VOLVO CAR GROUP

ANNUAL AND SUSTAINABILITY
REPORT 2021

Freedom to move in a personal, sustainable and safe way

VOLVO

Volvo Car Group's formal Annual Report is presented on pages 48–53, 78–135 and 139–146, and has been audited by the Group's auditors.

The sustainability report can be found integrated in this report on pages 39–46, 55–60, 151–187 and 189. The auditors have performed a limited assurance engagement of the Sustainability report.

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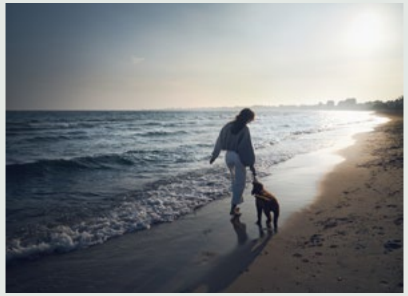
CEO COMMENT

"I want to thank all employees and business partners for a great effort and all we have achieved together."



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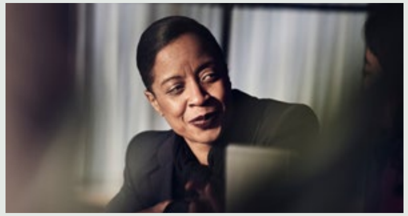
SUSTAINABILITY IS KEY

We are committed to the highest standard of sustainability in mobility while driving profitable growth.

10

A FAST-CHANGING WORLD

Our industry is undergoing disruptive change, where speed is more important than size.



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GOVERNANCE

We apply the principles of sound corporate governance and responsible business practice.

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OUR STRATEGY

We meet our future focusing on transformation into full electrification by 2030.

191

VOLVO CARS HAS APPROX. 190,000 SHAREHOLDERS

Volvo Cars was listed on Nasdaq Stockholm Large Cap on 29 October 2021.

A FOCUSED LINE-UP

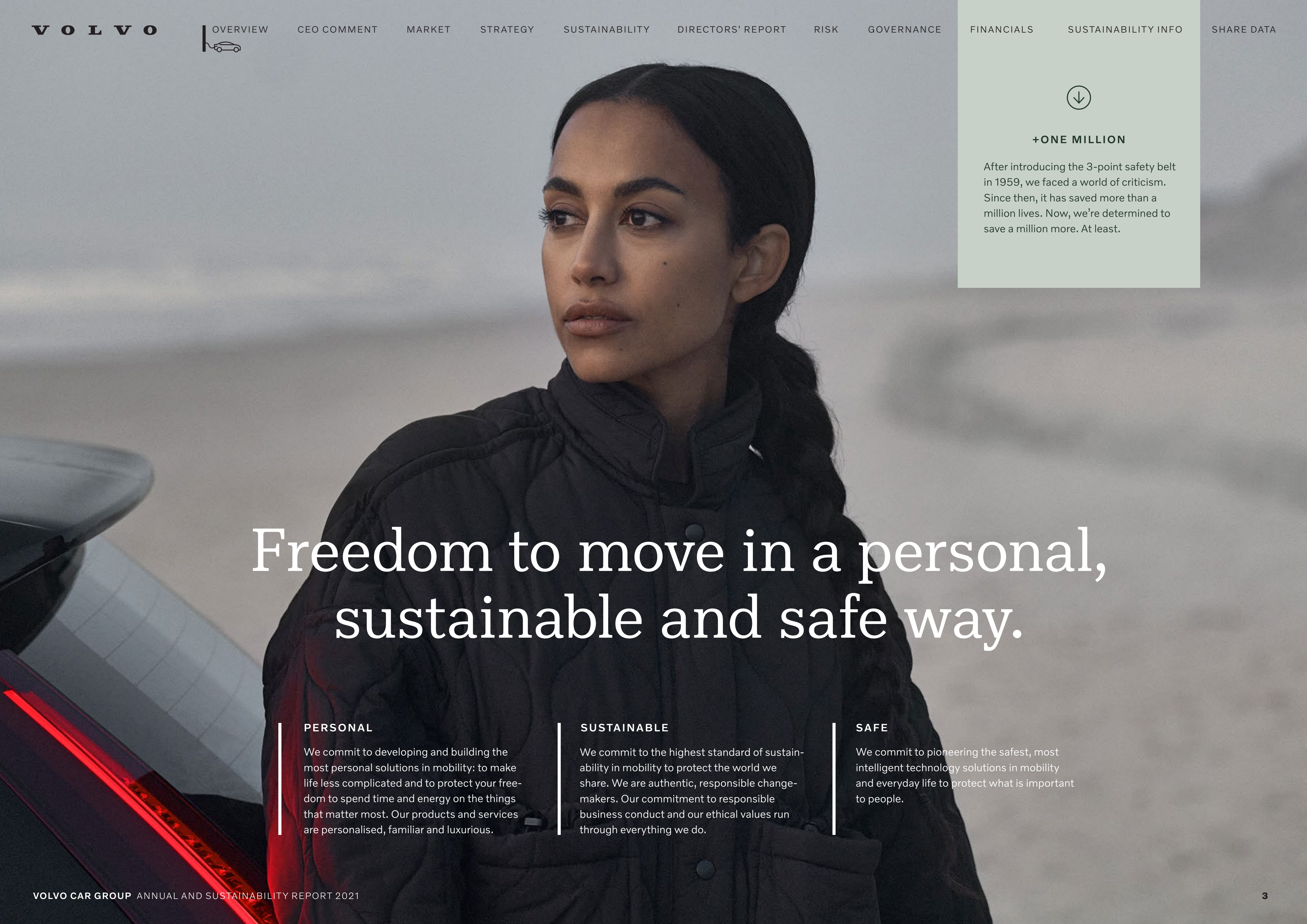
Volvo Cars has a focused portfolio of premium cars offering a chargeable alternative for each model. Since 2020, all our new models have been fully electric. The latest addition was the C40, a fully electric crossover.

SUV / XC | **WAGON / V** | **SEDAN / S** | **CROSSOVER / C**

90

60

40



+ONE MILLION

After introducing the 3-point safety belt in 1959, we faced a world of criticism. Since then, it has saved more than a million lives. Now, we're determined to save a million more. At least.

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

PERSONAL

We commit to developing and building 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.

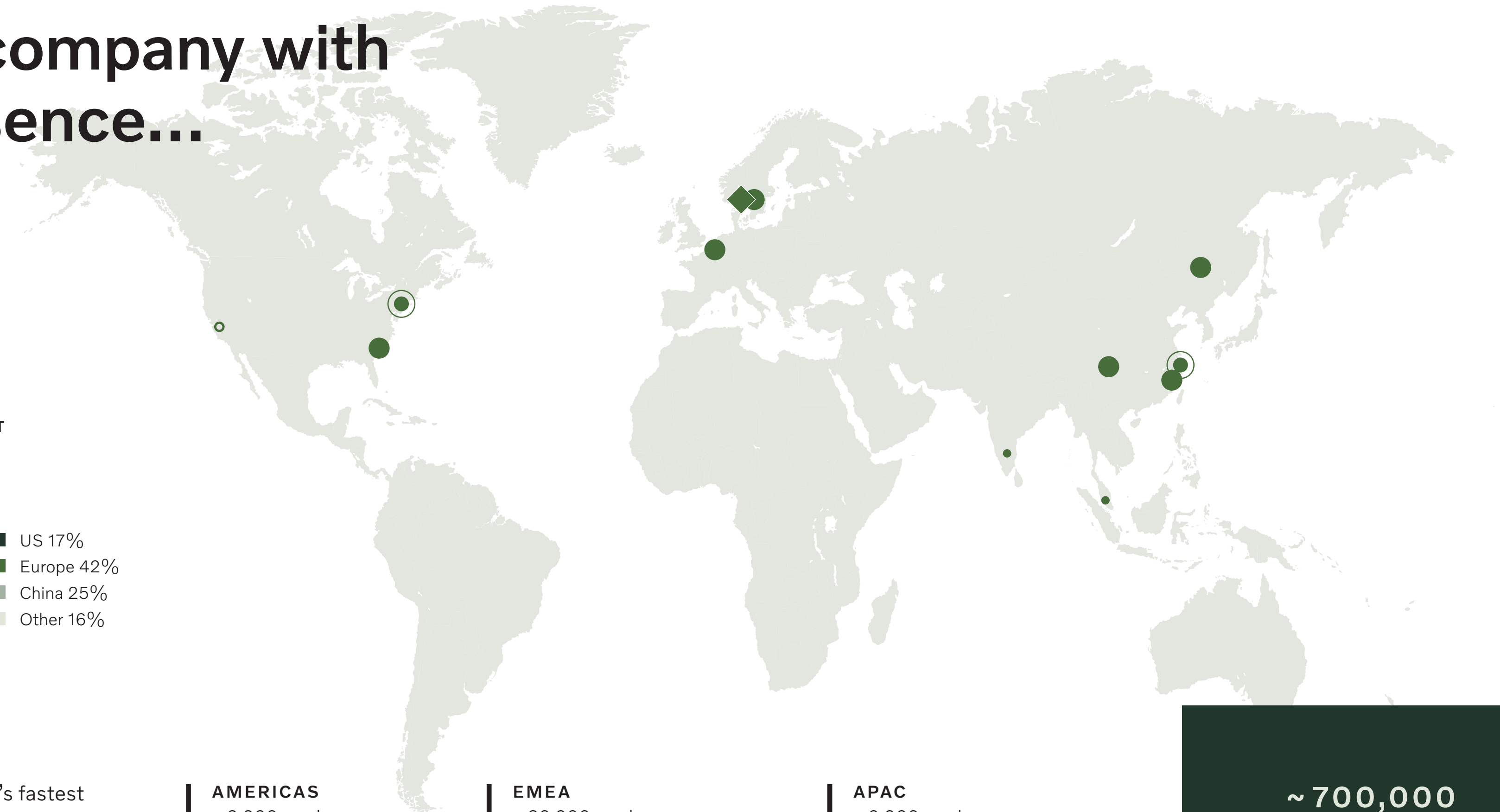
SUSTAINABLE

We commit to the highest standard of sustainability in mobility to protect the world we share. We are authentic, responsible changemakers. Our commitment to responsible business conduct and our ethical values run through everything we do.

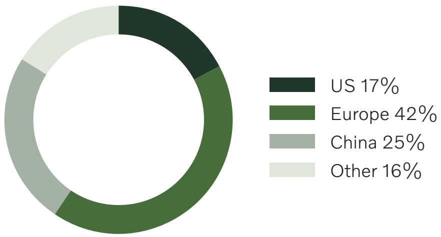
SAFE

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

A global company with local presence...



RETAIL DELIVERIES PER MARKET



Volvo Cars is one of the world's fastest growing premium automotive brands with sales to customers in over 100 countries.

We are headquartered in Gothenburg, Sweden, where we were founded in 1927. Production is located close to our customers, thus reducing operational risk and environmental footprint.

R&D and Design centres are located in Gothenburg, Shanghai and Camarillo whilst headquarter functions are mainly located in Gothenburg.

◆ HQ/R&D/Design/Production
◉ Regional HQ/R&D/Design
○ R&D/Design
● Production

AMERICAS
~ 2,000 employees

USA
- Mahwah, NJ
  – Americas Headquarters
- Charleston, SC
  – Car production
- Sunnyvale, CA
  – R&D
- Camarillo, CA
  – Design centre

EMEA
~ 30,000 employees

Sweden
- Gothenburg
  – Global Headquarters
  – R&D
  – Design Centre
  – Car Production
- Olofström
  – Body components

Belgium
- Ghent
  – Car Production

APAC
~ 9,000 employees

China
- Shanghai
  – APAC Headquarters
  – R&D and Design Centre
- Chengdu
  – Car Production
- Daqing
  – Car Production
- Taizhou
  – Car Production

Assembly factories in Bangalore, India and Kuala Lumpur, Malaysia

~700,000
RETAIL DELIVERIES

3
REGIONS

+100
SALES IN COUNTRIES

2,300
RETAIL PARTNERS

41,000
EMPLOYEES

...transforming into a fully electric car brand

Volvo Cars distinct brand and values are in tune with societal trends and our strategy is geared for fast transformation towards becoming a fully electric brand with direct and online sales.

We are leading our industry's transition to zero-emission vehicles through design and innovation, which is key to tackling climate change. By mid-decade, we aim for 50 per cent of our global sales to be fully electric and 100 per cent by 2030. So we are addressing the fastest-growing part of the fully electric market. We will grow in existing segments and by expanding our portfolio.

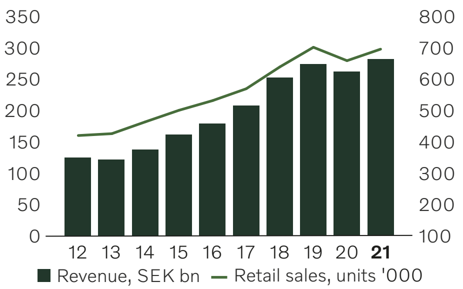
Our next generation of cars, built on our new electric architectures, comes with a core computing technology that allows for increased development speed and continuous value creation.

The ambition is to move 50 per cent of our software development in-house. Our new core computing platform opens up for software updates and continuous improvements of our cars over the full lifecycle including functionality for unsupervised driving.

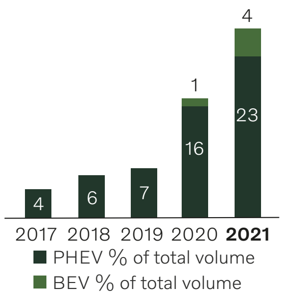
Online sales is another fundamental part of our transformation, building strong relationships with our customers and direct connections with them. We will do this together with our retail partners, who will remain a crucial part of the customer experience, being responsible for a variety of services including guiding a customer through the sales process, preparing, delivering and servicing cars. We do this to provide a seamlessly integrated online-offline experience, meeting consumers where and when they choose, while lowering the threshold of getting access to mobility by offering subscription and sharing solutions.

To accelerate our transformation we are open to tech partnerships within the Geely ecosystem and other external parties such as Google, Luminar and NVIDIA. This is doable thanks to our distinct and collaborative culture and consumer-driven mindset.

TEN YEARS OF STRONG GROWTH



ACCELERATING SHARE OF RECHARGE, % OF SALES



MID-DECADE AMBITIONS

1.2M UNITS SOLD

50% FULLY ELECTRIC SALES

50% ONLINE SALES

8–10% EBIT MARGIN

40% CO_2 REDUCTION PER CAR

2021 – a year to be proud of

4% FULLY ELECTRIC

23% PLUG-IN HYBRIDS

17,000 ACTIVE SUBSCRIPTIONS

200,000 NEW SHAREHOLDERS IN IPO

- Announced plan to become a fully electric car maker by 2030.
- Spun off parts of the combustion engine operations into Aurobay, an associated company co-owned with Geely Chantou.
- Started production of the second fully electric model C40 Recharge.
- Started expanding production capacity to reach 150,000 fully electric cars after summer 2022.
- Online sales represented 9 per cent of sales in active markets in Q4.
- Online B2B sales platform, initially targeting small- and medium-sized businesses was rolled out starting with Sweden, to be followed by Germany, UK and the Netherlands.
- Continued growth of Care by Volvo and active subscribers.
- Introduced Family Bond, a global paid parental leave offer for all employees.
- Volvo Cars was successfully listed on the Nasdaq Stockholm exchange on 29 October 2021.
- Introduced an internal carbon price of 1,000 SEK per tonne CO_2 with the purpose to take emissions into account in investment decisions across the business.
- Volvo Cars and Northvolt entered a partnership in battery development and production. A joint venture research centre and manufacturing plant to be placed in Gothenburg.
- Signed contracts to fully own all operations in China including R&D and manufacturing.
- Awarded "2021 Excellence in Creativity Brand" in the automotive industry by WARC (World Advertising Research Council).

Events after the year-end

- The Board of Directors appointed Jim Rowan as Chief Executive and President. Jim Rowan joined Volvo Cars on 21 March 2022.
- Volvo Car Group finalised the separation of its ICE operations, and sold the 50% owned subsidiary Zhangjiakou Volvo Car Engine Manufacturing to its associate company Aurobay.
- Volvo Cars and Northvolt have selected Gothenburg, Sweden, to establish a new battery manufacturing plant planned to commence operations in 2025.
- Volvo Cars is deeply concerned for people directly affected by the war in Ukraine, and the impact it will have on people and societies across Europe and beyond.
- On 22 March 2022, Volvo Cars announced there is a temporary worsened production situation, expected to last throughout the second quarter due to lack of a specific type of semi-conductor.

HIGH ESG RANKINGS

We have been recognised as a global leader in climate action and our increased focus on sustainability is confirmed by the rankings below.

Sustainability Award
Bronze Class 2022
S&P Global

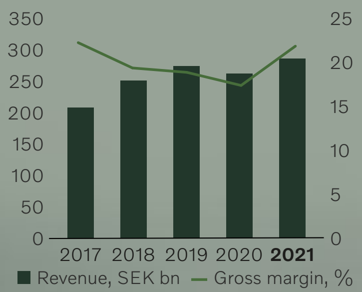
CDP A LIST 2021 CLIMATE

PLATINUM 2022 ecovadis Sustainability Rating

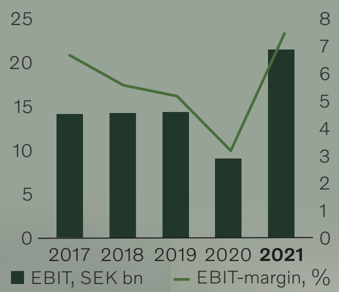
All-time high revenue, market share and profitability

- Retail sales increased by 6 per cent to 698.7 (661.7) thousand cars.
- Revenue increased by 7 per cent to all-time high SEK 282.0 (262.8) bn, despite supply constraints in the second half year.
- Operating income (EBIT) was SEK 20.3 (8.5) bn, supported by positive mix effects and strong price realisation for both new and used cars.
- EBIT margin was 7.2 (3.2) per cent, excluding share of income from joint ventures and associates, the margin was 7.5 (3.4) per cent.
- Basic earnings per share was SEK 4.72 (2.28).
- Operating and investing cash flow was SEK –4.9 (13.3) bn, mainly impacted by strong EBITDA offset by income tax, working capital and the acquisition of the Taizhou plant.
- Average lifecycle CO_2 emissions were reduced by 9.5% compared with the 2018 level. This is in line with our ambition to reach 40% reduction by 2025.
- The Board of Directors proposes no dividend be paid. Volvo Cars will focus its resources on delivering our fastest transformer and growth strategy.

