office	% held by Zhejiang Geely Holding Group Co., Ltd. Dec 31, 2018	% held by Zhejiang Geely Holding Group Co., Ltd. Dec 31, 2017	Profit allocated to non-controlling interests Dec 31, 2018	Profit allocated to non-controlling interests Dec 31, 2017	Accumulated non-controlling interests Dec 31, 2018	Accumulated non-controlling interests Dec 31, 2017
Daqing Volvo Car Manufacturing Co., Ltd.	China	50	50	2,829	2,233	7,085	4,165
Zhangjiakou Volvo Car Engine Manufacturing Co., Ltd.	China	50	50	104	49	1,045	912
Shanghai Volvo Car Research and Development Co., Ltd.	China	50	50	1	1	106	101
Polestar New Energy Vehicle Co., Ltd.	China	—	50	–11	–7	—	624
Total non-controlling interests				**2,923**	**2,276**	**8,236**	**5,802**

NOTE 9 – EQUITY

In December 2016, Volvo Car AB (publ.) directed a new issue of 500,000 preference shares to a group of institutional investors, whereby MSEK 5,000 (reduced by transaction costs) was added to equity. The preference shares may be repurchased or converted into listed ordinary shares, both upon the majority shareholder's decision. At year end 2018, no such decision has been taken. The issued preference shares are classified as equity instruments, for further information, see Note 23 – Equity in the consolidated financial statements.

NOTE 10 – BONDS

There were no bonds issued in 2018. The latest bond was issued during 2017. The bond, a 7,2 year, MEUR 500 and fixed coupon rate of 2 per cent was issued under the new Euro Medium Term Note-program which was updated in December 2018. In 2016, the first bond, a 5 year MEUR 500 bond was issued in May.

The senior unsecured notes issued mature as of May 2021 and carry a fixed coupon rate of 3.25 per cent. The second bond was issued in November 2016, a 5.25 year MSEK 3,000 bond split on a floating and fixed tranche. The fixed tranche carry a coupon of 2.50 per cent and the floating tranche a coupon of Stibor 3m +235bps. The notes mature in March 2022. All three bonds are listed on the Euro MTF list on the Luxembourg stock exchange (Sociéte de la bourse de Luxembourg). For more information see Note 21 – Financial risks and financial instruments in the consolidated financial statements.

No fair value hedge is applied in Volvo Car AB (publ.).

Proposed Distribution of Non-Restricted Equity

The parent company

The following funds are at the disposal of Annual General Meeting (AGM):

Share premium reserve	SEK	11,405,115,511
Retained earnings brought forward	SEK	–4,023,550,505
Net income for the year	SEK	–517,073,159
At the disposal of the AGM	**SEK**	**6,864,491,847**

The Board proposes the following allocations of funds:

To the preference shareholders, a dividend of SEK 250.00 per share	SEK	125,000,000
To the common shareholder, a dividend of SEK 27.75 per share	SEK	1,387,500,000
Carried forward	SEK	5,351,991,847
Total	**SEK**	**6,864,491,847**

In view of the Board of Directors' proposal to the Annual General Meeting to be held March 14, 2019 to decide on the distribution of a dividend of SEK 250.00 per preference share and of SEK 27.75 per common share, the Board hereby makes the following statement in accordance with Chapter 18, Section 4 of the Swedish Companies Act. The Board of Directors concludes that the Company's restricted equity is fully covered after the proposed dividend. The Board further concludes that the proposed dividend is justifiable in view of the parameters set out in Chapter 17, Section 3, second and third paragraphs of the Swedish Companies Act. The Board of Directors has the view that the Company's and the Group's shareholders' equity will, after the proposed dividend, be sufficient in relation to the nature, scope and risks of the business. The record date for determining who is entitled to receive dividend is proposed to be on March 18, 2019.

The Board of Directors and the CEO hereby affirm that the consolidated financial statements have been prepared in accordance with International Financial Reporting Standards, IFRS, as adopted by the EU and provide a true and fair view of the Group's financial position and earnings. The Annual Report has been prepared in accordance with generally accepted accounting principles and provides a fair and true view of the parent company's financial position and earnings. The Board of Directors report for the Group and the parent company provides a true and fair overview of the development of the operations, financial position and earnings of the Group and parent company and describes material risks and uncertainty factors facing the parent company and the companies included in the Group.

Gothenburg, March 14, 2019

Li Shufu
Chairman of the Board

Håkan Samuelsson
Board member and CEO

Lone Fønss Schrøder
Vice Chairman of the Board

Michael Jackson
Board member

Li Donghui
Board member

Xingsheng (Jim) Zhang
Board member

Carl Peter Forster
Board member

Betsy Atkins
Board member

Winnie K.W. Fok
Board member

Thomas Johnstone
Board member

Marko Peltonen
Employee representative

Jörgen Olsson
Employee representative

Glenn Bergström
Employee representative

Our audit report was submitted on March 14, 2019
Deloitte AB

Jan Nilsson
Authorized Public Accountant

Auditor's Report

This auditor's report is a translation of the Swedish language original. In the events of any differences between this translation and the Swedish original the latter shall prevail.

To the general meeting of the shareholders of Volvo Car AB (publ), corporate identity number 556810-8988

Report on the annual accounts and consolidated accounts

Opinions

We have audited the annual accounts and consolidated accounts of Volvo Car AB (publ) for the financial year 2018-01-01–2018-12-31. The annual accounts and consolidated accounts of the company are included on pages 79–147 in this document.

In our opinion, the annual accounts have been prepared in accordance with the Annual Accounts Act and present fairly, in all material respects, the financial position of the parent company as of 31 December 2018 and its financial performance and cash flow for the year then ended in accordance with the Annual Accounts Act. The consolidated accounts have been prepared in accordance with the Annual Accounts Act and present fairly, in all material respects, the financial position of the group as of 31 December 2018 and their financial performance and cash flow for the year then ended in accordance with International Financial Reporting Standards (IFRS), as adopted by the EU, and the Annual Accounts Act. The statutory administration report is consistent with the other parts of the annual accounts and consolidated accounts.

We therefore recommend that the general meeting of shareholders adopts the income statement and balance sheet for the parent company and the group.

Basis for Opinions

We conducted our audit in accordance with International Standards on Auditing (ISA) and generally accepted auditing standards in Sweden. Our responsibilities under those standards are further described in the Auditor's Responsibilities section. We are independent of the parent company and the group in accordance with professional ethics for accountants in Sweden and have otherwise fulfilled our ethical responsibilities in accordance with these requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinions.

Other Information than the annual accounts and consolidated accounts

The Board of Directors and the Managing Director are responsible for the other information. The other information comprises pages 1–78 and 150–166 in this document but does not include the annual accounts, consolidated accounts and our auditor's report thereon.

Our opinion on the annual accounts and consolidated accounts does not cover this other information and we do not express any form of assurance conclusion regarding this other information.

In connection with our audit of the annual accounts and consolidated accounts, our responsibility is to read the information identified above and consider whether the information is materially inconsistent with the annual accounts and consolidated accounts. In this procedure we also take into account our knowledge otherwise obtained in the audit and assess whether the information otherwise appears to be materially misstated.