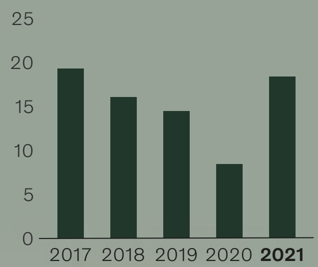
REVENUE AND GROSS MARGIN



EBIT AND EBIT MARGIN (BN SEK/%)

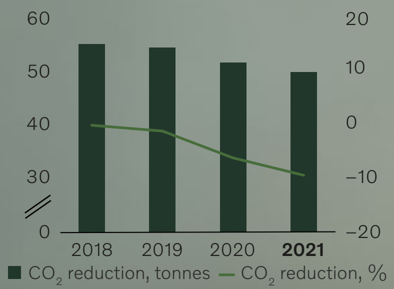


RETURN ON INVESTED CAPITAL, ROIC (%)



Invested capital is calculated on two-year average figures.

TOTAL CO_2 PER CAR REDUCTION, SINCE 2018 (BASELINE)



KEY FIGURES FINANCIALS (SEKm)	2021[1)]	2020	2019
Retail sales, units	698,693	661,713	705,452
Revenue, MSEK	282,045	262,833	274,117
Research and development expenses, MSEK	–13,126	–11,362	–11,446
Operating income (EBIT), MSEK	20,275	8,516	14,303
Operating income (EBIT) excl. share of income from JVs & associates, MSEK	21,226	8,868	14,471
Net income, MSEK	14,177	7,788	9,603
Basic earnings per share, SEK	4.72	2.28	N/A
EBITDA, MSEK	35,280	22,965	29,851
Cash flow from operating activities, MSEK	29,852	34,285	32,374
Cash flow from investing activities, MSEK	–34,737	–21,003	–20,801
Net cash, MSEK	44,846	35,241	25,214
Gross margin, %	21.4	17.5	19
EBIT margin, %	7.2	3.2	5.2
EBIT margin excl. share of income from JVs & associates, %	7.5	3.4	5.3
EBITDA margin, %	12.5	8.7	10.9
Return on invested capital, ROIC, %**	18.5	8.4	14.5
KEY FIGURES SUSTAINABILITY			
Climate Action			
Total CO_2 emission reduction per vehicle[1,2)] (baseline 2018), %	–9.5	–6.2	–1.1
Fully electric vehicles (BEVs) sold, %	3.7	0.7	—
Energy usage reduction per vehicle in manufacturing[8,11)] (baseline 2018), %	–7	–12	–7
Circular Economy			
Waste reduction per vehicle in manufacturing[8,11)] (baseline 2018), %	1	–2	–2
Water usage reduction per vehicle in manufacturing[8,11)] (baseline 2018), %	–23	–8	–5
Ethical and Responsible Business			
Employee engagement	76	75	—
Injury rate (LTCR) employees***	0.06	0.10	0.13

*In 2021, Dividends received from joint ventures and associates were reclassified from Investing to Operating activities and the comparative figures for 2020 have been adjusted accordingly.
**Invested capital is calculated on two-year average figures.
*** Injury rate (LTCR) is defined as the number of work and occupational accidents reported with at least one day sick leave, divided by hours worked and multiplied by 200,000.
For Sustainability definitions and reporting principles see page 185–187.

"2021 – A year to be proud of"

Håkan Samuelsson reflects on 2021, his final full year as CEO of Volvo Cars.

2021 was a year to be proud of for Volvo Cars. The demand for our cars remained strong with growing unit sales, despite persistent component supply shortages in the auto industry. We increased market share globally and delivered all-time high revenue and profitability.

We took important steps towards delivering on our mid-decade ambitions, and we committed to full electrification by 2030. Sales of chargeable Volvo cars made up 27 per cent of the company's total sales volume during the year. In addition, we launched our second fully electric car, the C40 Recharge, and the share of fully electric cars continued growing, in line with our ramp-up plan, reaching 6 per cent of total sales in the fourth quarter. That share will continue to grow as we increase our annual production capacity for fully electric cars to 150,000 cars after summer and, for the full year 2022, we expect it to have more than doubled compared with the full year 2021.

To allow us to focus fully on the development of a new range of all-electric cars, Volvo Cars last year spun off parts of its combustion engine operations into Aurobay, an associated company co-owned with Geely Chantou. We also entered into a new partnership with Northvolt to accelerate the development and production of sustainable batteries.

I'm proud that Volvo Cars welcomed more than 200,000 new shareholders after a successful IPO on the Stockholm Nasdaq exchange in October, positioning us strongly as a global brand for the future and contributing to the funding of the transformation that lies ahead. On the same theme, our affiliated company Polestar also announced its intention to list as an independent company on Nasdaq New York during the first half of 2022.

Another reason to be proud is that we can now offer all 40,000+ employees around the globe, in all plants and offices, 24 weeks of paid parental leave through our Family Bond policy.

I am very pleased to welcome Jim Rowan into his new role as Volvo Cars CEO on 21 March, leading the company on its continued journey. I would also like to take this opportunity to thank all employees and business partners for a great effort and for all we have achieved together. Through collaboration and determination, we have made tremendous progress over this last decade. We have placed Volvo Cars firmly on the map as a brand that is leading mobility into the future in a safe, sustainable and personal way, showing it is possible to be both profitable and more sustainable.

Håkan Samuelsson
Chief Executive
2012 — 21 March 2022

Transformation continues

A FAST-CHANGING WORLD

With our ambition to transform into full electrification by 2030, we aim for the fastest growing part of the market thus meeting our customers' needs and expectations.

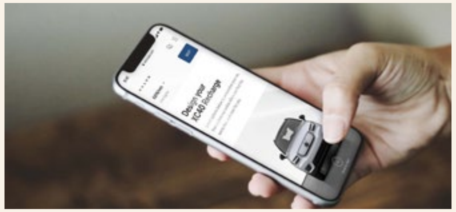
The consumer decides

We are a purpose-led company. We also believe that our purpose and values are of increasing relevance to our consumers, and that they appreciate us becoming a direct-to-consumer company.

Important to our consumers

HUMAN CENTRIC
Diversity and inclusion, well-being and health

RESPONSIBILITY
Safety, lower carbon impact and responsibly sourced materials



CONVENIENCE
Transparent, uncomplicated and trustworthy offering

ACCESS
Personal access and usage is key, not financial ownership

Volvo Cars Purpose

PERSONAL

SUSTAINABLE

SAFE

Societal trends

CLIMATE EMERGENCY
Our biggest challenge but greatest opportunity

MOBILITY
Electrified, shared revolution brings new design context

DIGITALISATION
New socio-political dynamic

POSTMODERN VALUES
Luxury is changing and we have the power to redefine it

Industry in rapid transformation

There are a number of structural shifts in the automotive industry. Incumbents are challenged by new players free from legacy and the need for sustainable mobility is immediate. Volvo Cars is well positioned to strengthen its market position by transforming fast and by building on strong brand values.

82%

OF CONSUMERS WOULD TAKE ACTION TO SUPPORT A COMPANY WHEN THEY BELIEVE IN ITS PURPOSE.

(Strength of the purpose study, Zeno Group)

For more details on Volvo Car Group' sustainability strategy and how it supports the United Nations' Sustainable Development Goals (SDGs), see page 40.

Our industry is undergoing a shift in technology and business models, consumer preferences and structural societal trends are changing, and climate change is the biggest challenge we face. Also, parties outside our industry are entering the value chain, with new competition from digital disruptors, third-party marketplaces and leasing companies, Amazon, Cazoo, Carwow, Apple, who were born digital, putting pressure on OEMs like Volvo Cars to reinvent themselves. To remain successful and be part of the solution, we must constantly evolve and find new business opportunities that provide answers to the questions of today.

To start, the face of mobility is changing as consumers demand cleaner modes of transport. The growing number of extreme weather events, the latest 'Code Red for Humanity' report by the UN IPCC's panel of climate scientists, as well as high levels of urban air pollution are important factors in the purchasing decisions of many private and fleet/company car buyers. So while the shift to electrification and battling climate change is a challenge for the industry and our company, it is also a huge opportunity to both address social responsibility and create excitement among our customers.

Regulations also drive this transition to cleaner mobility. Cars are becoming increasingly electrified as more governments implement regulations aimed at significantly reducing emissions and/or banning sales of cars with internal combustion engines altogether. By 2040, most European nations are expected to have such a ban in place, while legislation in the United States and China is trailing yet moving in a similar direction. To boost electrified car sales and speed up the transition, many governments have put incentives in place for car buyers.

Sharing is caring

Another trend fuelling the market change is that cars are shared more between people and ownership becomes less important, especially for younger generations of drivers. Those customers value access to a car more than ownership, which has driven an increase in new consumer offerings based on sharing and access. As a result, subscription-based models such as our Care by Volvo offering key services such as wear and tear, service

EUROPEAN BAN ON FOSSIL FUEL PROPULSION BY 2040

We support a ban of ICE, and in COP26, Glasgow, we signed up for an even more ambitious timeline. Regulations support the transition towards cleaner mobility, and incentives for car buyers will also be of importance to change consumer behaviour.

33% **EXPECTED FULLY ELECTRIC ANNUAL GROWTH RATE 2021–2025***

STRONG TRENDS ARE DRIVING DISRUPTION AND LONG-TERM DEMAND

- Demographics and consumer awareness
- Environmental challenges and regulatory shifts
- Electrification of car powertrains
- Connectivity and digitalisation
- Autonomous vehicles
- Sharing and subscription services
- New competition from third party industry disruptors

*LMC Global Hybrid & Electric Vehicle Report, Q2 2021

INFOTAINMENT

Volvo Cars partnership with Qualcomm and Google aim to develop an industry-leading infotainment system. The planned integration will allow our cars to be integrated into the Google ecosystem just as any home device. This provides opportunities to develop various functions where the driver can control other Google-connected devices through the car. In addition, the user experience is adapted for safe interaction while driving and includes improved connectivity and over-the-air (OTA) updates, allowing for continuous improvements. These technology innovations may vary somewhat across markets.

and insurance included, are rapidly growing in popularity. In addition, we offer car sharing services through our mobility company M.

The way customers buy cars and interact with brands is also changing. Studies show that many consumers are either bored or stressed by the traditional car-buying process and value direct access to one company, instead of having to deal with many different counterparts. This underlines the importance of establishing direct customer relationships and a shift to offering our cars online, which is where our customers increasingly buy products and services.

Hassle-free usage experience

Customers expect a hassle-free interaction with their car. Connected cars offer a lot of opportunities for new services, such as regular additions of new features and improving overall customer convenience. In major markets, Volvo models with the new infotainment system, will come with an unlimited data connection and for several models we provide regular over-the-air software updates that enhance existing or add new features. We continue our collaboration with Google integrating their new Android automotive-based infotainment system to enable a better connected experience in our next generation of fully electric cars.

Our next generation of cars will be prepared for autonomous driving functionality, and autonomous driving technology is expected to change the global mobility landscape even further. Having the right approach to data collection and analysis will determine who takes the lead in this area. However, to make autonomy a reality, a variety of relevant regulations and laws about who controls the vehicle will still have to be changed in individual countries as well as on an intergovernmental level.

SIMPLIFIED QUICK DELIVERY OFFER STRUCTURE

To better cater to the change in consumer behaviours and deliver a premium online shopping experience, we have reduced the number of variants and options available for customers.

Reducing complexity increases transparency and reduces buying stress while allowing for quicker delivery.

Autonomous drive evolves

While the era of hyped announcements around autonomous cars seems to be subsiding, many car makers are investing heavily in autonomous technology, often in collaboration with relevant tech partners. Volvo Cars believes that a safe and gradual introduction of autonomous technology offers a huge opportunity to significantly increase overall traffic safety.

Volvo Cars aims to be a leader in this transformation

We have one of the auto industry's most ambitious electrification plans and we are committed to delivering on our purpose the freedom to move in a personal, sustainable and safe way.

2030

BY 2030 WE PLAN TO SELL FULLY ELECTRIC CARS ONLY

And to be one of the leading brands in the segment of premium-priced electric cars.

27%

RECHARGE LINE-UP SHARE OF TOTAL SALES IN 2021

Over the past decade we have made a transformation as a company and as a brand. This means that for the last five years, our brand and our price position has been firmly placed in what is traditionally referred to as the premium segment of the global car industry. Representing around 15 per cent of the total car market, this traditional premium segment is a highly competitive and lucrative part of the market. Historically it has shown stronger growth and better profitability compared to the traditional mass market segment.

Shifting customer preferences

However, the definition of premium is changing. Premium brands have until now been associated with traditional design cues and materials such as leather, a jewellery-like look and chrome surfaces. Horsepower and on-the-road handling capabilities were considered defining attributes. In recent years, start-up brands have demonstrated that a premium price positioning and building a premium brand can also be accomplished by delivering on items such as electrification, connectivity and user experience. We believe that our purpose built around customer-centricity and concern for people and the planet are a perfect fit for consumers buying premium today and into the future.

Positive growth outlook

By investing in such cars and in electrification, we are investing in growth. Whereas other parts of the total market are in decline or show very limited growth, the broader segment for electrified and premium cars has been relatively resilient and showing faster growth, thanks to rapidly growing demand in emerging markets such as China and India. In recent years, before the semiconductor shortages came into effect in 2021, we have grown faster than any other brand, except for Tesla, in the traditional premium segment, which resulted in greatly improved volumes and profits.

Customers go electric

Demand for electrified cars is strong both for pure electric cars and plug-in hybrids. In terms of regions, electric car, including PHEV, adoption is growing fastest in China and Europe. We are well positioned to benefit from this

CHARGING INFRASTRUCTURE — KEY TO SUSTAINABLE MOBILITY

Charging infrastructure is key to accelerating consumer adoption of electric vehicles. We partner with the largest charging providers per region granting access to en route and destination charges for all consumer needs. For the future we plan to offer guidance with real-time updates provided through our car infotainment system or through the Volvo Cars app. Payment at competitive pricing will be made available through the app.

growing demand in coming years, as the only traditional car maker that offers a plug-in hybrid variant on every model in its portfolio.

We consider these "part-time" electric cars to be an important stepping stone before consumers go fully electric, especially in regions where charging infrastructure is lagging.

It is no coincidence that demand for electrified cars is strongest among consumers paying premium prices for their cars. Historically, this is the segment that has taken the lead in terms of introducing new technologies to the market, in areas such as safety, connectivity, infotainment and, indeed, powertrain technology. As a result, the most advanced electric powertrains are sold to car buyers that are more likely to pay extra for new and groundbreaking technologies. Most of our development and marketing efforts are therefore focused on driving sales of our electrified Recharge models.

Our concept recharge

When looking at sales trends, the share of sports utility vehicles (SUVs) has increased rapidly in recent years and that development has helped our growth as well. Over 70 per cent of our global sales volume in 2021 consisted of SUV models. This means we are well positioned to benefit from this continuing shift towards SUVs and future similar-sized model types, as electrification will change the traditional SUV shape into even more aerodynamically efficient designs. The Concept Recharge, which we revealed in 2021, gives a hint at what that future will look like for us.

Consumer interest in electrified cars is gaining momentum

Demand and retail deliveries of fully electric cars soared in 2021, growing by 113 per cent for the total industry. The fastest growing part of the total automotive industry is the fully electric vehicle market/segment. We intend to capture that growth and more than double our share of sales of fully electric during 2022.

Total industry volume share by propulsion type [1) 2)]	Full year 2021	Growth YoY
BEV	6.45%	113%
PHEV	2.61%	87%
ICE (incl. mild hybrids)	90.94%	–0.6%
Total	**100%**	**4%**

Volvo Cars' market share per propulsion type [1) 2)]	Full Year 2021	Full Year 2020
BEV	0.57%	0.23%
PHEV	8.86%	11.30%
ICE (incl. mild hybrids)	0.82%	0.88%
Total	**1.01%**	**1.01%**

1) Volvo Cars is and will continue to be positioned in the premium segment of the automotive market. As the market is transforming with electrification and digitalisation the definition of premium is being redefined. To simplify and to avoid the risk of excluding important parts of the market, we will report our market share in relation to the total market.
2) Includes content supplied by IHS Markit Automotive; Copyright © MarketInsight, 7th March 2022. All rights reserved.

OUR STRATEGY

We meet our exciting future focused, well-invested and with our fastest transformer strategy. One of our mid-decade ambitions is to sell 1.2 million cars, half of which should come via online channels.

Mid-decade ambitions and fastest transformer strategy

Our industry is changing, and we strive to lead that change delivering on our mid-decade ambitions.

We are one of the fastest growing premium automotive brands in the world. But we can't rest on our laurels – to stay ahead we must meet the challenges of a rapidly changing world and industry. Our unique structure and focused strategy make us well-placed to become the fastest transformer and one of the global leaders in the premium electric car segment by 2030.

In coming years, we are committed to creating the best and most sustainable cars in our 95-year history, taking them to market in new and exciting ways. We will deliver on growing customer demand for pure electric cars that offer seamless connectivity, industry-leading safety standards and advanced autonomous drive functionalities.

OUR STRATEGY	KEY TAKE-AWAYS	MID-DECADE AMBITIONS
1 FAST GROWING PREMIUM BRAND	**GROWTH, PROFITABILITY AND SUSTAINABILITY** • Strong growth & performance track record, yet clear room to grow • Distinct brand and design values in tune with societal trends; Personal, Sustainable and Safe • Attractive consumer base, product plan and installed capacity for growth	**1.2** million cars **8–10%** EBIT margin **40% CO_2** reduction per car
2 FULL ELECTRIFICATION	**A LEADER IN THE FAST-GROWING PREMIUM ELECTRIC SEGMENT** • Product plan with full electrification focus • Clear battery technology and supply roadmap • Committed ICE legacy exit plan	At least **50%** fully electric sales
3 A LEADER IN NEW TECHNOLOGY	**SPEED AND VALUE CREATION THROUGH NEW CORE COMPUTE TECHNOLOGY** • Core compute architecture with over-the-air updates • In-house software development for control and pace • Next level of safety and autonomous drive	**50%** in-house software
4 DIRECT CONSUMER RELATIONS	**GO-TO-MARKET MODEL ALIGNED WITH CONSUMER EXPECTATIONS** • Personal consumer experience with online shopping well integrated to offline together with strong retail partners • Price and offer transparency • Car subscriptions and recurring revenues • Sales and distribution effectiveness; lowering cost and capital	**50%** online sales
5 FASTEST TRANSFORMER – WAY OF WORKING	**UNIQUE STRUCTURE, OPEN TECH PARTNERSHIPS AND DISTINCT CULTURE** • Geely ecosystem with access to Chinese partners • Attractive partnerships with tech peers in place • Authentic company culture • Accelerated development speed	Employer of choice Preferred partner
+ STRATEGIC AFFILIATES	**VALUE ADDING BUSINESS BUILDING** • Polestar • Zenseact • Aurobay • LYNK&CO • HaleyTek • NoVo Energy • Volvo Tech fund	Value creation

1 Fastest growing premium brand

Growth, sustainability and profitability

GROWTH DRIVERS

- Strong growth & performance track record, yet clear room to grow
- Distinct brand and design values in tune with societal trends: Personal, Sustainable and Safe
- Attractive consumer base, product plan and installed capacity for growth

MID-DECADE AMBITIONS:

1.2
MILLION CARS

8–10%
EBIT MARGIN

40%
CO_2 REDUCTION PER CAR

2021 delivered all-time high revenue, market share and profitability. 2021 also marks the end of the first decade of strong development with Geely Holding as a majority owner. Since the acquisition by Geely ten years ago, we have completely transformed our company and developed into a global premium player. We renewed our product portfolio, opened new plants, almost doubled in size in terms of sales and increased profits to be on a par with other premium brands. We launched a new fully electric brand in Polestar and expanded our technological capabilities, helped by partnerships with leading tech companies.

But as we revealed during our Tech Moment technology event in the summer of 2021, those achievements are by no means the end of our ambitions. While we are stronger than we have ever been, there is still clear room for us to grow and we want to be the fastest transformer in our industry.

We aim to grow towards 1.2 million cars and beyond, and we intend to do so profitably. We will realise that growth by aiming for the fastest-growing and most lucrative segment in the industry: fully electric premium cars.

Here, we can benefit from the fact that the traditional correlation between body style and size and price is changing, influenced by a shift to electrification. We see an opportunity to broaden the portfolio both upwards and downwards, which will help us to grow to 1.2 million cars and beyond.

Attractive brand and design

Our strong brand and attractive design language are widely recognised and appreciated by customers. Our values are in line with the societal trends described at the beginning of this report: a focus on personal, safe and sustainable mobility. Our ambitious electrification plans are also well-received by customers, as the strong demand for our pure electric XC40 and C40 Recharge models demonstrates.

Already by 2025, we aim for half of our global sales to consist of fully electric cars.

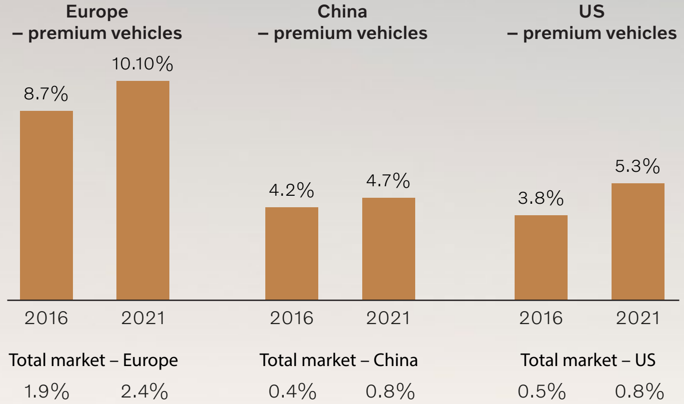
In the coming years we will work towards being a fully electric car company by 2030. We'll roll out new pure electric models, full of in-house developed technology and software. We'll invest in battery supply, development and production around the globe, while we will do the same for designing and building e-motors in-house.

We'll also expand our fully controlled and owned global manufacturing footprint to support growth beyond the current installed capacity for 1.2 million cars. And to meet the changing needs of our customers, we are transforming our commercial approach by building direct consumer relations and creating an intuitive and immersive omni-channel customer experience.

STRATEGY 1

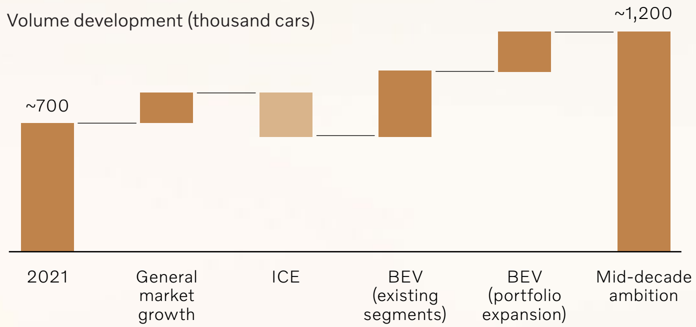
We aim to continue to be one of the fastest growing premium automotive brands gaining market share in all regions. We focus our efforts on growing volume and profitability whilst reducing CO_2. In 2021, the focus was to increase volumes of our Recharge cars. The strategy paid off, and their share of sales was 27 per cent, whereof fully electric cars was four percentage points.

WE ARE GAINING MARKET SHARES IN ALL MARKETS



Source: IHS Market Insight New Car registrations
*For Europe and China TIV includes Passenger cars only, for US the data includes PC and LCV.

OUR MID-DECADE AMBITION –1.2 MILLION CARS



BEV = Battery Electric Vehicle (fully electric);
ICE = Internal Combustion Engine.

STRATEGY 1

We continue to build our success and momentum. Having transformed from a predominantly European company to a truly global player in the automotive industry, with a strong presence in all major regions and exciting product plans, we are ready to continue our growth trajectory in coming years.

Premium profitability

Financially, we aim for an operating income margin of 8–10 per cent by mid-decade. While there is a cost related to our shift to full electrification, we intend to offset those costs with cost efficiencies and synergies from collaboration with Geely, our commercial transformation, continued growth and income from our affiliated companies, which we hope will help us to reach beyond our margin ambition.

We will also be more transparent in our reporting to illustrate this shift. Starting in 2022, we will on a quarterly basis disclose revenue, gross margin and investments related to our electrified cars.

Becoming more sustainable is key

Sustainability is central to our strategy and global warming is the biggest threat to humanity. Climate change is real and the world must unite to reduce carbon emissions in line with the Paris Agreement. We are committed to supporting international efforts and our climate action plans are among the most ambitious in the industry. We know that we are part of the problem, so we must be part of the solution.

At the same time, becoming more sustainable is also key to our future success as a business. That is why we strive to become a climate neutral company and a circular business by 2040 and be a leader in ethical and responsible business.

However, electrification is not enough. We need to address carbon emissions across the board, and we have clear targets to continuously reduce our footprint.

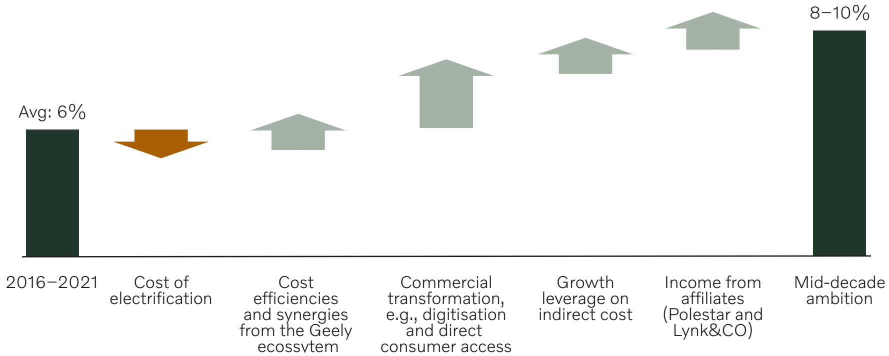
On our path towards our 2040 ambitions, we aim to reduce the average lifecycle carbon footprint per car by 40 per cent between 2018 and 2025. We will do so by reducing emissions in our supply chain by 25 per cent, reducing tailpipe emissions by 50 per cent and cutting operational emissions by 25 per cent. An important element of the latter target is to make our manufacturing operations climate neutral by 2025. By embracing and adopting circular economy principles, we aim to save 2.5 million tonnes of CO_2 per year and generate 1 billion SEK in savings annually.

COST PARITY BY MID-DECADE

First and second generation of fully electric cars come with a higher production cost. We expect this cost disadvantage will wane by mid-decade as volumes grow and third generation of batteries are introduced.

MID-DECADE AMBITION FOR EBIT MARGIN DEVELOPMENT, %

Commercial transformation, cost efficiencies and synergies from the Geely ecosystem and growth leverage on indirect cost drives margin growth going forward



STRATEGY 1

Internal carbon price introduced

We have also introduced an internal carbon price of SEK 1,000 for every tonne of carbon emissions from across our entire business, to accelerate carbon emission reductions throughout our value chain. By making every future car project undergo a 'sustainability sense-check,' we ensure that each car model would be profitable even under a strict carbon pricing scheme and steering all project decisions towards the most sustainable option on the table. We will also expand our use of green financing to continue our transformation and our focus on sustainable growth.

Highest standard of sustainability in mobility

We strive to live our values and support a culture of always acting ethically and responsibly, on both a corporate and individual level. We support International standards and conventions, as well as the United Nations Sustainable Development Goals. Moreover, we believe we can boost the appeal of our brand, attract new investment, avoid reputational damage and secure the best talent.

By working towards climate neutrality, embracing circular economy principles and conducting business in a responsible way, we can consistently reduce our impact on the environment, contribute to a fairer and more equal society, and support our profitable growth.

VALUE CREATION THROUGH SUSTAINABILITY

Our focus on sustainability is necessary but also good for business. We become a more attractive brand to consumers and employees, and by being proactive, we can be ahead of regulatory changes. In addition, increased circularity contributes to long term cost savings. Finally, we gain access to cost-efficient capital through green financing - improving our ability to fund ongoing investments and growth.

CLIMATE CHANGE IS OUR 'ULTIMATE SAFETY TEST'

The climate emergency we are facing-highlights the importance of Volvo Cars' commitment to climate neutrality and full electification. It is also why sustainability is now as important as safety to our company.

FOCUS ON ELECTRIFICATION

- Product plan with full electrification focus
- Clear battery technology and supply roadmap
- Committed ICE legacy exit plan

② Full electrification

A leader in the fast-growing premium electric segment

50%

FULLY ELECTRIC BY MID-DECADE

Global share of fully electric sales was 4 per cent in 2021

For over a century, the internal combustion engine was the dominant force in the auto industry. But as we enter a new era for our industry and the world, we believe that the internal combustion engine has served its course and we need to change gears – literally. Not just for our business, but also for the benefit of the planet and humanity.

That is why we were the first traditional car maker to announce a shift to all-out electrification. This shift will be driven by customer demand, yet we have ceased investing in new combustion engines and plan to be a pure electric car maker by 2030.

Aiming for market leadership

For us, there is no doubt: the car industry is going electric and we aim to be a market leader in the segment of premium-priced electric cars. Driven by changes in customer preferences, national legislation and the urgent need to address climate change, electrification is on the march. Electrification is critical to decarbonise our business, to ensure we achieve truly sustainable mobility and to help combat climate change effectively. The era of developing internal combustion engine-powered cars is over; electric cars are the name of the game now.

Successful introduction of C40 Recharge

In 2021 we continued to make good progress on our transformation towards becoming a premium all-electric car maker. We introduced the C40 Recharge, the second pure electric model on the way towards full electrification of our portfolio. Following the launch of the XC40 Recharge in 2020, the C40 is another tangible statement of our electrification plans as the first car introduced as all-electric only. We will introduce a whole family of fully electric Volvos in coming years, with new models both in existing and new market segments for the company.

STRATEGY 2

Our electrification roadmap
Forthcoming models will be based on new vehicle architectures designed for electrification, while we will also invest in the in-house design, development and production of electric motors, batteries and relevant software. Our electrification roadmap is focused on vertical integration in relevant areas, aimed at realising synergies, cost savings and efficiencies throughout the business.

World-class collaboration is key
To deliver on our electrification plans, we work together with select, world-class partners. As securing batteries is a key success factor, in 2021 we announced a collaboration with Northvolt, a leading European battery company, for the joint development and production of sustainable batteries.

These batteries, planned to be built using 100 per cent climate neutral energy, will be specifically developed for the next generation of our and Polestar cars. The use of climate neutral energy will help us to address battery production emissions, one of the most carbon-intensive areas of EV production.

The collaboration with Northvolt, which alongside previously announced supply agreements will secure battery supply for our European plants.

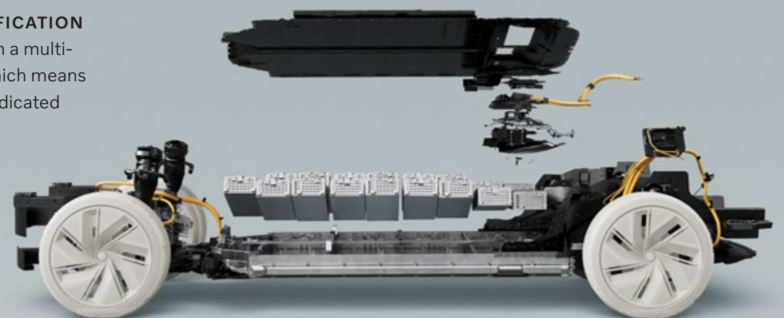
We'll move in that direction in two stages, as battery technology, fast-charging technology and software continue to improve. First, on our forthcoming second generation of electric cars, we'll improve the lithium-ion battery technology and increase energy density by up to 50 per cent compared to what we currently offer on the market.

New generations of electric cars lined up
By the middle of the decade, when we introduce our third generation of electric cars, we plan to further improve range and integrate the battery pack in the floor of the car for further stiffness and improved overall efficiency. Later this decade we aim to have the capability to deliver 1,000 km of real driving range, while we expect to cut charging times almost in half.

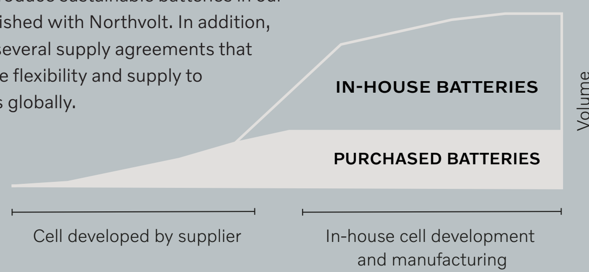
Already with the forthcoming successor to the Volvo XC90, we will offer customers bi-directional charging, thus enabling them to offload excess electricity in their car battery to the power grid. This means electric Volvo drivers can provide energy to the grid when prices and CO_2 emissions related to electricity production are at their daily peak, while charging their car when emissions fall.

LONGER RANGE AND FASTER CHARGING TIMES
We aim to bring battery development and production closer to home and will tailor our future batteries to the needs of our customers: longer range and faster charging times.

DEDICATED ARCHITECTURES TO FULL ELECTRIFICATION
Our current generation fully electric models are built on a multi-use architecture providing for ICE, PHEV and BEV, which means tradeoffs. Going forward all our cars will be built on dedicated architectures for full electrification only.



BATTERY SOURCING/DEVELOPMENT
We will produce sustainable batteries in our JV established with Northvolt. In addition, we have several supply agreements that will secure flexibility and supply to our plants globally.



STRATEGY 2

Lifecycle emissions from a C40 Recharge are nearly halved if it is charged with wind-generated electricity rather than from the global energy mix, which contains 60 per cent fossil fuels.

A circular mindset
Volvo Cars is committed to embracing the circular economy. We need to make much better use of valuable, and often finite, material, within our vehicles and operations. Adoption of circular principles and processes will also help to significantly reduce our carbon footprint. We aim to be a circular business by 2040, and are making some good early progress read more on page 43.

Transparency about our carbon footprint
We believe that automakers should be transparent about the carbon footprint of their electric cars. That is why we issue a Life Cycle Analysis (LCA) report for each fully electric model we produce, which we started with the XC40 Recharge. The report provides full transparency in terms of the car's carbon impact over 200,000 kilometres under a variety of scenarios. This valuable information about the car's overall climate footprint allows customers to make an informed choice when buying an electric Volvo, and we encourage other manufacturers to join us.

Our first LCA reports underline the need to reduce emissions across our business. For example, producing a C40 Recharge results in emissions that are significantly higher than for a similar car powered by an internal combustion engine. It also highlights the importance of clean energy in charging of the car.

The LCA reports also help us identify and target carbon-intensive materials and components. Especially batteries and steel contribute a significant amount of production-related emissions for our electric cars. To tackle this we are working with Swedish steelmaker SSAB to develop fossil free steel for use in the automotive industry, with the aim to become the first car manufacturer to use it in our cars. We also work with all our battery suppliers to ensure that all battery cells are produced using 100 per cent climate neutral energy.

Batteries and responsible sourcing
As well as having a significant carbon footprint, batteries also contain large amount of valuable metals and minerals, such as cobalt, lithium, and nickel. As demand for batteries grows, so too will the demand for these finite materials. We need to ensure we maximise the usage of these materials. So, where possible, we aim to remanufacture batteries through our regional battery centres. Batteries that have reached the end of their lifespan are recycled through firms that offer closed loop recycling to ensure these precious materials can be used in future batteries. Our battery management approach will also reduce the overall carbon footprint of batteries in our value chain

These rare materials, as well as others, such as mica, need to be responsibly sourced. That is why we pioneered and continue to expand the use of blockchain technology throughout our supply chain to increase transparency and traceability. We also monitor conditions at the mines, for example, through the Better Mining initiative at cobalt mines. By working closely with partners and suppliers, we will strengthen our responsible sourcing even further.

STRATEGY 2

Our ICE legacy exit plan

Our history has been on developing and producing excellent Internal Combustion Engines (ICE). Together with our parent Geely Holding, we have devised a clear and credible exit strategy for our ICE activities. At the centre of that strategy is a newly created, stand-alone company called Aurobay. We started transferring all of our manufacturing assets and plants related to ICE into Aurobay in 2021. By the end of 2021, we own 33 per cent of the shares, but this will eventually reduce as the need for combustion engines fades out.