If we, based on the work performed concerning this information, conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of the Board of Directors and the Managing Director

The Board of Directors and the Managing Director are responsible for the preparation of the annual accounts and consolidated accounts and that they give a fair presentation in accordance with the Annual Accounts Act and, concerning the consolidated accounts, in accordance with IFRS as adopted by the EU. The Board of Directors and the Managing Director are also responsible for such internal control as they determine is necessary to enable the preparation of annual accounts and consolidated accounts that are free from material misstatement, whether due to fraud or error.

In preparing the annual accounts and consolidated accounts, The Board of Directors and the Managing Director are responsible for the assessment of the company's and the group's ability to continue as a going concern. They disclose, as applicable, matters related to going concern and using the going concern basis of accounting. The going concern basis of accounting is however not applied if the Board of Directors and the Managing Director intends to liquidate the company, to cease operations, or has no realistic alternative but to do so.

Auditor's responsibility

Our objectives are to obtain reasonable assurance about whether the annual accounts and consolidated accounts as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinions. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs and generally accepted auditing standards in Sweden will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these annual accounts and consolidated accounts.

As part of an audit in accordance with ISAs, we exercise professional judgment and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the annual accounts and consolidated accounts, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinions. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of the company's internal control relevant to our audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Board of Directors and the Managing Director.
- Conclude on the appropriateness of the Board of Directors' and the Managing Director's use of the going concern basis of accounting in preparing the annual accounts and consolidated accounts. We also draw a conclusion, based on the audit evidence obtained, as to whether any material uncertainty exists related to events or conditions that may cast significant doubt on the company's and the group´s ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the annual accounts and consolidated accounts or, if such disclosures are inadequate, to modify our opinion about the annual accounts and consolidated accounts. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause a company and a group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the annual accounts and consolidated accounts, including the disclosures, and whether the annual accounts and consolidated accounts represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient and appropriate audit evidence regarding the financial information of the entities or business activities within the group to express an opinion on the consolidated accounts. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our opinions.

We must inform the Board of Directors of, among other matters, the planned scope and timing of the audit. We must also inform of significant audit findings during our audit, including any significant deficiencies in internal control that we identified.

Report on other legal and regulatory requirements

Opinions

In addition to our audit of the annual accounts and consolidated accounts, we have also audited the administration of the Board of Directors and the Managing Director of Volvo Car AB (publ) for the financial year 2018-01-01–2018-12-31 and the proposed appropriations of the company's profit or loss.

We recommend to the general meeting of shareholders that the profit to be appropriated in accordance with the proposal in the statutory administration report and that the members of the Board of Directors and the Managing Director be discharged from liability for the financial year.

Basis for Opinions

We conducted the audit in accordance with generally accepted auditing standards in Sweden. Our responsibilities under those standards are further described in the Auditor's Responsibilities section. We are independent of the parent company and the group in accordance with professional ethics for accountants in Sweden and have otherwise fulfilled our ethical responsibilities in accordance with these requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinions.

Responsibilities of the Board of Directors and the Managing Director

The Board of Directors is responsible for the proposal for appropriations of the company's profit or loss. At the proposal of a dividend, this includes an assessment of whether the dividend is justifiable considering the requirements which the company's and the group's type of operations, size and risks place on the size of the parent company's and the group's equity, consolidation requirements, liquidity and position in general.

The Board of Directors is responsible for the company's organization and the administration of the company's affairs. This includes among other things continuous assessment of the company's and the group´s financial situation and ensuring that the company's organization is designed so that the accounting, management of assets and the company's financial affairs otherwise are controlled in a reassuring manner. The Managing Director shall manage the ongoing administration according to the Board of Directors' guidelines and instructions and among other matters take measures that are necessary to fulfill the company's accounting in accordance with law and handle the management of assets in a reassuring manner.

Auditor's responsibility

Our objective concerning the audit of the administration, and thereby our opinion about discharge from liability, is to obtain audit evidence to assess with a reasonable degree of assurance whether any member of the Board of Directors or the Managing Director in any material respect:

- has undertaken any action or been guilty of any omission which can give rise to liability to the company, or
- in any other way has acted in contravention of the Companies Act, the Annual Accounts Act or the Articles of Association.

Our objective concerning the audit of the proposed appropriations of the company's profit or loss, and thereby our opinion about this, is to assess with reasonable degree of assurance whether the proposal is in accordance with the Companies Act.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with generally accepted auditing standards in Sweden will always detect actions or omissions that can give rise to liability to the company, or that the proposed appropriations of the company's profit or loss are not in accordance with the Companies Act.

As part of an audit in accordance with generally accepted auditing standards in Sweden, we exercise professional judgment and maintain professional scepticism throughout the audit. The examination of the administration and the proposed appropriations of the company's profit or loss is based primarily on the audit of the accounts. Additional audit procedures performed are based on our professional judgment with starting point in risk and materiality. This means that we focus the examination on such actions, areas and relationships that are material for the operations and where deviations and violations would have particular importance for the company's situation. We examine and test decisions undertaken, support for decisions, actions taken and other circumstances that are relevant to our opinion concerning discharge from liability. As a basis for our opinion on the Board of Directors' proposed appropriations of the company's profit or loss we examined the Board of Directors' reasoned statement and a selection of supporting evidence in order to be able to assess whether the proposal is in accordance with the Companies Act.

Gothenburg 14th of March 2019
Deloitte AB

Signature on Swedish original

Jan Nilsson
Authorized public accountant

Board of Directors

BOARD OF DIRECTORS VOLVO CAR AB (PUBL.) Volvo Car AB (publ.) is the parent company of Volvo Car Group.

Li Shufu

Chairman of the Board
Since: August 2010
Born: 1963
Education: MSc in Mechanical Engineering, BSc in Management Engineering

Other assignments:
Founder and Chairman of the Board Zhejiang Geely Holding Group; Chairman of the Board Geely Sweden Holdings AB; Member of the Board other entities within the Zhejiang Geely Holding Group

Previous positions:
Founder Geely Holding Group

Lone Fønss Schrøder

Vice Chairman of the Board
Since: March 2018
(Member since August 2010)
Born: 1960
Education: MSc in Law, MSc in Economics

Other assignments:
Chairman of the Board Nustay A/S, Cashworks AG; Vice Chairman of the Board and Chairman of the Audit Committee Akastor ASA; Member of the Board and Chairman of the Audit Committee Kværner ASA; Member of the Board and Audit Committee INGKA Holding BV; Member of the Board and Sustainability Committee CSL Group Inc.; Member of the Board Bilfinger SE; Member of the Board and CEO Geely Financials Denmark A/S; CEO Concordium

Previous positions:
Several senior management positions A.P. Möller-Maersk A/S; President and CEO Wallenius Lines; Positions at Aker ASA, Handelsbanken, Saxo Bank, Cash Works

Håkan Samuelsson

Member of the Board
President and CEO
Since: August 2010 (President and CEO since October 2012)
Born: 1951
Education: MSc in Mechanical Engineering

Other assignments:
Chairman of the Board Polestar Performance AB, Polestar Holding AB; Member of the Board Teknikföretagen, Lynk & Co Europe AB

Previous positions:
Chairman and CEO MAN AB; Several leading technical positions Scania Group

Li Donghui

Member of the Board
Since: April 2011
Born: 1970
Education: MBA, MSc in Mechanical Engineering

Other assignments:
Chairman of the Board Lotus Advance Technologies Sdn. Bhd., Saxo Bank; Vice Chairman of the Board and Executive Director Geely Automobile Holdings Ltd.; Member of the Board Geely Holding Group, Proton Holdings Berhad; Executive Vice President and CFO Geely Holding Group; Director certain subsidiaries Geely Automobile Holdings Ltd., Geely Holdings Group Ltd.; Independent Director China CYTS Tours Holding Co. Ltd., YTO Express (International) Holdings Ltd.