Aurobay will be a global supplier of powertrain technology, including to customers outside the Geely Holding Group.

By creating Aurobay, we can focus fully on the development of pure electric powertrains and cars, while we have secured the supply of combustion engines at attractive terms and conditions for as long as we need them this decade.

"Volvo Cars has gone from strength to strength in its increasingly robust contributions to climate action. With ambitious commitments both independently and as part of international efforts in collaboration with governments and other organisations, Volvo Cars is at the forefront of a rapidly advancing industry converging around the urgent transition to zero emission vehicles to achieve the goals of the Paris Agreement."

Nigel Topping, UN High-Level Climate Action Champion for COP26

To underline our commitment to accelerating the end of the ICE era, we took a strong stand during the critical UN Climate Change Conference (COP26), which took place in November 2021. We reiterated our ambition to be fully electric by 2030, and called on governments and energy firms to boost the availability of clean energy to help realise the full climate potentials of electric vehicles.

We were also one of only a few carmakers to sign a declaration to phase out internal combustion engine cars.

Håkan Samuelsson, CEO, attended the launch of the Glasgow Declaration on Zero Emission Vehicles on Transport Day. This commits governments, major fleet buyers, investors and car companies to work towards achieving 100 percent zero emission vehicle sales in leading markets by 2035, and globally by 2040. These are science-based targets to help ensure the world stays on track to reach net zero emissions by 2050. Håkan spoke about the need for our industry to be more proactive in rising to the challenge of the climate crisis and stressed the strong business case for rapid electrification.

While our own ambitions, such as being fully electric by 2030, go above and beyond the commitments in the declaration, we wanted to signal our endorsement of the ambitions expressed in the document. We also wanted to signal the hope that industry and governments can jointly realise an accelerated phase out of fossil-fuel vehicles that is more closely aligned with our own timeline.

Volvo Cars & Northvolt – A new powerful partnership

In 2021 Volvo Cars and Northvolt entered a agreement to create a joint venture, called NoVo Energy for the development and sustainable production of batteries for the next generation of pure electric Volvo cars.

As part of the SEK 30 billion investment in battery development and manufacturing a joint research and development (R&D) centre, established in Gothenburg are to be operational in 2022, creating a few hundred jobs in Gothenburg. This positions Volvo Cars as one of the few automotive brands to make battery cell development and production part of its end-to-end engineering capabilities. The R&D centre will be in close proximity to Volvo Cars' own R&D operations and to Northvolt's existing innovation campus Northvolt Labs in Västerås, Sweden, ensuring synergies and efficiencies as it develops battery technologies.

Next step is to construct a new manufacturing plant in Gothenburg, Sweden that will produce next generation state-of-the-art battery cells, specifically developed for use in next generation pure electric Volvo and Polestar cars. The plant will have a potential annual capacity of up to 50 gigawatt hours (GWh), which would supply batteries for approximately half a million cars per year. It will start construction in 2023, with large scale production in 2026, and is expected to employ up to 3,000 people.

The partnership with Northvolt is key to Volvo Cars' ambition to become a leader in the premium electric car segment and sell only fully electric vehicles by 2030. It also represents an important step in strengthening Volvo Cars' capabilities within electrification.

"Volvo Cars is an excellent partner in building a supply of battery cells made in Europe with a very low carbon footprint."

Peter Carlsson,
Chief Executive for Northvolt

INCREASED DEVELOPMENT PACE

- Core computing architecture with over-the-air updates
- In-house software development for control and pace
- Next level of safety and autonomous drive

③ A leader in new technology

Speed and value creation through new core computing technology

50%

OUR MID-DECADE AMBITION OF IN-HOUSE SOFTWARE

While we firmly aim towards an electric and more sustainable future, we will continue to push the envelope in other technology areas as well. We aim to remain a leader in automotive safety, as the next level of safety and safe autonomous drive technology will play an important role in advancing safety inside and outside the car. We will take software development increasingly in-house, in combination with a core computing architecture designed for regular over-the-air updates. During our Tech Moment technology event in summer 2021, we communicated these and other ambitions to the world.

Software features beats horsepower

Taking software development in-house builds on our belief that a car's appeal is increasingly defined by software-driven functions and features, rather than traditional automotive attributes such as horsepower. By developing software in-house, we can boost development speeds and constantly improve our cars through over-the-air updates, just like on a smartphone or computer.

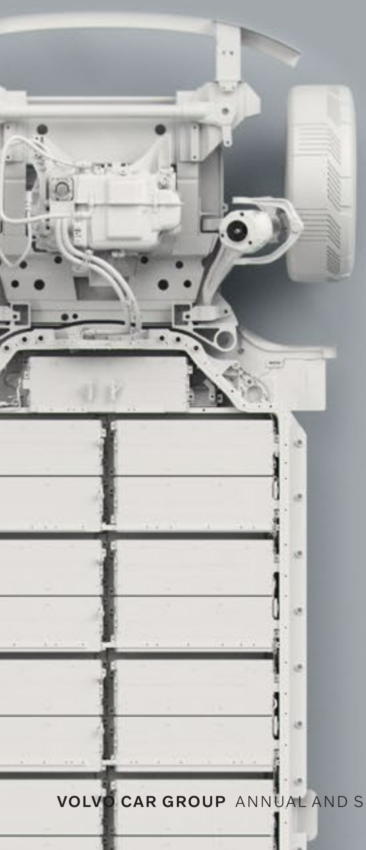
Faster and more flexible

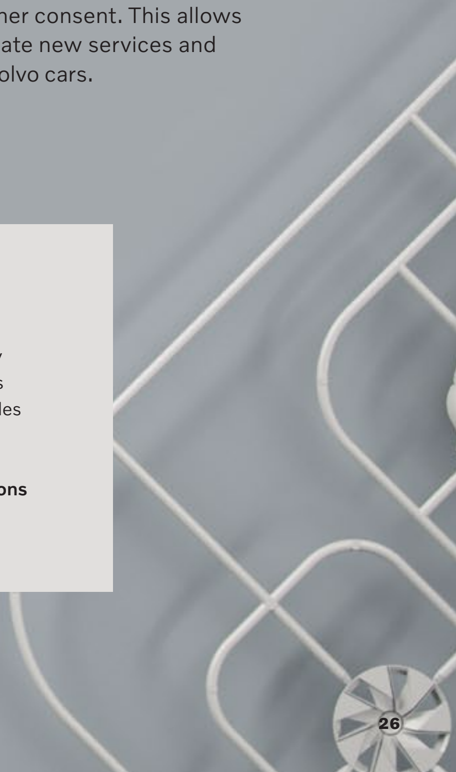
Our move towards faster and more flexible development will happen by using our own operating system (OS), called VolvoCars.OS. It will act as an umbrella system for electric Volvo cars and incorporates the company's various operating systems across the car and the cloud, creating one coherent software OS environment. The underlying operating systems include Android Automotive OS, QNX, AUTOSAR and Linux.

Through a variety of application programming interfaces (APIs), the VolvoCars.OS gives developers access to in-car features such as vehicle sensor data, user interfaces and cloud-based features such as fleet data, subject to customer consent. This allows developers to create new services and applications for Volvo cars.

WE ARE A LEADER IN NEW TECHNOLOGY THAT ENABLES VALUE CREATION THROUGH A SUSTAINABLE TRANSFORMATION AT SPEED

ELECTRIFICATION	CENTRAL COMPUTE & VOLVOCARS OS	CONNECTIVITY & OTA	SAFETY & AD
Strong electrified track record	Central compute architecture with decoupled in-house software	Aligned with consumer preferences	Next level safety is a step towards autonomous vehicles
Enables sustainability acceleration	**Enables control, speed and flexibility in development**	**Enables continuous updates and new business updates**	**Enables Vision Zero Collisions and AD**





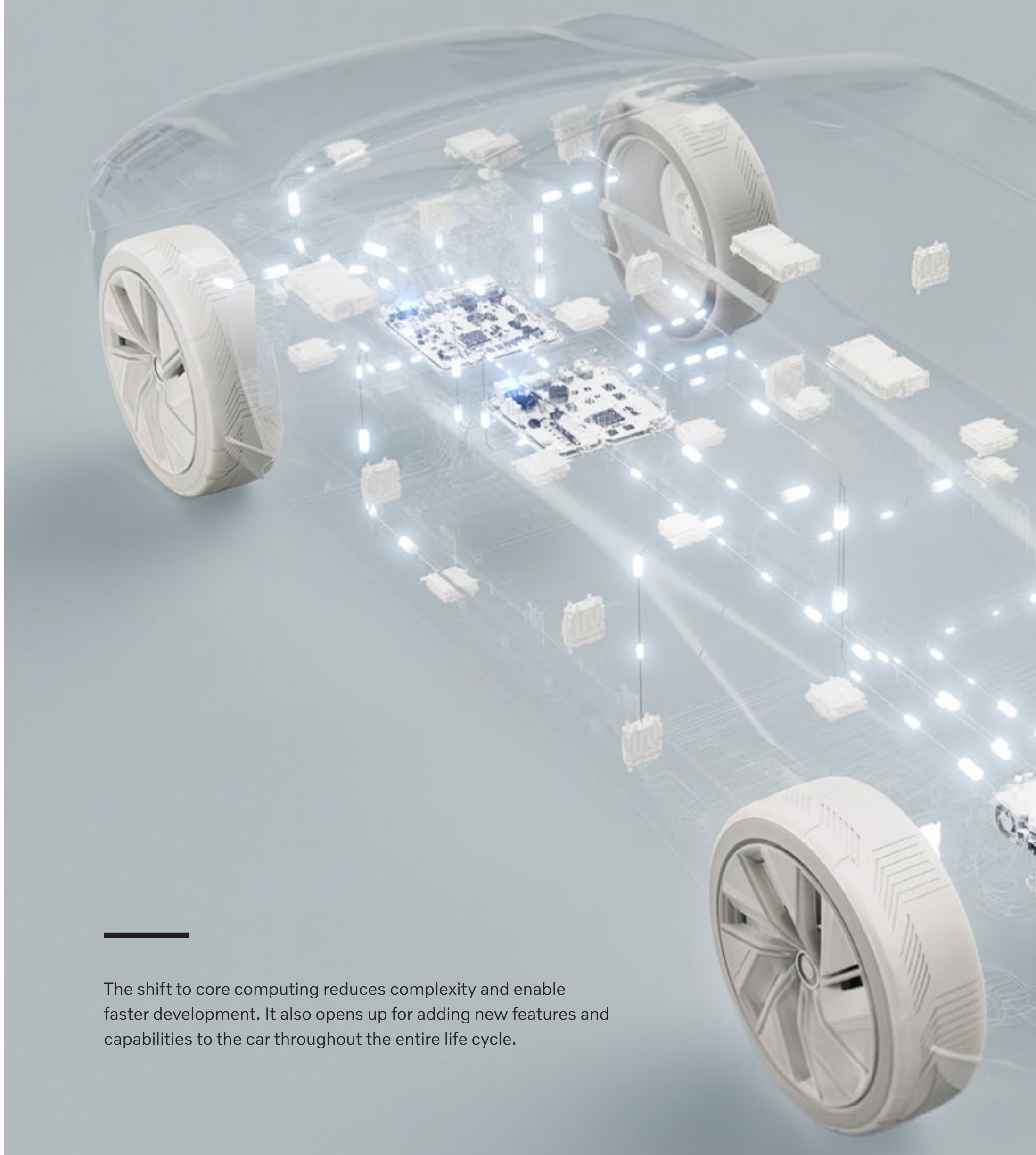
Shift to core computing

To make sure that we reap all the benefits from in-house software development, we are also centralising computers inside our next generation of fully electric cars. This removes a lot of complexity: rather than relying on multiple electronic control units around the car that control individual features and systems, an increasing amount of in-house developed software will run on a powerful core computing system in the car.

This approach has a big benefit in that it allows for faster and constant development, allowing us to constantly equip our cars with the latest software and hardware. The core computing system, which is planned to be introduced with the next generation of cars, is made up of three main computers. These support each other in 1) vision processing and artificial intelligence, 2) general computing and 3) infotainment respectively.

Strategic partnerships with technology leaders

Our shift to in-house development and central computing is done with certain collaboration with companies such as NVIDIA and Google. It reflects our deliberate strategy of partnering with true technology leaders where it makes sense. Google is a leader in user experience and services, from Google Maps to Google Assistant, while NVIDIA provides us with some of the fastest and best computing technology available. This approach of selected strategic partnerships is more effective than trying to do everything on our own, because it allows us to develop and launch market-leading products and services quicker.



The shift to core computing reduces complexity and enable faster development. It also opens up for adding new features and capabilities to the car throughout the entire life cycle.

STRATEGY 3

TOP SAFETY PICK+ IN 2021

Volvo Cars was the only automotive brand to receive Top safety pick+ for the entire line up in 2021. This is an award for vehicles providing the highest level of safety, according to Insurance Institute for Highway Safety (IIHS), US.

Next level of safety relies on advanced tech

Safety is core to what our brand and company stand for, and we believe that safety should be central to everything we do. Therefore we constantly push safety boundaries towards our vision of zero collisions, and all our models are among the safest cars available on the market.

Starting with our new fully electric flagship, to be revealed during 2022, new Volvo models will have industry-leading safety technology. It consists of a package of state-of-the-art sensors, including LiDAR technology by Luminar, and an autonomous driving computer powered by NVIDIA. This hardware will make our cars hardware-ready for unsupervised autonomous driving.

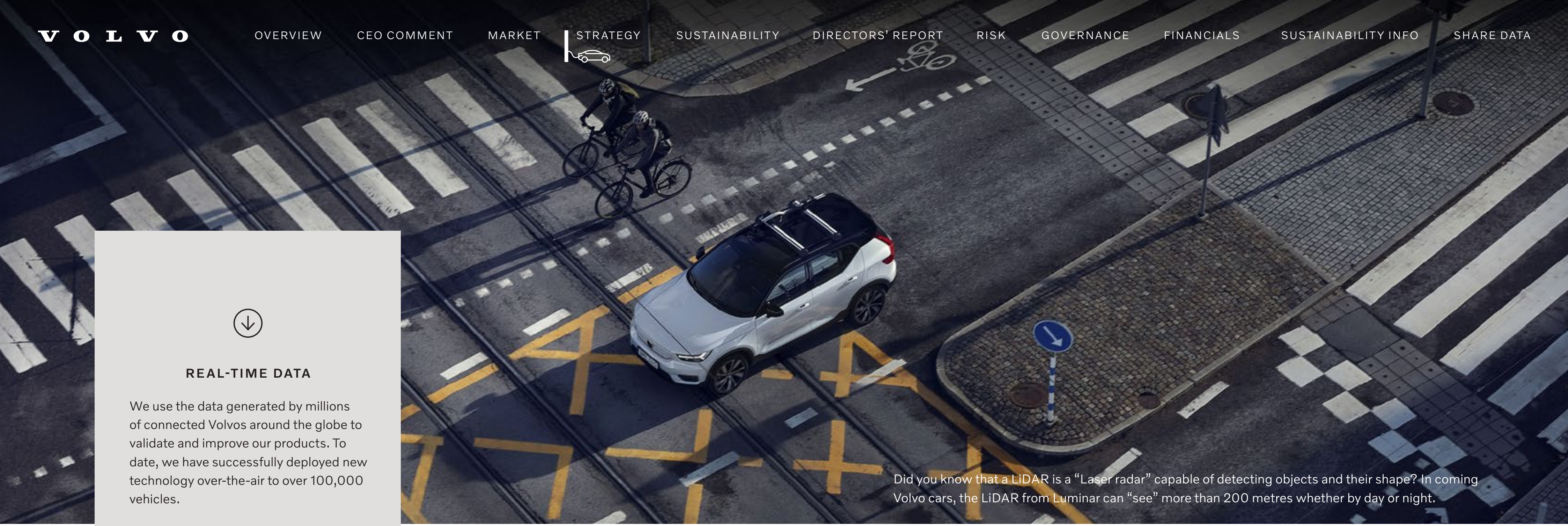
By combining this state-of-the-art hardware with software for the next generation of our well-established collision avoidance technology, we expect to reduce fatalities and accidents as a whole and set a new standard in automotive safety.

The new technologies are also designed to specifically address those traffic situations which result in a large portion of remaining severe injuries and fatalities found today – what we term the “gap to zero” in terms of traffic safety. Thanks to over-the-air software updates, we anticipate we will accelerate the rate of collision reduction over time.

The technology is expected to mature in the next few years, becoming more capable and allowing the car to assist and improve the capabilities of drivers in safety-critical situations. Whereas previous generations of technology largely relied on warning the driver for potential immediate threats, this new safety technology will over time increasingly intervene as needed to prevent collisions.

VISION OF ZERO COLLISIONS

By combining state-of-the-art hardware with software for the next generation of our collision avoidance technology, we expect to set a new standard in automotive safety. Our new generation of cars will come with LiDAR technology, an optical device measuring distance, speed and form of an object with very high resolution using reflected light. A LiDAR can see in conditions when a camera cannot.



Did you know that a LiDAR is a "Laser radar" capable of detecting objects and their shape? In coming Volvo cars, the LiDAR from Luminar can "see" more than 200 metres whether by day or night.

REAL-TIME DATA

We use the data generated by millions of connected Volvos around the globe to validate and improve our products. To date, we have successfully deployed new technology over-the-air to over 100,000 vehicles.

Supporting the driver

To really live up to our safety vision, we believe we also need to address human behaviour and use technology as a support to make people better and safer drivers.

For example, our various active safety systems with autobrake and steer assist are designed to be on guard at all times and help drivers if they lose concentration or are distracted for a split-second. As such, they can act as an extra pair of eyes watching over the driver. The advanced voice control feature on our new Android-powered infotainment system can help drivers to control key features on their car, while keeping their hands on the wheel and eyes on the road.

The 180 km/h speed cap on new Volvos and the Care Key, both introduced in 2020, are further examples of how we address human behaviour. We also believe that distraction and intoxication should be addressed with the help of in-car cameras and other sensors that help ensure the driver is engaged in the driving. With such technologies, if a clearly distracted (or intoxicated) driver does not respond to warning signals and risks a serious, potentially lethal accident, the car could intervene as a last resort by actively slowing down and stopping the car.