Previous positions:
CFO and Vice President Liugong Machinery; Managing Director and several other senior positions Cummins; CFO and other senior positions BMW Brilliance Automotive; Senior positions ASIMCO Braking System, Danfoss Tianji

Carl Peter Forster

Member of the Board
Since: January 2013
Born: 1954
Education: MSc in Economics, MSc in Aeronautical Engineering

Other assignments:
Chairman of the Board FriedolaTech, Chemring Plc., London EV Company Ltd.; Member of the Board Geely Sweden Holdings AB, Geely Automobile Holdings, Gordon Murray Design Ltd., The Mobility House AG, Cosworth Group Holdings Ltd., IMI Plc., China-Euro Vehicle Technology AB, Lead Equities Private Equity Management Group, ClearMotion; Member of the Advisory Board Formaplex Ltd., Metawave, PWC; Advisor Geely Holding Group

Previous positions:
Group CEO Tata Motors; President and CEO and other senior positions GM Europe; Managing Director Opel; Various senior positions BMW; Management Consultant McKinsey & Company

Winnie K.W. Fok

Member of the Board
Since: August 2010
Born: 1956
Education: Bachelor's Degree in Commerce

Other assignments:
Member of the Board G4S Plc., Skandinaviska Enskilda Banken AB; Member of the Investment Committee HOPU Investments Co. Ltd.; Senior Advisor Wallenberg Foundation

Previous positions:
CEO EQT Partners Asia Ltd.; Senior Advisor Investor AB, FAM; Managing Director CEF New Asia Partners; Director and Co-head Peregrine Direct Investments Ltd.; Director Strategic Assets International Ltd.

Michael Jackson

Member of the Board
Since: July 2018
Born: 1962
Education: BSc in Electrical and Electronics Engineering

Other assignments:
Member of the Board and Audit and Risk Committees AXA UK Group Plc. with subsidiaries, Luminor AB; Member of the Board Kneip Communications SA, Blockchain SA

Previous positions:
COO Skype; Europe Business Development Tele2; Director Tele2 Denmark; Head of Services and Support NKT Denmark; Senior Systems Engineer Motorola Mobile Data, Digital Mobile Communications; Partner Mangrove Capital Partners

Betsy Atkins

Member of the Board
Since: January 2016
Born: 1953
Education: Bachelor's Degree in Liberal Arts

Other assignments:
Member of the Board Schneider Electric, Wynn Resorts, SL Green

Previous positions:
Member of the Board Ascend; CEO Clear Standards Inc., Baja Ventures; Chairman BT Global Services Advisory Board; Co-founder and President Global Go to Market

Thomas Johnstone

Member of the Board
Since: January 2015
Born: 1955
Education: Master of Arts

Other assignments:
Chairman of the Board Husqvarna AB, Combient AB, The British Swedish Chamber of Commerce, The English School Gothenburg; Deputy Chairman and Member of the Board Wärtsila; Member of the Board Investor AB, NorthVolt AB

Previous positions:
President and CEO and other senior positions AB SKF

Xingsheng (Jim) Zhang

Member of the Board
Since: August 2018
Born: 1955
Education: University Certificate in Telecom Engineering, Bachelor's Degree in Modern Communication, Master's Degree, MBA

Other assignments:
Founding Partner Daotong Capital, Haiying Capital; Chairman of the Board Link Capital (Asia) Co. Ltd., Forever Natural Capital Foundation; Founding Member of China Entrepreneur Club, China Entrepreneurs Forum, Alishan SEE Environmental Protection Association

Previous positions:
Managing Director North Asia Region of the Nature Conservatory; Chairman of Beijing Link Capital; President and CEO Asiainfo; Executive Vice President and other senior positions Ericsson China; Positions at China International Telecom Construction Corp, Beijing Telecom Administration

EMPLOYEE REPRESENTATIVES

Glenn Bergström

Employee Representative of the Board
Since: August 2010
Appointed by: IF Metall
Born: 1955
Employed by Volvo Cars: 1974

Other assignments:
Chairman of the Board VFF Pension Fund

Jörgen Olsson

Employee Representative of the Board
Since: March 2016
Appointed by: Unionen
Born: 1968
Employed by Volvo Cars: 1988

Other assignments:
—

Marko Peltonen

Employee Representative of the Board
Since: August 2010
Appointed by: IF Metall
Born: 1965
Employed by Volvo Cars: 1984

Other assignments:
—

Anna Margitin

Deputy Employee Representative of the Board
Since: 2016
Appointed by: Akademikerna
Born: 1969
Employed by Volvo Cars: 1994

Other assignments:
—

Björn Ohlsson

Deputy Employee Representative of the Board
Since: 2009
Appointed by: IF Metall
Born: 1963
Employed by Volvo Cars: 1981

Other assignments:
—

Executive Management Team

EXECUTIVE MANAGEMENT TEAM VOLVO CAR CORPORATION

Volvo Car Corporation is a subsidiary of Volvo Car AB (publ.). Volvo Car Corporation is managed by the Executive Management Team, led by the President and Chief Executive Officer and overseen by the Board of Directors of Volvo Car AB (publ.). In addition to managing Volvo Car Corporation, the Executive Management Team also sets out the directions for the company's operations.

Håkan Samuelsson

President and CEO
Since: October 2012
Born: 1951
Education: MSc in Mechanical Engineering

Other assignments:
Chairman of the Board Polestar Performance AB, Polestar Holding AB; Member of the Board Teknikföretagen, Lynk & Co Europe AB

Hans Oscarsson

CFO and Senior Vice President Finance
Since: August 2013
Born 1965
Education: Master's Degree in Finance

Henrik Green

Senior Vice President Research and Development
Since: December 2016
Born: 1973
Education: MSc in Computer Engineering

Björn Annwall

Senior Vice President Strategy, Brand and Retail
Since: October 2016
Born: 1974
Education: MSc in Business Administration

Lex Kerssemakers

Senior Vice President EMEA Region
Since: August 2017
Born: 1960
Education: Degree in Automotive Business Management

Xiaolin Yuan

Senior Vice President APAC Region
Since: March 2017
Born: 1969
Education: Master's Degree

Anders Gustafsson

Senior Vice President Americas Region
Since: August 2017
Born: 1968

Thomas Ingenlath

Senior Vice President Design
Since: July 2012
Born: 1964
Education: Master of Arts

Javier Varela

Senior Vice President Manufacturing and Logistics
Since: November 2016
Born: 1964
Education: Industrial Engineering

Martina Buchhauser

Senior Vice President Procurement
Since: October 2017
Born: 1966
Education: Master's Degree in Management

Hanna Fager

Senior Vice President
Human Resources
Since: October 2016
Born: 1975
Education: BSc in Human Resource Development and Labour Relations

Mårten Levenstam

Senior Vice President
Product Strategy and Business Ownership
Since: January 2018
Born: 1964
Education: PhD in Fluid Mechanics, MSc in Vehicle Engineering

Maria Hemberg

General Counsel and Senior Vice President
Group Legal and Corporate Governance
Since: March 2012
Born: 1964
Education: Master of Law

David Ibison

Senior Vice President
Corporate Communications
Since: June 2017
Born: 1966
Education: MSc in Politics and International Relations

Atif Rafiq

Senior Vice President
Consumer and Enterprise Digital
Since: January 2017
Born: 1973
Education: MBA in Finance and Marketing

Stakeholder Engagement and Materiality Analysis

Our stakeholder involvement provides guidance on how we should develop and communicate our sustainability work. One indicator of our success, is whether our stakeholders chose to buy our products and/or do business with us. We have an open dialogue with our major stakeholders not only through networks, conferences, our website or at citizen@volvocars.com, but also through deeper interviews, surveys and analysis.

In an online survey, external and internal stakeholders were asked to indicate which sustainability areas they considered to be of greatest relevance to Volvo Cars. The stakeholders were selected based on relevance and previous contacts. This resulted in a list of 13 topics that were voted by at least 40.0 per cent of the respondents as important, see table below.

We gathered this analysis and input from our stakeholders and aligned them with our internal strategies, together with the Sustainability Board, in order to define what we consider to be our most relevant material topics. The Sustainability Board then developed the structure and focus areas of our sustainability programme Omtanke, with clear priorities and commitments. The material topics remained the same.

Prioritised topics	Proportion of respondents that rated the topic as important (%)
Fuel economy and car emissions	77.0
Car and traffic safety (product responsibility)	71.0
Social and environmental requirements on suppliers/dealers	65.0
Energy efficiency and emissions (production)	61.0
Future mobility	61.0
Code of conduct and integrity	58.0
Occupational health and safety	47.0
Research and development	47.0
Assessing, evaluating and auditing suppliers	43.0
Technology and knowledge sharing	43.0
Materials, recycling and waste	42.0
Satisfaction of customers and business partners	42.0
Environmental management	40.0

In 2018, the Sustainability Board revised Omtanke slightly in order to better highlight Responsible Supply Chain activities, reflect changes in the Lifecycle Performance vision, and the name Partner in Sustainable Development changed to Making a Wider Difference. The revisions are reflected in the figure on next page.

VOLVO CARS MATERIAL TOPICS	VOLVO CARS SUSTAINABILITY PROGRAMME – OMTANKE
ENERGY Aspect boundary: energy consumption within operations, excluding logistics. **EMISSIONS** Aspect boundary: emissions from own operations, excluding logistics. Aspect boundary: Volvo Cars products (the environmental performance of our cars).	**RESOURCE EFFICIENT BUSINESS** Climate neutral operations by 2025 **LIFECYCLE PERFORMANCE** 50% of sales to be fully electric and 25% of plastic in our cars made from recycled material by 2025 **RESPONSIBLE SUPPLY CHAIN** Full transparency of our 3TG and cobalt supply chain by 2020 **MAKING A WIDER DIFFERENCE** Engage in partnerships to promote sustainable development
OCCUPATIONAL HEALTH AND SAFETY Aspect boundary: own operations (Volvo Cars employees).	**SUSTAINABLE WORK-LIFE** No fatalities or serious injuries at Volvo Cars
DIVERSITY AND EQUAL OPPORTUNITIES Aspect boundary: own operations (Volvo Cars employees).	**DIVERSE AND INCLUSIVE CULTURE** ≥ 35% internationally diverse leaders and ≥ 35% female leaders by 2020
CONSUMER HEALTH AND SAFETY Aspect boundary: consumers and other passengers and road users.	**REAL-LIFE SAFETY** Our vision is that no one should be killed or seriously injured in a new Volvo car by 2020 **MAKING A WIDER DIFFERENCE** Engage in partnerships to promote sustainable development **CONSUMER EXPERIENCE** CleanZone leadership
ANTI-CORRUPTION Aspect boundary: own operations and partners. **RESPONSIBLE SOURCING** Aspect boundary: own operations (procurement) and supply chain.	**ETHICAL AND RESPONSIBLE BUSINESS** Ethical leadership for responsible business **RESPONSIBLE SUPPLY CHAIN** Full transparency of our 3TG and cobalt supply chain by 2020

In 2018, we continued to promote our sustainability programme to our stakeholders through press releases, our website, social media, presentations at conferences and in individual meetings. We will carry on doing so in 2019. We will also conduct a new stakeholder survey to gain their insight on our material topics, as well as receive feedback on our program and current direction.

Sustainability Scorecard

ECONOMIC DIMENSION

	2018	2017	2016	2015	2014[1]
Retail sales (units)	642,253	571,577	534,332	503,127	465,866
Manufactured vehicles (units)	664,248	602,164	533,039	510,679	465,799
Net revenue (MSEK)	252,653	208,646	180,902	164,043	137,590

1) The comparative figures for 2014 are restated to include the new Volvo Car Group structure including the acquired Chinese industrial entities. For further descriptions refer to the Volvo Car Group Annual Report 2015.

ENVIRONMENTAL DIMENSION

Energy use, Operations (MWh)[1]		2018	2017	2016	2015	2014
Total direct energy use[2]	Europe	183,000	177,000	227,000	254,000	249,000
	Asia	230,000	268,000	201,000	177,000	—
	TOTAL	413,000	445,000	428,000	431,000	249,000
Total indirect energy use[3]	Europe	595,000	593,000	539,000	498,000	497,000
	Asia	170,000	154,000	116,000	102,000	—
	TOTAL	765,000	747,000	655,000	600,000	497,000
Total energy use (direct and indirect)	Europe	778,000	770,000	766,000	751,000	746,000
	Asia	400,000	422,000	317,000	279,000	—
	TOTAL	1,178,000	1,192,000	1,083,000	1,030,000	746,000
Energy use per manufactured vehicle (MWh/vehicle)[4]	Europe	1.6	1.6	1.7	1.7	1.8
	Asia	2.3	3.2	4.1	4.1	—
	TOTAL	1.8	2.0	2.0	2.0	1.8

1) The Volvo Cars facilities included in the data for Europe are Volvo Cars Torslanda Plant (Gothenburg, Sweden), Volvo Cars Ghent Plant (Ghent, Belgium), Volvo Cars Skövde – Engines (Skövde, Sweden), and Volvo Cars Olofström – Body Components (Olofström, Sweden). Data for Volvo Cars Malaysia – CKD (Kuala Lumpur, Malaysia) is included in data up to 2014 (since 2015 included in Asia). Data for Volvo Cars Floby (Floby, Sweden) is included up to 2015. The Volvo Cars facilities included in Asia are Volvo Cars Malaysia – CKD (Kuala Lumpur, Malaysia), Volvo Cars Chengdu Plant (Chengdu, China), Volvo Cars Daqing Plant (Daqing, China), and Volvo Cars Zhangjiakou – Engines (Zhangjiakou, China). 2015 was the first year Volvo Cars started reporting figures for China.
2) Energy produced on site for own consumption.
3) Purchased electricity and heating.
4) All Volvo Cars facilities according to note 1) are included.