Using real-time data

Our new, forthcoming flagship model will also come with back-up systems for key functions such as steering and braking. This will make it hardware-ready for safe, unsupervised autonomous driving under certain road conditions once available and legally permissible. Together with the LiDAR, core computer and software, these back-up systems will enable an optional, autonomous driving feature for use on highways.

To faster validate new safety and autonomous driving features, we also plan to make use of real-time data. We have always taken a data-driven approach to safety, using traffic data from real-life situations to develop new safety technologies and make our cars even safer. But for our future cars, we are looking at processing data from customer cars in real time, if customers choose to share it and help us make our cars safer.

Involving our customers

By allowing customers to be a part of improving safety levels and traffic safety, we can make continuous and much faster improvements to our cars and raise safety levels. This data would include continuous inputs on the car's environment from sensors like the LiDAR. Thanks to such data generated from Volvo drivers, our engineers and our AI-based technology would be able to validate and verify autonomous drive features quicker, promoting a safe roll-out of autonomous technology.

This approach reflects the power of sheer volumes of data: instead of relying on a limited number of cars on a test track, we can use the data generated from millions of kilometres driven by tens of thousands of Volvo drivers around the globe to validate and deploy new technology.

Making circular a business advantage
The previously mentioned circular economy principles also apply in product development. We aim to move away from a linear to a circular economic model, which means changing the way we have built cars for nearly a hundred years. The circular economy offers clear benefits in making better use of valuable resources and reducing carbon emissions and waste, as well as creating cost savings and new revenue streams. We aim to design our cars and their ingoing parts for circularity. The parts can either be reused or recycled.

Variety of circular concepts
The recently revealed Concept Recharge demonstrates a number of ways in which a circular approach to material use inside and outside the car can significantly reduce waste and carbon footprint. The Concept Recharge shows how future car models can incorporate recycled, renewable and/or sustainable materials in the interior, on exterior body panels and even in tyres.

Retaining the value of components through remanufacturing, reusing and recycling is a key part in becoming a more circular business. We are already making some good progress - in 2021, over 37,000 parts were remanufactured saving over 4,000 tonnes of CO_2. We are also working to minimise production waste, through increased material utilisation. Already now, 96 per cent of our production waste is recycled.

Using less primary materials is another priority. By 2025, we aim for 25 per cent of the material in our new cars to be made from recycled or bio-based material, including 40 percent of aluminium. Meanwhile, creating a so-called closed loop of materials is important in maximising their use and lifetime, and ensuring they can re-enter our production process. In terms of aluminium supply, we have already achieved this.

Care by Volvo and M
Another example of circular thinking applies to our mobility models M and Care by Volvo, which help increase the utilisation of cars out on the market. For example, Care by Volvo cars that are returned after shorter subscription periods fit perfectly in M's car sharing fleet. The M fleet can also make use of demonstration and loan cars from retailers during weekends, when demand for car sharing is higher. Moreover, car-sharing business models reduce the overall number of cars, and hence reduce congestion and pollution, particularly in urban areas.

This is what we mean when we say that electrification is not enough: if we want to be a climate neutral company by 2040, we need to address emissions, reduce waste, use cars more efficiently and retain the value of material and components and parts across the board. For more information about circular economy, see page 43.

The power of rethinking everything we do – together

Supporting the company's long-term goal of becoming a circular business by 2040, Volvo Cars will create closed material loops for emission-heavy materials such as steel and aluminium, as well as remanufacture, repair, reuse and refurbish parts. The ambition is to reach annual savings of SEK 1 billion and reductions of 2.5 million tonnes in carbon emissions from 2025 using circular business principles.

New business models such as giving electric vehicle batteries a second life are important from a circular business perspective. By using batteries in energy storage applications outside of cars, new revenue streams and cost savings can be realised while also extending the batteries' lifecycles.

Together with suppliers and partners, Volvo Cars is exploring the potential in second-life applications for its high voltage batteries. An example is the collaboration with BatteryLoop, a company within the Swedish Stena Recycling Group that re-uses batteries from the automotive industry. BatteryLoop and Volvo Cars use batteries from electrified Volvo cars for a solar-powered energy storage system. Since April 2021, the system has powered charging stations for electrified cars and electric bikes at Swedish hygiene and health firm Essity's business centre outside of Gothenburg.

"We welcome Volvo Cars' commitment to design, develop and manufacture their products to be used and re-used."

Joe Murphy,
Network Lead at the Ellen MacArthur Foundation

In a similar project, Volvo Cars, Comsys AB, a Swedish cleantech company, and Fortum, a European energy company, are engaged in a commercial pilot project. It aims to increase supply flexibility at one of Fortum's hydropower facilities in Sweden while contributing to a second life for electric vehicle batteries at the same time. Battery packs from Volvo plug-in hybrid cars will serve as a stationary energy storage unit, helping to supply so-called 'fast-balancing' services to the power system.

COMMITTING TO ONLINE SALES

- Personal consumer experience with online shopping well integrated to offline with strong retail partners
- Price and offer transparency
- Car subscriptions and recurring revenues
- Sales and distribution effectiveness; lowering cost and capital

④ Direct consumer relations

Go-to-market model aligned with consumer expectations

We are in the middle of a fundamental shift in our entire business model, together with our retail partners. It is a shift that changes what we sell, how we sell and where we sell, leading to higher customer satisfaction, stronger consumer relationships, increased customer lifetime value and improved efficiency in sales and distribution. It is rooted in research about changing consumer behaviours, industry trends and competition in combination with our ambition to be a leading, electric car brand by 2030.

All our fully electric cars are available online, through a completely revamped online sales channel. The renewed volvocars.com will be our main sales platform, supported by our other sales channels such as retailers and Volvo studio concepts, making sure that customers can access a Volvo wherever, whenever and however they want. Already by 2025, we expect to sell half of our global volume online.

At the same time, we are reducing the complexity of our offer and making more cars available for quick delivery. Apart from our subscription offer Care by Volvo, with an all-inclusive package including service, wear & tear, insurance, 24/7 road side assistance and customer support, we further enhance the conventional offers via a Care package, adding convenience and bundle services such as insurance, service & maintenance, all for a national, pre-negotiated price. This creates price transparency and quality, fostering trust with customers, while providing us and our retailers with more predictable, recurring revenues.

50%

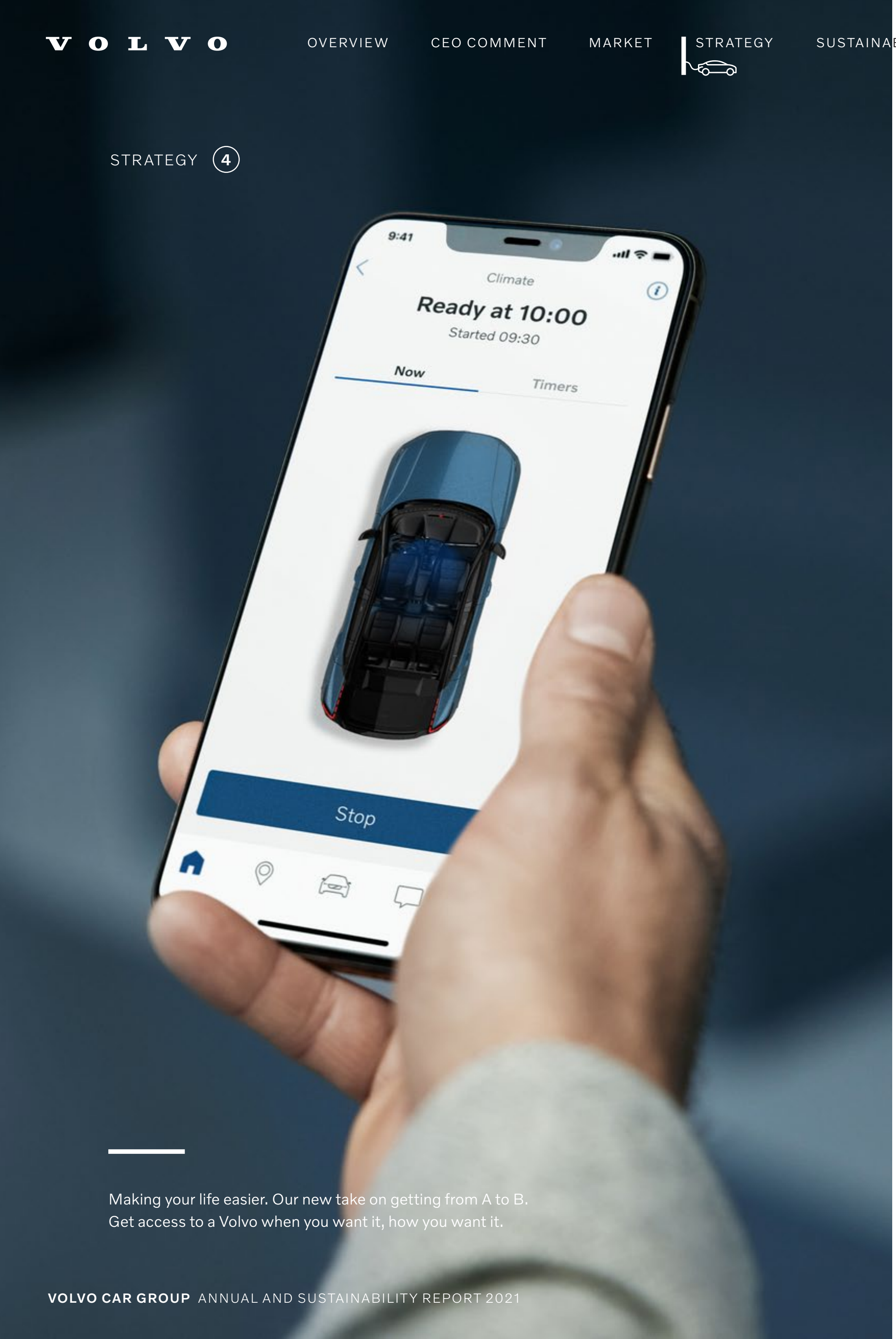
OUR MID-DECADE AMBITION OF ONLINE SALES

About half of the customers would **consider purchasing their next car online.**

Source: McKinsey & Company: A future beyond brick and mortar – disruptive change ahead in automotive retail (September 2020

NEW BUSINESS LOGIC TO MEET THE CHANGING BEHAVIOURS OF CONSUMERS AND THE CAR INDUSTRY

	WHERE WE ARE TODAY	WHERE WE ARE GOING
BUSINESS LOGIC	Wholesale of cars and parts	• Optimising for customer lifetime profitability
CUSTOMERS	Retail partners	• Direct customer relations
MARKETING	3rd party channels, 3rd party customer data	• Volvo Cars controlled channels added • Volvo Cars owned data
SALES & DISTRIBUTION	Retail partners – sales margin	• In-house sales • Retail partners – sales commission
RESIDUAL VALUE	Financial institutions / leasing companies	• Actively managed in-house (incl. used car business)
VALUE CHAIN FOCUS	New car sales	• New/used cars and services • Control value chain across vehicle life • In-house ops. where relevant



Making your life easier. Our new take on getting from A to B. Get access to a Volvo when you want it, how you want it.

ONLINE SALES

All our fully electric cars are available online, through a completely revamped online sales channel making sure that consumers can access a Volvo whenever, wherever, however they want.

While new insights are constantly used in ongoing product development and enhancement, some stand out more than others. Real-time customer feedback and usage data through our online car configurator has shown the benefit of reducing complexity in our offer and creating a simple buying process. We constantly fine-tune and improve our online sales channel based on such input.

Clearly some customers still prefer the ability to specify every single option on their new Volvo. But for many customers, having the option of pre-configured, yet well-equipped models has proven to be a great success. In several markets, conversion rates increased when adding more pre-configured cars and simplifying the configurator on volvocars.com.

The upside simplifying the offer – quick delivery

Lowering the number of options allows us, in the future, to offer many of our models on quick delivery, whereby waiting times amount to a few weeks rather than several months as we have today when cars are built to order. Reducing complexity requires considerable adjustments to our commercial and industrial operations but also brings great benefits. We can be more efficient in our operations and deliver on customer expectations in a much better way.

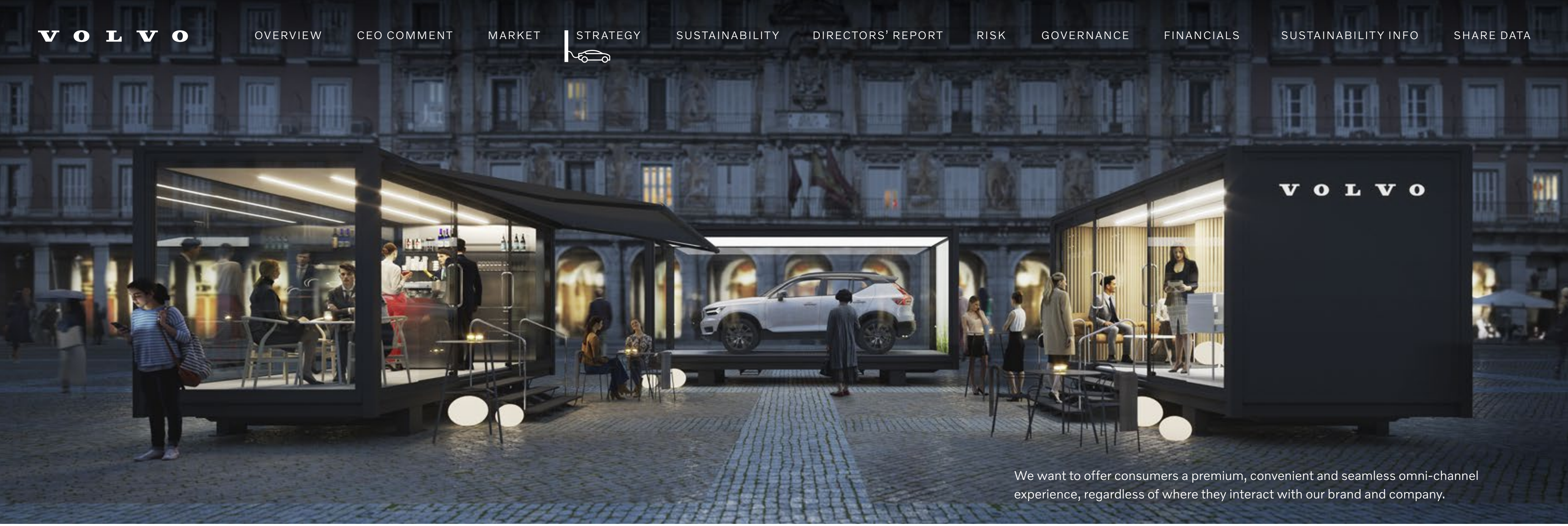
Subscriptions build new relationships

Subscriptions will continue to increase in importance, as the fast-growing popularity of our Care by Volvo business demonstrates. The concept is attractive for customers and for us. By moving from a cyclical business to a subscription-based model, we increase the potential to obtain recurring revenues from software sales and services. We also get the opportunity to replace third-party lease offerings with subscriptions. The subscription model has proven to increase customer acquisition, an important factor to grow our business. Finally, it opens the possibility for more direct relationships with our customers.

The dynamics of our commercial transformation

Our commercial transformation also entails changes to the relation with the customer and our retail partners around the world. As customers are becoming more used to buying online, they want more convenience and transparency, but also a premium customer service. This new commercial era will happen together with our retailers, but their role will change.

Until recently our commercial model was predominantly a classic wholesale/retail one. That model has one obvious downside: from the consumer point of view, it doesn't allow for a consistent price and often includes a time-consuming uncomfortable negotiation



We want to offer consumers a premium, convenient and seamless omni-channel experience, regardless of where they interact with our brand and company.

process as well as a lack of transparency on what is actually included in the price as its tough to compare offers that are not available online. Further, it doesn't allow for direct relationships between the customer and Volvo Cars. The result is that we don't know as much about them, how they use our cars and interact with our brand, as we would like to in order to be able to provide a personal consumer experience, with relevant information and treatment tailored to the customer's needs, behaviours and interests. In the modern economy, to have direct access to the customer and to understand their preferences is critical to staying relevant.

Building direct relationships

By moving online we take an important step in the right direction. If customers buy a car online via our flagship online store, they get a transparent and hassle-free buying process with shorter delivery times and more price transparency. We can build a direct consumer relationship and digitally expand and improve our offer. Supported by real-time insights about consumer preferences and behaviours, we can develop and provide new digital services that fit their lives and offer financing and insurance products optimised for their situation.

A lot of services will still be provided by our retailers, and they will continue to play in important role as our partners in delivering the best consumer experience possible. They will support consumers in the shopping phase, guiding them through the relevant offers and take care of the final delivery of the car, plus service.

Changing to an online consumer model also means we continue to invest in our physical concepts including permanent and temporary pop-up studios. City centres, train stations and airports are important showcase locations, and are complemented with other commuting hubs where consumers can interact with our brand while charging or refuelling their car.

Permanent Volvo Studios and eye-catching pop-up studios in these locations provide us with another outlet to display our newest products and win new customers.

CARS ON SUBSCRIPTION

Most customers do not want to invest in their own car but prioritise access and flexibility available in our offers Care by Volvo and M. To cater for this demand, we are working with partners to explore external funding solutions enabling Volvo Cars to offer the customer a hassle-free subscription experience, while offloading the financing of the cars from Volvo Cars' balance sheet.

⑤ Fastest transformer – way of working

Close collaboration and a distinct culture are key

OUR MID-DECADE AMBITION TO BE THE EMPLOYER OF CHOICE, AND PREFERRED PARTNER

41,000

AVERAGE NUMBER OF DEDICATED EMPLOYEES IN 2021

Volvo Car Group has a unique ownership structure which provides us with an unrivalled access to Chinese technology and the world's largest car market. Through our inclusion in the wider Geely Holding Group we can realise synergies and economies of scale, by collaborating where it makes sense. That means that we can allocate our resources in the best and most efficient way possible.