Direct energy use by source (MWh)[1]		2018	2017	2016	2015	2014
Natural gas / LPG	Europe	169,500	163,000	213,000	234,600	230,300
	Asia	230,000	268,000	201,000	176,000	—
	TOTAL	399,500	431,000	414,000	410,600	230,300
Oil / Diesel / Petrol	Europe	500	250	0	3,800	4,000
	Asia	0	0	0	1,000	—
	TOTAL	500	250	0	4,800	4,000
Renewables (non-biomass, wind)	Europe	12,000	12,450	12,900	14,500	13,600
	Asia	0	0	0	0	—
	TOTAL	12,000	12,450	12,900	14,500	13,600
Other / Unspecified, water	Europe	1,000	1,300	1,100	1,100	1,100
	Asia	0	0	0	0	—
	TOTAL	1,000	1,300	1,100	1,100	1,100

1) The Volvo Cars facilities included in the data for Europe are Volvo Cars Torslanda Plant (Gothenburg, Sweden), Volvo Cars Ghent Plant (Ghent, Belgium), Volvo Cars Skövde – Engines (Skövde, Sweden), and Volvo Cars Olofström – Body Components (Olofström, Sweden). Data for Volvo Cars Malaysia – CKD (Kuala Lumpur, Malaysia) is included in data up to 2014 (since 2015 included in Asia). Data for Volvo Cars Floby (Floby, Sweden) is included up to 2015. The Volvo Cars facilities included in Asia are Volvo Cars Malaysia – CKD (Kuala Lumpur, Malaysia), Volvo Cars Chengdu Plant (Chengdu, China), Volvo Cars Daqing Plant (Daqing, China), and Volvo Cars Zhangjiakou – Engines (Zhangjiakou, China). 2015 was the first year Volvo Cars started reporting figures for China.

CO_2 emissions, Operations (tonnes)[1]		**2018**	2017	2016	2015	2014
Direct emissions from natural gas and renewables	Europe	34,000	34,000	42,000	47,000	43,000
	Asia	46,000	54,000	41,000	36,000	—
	TOTAL	80,000	88,000	83,000	83,000	43,000
Indirect emissions from electricity[2]	Europe	0	0	0	0	4,500
	Asia	74,000	97,000	64,000	42,000	—
	TOTAL	74,000	97,000	64,000	42,000	4,500
Indirect emissions from district heating[3]	Europe	1,900	1,600	1,300	800	1,200
	Asia	2,600	2,300	3,000	2,600	—
	TOTAL	4,500	3,900	4,300	3,400	1,200
Total CO_2 emissions	Europe	35,900	35,600	43,300	47,800	48,700
	Asia	122,600	153,300	108,000	80,600	—
	TOTAL	158,500	188,900	151,300	128,400	48,700
CO_2 emissions per manufactured vehicle (tonnes/vehicle)	Europe	0.07	0.08	0.10	0.11	0.11
	Asia	0.71	1.18	1.39	1.18	—
	TOTAL	0.24	0.31	0.28	0.25	0.11

1) The Volvo Cars facilities included in the data for Europe are Volvo Cars Torslanda Plant (Gothenburg, Sweden), Volvo Cars Ghent Plant (Ghent, Belgium), Volvo Cars Skövde – Engines (Skövde, Sweden), and Volvo Cars Olofström – Body Components (Olofström, Sweden). Data for Volvo Cars Malaysia – CKD (Kuala Lumpur, Malaysia) is included in data up to 2014 (since 2015 included in Asia). Data for Volvo Cars Floby (Floby, Sweden) is included up to 2015. The Volvo Cars facilities included in Asia are Volvo Cars Malaysia – CKD (Kuala Lumpur, Malaysia), Volvo Cars Chengdu Plant (Chengdu, China), Volvo Cars Daqing Plant (Daqing, China), and Volvo Cars Zhangjiakou – Engines (Zhangjiakou, China). 2015 was the first year Volvo Cars started reporting figures for China.
2) Indirect CO_2 emissions are estimated based on our assumptions for the primary energy sources for the countries in which we operate. The primary energy source for electricity in Europe is hydropower, which is climate-neutral, while the primary energy source in Malaysia is coal (2018 emission factor 0.720 tonnes CO_2/MWh). (The electricity production in Malaysia for 2017 was based on 51.7 per cent naturalgas, 19.8 per cent oil, 16.7 per cent hydropower.) In Chengdu: 2018 CO_2 factor 0.5257 tonnes CO_2/MWh (regional grid 2012), 70 per cent of the electricity is purchased hydropower. In Daqing: 2018 CO_2 emission factor: 0.7769 tonnes CO_2/MWh from NDRC 2012 Grid average. In Zhangjiakou: 2018 CO_2 emission factor: 0.8843 tonnes CO_2/MWh from NDRC 2012 Grid average.
3) District heating for Volvo Cars Olofström – Body Components (Olofström, Sweden) is liquefied petroleum gas (234.0 kg CO_2/MWh) and for Volvo Cars Torslanda Plant (Gothenburg, Sweden) natural gas (205.2 kg CO_2/MWh). Assumption for district heating in Volvo Cars Zhangjiakou – Engines (Zhangjiakou, China) 2018 is 331.0 kg CO_2/MWh (coal).

VOC emissions, Operations (tonnes)[1]		**2018**	2017	2016	2015	2014
	Europe	610	594	630	584	675
	Asia	300	400	270	—	—
	TOTAL	910	994	900	584	675

1) Calculations of VOC emissions are based mainly on the amount of solvents in materials used and on measurements of the degree of purification of the equipment. VOC data from Asia from 2016.

Emissions, Other	**2018**	2017	2016	2015	2014[1]
CO_2 emissions of products – EU fleet average (CO_2 g/km)	133	125	121	123	126
Global transports total CO_2 emissions (tonnes)[1]	892,000	650,000	497,000	447,000	334,000
Global transports CO_2 emissions per sold vehicle (kg/vehicle)[1]	1,389	1,136	929	889	717
Electrified vehicles sold[2] (accumulated figures)	103,722	68,936	46,129	26,153	15,994
Electrified vehicles sold[2] (percentage of sales)	6.0%	4.0%	4.0%	—	—

1) Includes CO_2 emissions from inbound and outbound transports managed and paid for by Volvo Cars. Figures for 2014-2017 may differ from previous reports as the denominator has changed from delivered vehicles to sold vehicles.
2) Electrified vehicles are defined as plug-in hybrids and fully electric vehicles.

Waste, Operations (tonnes)[1]		**2018**	2017	2016	2015	2014
Hazardous waste	Europe	17,900	13,300	10,500	12,600	10,600
	Asia	2,700	2,300	1,500	1,200	—
	TOTAL	20,600	15,600	12,000	13,800	10,600
Non-hazardous waste (including metal waste)	Europe	235,000	228,000	212,000	208,000	211,000
	Asia	68,500	52,500	27,700	24,500	—
	TOTAL	303,500	280,500	239,700	232,500	211,000
Total waste	Europe	252,900	241,300	222,500	220,600	221,600
	Asia	71,200	54,800	29,200	25,700	—
	TOTAL	324,100	296,100	251,700	246,300	221,600
Total waste per manufactured vehicle (kg/vehicle)	Europe	514	511	489	498	521
	Asia	412	421	376	377	—
	TOTAL	488	492	472	482	521
Metal waste[2]	Europe	166,000	163,000	165,000	149,000	156,000
	Asia	72,000	58,000	37,000	—	—
	TOTAL	238,000	221,000	202,000	149,000	156,000
Metal waste per manufactured vehicle (kg/vehicle)[2]	Europe	340	350	360	340	370
	Asia	420	440	480	340	—
	TOTAL	358	367	379	340	370

1) The Volvo Cars facilities included in the data for Europe are Volvo Cars Torslanda Plant (Gothenburg, Sweden), Volvo Cars Skövde – Engines (Skövde, Sweden), and Volvo Cars Olofström – Body Components (Olofström, Sweden), Volvo Cars Ghent Plant (Ghent, Belgium). Data for Volvo Cars Floby (Floby, Sweden) is included up to 2015.
The Volvo Cars facilities included in the data for Asia are Volvo Cars Malaysia – CKD (Kuala Lumpur, Malaysia), Volvo Cars Chengdu Plant (Chengdu, China), Volvo Cars Daqing Plant (Daqing, China), Volvo Cars Zhangjiakou – Engines (Zhangjiakou, China). Data for Volvo Cars Malaysia – CKD (Kuala Lumpur, Malaysia) is included in data up to 2014 (since 2015, included in Asia figures). 2015 was the first year Volvo Cars started reporting figures for China.

2) The Volvo Cars facilities included in the data for Europe are Volvo Cars Torslanda Plant (Gothenburg, Sweden), Volvo Cars Skövde – Engines (Skövde, Sweden), and Volvo Cars Olofström – Body Components (Olofström, Sweden), Volvo Cars Ghent Plant (Ghent, Belgium). Data for Volvo Cars Floby (Floby, Sweden) is included up to 2015.
The Volvo Cars facilities included in the data for Asia are Volvo Cars Malaysia – CKD (Kuala Lumpur, Malaysia), Volvo Cars Chengdu Plant (Chengdu, China), Volvo Cars Daqing Plant (Daqing, China), Volvo Cars Zhangjiakou – Engines (Zhangjiakou, China). Figures directly comparable as metal scrap for Asia was included in 2016. Data for Volvo Cars Malaysia – CKD (Kuala Lumpur, Malaysia) is included in data for Europe up to 2014 (since 2015, included in Asia figures).
Metalscrap from Volvo Cars Skövde – Engines (Skövde, Sweden), and Volvo Cars Olofström – Body Components (Olofström, Sweden) and Volvo Cars Zhangjiakou – Engines (Zhangjiakou, China) is allocated to the car factories in Europe and Asia according to production since they deliver to all car plants. The facilities Volvo Cars Chengdu Plant (Chengdu, China) and Volvo Cars Daqing Plant (Daqing, China) have stamping operations which means that they get more metalscrap than an ordinary car factory. This is not taking into account for the metal data per vehicle.

Water use, Operations (m^3)[1]		**2018**	2017	2016	2015	2014
Total water use	Europe	751,000	756,000	748,000	715,000	763,000
	Asia	1,190,000	1,133,000	789,000	696,000	—
	TOTAL	1,941,000	1,889,000	1,537,000	1,411,000	763,000
Total water use per manufactured vehicle (m^3/vehicle)	Europe	1.5	1.6	1.6	1.6	1.8
	Asia	6.9	8.7	10.2	10.2	—
	TOTAL	2.9	3.1	2.9	2.8	1.8

1) Main source is municipal water supplies. The Volvo Cars facilities included in the data for Europe are Volvo Cars Torslanda Plant (Gothenburg, Sweden), Volvo Cars Skövde – Engines (Skövde, Sweden), and Volvo Cars Olofström – Body Components (Olofström, Sweden), Volvo Cars Ghent Plant (Ghent, Belgium). Data for Volvo Cars Floby (Floby, Sweden) is included up to 2015.
The Volvo Cars facilities included in the data for Asia are Volvo Cars Malaysia – CKD (Kuala Lumpur, Malaysia), Volvo Cars Chengdu Plant (Chengdu, China), Volvo Cars Daqing Plant (Daqing, China), Volvo Cars Zhangjiakou – Engines (Zhangjiakou, China). Data for Volvo Cars Malaysia – CKD (Kuala Lumpur, Malaysia) is included in data up to 2014 (since 2015, included in Asia figures). 2015 was the first year Volvo Cars started reporting figures for China. 2015 was the first year Volvo Cars started reporting figures for China. The figures exclude water used for cooling.

Materials		V40 CC	XC40	V60	XC60	XC90	T8 Twin Engine S60	T8 Twin Engine S90L
Materials breakdown by car model	Total materials breakdown (kg)							
	Elastomers	69	81	79	98	108	88	93
	Glass	34	49	55	56	53	53	55
	Metals	1,129	1,132	1,179	1,240	1,468	1,466	1,564
	Others (including liquids)	84	94	93	79	104	130	135
	Polymers	261	267	277	308	350	311	379
	Grand Total	1,577	1,623	1,683	1,781	2,083	2,048	2,226

		V40 CC	XC40	V60	XC60	XC90	T8 Twin Engine S60	T8 Twin Engine S90L
Metals breakdown by car model	Metals breakdown (kg)							
	Aluminium	187	185	236	266	304	295	323
	Copper	21	25	29	30	34	51	59
	Ferrous metals	893	900	878	905	1,090	1,087	1,136
	Magnesium	2	1	8	11	10	7	10
	Other metals	25	22	29	28	30	26	34
	Grand Total	1,128	1,133	1,180	1,240	1,468	1,466	1,562

Remanufacturing	2018	2017	2016	2015	2014
Aluminium saved due to remanufacturing (tonnes)	216	265	293	297	297
Steel saved due to remanufacturing (tonnes)	424	542	602	602	611
CO_2 saved from reuse of aluminium and steel (tonnes)	4,761	5,879	6,505	5,765	5,962
Number of remanufactured parts	67,276	88,590	90,828	105,236	110,937