There are many examples that illustrate the collaboration between us and our sister companies. For example, our Taizhou plant in China currently builds cars from two brands that share the CMA vehicle architecture, optimising the use of existing capacity within our manufacturing and supplier network. LYNK&CO, in which we own a 30 per cent stake, may use our retailer and service network where appropriate as they look to expand outside China.

Shared costs

By sharing costs for research and development as well through joint sourcing of components in areas where we choose to collaborate, we can lower R&D costs per car. Here again, the CMA architecture is a good example as it underpins the Volvo XC40 and C40 models, the Polestar 2, as well as multiple models from LYNK&CO. This type of collaboration and cost-sharing will also be used for future architectures, helping to drive a profitable transition to full electrification for Volvo Car Group.

The collaboration set-up is an important success factor helping us to implement the industry's fastest transformation and respond to the rapid industrial transformation that is currently taking place. By entering into smart partnerships within the Geely eco-system and other selected tech peers, we can take a leading role in these and other areas.

BEING A PURPOSE DRIVEN ORGANISATION – OUR KEY TO SUCCESS

PURPOSE=BUSINESS IDEA=PRODUCT

FREEDOM TO MOVE IN A PERSONAL, SUSTAINABLE AND SAFE WAY

PERSONAL **SUSTAINABLE** **SAFE**

A COLLABORATIVE SET-UP

- Geely ecosystem with access to Chinese partners
- Attractive partnerships with tech peers in place
- Authentic company culture
- Accelerated development speed

Smart partnerships
It doesn't make sense for us to do everything by ourselves and collaboration with technology leaders is key to our success. Our partnerships with Google and ECARX ensure we have industry-leading infotainment and connectivity inside our cars, while NVIDIA helps us execute our core computing strategy. Subsidiaries such as Zenseact take the lead in developing autonomous driving software, while Luminar helps us to get the best possible hardware and sensors on our cars.

Creating together, making the difference
Another important success factor is our authentic Volvo culture. Our global and diverse workforce is central to our success and our strong culture. Attracting and retaining talent from all over the world and bringing out the best in people is crucial to delivering on our growth plans and remaining a leading player in the highly competitive premium car and mobility industry.

We aim to set a new standard for the car industry in terms of our culture and how we empower our people. Only then can we meet both current and future needs, from production and engineering to commercial operations.

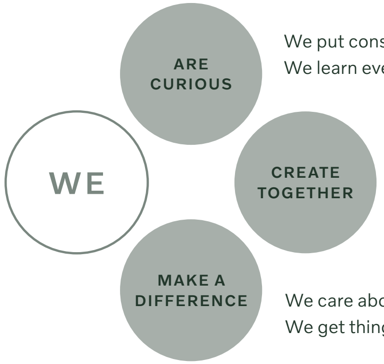
Employer of choice
We aim to be an employer of choice for people who want to make a difference, allowing them to continuously grow and develop to be the best versions of themselves.

We want our people to feel that they can be their authentic self at work and want everyone to have equal opportunities based on competence, experience and performance. Our collaborative culture values an open, creative and curious mindset and embraces learning from each other. By creating a working culture that encourages and welcomes different perspectives, we can unlock every person's full potential – making room for creativity, innovation, engagement and better decision-making.

Active talent search
We actively work towards making our potential talent pool as large as possible by identifying talent in underrepresented groups. We also address unconscious bias, aim to increase diversity in recruitment and to inspire the next generation of innovators and leaders – for example, we have made a commitment to gender diversity in leadership by applying a 50/50 approach in recruitments.

Being a leader in driving an ethical and responsible business is another fundamental part of our culture, which we constantly promote towards employees and partners. Our zero-tolerance stance towards corruption and taking an ethical approach to business is not only the right thing to do, but it also makes business sense, helps us attract and retain talent and supports better employee engagement.

Setting new industry standards
To be the attractive employer we strive for and set a new standard for others in the car industry to follow, we also focus on supporting our employees outside their job. We want to be a parent-friendly employer around the globe and support all our employees to spend quality time with their children and family. To support this ambition, we launched a Family Bond in 2021 that gives all our colleagues around the globe 24 weeks of parental leave at 80 per cent of their base pay, regardless of gender or family situation.



Our family bond is enriching life for our employees

Since the launch of the Family Bond, there is a significant increase of male employees taking parental leave and an increase in the time taken for parental leave in general. The Family Bond offering has now been used by employees in all regions and all plants. Parental leave encourages the building of diverse teams, which sparks creativity and innovation across the organisation, and ultimately strengthens the business at large.

"In a couple of weeks, my 4th child will be born. But it will be the first time for me to be able to take parental leave."

Paul-Henri Matha,
Technical leader Exterior Lighting

Strategic affiliates

Volvo Cars invests in new technology to deliver on our strategic ambitions. The investment in and creation of new companies around innovative technology and mobility solutions drive significant value creation and synergies.

CORE STRATEGIC AFFILIATES

- Polestar
- LYNK & CO
- NoVo Energy
- Aurobay
- Zenseact
- HaleyTek
- Volvo Tech Fund

Polestar

OWNERSHIP: 49.5%
CO-OWNER: PSD
INVESTMENT AND OTHERS INCLUDED IN EBIT*

Volvo Cars invests in companies and partnerships that enable us to deliver upon our strategic ambitions, improve our overall competitiveness and to gain speed.

We have co-founded and invested in a number of affiliate companies and invited relevant strategic partners to invest. The standalone setup creates focus and allows for an accelerated technology development and value creation that could be monetised within the group. We also aim to capture the revenue opportunities that arise by offering the innovations to partners and customers in the broader market.

Our major strategic affiliates are Polestar, LYNK&CO, NoVo Energy, Zenseact, HaleyTek and Aurobay.

Polestar – a premium electric performance brand co-founded by Volvo Cars

The Polestar brand was founded as a racing brand in 1996 and was acquired by Volvo Cars in 2015. It was established as a standalone pure play, premium electric performance automotive brand in 2017, setting market-leading standards in design, sustainability and innovation. In September 2021 Polestar announced the intent to list on Nasdaq New York through a proposed business combination with listed Gores Guggenheim Inc, a special purpose acquisition company ("SPAC"). The combination is expected to close during the first half of 2022. Volvo Cars remains the largest shareholder and will continue as a responsible shareholder and business partner to Polestar, collaborating and supporting the growth and development of Polestar. The close collaboration between Volvo Cars and Polestar includes sharing technologies and delivering economies of scale through shared manufacturing footprint and supply chain.

Polestar is an asset light company leveraging Volvo Cars industrial operations through contract manufacturing. Today Volvo Cars build the Polestar 2 at the Taizhou plant in China, while our plant in Charleston US together with a plant in China will produce the forthcoming Polestar 3. Polestar 2 and Polestar 3 are both underpinned by technology shared with Volvo Cars. As both brands increase in volume there are substantial economies of scale to be found in terms of logistics, sales, distribution and other areas. The collaboration has shortened Polestar's time to market and has enabled high quality production in larger volumes.

Spearheading technology

Volvo Cars has in many ways used Polestar as a spearhead for electric propulsion technology development, and for Android-powered infotainment system. Polestar has also been important from a commercial perspective. Through Polestar we´ve been able to pioneer and learn from the direct-to-consumer model with online sales, direct consumer relationships and inner-city Polestar Spaces. As such it has established an efficient sales and distribution network, providing many valuable insights for our own commercial transformation.

Going forward, we will provide different services to Polestar supporting their growth plan and their aspiration to become one of the fastest-growing fully electric performance brands. Polestar has announced that it expects to be operating in 30 markets by the end of 2023 and it is looking to deliver 290 thousand vehicles by the end of 2025, up from over 29 thousand in 2021.

LYNK&CO

LYNK&CO is one of the fastest growing automotive brands in China. The company has six models and sales reached above 220,000 units in 2021. LYNK&CO has launched in a number of European markets where mobility is provided through membership and sharing. LYNK&CO has announced plans for expansion into Middle East and Asia Pacific starting with Kuwait in 2022.

OWNERSHIP: 30%
CO-OWNER: GEELY AUTO 50%, GEELY HOLDING 20%
INCLUDED IN EBIT*

*Included in share of income from joint ventures and associates

STRATEGY

NOVO ENERGY

The purpose of NoVo Energy, a joint venture between Volvo Cars and Northvolt, is to develop and produce more sustainable batteries to power the next generation of pure electric Volvo and Polestar cars. There will be a SEK 30 Bn investment in building a R&D centre and battery cell factory in Gothenburg, Sweden. The R&D centre will start operations in 2022 and the plant, with a 50 GWh capacity per year, is planned to be operational by the end 2025.

OWNERSHIP: 50%
CO-OWNER: NORTHVOLT
INCLUDED IN EBIT*

Aurobay

Aurobay develops and produces world class combustion based propulsion systems for use in Volvo cars and other brands within the Geely ecosystem. All of Volvo Cars' former combustion related assets have been divested into Aurobay.

Geely Holding manages the company and will provide Volvo Cars with competitive ICE propulsion systems using a cost-based pricing for as long as we need.

OWNERSHIP: 33%
CO-OWNER: GEELY HOLDING
INCLUDED IN EBIT*

zenseact

Zenseact is a software company focused solely on developing a scalable and world-leading AD and ADAS software stack. This software stack includes sensor fusion software utilising multiple sensors for object detection and positioning. Zenseact will launch a software as a service solution providing upgrades in the next generation Volvo and Polestar cars and after that expand its software services to other OEMs

OWNERSHIP: 85%
CO-OWNER: ECARX
FULLY CONSOLIDATED

HaleyTek

HaleyTek is a joint venture between Volvo Cars and ECARX developing Android-based infotainment software platforms.

HaleyTek will customise the system used in Volvo and Polestar cars and market it to other brands within the Geely eco-system and third parties through ECARX.

The platform integrates Google Automotive Services, OEM specific UX and vehicle applications, independent of vehicle architecture variations.

OWNERSHIP: 60%
CO-OWNER: ECARX
FULLY CONSOLIDATED

VOLVO TECH FUND INVESTMENTS

Volvo Car Group strategic corporate venture capital arm – Volvo Cars Tech Fund, invests in early stage start-ups which could enable access to next-generation automotive and mobility technologies. As a strategic investor we take an active part of the value creation and development of the start-up. Examples of investments are Luminar, Spectralics and Circulor.

*Included in share of income from joint ventures and associate

SUSTAINABILITY IS KEY TO OUR SUCCESS

By committing to the highest standard of sustainability in mobility, we will help the planet and contribute to a fairer and more equal society, while supporting our own profitable growth.

ESG Ratings

Sustainability rankings and ratings are becoming an increasingly important consideration for investors as well as for customers and other stakeholders. Volvo Cars believes that as well as giving important external assessments of our sustainability performance, engagement with ratings agencies also enables us to improve our performance.

Climate Change A List & Supplier Engagement Leader
Volvo Cars was one of only 200 companies that made CDP's (formerly the Climate Disclosure Project) Climate Change A List (from 13,000 submissions), and received their highest rating. Based on our CDP result, we were also acknowledged as a Supplier Engagement Leader in recognition of our climate action within our supply chain (top 8% in supplier engagement).

S&P Global CSA – Bronze
Volvo Cars has for the first time received a Sustainability Award Bronze in the 2021 Corporate Sustainability Assessment (CSA) by ratings provider S&P Global, known for its highly stringent sustainability ratings. A Bronze rating places Volvo Cars among the top 10% best performing automotive companies for environmental, social and corporate governance (from approx. 7,500 assessed).

EcoVadis – Platinum
For the fourth consecutive year, Volvo Cars received the highest rating for its sustainability performance from EcoVadis, a leading provider of corporate sustainability assessments for global supply chains. Our Platinum Status places us in the top 1 per cent of the 75,000 companies assessed.

Sustainability Award
Bronze Class 2022
S&P Global

"Volvo Cars emerges a clear ESG leader, we think, based on the fastest electrification plans in the sector and a strong commitment to circular economy targets."

BNP Paribas Exane, January 2022

International commitments

Volvo Cars is proud to be a founding member of the UN Global Compact in 2000. Since then, we have endeavoured to observe the Ten Principles of the Global Compact. The Sustainability Report is also our Communication on Progress, which is required of us as a signatory to the Global Compact.

Furthermore, we are committed to supporting the United Nations Sustainable Development Goals (SDGs). The SDGs act as our guide and we address several of the 17 goals. Read more on page 182.

In addition to the UN Global Compact Ten Principles, our Code of Conduct (Our Code – How We Act) reflects the following norms and guidelines:

- The Universal Declaration of Human Rights
- UN Convention on the Rights of the Child
- The eight core conventions of the UN's International Labour Organisation (ILO); Child Labour (138 and 182), Forced Labour and Compulsory Labour (29 and 105), Equal Remuneration and Discrimination (100 and 111), and Freedom of Association and Collective Bargaining (87 and 98)
- UN Guiding Principles on Business and Human Rights
- OECD Guidelines for Multinational Enterprises
- OECD Due Diligence Guidance for Responsible Business Conduct

Our sustainability strategy and ambitions

We commit to the highest standard of sustainability in mobility.

We believe that by working towards climate neutrality, embracing the circular economy and conducting business responsibly, we will help the planet, contribute to a fairer and more equal society, while supporting our own profitable growth. In partnership with our stakeholders, we can increase the impact of our efforts to make a global difference and promote sustainable development in line with the UN SDGs.

Sustainability is central to our business and key to our future success and as important to the company as safety.

Carbon/CO_2 – including carbon dioxide equivalents

CLIMATE ACTION

Climate-neutral by 2040

We are taking action across our whole value chain to reduce greenhouse gas emissions (GHG) with the ambition to be aligned with the 1.5°C pathway*. Road transport is responsible for around 10 per cent of global emissions. To be part of the solution to climate change, Volvo Cars' ambition is to be a climate neutral company by 2040.

MID-DECADE AMBITIONS:

- 40 per cent reduction of total lifecycle CO_2 emissions per car (baseline 2018)
- Climate neutral manufacturing operations

2030 AMBITIONS:

- 60 per cent reduction of absolute scope 1 and 2 GHG emissions* (baseline 2019)
- 52 per cent reduction of scope 3 GHG emissions from use of sold products per vehicle kilometre* (baseline 2019) (well-to-wheel)

* Our 2030 climate action ambitions are in line with the 1,5-degree scenario as verified by the Science-Based Targets initiative (SBTi) – a partnership between CDP, the United Nations Global Compact, World Resources Institute (WRI) and the World Wide Fund for Nature (WWF).

CIRCULAR ECONOMY

Circular business by 2040

Volvo Cars is committed to embracing the circular economy. We need to make much better use of valuable, and often finite, material, within our vehicles and operations. Adoption of circular principles and processes will also help to significantly reduce our carbon footprint.

MID-DECADE AMBITIONS:

- Achieve savings of SEK 1 bn and reduction of 2.5 m tonnes of CO_2 annually through adoption of circular economic principles (baseline 2018)
- 25 per cent of material in new vehicles to be recycled or bio-based
- 20 per cent waste reduction per vehicle in manufacturing[8] (baseline 2018)
- 15 per cent water usage reduction per vehicle in manufacturing[8] (baseline 2018)

ETHICAL & RESPONSIBLE BUSINESS

Be a recognised leader in ethical and responsible business

We strive to live our values and support a culture of always acting ethically and responsibly, on both a corporate and individual level. We support International standards and conventions, as well as the United Nations Sustainable Development Goals.

MID-DECADE AMBITIONS:

- Take the lead in setting a new global people standard for the industry
- Put sustainability on a par with quality and cost in procurement with responsible sourcing
- Sustainability criteria in debt funding, investments and financial products
- Tackle corruption and unethical business practices

FOR FURTHER DEFINITIONS AND REPORTING PRINCIPLES SEE PAGE 185–187

CLIMATE ACTION: PERFORMANCE 2021

Be a climate-neutral company by 2040 – with clear ambitions by mid-decade

We have the ambition to be a climate neutral company by 2040, but immediate action is necessary. Volvo Cars is aiming to reduce its lifecycle carbon footprint by 40 per cent per average vehicle between 2018 and 2025.

50%

REDUCTION IN TAILPIPE EMISSIONS

to be achieved through Volvo Cars' mid-decade ambition for 50 per cent of sold cars to be fully electric as well as the ongoing electrification of the full product offering and launch of new electric models.

HIGHLIGHTS IN 2021:

- Launch of our second fully electric car
- PHEV electric range significantly extended

READ MORE ON PAGE 155–156

25%

REDUCTION IN SUPPLY CHAIN EMISSIONS

to be achieved through supporting our suppliers to utilise climate neutral energy within their own operations, with the aim that by 2025 all our Tier 1 suppliers will use 100 per cent climate neutral energy. We are also taking industry-leading steps to ensure emissions are reduced in the most carbon intensive areas of production.

HIGHLIGHTS IN 2021:

- Launch of a collaboration with SSAB to produce HYBRIT fossil-free steel
- Joint venture with Northvolt to produce sustainable batteries

READ MORE ON PAGE 157

25%

REDUCTION IN OPERATIONAL EMISSIONS

to be realised through our aim to achieve climate neutral manufacturing operations by 2025, our aim for climate neutral offices, as well as to reduce emissions from business travel, commuting, logistics and other operational emissions.

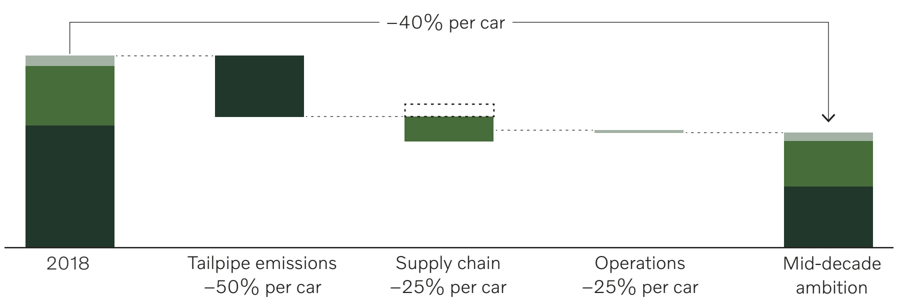
HIGHLIGHTS IN 2021:

- First climate neutral car plant, Volvo Cars Torslanda
- 100 per cent climate neutral electricity supply in our plant in Daqing, China

READ MORE ON PAGE 158–160

To evaluate the lifecycle effect of different CO_2 reduction alternatives and track the progress towards our set targets, we are simulating the lifecycle carbon footprint of our full portfolio over a short, mid and long-term perspective. This input is key in helping us prioritise the right actions to reduce the carbon footprint of our company.

CO_2 EMISSION AMBITIONS TONNES (CO_2/CAR)



KEY DRIVERS

TAILPIPE EMISSIONS
- 50 per cent of sold cars to be fully electric by mid-decade
- Electrification of our fleet and reduction of ICE
- Launching new electric models

SUPPLY CHAIN EMISSIONS
- 100 per cent climate neutral energy at Tier 1 supplier sites
- Focusing on recycled and fossil-free production of materials
- Efficient battery supply and production

OPERATIONAL EMISSIONS
- Climate neutral manufacturing operations by 2025
- More rail and less air freight in logistical operations
- Reduction of emissions from offices and business travel

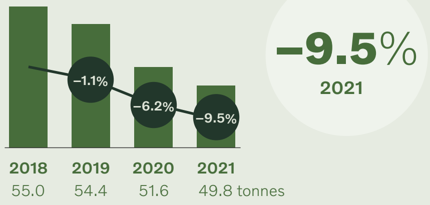
Additional emissons from electric vehicle batteries

CLIMATE ACTION: PERFORMANCE 2021

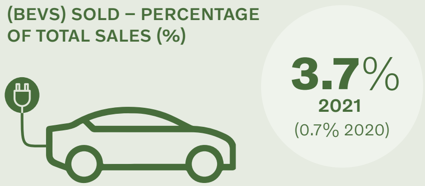
DEVELOPMENT 2021

- During 2021, we further reduced our total lifecycle carbon footprint per car. Since 2018, we have achieved a 9.5 per cent reduction per average vehicle. The result is in line with our expected trajectory towards our climate ambition.
- We saw a significant reduction in our tailpipe emissions thanks to strong demand for our Recharge vehicles. The fully electric vehicle (BEV) proportion of our global sales will continue to increase.
- The increase in supply chain emissions is due to the increased weight and materials in our Recharge vehicles compared to internal combustion cars. We are working hard to counteract this, including through targeting carbon-intensive materials and components. We estimate that our actions will start to take effect as we move closer to 2025.
- Our global manufacturing plants and offices are progressing well towards reaching climate neutrality by 2025. In 2021, our manufacturing plant in Torslanda (Sweden) became our first climate neutral car plant. Meanwhile our Daqing (China) plant secured a 100 per cent climate neutral electricity supply.
- We are currently establishing roadmaps and securing supplier commitments to enable our ambition of 100 per cent climate neutral energy at tier 1 suppliers by 2025. Availability of climate neutral energy is highly dependent on suppliers' location and local availability. Supply of climate neutral energy is expected to increase, but the rate of growth is still slow.

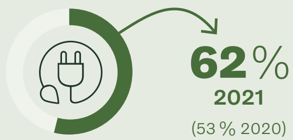
TOTAL CO_2 EMISSIONS REDUCTION PER CAR



FULLY ELECTRIC VEHICLES (BEVS) SOLD – PERCENTAGE OF TOTAL SALES (%)



CLIMATE NEUTRAL ENERGY IN MANUFACTURING OPERATIONS



KPIs	Mid-decade ambitions	2021	2020	2019	2018
Total CO_2 emission reduction per vehicle[1,2] (%)	–40	–9.5	–6.2	–1.1	Baseline
Tailpipe CO_2 emission reduction per vehicle[1,2] (%)	–50	–21.6	–12.6	–3.1	Baseline
Supply chain CO_2 emission reduction per vehicle[1,2] (%)	–25	16.8	7.7	3.2	Baseline
Operations CO_2 emission reduction per vehicle[1,2] (%)	–25	–2.6	–2.6	0.0	Baseline
Fully electric vehicles (BEVs) sold (%)	50	3.7	0.7	—	—
Energy usage reduction per vehicle in manufacturing[8,11] (%)	–30	–7	–12	–7	Baseline
Climate neutral energy in manufacturing operations[8] (%)	100	62	53	50	—
Climate neutral energy at T1 suppliers[31] (%)	100	8.5	6.0	—	—

For further definitions and reporting principles see pages 185–187

CIRCULAR ECONOMY: PERFORMANCE 2021

Be a circular business by 2040

We see the circular economy as a means to decouple our growth from our impact on the environment. We are looking at how we can make circularity happen for products, components and material as well as establishing processes beyond making circular efforts in a linear economy towards transforming into a circular business model.

We have the ambition that, through our adoption of circular economic principles, we will generate SEK 1 bn of savings and reduce carbon emissions by 2.5 m tonnes annually (2018 baseline).

Circular business involves assessing the resource impact beyond carbon and also considering water, biodiversity and land use. As a global company, it is crucial to understand the effect of regional differences on our ability to implement circular economy initiatives and learn from innovation in different locations and industries.

We are focusing on developing data systems to measure our circularity and pilot circular initiatives with our value chain partners. We see data as being integral to our transition to a circular future and believe a science-based approach is the way to set the foundation of our strategy towards our 2040 ambition.

We see the circular economy as a means to decouple our growth from our impact on the environment.

We are focusing on the following key areas:

CIRCULAR DESIGN
Strive to increase recycled content and ensure vehicles and components are designed for circularity, durability, and product life extension.

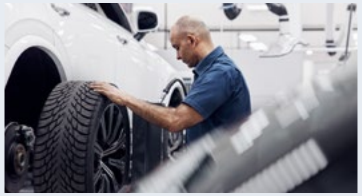
READ MORE ON PAGE 162

WASTE AND WATER USAGE REDUCTION
Avoiding, preventing, and capitalising materials across the company. Improvement of our water management within our manufacturing and workplace facilities.

READ MORE ON PAGE 163

MATERIAL VALUE RETENTION
Focus on improving efficiency of materials and material strategies to support circularity.

READ MORE ON PAGE 164–166



COMPONENT VALUE RETENTION
Ensuring components are suitable for reuse, repair, remanufacturing and refurbishment.

READ MORE ON PAGE 167

USAGE MODELS
Offering circular mobility solutions by optimising and scaling Care by Volvo and M.

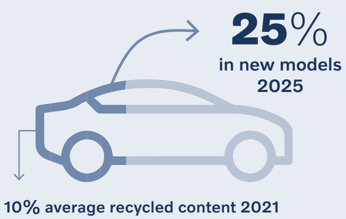
READ MORE ON PAGE 168

CIRCULAR ECONOMY: PERFORMANCE 2021

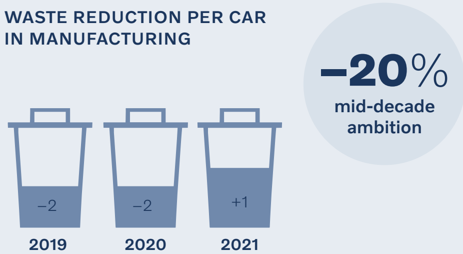
DEVELOPMENT 2021

- The progress towards circularity is consistent but it is not always possible to track in an incremental way. We are working to better measure our relative circularity, both internally and with external partners. As we are focusing on building a foundation for circularity for 2025 and beyond, short-term progress has been temporarily reduced.
- Many of the improvements we are making are most evident in the new vehicles we put onto the market as we work towards our ambition for recycled material.
- We are continually looking at our impact per vehicle. This year we are being more transparent with recycled content in our current fleet and we are making some good early progress.
- We saw a 1 per cent increase in waste generation per car in manufacturing. This is mainly due to disturbed supply chains due to Covid-19 and rebuilding activities generating waste.
- We reduced water usage by 23 per cent, thanks to an increased focus on water usage and process improvements as well as improvements in maintenance and leakages control.
- In addition, we saw the reveal of the Concept Recharge (sustainable materials), a pilot 2nd life battery project and of Nordico – our alternative to leather made from recycled and bio-based content.

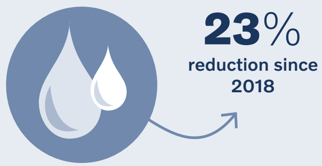
RECYCLED MATERIAL



WASTE REDUCTION PER CAR IN MANUFACTURING



WATER USAGE REDUCTION PER CAR IN MANUFACTURING



KPIs	Mid-decade ambitions	2021	2020	2019	2018
Recycled and bio-based materials* (%)	25 for new car models	10	—	—	—
Recycled plastics and bio-based materials** (%)	25 for new car models	4	—	—	—
Recycled steel** (%)	25 for new car models	15	—	—	—
Recycled aluminium** (%)	40 for new car models	10	—	—	—
Waste reduction per vehicle in manufacturing[8,11] (%)	–20	1	–2	–2	Baseline
Water usage reduction per vehicle in manufacturing[8,11] (%)	–15	–23	–8	–5	Baseline

*This estimate is calculated based on the average weight of a Volvo vehicle placed on the market and recycled content per material group.

**This is a fleet level estimate based on market average and supplier input.

For further definitions and reporting principles see pages 185–187

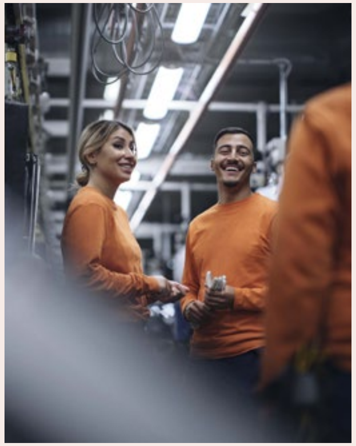
ETHICAL & RESPONSIBLE BUSINESS: PERFORMANCE 2021

Be a recognised leader in ethical and responsible business

We aim to be a leader in ethical and responsible business. It is fundamental to our brand and means that we always should act ethically and responsibly, on both a corporate and individual level. We also firmly believe that this is critical to attracting the best talent and investors while minimising the risk for reputational damage. Finally, it helps us address global environmental and social challenges within the automotive industry.

Volvo Cars is committed to supporting the United Nations Sustainable Development Goals (SDGs) and our own Code of Conduct (Our Code – How We Act) reflects the international norms of behaviour and guidelines. We recognise that being a responsible company is good for business and supports our profitability. Where possible, we work in partnership with others to be an industry change maker.

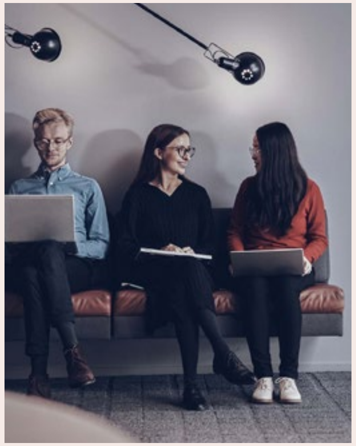
We have a strong corporate culture that focuses on ethics and leadership, as well as equal opportunities and decent work conditions for all, which we intend to do through:



SETTING A NEW GLOBAL PEOPLE STANDARD FOR OUR INDUSTRY

Focusing on a sustainable work life, including a diverse, inclusive and safe working environment and a corporate culture of constant improvement.

READ MORE ON PAGE 169–174



TACKLING CORRUPTION AND UNETHICAL BUSINESS PRACTICES

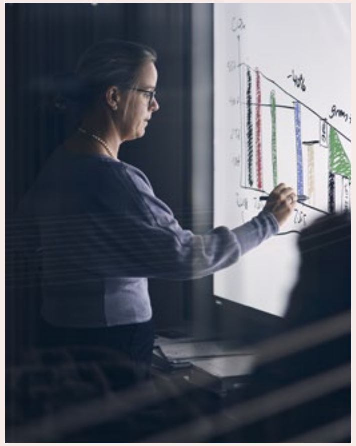
Committing to responsible business through a strong corporate culture that focuses on ethics and responsible leadership, as well as equal opportunities and decent work for all.

READ MORE ON PAGE 178–179

RESPONSIBLE SOURCING

Putting sustainability on a par with cost and quality by selecting, collaborating with, and steering our supply chain towards our sustainability strategy.

READ MORE ON PAGE 175–177



ENGAGING IN SUSTAINABLE FINANCE

Our engagement in sustainable financing is anchored in the recognition that the power and importance of the financial community drives sustainable development.

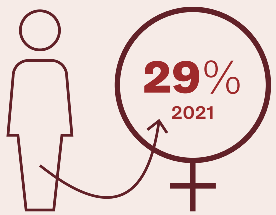
READ MORE ON PAGE 180

ETHICAL & RESPONSIBLE BUSINESS: PERFORMANCE 2021

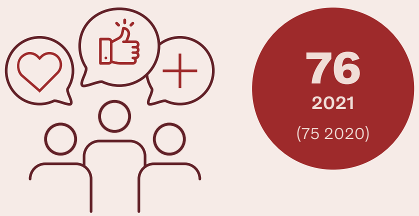
DEVELOPMENT 2021

- Increases in gender diversity were modest in 2021. We recognise that we need to redouble our efforts to increase gender diversity. Besides our commitments around internal and external recruitment, we will put greater focus on competence development and retention.
- Our people-centric corporate culture and values have led to initiatives such as the Family Bond and our mentor programme. This has contributed to an increased employee engagement level which is above our target and the global benchmark.
- We have worked hard with the safety and wellbeing of our people over the past years, including through proactively identifying and mitigating risks, improving our work environment, providing training facilities and raising awareness. We're proud that this has helped bring the number of injuries leading to sick leave to an all-time low in 2021.
- A culture where people feel comfortable raising their concerns and freely speak their mind about ethical issues or cases of non-compliance, without fear of retaliation, is a key part of our commitment to ethical and responsible business. In 2021, we revised our Internal Reporting policy and improved our whistleblowing channel to further strengthen our work.
- We have continued our efforts to ensure that our material is responsibly sourced. In 2021, we extended the use of blockchain for battery materials to include not only cobalt, but also lithium, nickel and mica, to further increase the traceability and transparency of supply chains.
- Our focus on sustainable financing continued and we refinanced our existing EUR 1.3 bn credit facility with a new sustainability linked credit facility. This successful transaction underlined both investor confidence in our climate plan, and their increasing demand for sustainable financing.

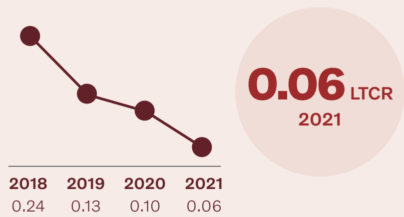
WOMEN IN LEADING POSITIONS



EMPLOYEE ENGAGEMENT



INJURY RATE (LTCR) EMPLOYEES



KPI Table	Ambition	2021	2020	2019	2018
Women in leading positions[29] (%)	50/50 gender-neutral leadership commitment	29.0	28.3	28.3	29.3
50/50 in external recruitment and internal promotion (%)	50/50 gender-neutral leadership commitment	32.0	29.4	—	—
Employee engagement	75 in 2021	76	75	—	—
Injury rate (Lost Time Case Rate)* employees	0.08 in 2021	0.06	0.10	0.13	0.24

*Injury rate (LTCR) is defined as the number of work and occupational accidents reported with at least one day sick leave, divided by hours worked and multiplied by 200,000.
For further definitions and reporting principles see pages 185–187

OUR FINANCIAL PERFORMANCE – A TEAM EFFORT

Continued growth in sales volume and revenue and improved profitability to pre-Covid levels. For information on our sustainability performance see page 150.

Board of Directors' Report

The Volvo Car Group

Volvo Car Group and Volvo Cars refers to Volvo Car AB (publ.), Volvo Car Corporation and all its subsidiaries.

Volvo Car AB (publ.), with its registered office in Gothenburg, Sweden, is a publicly listed company on the Nasdaq Stockholm Stock Exchange. The largest owner, holding 82 per cent of shares and capital, is Geely Sweden Holdings AB, owned by Shanghai Geely Zhaoyuan International Investment Co., Ltd., registered in Shanghai, China, ultimately owned by Zhejiang Geely Holding Group Ltd., registered in Hangzhou, China. The remaining 18% of the shares are held by Nordic and international institutions as well as approximately 190,000 retail investors as of 31 December 2021.

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 sale of cars and thereto related services. Volvo Car Group and its global operations are referred to as "Volvo Cars".

Volvo Cars sales development

In 2021, the passenger car market in China and the US grew by 6 per cent and 3 per cent, respectively, whereas Europe declined by 2 per cent. As 2020 was weak due to Covid-19, the market expected the pent-up demand to drive sales growth in 2021. However, the production was hampered as the global semi-conductor shortages worsened, especially in the second half of 2021. The result was a year of two halves. During the first half, the market was up by double digits but abruptly stalled in the second half due to Covid-related shutdowns in South East Asia and other semiconductor-related production disturbances. However, the imbalance between supply and demand positively affected prices and mix effects.

2021 was also the year of electrified cars. Despite the supply constraints, electrified cars showed record growth. The development followed shifting customer interest fuelled by the production prioritisation from automakers.

Volvo Cars' retail sales increased by 6 per cent while wholesales decreased by 1 per cent, and production volumes decreased by 3 per cent. The increase in retail sales compared to the decrease in wholesales was due to supply restraints. The lower production was partly compensated by inventory reduction and a more efficient supply chain.

Volvo Cars also strongly advanced the sales of electrified cars, PHEV and BEV, which grew 64 per cent for the full year, and reached 27 per cent as a share of total sales.