PEOPLE DIMENSION

Total average workforce by employees and supervised workers as per December 31, 2018	Employees	Supervised workers (consultants)	Total
	Total FTE	Total FTE	Total FTE
Global Total	42,908	4,493	47,401

Breakdown of employees by gender and age group		Women <30	Women 30–50	Women >50	Men <30	Men 30–50	Men >50
Breakdown of employees, excluding Executive Management Team and Board of Directors, according to gender and age group as per December 31, 2018	Sweden	8.5%	13.4%	5.9%	14.7%	34.7%	22.9%
	Belgium	2.3%	8.8%	3.1%	11.1%	46.3%	28.4%
	China	7.2%	8.4%	0.1%	55.2%	28.2%	0.9%
	Rest of the world	5.1%	18.9%	6.1%	9.9%	42.4%	17.5%
	Total	7.0%	12.3%	4.4%	21.9%	35.7%	18.7%
Executive Management Team Members per gender and age group as per December 31, 2018		—	1	2	—	4	8
Board Members per gender and age group as per December 31, 2018[1]		—	—	3	—	1	6

1) Only appointed Board Members are included in these figures. In addition to these, there are 3 Employee Representatives appointed by the Unions to the Board of Directors. However, Volvo Cars does not have any influence on their appointments.

Total number of employees by employment contract and gender as per December 31, 2018[1]	Women	Men	Total
Permanent contract	24.0%	76.0%	100%
Temporary contract	37.0%	63.0%	100%

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

Diversity Indicators	2018	2017	2016	2015	2014
Women in leading positions	29.3%	28.0%	26.2%	25.6%	24.5%
Internationally diverse leaders	33.0%	28.0%	27.0%	25.0%	—

Accidents and sick leave	2018	2017	2016	2015	2014
Injury rate (LTCR)[1] – employees	0.24	0.19	0.22	0.34	0.34
Injury rate (LTCR)[1] – supervised contractors	0.47	—	—	—	—
Serious injuries[2][3]	26	18	9	16	14
Fatalities [3]	0	0	0	0	0
Sick leave – employees[4]	4.3%	4.5%	4.8%	4.7%	4.5%

1) LTCR is defined as the number of work/occupational accidents reported with at least one day sick leave, divided by hours worked and multiplied by 200,000. Follow-up of LTCR for supervised contractors was initiated in 2018. Supervised contractors include consultants and agencies working under our supervision.
2) Defined as total number of injuries leading to fractures, lacerations and unconsciousness.
3) Includes all employees, supervised contractors and independent contractors at our sites. Independent contractors are defined as contractors involved in the construction/reconstruction of Volvo Cars' factories. Injuries and fatalities among contractors are only reported for projects in which Volvo Cars is the developer.
4) Figures for employees in Sweden only.

Employer of Choice – Employer Attractiveness Rankings	2018	2017	2016	2015	2014
Students, MSc Engineering, worldwide	34	51	47	46	40
Students, MSc Engineering, Sweden	2	2	2	6	7
Students, Business, Sweden	10	17	21	30	37
Young Professionals, Engineering, Sweden	2	4	7	7	8
Young Professionals, Business, Sweden	6	5	6	10	43

SOCIETAL DIMENSION

	2018	2017	2016	2015	2014
Percentage of product categories for which health and safety impacts are assessed for improvement	100%	100%	100%	100%	100%

1) Safety is the number one priority for Volvo Cars. This means that health and safety concerns are integral in every phase in the development of all cars that are being developed and manufactured by Volvo Cars. For more information about Volvo Cars's work on safety, please see chapter Product Creation.

	2018	2017	2016	2015	2014
Share of independent tests where Volvo Cars received the highest rank	95.0%	95.0%	96.0%	96.0%	95.0%

GRI Index

This report has been prepared in accordance with the GRI Standards: Core option. In addition, Volvo Cars' sustainability risks are described in the Corporate Governance Report and Enterprise Risk Management chapters (pages 82–85), as well as in the chapter The World Around Us (pages 10–15). The publication year of all GRI Standard Disclosures used for this report is 2016. The most recent report prior to this one is from 2017.

Number of disclosure	Disclosure	Comments/Omissions	Page number(s)
Organisational profile			
102-1	Name of the organisation		Front page
102-2	Activities, brands, products and services		2–5, 16–17, 36–37
102-3	Location of headquarters		Front page inside
102-4	Location of operations		Front page inside
102-5	Ownership and legal form		79
102-6	Markets served		3–5, 79–81
102-7	Scale of the organisation		2–3, 79–81
102-8	Information on employees and other workers	Information regarding employment type (full-time, part-time) is not disclosed as data is not available on a global basis.	67–69, 113, 159–160
102-9	Supply chain		48–51
102-10	Significant changes to the organisation and its supply chain		57–59
102-11	Precautionary principle or approach		29, 52–55, 60–61, 91
102-12	External initiatives		53–54, 91
102-13	Membership of associations		53, 76–77, 91
Strategy			
102-14	Statement from senior decision maker		6–7
Ethics and integrity			
102-16	Values, principles, standards and norms of behaviour		19–33, 35–37
Governance			
102-18	Governance structure		87–92
Stakeholder engagement			
102-40	List of stakeholder groups	Active stakeholder engagement is a vital part of Volvo Cars' daily operations and sustainability management. The prioritised stakeholders in relation to specific strategic focus areas and processes, as well as the outputs of our engagement with these stakeholders, are described throughout the report.	154
102-41	Collective bargaining agreements		70
102-42	Identifying and selecting stakeholders		92, 154
102-43	Approach to stakeholder engagement		92, 154
102-44	Key topics and concerns raised		154
Reporting practice			
102-45	Entities included in the consolidated financial statements		100–101, 144–145
102-46	Defining report content and topic boundaries		154–155
102-47	List of material topics	Also see list of material topics in GRI Index.	155
102-48	Restatements of information	Any restatements of information have been included in the footnotes of the Sustainability Scorecard.	156–161
102-49	Changes in reporting	In 2018, the Sustainability Board revised Omtanke slightly in order to better highlight Responsible Supply Chain activities, reflect changes in the Lifecycle Performance vision, and the name change from Partner in Sustainable Development to Making a Wider Difference.	154–155
102-50	Reporting period		92
102-51	Date of most recent report		161
102-52	Reporting cycle		92
102-53	Contact point for questions regarding the report		164
102-54	Claims of reporting in accordance with the GRI Standards		92
102-56	External assurance		92, 163

MATERIAL TOPICS

Number of disclosure	Disclosure	Comments/Omissions	Page number(s)
Anti-corruption			
103-1 – 103-3	Management approach		71–73
205-3	Confirmed incidents of corruption and actions taken	Possible corruption incidents are included in the reported Code of Conduct violations.	73
Energy			
103-1 – 103-3	Management approach		60–61
302-1	Energy consumption within the organisation		156
302-3	Energy intensity		156
Emissions			
103-1 – 103-3	Management approach		29, 60–61, 81
305-1	Direct (Scope 1) GHG emissions		60, 157
305-2	Energy indirect (Scope 2) GHG emissions		60–61, 157
305-3	Other indirect (Scope 3) GHG emissions		59, 157
305-4	GHG emissions intensity		157
305-7	Nitrogen Oxides (NOx), Sulfur Oxides (SOx), and other significant air emissions	We only report on VOC emissions as others are not significant.	157
Own disclosure/KPI	Electrified vehicles sold		157
Own disclosure/KPI	CO_2 emissions of products - EU fleet average		157
Occupational health and safety			
103-1 – 103-3	Management approach		68–69
403-2	Type of injury and rates of injury, occupational diseases, lost days and absenteeism and total number of work related fatalities	1) Data per gender not applicable. Volvo Cars does not differentiate health and safety issues based on gender. 2) Data per region not applicable. Figures are presented on an aggregated level. 3) Information regardning sick leave, absenteesim for contractors is not available.	68–69, 160
Diversity and equal opportunity			
103-1 – 103-3	Management approach		69–70
405-1	Diversity of governance bodies and employees		69, 159–160
Supplier social assessment and supplier environmental assessment (Responsible Sourcing)			
103-1 – 103-3	Management approach		48–51
308-1	New suppliers that were screened using environmental criteria		50
414-1	New suppliers that were screened using social criteria		50
Consumer health and safety			
103-1 – 103-3	Management approach		29–30, 42–43
416-1	Assessment of the health and safety impacts of product and service categories		160

Auditor's Limited Assurance Report on Volvo Car AB's Sustainability Report and Statement Regarding the Statutory Sustainability Report

To Volvo Car AB (publ.), corporate identity number 556810–8988

Introduction

We have been engaged by the Board of Directors of Volvo Car AB to undertake a limited assurance engagement of the Volvo Car AB's Sustainability Report for the year 2018. The Company has defined the scope of the Sustainability Report on page 92 and the Statutory Sustainability Report on page 92.

Responsibilities of the Board of Directors and the Executive Management

The Board of Directors and the Executive Management are responsible for the preparation of the Sustainability Report including the Statutory Sustainability Report in accordance with the applicable criteria and the Annual Accounts Act respectively. The criteria are defined on page 92 in the Sustainability Report, and are part of the Sustainability Reporting Guidelines published by GRI (The Global Reporting Initiative), which are applicable to the Sustainability Report, as well as the accounting and calculation principles that the Company has developed. This responsibility also includes the internal control relevant to the preparation of a Sustainability Report that is free from material misstatements, whether due to fraud or error.

Responsibilities of the auditor

Our responsibility is to express a conclusion on the Sustainability Report based on the limited assurance procedures we have performed and to express an opinion regarding the Statutory Sustainability Report.

We conducted our limited assurance engagement in accordance with ISAE 3000 Assurance Engagements Other than Audits or Reviews of Historical Financial Information. A limited assurance engagement consists of making inquiries, primarily of persons responsible for the preparation of the Sustainability Report, and applying analytical and other limited assurance procedures. Our examination regarding the Statutory Sustainability Report has been conducted in accordance with FAR's accounting standard RevR 12 The auditor's opinion regarding the Statutory Sustainability Report.

A limited assurance engagement and an examination according to RevR 12 is different and substantially less in scope than an audit conducted in accordance with International Standards on Auditing and generally accepted auditing standards in Sweden.

The firm applies ISQC 1 (International Standard on Quality Control) and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements. We are independent of Volvo Car AB in accordance with professional ethics for accountants in Sweden and have otherwise fulfilled our ethical responsibilities in accordance with these requirements.

The limited assurance procedures performed and the examination according to RevR 12 do not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. The conclusion based on a limited assurance engagement and an examination according to RevR 12 does not provide the same level of assurance as a conclusion based on an audit.

Our procedures are based on the criteria defined by the Board of Directors and the Executive Management as described above. We consider these criteria suitable for the preparation of the Sustainability Report.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion below.

Conclusion

Based on the limited assurance procedures we have performed, nothing has come to our attention that causes us to believe that the Sustainability Report, is not prepared, in all material respects, in accordance with the criteria defined by the Board of Directors and Executive Management.

A Statutory Sustainability Report has been prepared.

Göteborg March 14, 2018

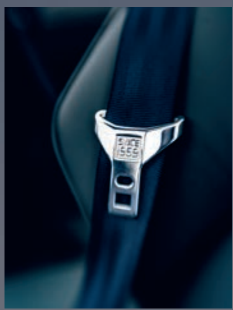
Deloitte AB

Jan Nilsson
Authorized Public Accountant

Lennart Nordqvist
Expert Member of FAR

Looking Back Helps Us Look Forward

1927 Volvo was founded by Assar Gabrielsson and Gustaf Larson



1959 Volvo engineer Nils Bohlin invented the three-point safety belt

70's

1972 Environment was added to our existing core values Safety and Quality. Volvo invented the rearward-facing child safety seat

1976 Volvo 240 and 260 were nominated as The Standard for Safety in the US. Volvo presented the world-first catalytic, exhaust control with the Lambda Sond. It reduces harmful exhaust emissions by 90 per cent

80's and 90's

1984 The sales of Volvo 740 and 760 was a great success

1991 Volvo presented Volvo 850 – the largest product investment since Volvo introduced the Side Impact Protection System

1998 Volvo developed the Inflatable Curtain

1999 Volvo Cars was acquired by Ford Motor Company

1927 1959 1970 1990

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DEFINITIONS

Volvo Car Group and Volvo Cars
Volvo Car AB (publ.), Volvo Car Corporation and all its subsidiaries.

Retail sales
Retail sales refers to sales to end customers (including a portion of cars used as customer loaner and demo cars) and is a relevant measure of the demand for Volvo cars from an end customer point of view.

Europe
Europe is defined as EU28 + EFTA.

Joint venture companies
Joint ventures refer to companies in which Volvo Car Group, through contractual cooperation together with one or more parties, has a joint control over the operational and financial management.

Wholesales
Wholesales refers to new car sales to dealers and other customers including rentals.

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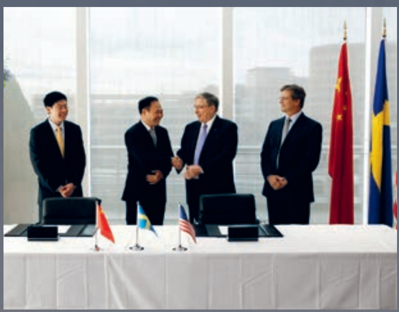

2010 Volvo Cars was acquired by Zhejiang Geely Holding Group

2014 Volvo Cars unveiled the first product developed on the SPA platform – the all-new XC90

2017 Electrification strategy announced

2010

2014

2017

2013

2016

2018

2013 Industrial entities in China were established

2016 Volvo Cars accessed the capital market

2018 First US manufacturing plant inaugurated


VOLVO