Key ratios, SEKm	2021	2020	2019	2018	2017[1]
Retail sales, units[2]	698,693	661,713	705,452	642,253	571,577
Revenue	282,045	262,833	274,117	252,653	208,646
Research and development expenses[3][4]	–13,126	–11,362	–11,446	–10,903	–10,187
Operating income, EBIT[5]	20,275	8,516	14,303	14,185	14,061
EBIT excl. share of income from JV and associates[5]	21,226	8,868	14,471	14,118	13,861
Net income[4]	14,177	7,788	9,603	9,781	10,225
Basic earnings per share, SEK[4]	4.72	2.28	N/A	N/A	N/A
EBITDA[5]	35,280	22,965	29,851	27,398	26,159
Cash flow from operating activities[4]	29,852	34,285	32,374	26,765	24,933
Cash flow from investing activities[4]	–34,737	–21,003	–20,801	–22,060	–28,733
Net cash[5]	44,846	35,241	25,214	18,029	12,513
Gross margin, %[5]	21.4	17.5	19.0	19.5	22.4
EBIT margin, %[5]	7.2	3.2	5.2	5.6	6.7
EBIT margin % excl. share of income from JVs and associates[5]	7.5	3.4	5.3	5.6	6.6
EBITDA margin, %[5]	12.5	8.7	10.9	10.8	12.5
Equity ratio, %	33.5	26.8	26.2	29.0	28.7
Return on invested capital, ROIC, %[5]	18.5	8.4	14.5	16.1	19.4

1) In 2018 there was a change related to sale of certain cars accounted for as operating leasing. The comparative period 2017 has been changed accordingly, reducing revenue and cost of sales by an amount of SEK 2,266 m for 2017. The change had no effect on gross income.
2) Non-financial operating metric.
3) The amortisation expenses for 2020 were affected by adjustments of the useful life period to reflect updated assumptions and cycle plan changes.
4) IFRS measure.
5) Non-IFRS measure (alternative performance measure), see Alternative performance measures on page 136.

Retail sales (k units)	2021	2020	Change %
Europe	293.5	288.3	2
China	171.7	166.6	3
US	122.2	110.1	11
Other	111.4	96.7	15
Retail sales total	**698.7**	**661.7**	**6**
Recharge line-up vehicles	189.2	115.4	64
whereof BEV vehicles	*25.7*	*4.7*	*452*
Recharge line-up share of sales	27%	17%	—
whereof BEV share of sales	*4%*	*1%*	—
Wholesales	654.4	662.6	–1
Production volume	642.0	658.5	–3

Retail sales by model (k units)	2021	2020
XC40 BEV	24.5	4.7
C40 BEV	1.2	—
XC60	215.6	191.7
XC40 ICE/PHEV	176.5	180.7
XC90	108.2	92.5
V60	56.1	64.9
S60	49.3	52.3
S90	46.6	46.0
V90	20.7	25.6
V40	—	3.4
Total	**698.7**	**661.7**

Top 10 retail sales by market (k units)	2021	2020
China	171.7	166.6
US	122.2	110.1
UK	48.3	46.5
Sweden	47.8	53.7
Germany	43.8	46.9
Italy	19.8	17.7
France	18.9	16.5
Japan	16.6	15.5
Netherlands	15.9	16.2
Korea	15.1	12.9

Events during the year

Covid-19

The Covid-19 pandemic continued to have an impact on people's lives. Restrictions were tightened again around the world due to the spread of Omicron, a new Covid variant. The quick spread of this new variant has led to high infection rates in Europe and therefore increased work absenteeism. Despite this situation, Volvo Cars' factories have remained operational. However, the risk of this new variant impacting supply chain and production remains. Given the uncertain development of the pandemic, Volvo Cars remains cautious.

Global shortage of semi-conductors

The global shortage of semiconductors led to temporary production halts in all manufacturing plants in China, the United States, Belgium, Sweden and Malaysia, all differing in duration and extent. The production halts resulted in loss of production volumes. However, high demand, global shortage with extremely low inventory levels and our ability to adjust production plans had positive effects on our revenue and profitability. One effect was our ability to steer production to the more expensive SUVs and Recharge cars. The global shortage is expected to continue throughout 2022. Volvo Cars saw some improvement during the fourth quarter but visibility is low and the risk of further disturbances in production remains.

Volvo Cars will continue to follow development closely and take actions accordingly. To what extent Volvo Cars' sales, revenue and profitability will be affected in coming periods remains uncertain.

Cyber security breaches

With increased amounts of data stored online, the company is exposed to risks in connection with the use of information technology. In addition, cybercrime may lead to business interruption, and in general, the increased remote way of working due to Covid-19 restrictions increases the risk of cyber security incidents. Cybersecurity breaches could cause severe disruption of the business including but not limited to operational disturbances, affecting the company as well as its customers, loss of intellectual property and data leakage, which may lead to high costs and heavy fines due to breaches in data protection obligations.

Volvo Cars became aware of a cyber security breach and data theft by a third party in the fourth quarter. Volvo Cars took immediate security measures and investigated the incident together with third party specialists.

Volvo Cars to be fully electric by 2030

Volvo Cars announced its ambitious plans to become a fully electric car maker by 2030. This means phasing out all cars with an internal combustion engine, including hybrids, from the line-up, which is a step towards becoming a climate neutral company by 2040.

As part of this, Volvo Cars is currently ramping up the capacity for fully electric vehicles, XC40 and C40, including supplier and assembly capacities for the plants in Ghent and Taizhou. The ramp-up will be executed in steps towards an annual capacity of at least 150,000 units after summer 2022.

Volvo Cars launched a new, pure electric C40 recharge

Volvo Cars launched the C40 Recharge, the first Volvo model ever to be designed to be pure electric from the start and Volvo Cars second fully electric model, offered online only. The car is based on the CMA platform and production started in Ghent in October.

Separation of the ICE powertrain operations

Volvo Cars continued to deliver on its plan to separate the combustion engine operations into a standalone business, with the intention of subsequently combining these activities with those of Geely. On 30 June, following a decision by the EGM on 31 May 2021, the combustion engine operations in Skövde, including the facility, were divested from the Group, through a dividend distribution of the shares in Powertrain Engineering Sweden AB and Powertrain Engineering Sweden Real Estate AB to the main shareholder Geely Sweden. In July, Volvo Cars advanced the plan and agreed to create a jointly owned company together with Geely Holding. The creation of Aurobay, a company where Volvo Cars has a minority ownership, was completed during the fourth quarter. Aurobay will be a global supplier of complete powertrain solutions including next generation combustion engines, transmissions, and hybrid solutions. The creation of a separate company with Geely Holding as the majority owner, and an independent management, means that Volvo Cars can focus its resources including management, development, and operations on full electrification.

Polestar – private placement and listing intention

In March, the strategic affiliate Polestar Automotive Holding Ltd Group raised USD 550 m in external capital from group of long-term financial investors. The private placement was conducted through newly issued shares and marks the first time that external investors have backed Polestar's products, brand, industrial capability, financial ambitions, and high growth potential. The private placement somewhat diluted Volvo Cars' ownership in Polestar. The valuation effects in connection with the transaction amounted to SEK 2,039 m and were recognised as income from shares in joint ventures and associates.

In September, Polestar announced its intention to be listed on Nasdaq New York, through the special purpose acquisition company (SPAC), Gores Guggenheim. The implied enterprise value is approximately USD 20 bn. The business combination is expected to be finalised during the first half of 2022. During 2021, Polestar met its global sales target of 29 thousand cars.

Volvo Cars and Northvolt announced joint venture plans

Volvo Car Group and Northvolt announced a non-binding intention to join forces in battery development and production. The first step of the 50/50 owned company is aimed at setting up a research and development centre in Sweden that will become operational in 2022. As a second step, the plans are to establish a new battery manufacturing plant in Gothenburg where the aim for production to start is in 2025. The battery cell partnership with Northvolt is key to Volvo Cars' strategic ambitions in electrification. The factory in Gothenburg will have a potential annual battery cell production capacity of up to 50 GWh, which would supply sustainable batteries for approximately half a million cars per year. The gigafactory is planned to complement the R&D joint venture as part of the announced SEK 30 bn investment.

EUR 1,300 m sustainability-linked revolving credit facility signed

Volvo Cars signed a EUR 1,300 m sustainabilty-linked revolving credit facility, replacing an undrawn EUR 1,300 m credit facility signed in 2017. The successful transaction underlines the growing confidence in Volvo Cars' financial and operational transformation. In March, the SEK 10,700 m revolving credit facility signed in May 2020 with a group of four Nordic banks and partly guaranteed by the Swedish Export Credit Agency was terminated more than one year ahead of its original maturity date at the request of Volvo Cars.

Dividends to shareholders

Volvo Car AB (publ.) distributed dividends of SEK 179 (—) m to the preference shareholders and SEK 5,979 m to the shareholder Geely Sweden Holdings AB. The dividend to Geely Sweden Holdings AB was settled on 30 June, through distribution of the entire shareholding in Powertrain Engineering Sweden AB and Powertrain Engineering Sweden Real Estate AB, with a net effect in Equity of SEK 5,530 m, due to the fair value of the shares being higher than their carrying amount. Furthermore, a dividend of SEK 9,691 (—) m was distributed to the shareholder Zhejiang Geely Holding Group Co., Ltd, whereof SEK 9,199 m from the 50% owned Chinese subsidiary Daqing Volvo Car Manufacturing Co., Ltd. and SEK 492 m from the 50% owned Chinese subsidiary Zhangjiakou Volvo Car Engine Manufacturing Co., Ltd.

Volvo Cars listed on NASDAQ Stockholm

On 29 October, Volvo Cars welcomed over 200,000 new shareholders who subscribed to its Initial Public Offering. The IPO raised gross proceeds of SEK 20.0 bn, supporting Volvo Cars' fast transformation.

Volvo and Geely to invest in future car model

Sharing of technologies is key and allows us to be faster in launching new models. In July, Volvo Cars entered two agreements within Geely, for the development and manufacturing of our future electric small SUV based on the SEA architecture.

ECARX as a strategic partner for new technology

During the third quarter, ECARX, a tech company within the Geely ecosystem, invested into Zenseact, a Volvo Cars subsidiary developing autonomous driving (AD) software. The companies plan to accelerate technology deployment in China across the Geely group of brands and beyond. In addition, Volvo Cars and ECARX established a new company called Haleytek with the aim to further develop and commercialise the infotainment system used in Volvo and Polestar cars.

Over-The-Air (OTA) updates

With OTA, Volvo Cars will deliver customer value remotely over the car's lifecycle, and it is through OTA delivered software functionality that we will see future revenue streams. In quarter four, Volvo Cars expanded the full OTA capability to the new cars, including XC40 Recharge, C40 Recharge, the XC60, the S90 and the V90. The latest OTA update included 100 thousand cars in all main markets, globally.

Leader in Safety

Volvo Cars announced the RIDE Pilot to be introduced to customers, starting in California. This unsupervised autonomous driving feature is planned to be available in cars built on our fully electric core compute architecture, with Lidar as standard and allowing for activation through OTA. Once verified to be safe and legally permissible, the RIDE Pilot will be offered through subscription.

Announcements at Consumer Electronics Show (CES)

Volvo Cars announced a partnership with Qualcomm and Google to develop an industry-leading infotainment system. The new Google Android automotive-based infotainment system will be used to take the upcoming fully electric cars under the Volvo Cars and Polestar brands to the next level. Volvo Cars also announced a continuation of the partnership with Google. The planned integrations will allow Volvo cars to be integrated into the Google ecosystem just as any home device. This provides opportunities for the development of an array of functions where the driver can control other Google connected devices through the car. Additionally, Volvo Cars with Google built-in will offer in-car video streaming while the car is fully stationary, through YouTube. These new technology innovations may vary somewhat across markets.

Changes in Board of Directors and the Executive Management Team

Changes to the Board of Directors

- Lila Tretikov and Diarmuid O'Connell were appointed as Directors in March. Lila Tretikov is a leading expert in artificial intelligence and business transformation and brings extensive innovation and technology experience to the Board. Diarmuid O'Connell has valuable experience within the areas of electrification and premium car brands and has deep knowledge about retail models and direct-to-consumer business, as well as connectivity, autonomous drive and related energy transition topics.
- Winnie Kin Wah Fok resigned from her position on the Board.

Changes to the Executive Management Team

- Björn Annwall was appointed Chief Financial Officer in April 2021, succeeding Carla De Geyseleer.

Research and development

In 2021, we launched our second fully electric model, the Volvo C40. This model is the first one being available as fully electric only, designed from the start with electrification in mind. In addition to this expansion, we introduced a new, improved Recharge plug-in hybrid powertrain on all cars except XC40, almost doubling the electric range whilst increasing performance. For our next generation all electric cars, the development of our next generation platform has continued and will lead to a reveal of our new flagship SUV in 2022.

Volvo Cars has been a leader in safety for decades and in 2021 we announced the next step, setting a new safety standard where self-driving cars that never collide will be the final step - hence our vision of Zero Collisions.

During 2021 we announced a number of partnerships including NVIDIA, Zenseact, and Luminar that will enable our fully electric flagship SUV having industry-leading safety technology, helping to save even more lives and avoiding collisions. Partnerships with mutual benefits provide us the technology base to be one of the fastest-moving companies in a rapidly transforming industry.

Today, a number of Volvo cars receives regular full software updates and new functionalities over the air (OTA), ensuring that a Volvo car gets better over time. During 2022, this roll-out will continue and OTA updates will be enabled on all models, and by that securing the foundation of the future revenue stream from software sales.

In 2021, we also announced continuation of our collaboration with Google, developing our approach to take our infotainment and connectivity to the next level. As a part of this, after the year end, we also announced a partnership with Qualcomm and Google to develop an industry-leading infotainment system.

Environment

Volvo Cars has a longstanding commitment to being a responsible company with a clear focus on sustainable development. This commitment is reflected throughout the Sustainability 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. Volvo Car Group's Sustainability Report has been prepared to meet the statutory requirements in accordance with the Swedish Annual Accounts Act, chapter 6, section 11. The scope and content of the Sustainability Report is defined on page 181 in this report. Volvo Cars aims to reduce the CO_2 emissions per car by 40 per cent between year 2018 and 2025, a first tangible step towards the company's long-term goal of becoming climate neutral by year 2040.

Employees

In 2021, Volvo Car Group employed 40.9 (38.3) thousand full-time employees (FTEs) and 3.8 (3.4) thousand agency personnel. The FTEs number in 2020 and 2021 reflects temporary layoffs. Adjusting for the layoff effect, Volvo Cars had 41.4 (41.3) thousand full-time employees.

Proposed distribution of non-restricted equity

The parent company

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

Share premium reserve	SEK	31,654,602,449
Retained earnings brought forward	SEK	–1,215,315,784
Net income for the year	SEK	3,155,589,257
At the disposal of the AGM	SEK	33,594,875,922

The Board proposes the following allocations of funds:

Carried forward	**SEK**	**33,594,875,922**

Significant events after the reporting period

Sale of the Chinese ICE operations

On 31 January 2022, Volvo Car Group finalised the separation of its ICE operations and sold the 50 per cent owned subsidiary Zhangjiakou Volvo Car Engine Manufacturing Co., Ltd. to its associate company Zhejiang Aurobay Powertrain Co., Ltd (Aurobay).

Volvo Cars and Northvolt to build a battery plant in Gothenburg, Sweden

On 4 February 2022, Volvo Cars and Northvolt announced the decision to build a battery manufacturing plant in Gothenburg, Sweden. The production is estimated to commence its operations in 2025, creating up to 3,000 jobs.

New Chief Executive and President appointed

The Board of Directors of Volvo Cars has appointed Jim Rowan as Chief Executive and President. He joined Volvo Cars on 21 March 2022, succeeding Håkan Samuelsson.

The war in Ukraine

Volvo Cars is deeply concerned for people directly affected by the war in Ukraine, and the impact it will have on people and societies across Europe and beyond. The Group does not have any employees in Ukraine however, we do have sales operations in Russia and an importer in Ukraine. There will undoubtedly be effects for Europe and the global economy as a whole. Volvo Cars has very limited direct relationships with suppliers in Ukraine. However, the war in Ukraine has resulted in increasing costs for raw material, energy and freights in the auto industry.

In 2021, we sold 9,309 cars in Russia, 1.3 per cent of total global sales and 1,184 cars in Ukraine corresponding to 0.2 per cent. Considering the potential risks associated with trading with Russia, including the sanctions and export controls imposed by the EU and US, Volvo Cars has suspended the delivery of any cars to the Russian market until further notice. Our national sales company in Russia has also suspended car sales. At the same time, we take our responsibilities as an employer seriously and have secured employment stability for our employees. Where possible we are ensuring existing customers have the support they need from us.

The Nomination Committee's proposal for election of members to the Board of Directors of Volvo Car AB (publ.)

On 3 March 2022, the Nomination Committee of Volvo Car AB (publ.) decided to submit the following proposals for resolution at the Annual General Meeting of shareholders on 11 May 2022:

Re-election as members of the Board of Directors: Eric Li (Li Shufu), Daniel (Donghui) Li, Lone Fönss Schröder, Tom Johnstone, Winfried Vahland, Jonas Samuelsson, Diarmuid O'Connell and Lila Tretikov. Eric Li to be re-elected as Chairperson of the Board of Directors and Lone Fönss Schröder as Vice Chairperson.

Betsy Atkins, Michael Jackson and Jim Zhang have declined re-election.

The Nomination Committee proposes the new CEO, Jim Rowan, and Anna Mossberg to be elected as new members of the Board of Directors.

Håkan Samuelsson left the Board of Directors on 21 March 2022, when he stepped down as CEO.

Volvo Cars announced its intent to support the future growth of Polestar

On 7 March 2022, Volvo Cars announced that the company has signed a Declaration of Intent stating its intention to subscribe for potential future equity or equity linked securities issued by Polestar, in proportion to its ownership stake to support the growth and development of Polestar. Volvo Cars' investment in Polestar is long-term and strategically important. The Declaration of Intent applies to the period after a proposed listing at Nasdaq New York and until 31 March 2024.

The future investment is not guaranteed and will be subject to final agreements detailing the terms and conditions of such potential equity contribution on market terms and will be subject to all necessary corporate and/or regulatory approvals being obtained.

Reduced production due to temporary worsened semiconductor situation

On 22 March 2022, Volvo Cars announced there is a temporary worsened production situation, including temporary production halts, expected to last throughout the second quarter due to lack of a specific type of semi-conductor. Volvo Cars' expectation has been to grow its sales volumes for the full year 2022. The disturbance means the company now expects marginal growth in deliveries for the full year 2022, compared to 2021. The supply chain constraints, including the ongoing impacts from Covid, are expected to remain a problem for the industry throughout 2022. The expected disturbances in Volvo Cars' production are not related to the war in Ukraine.

Remuneration guidelines to senior executives

The following principal guidelines for remuneration to senior executives were adopted at the Extraordinary General Meeting held on 17 October 2021. These guidelines shall be applicable to remuneration to the Executive Management Team, including the CEO, ("EMT") of Volvo Car AB ("Volvo Cars").

Types of remuneration

The total remuneration package for the EMT may consist of the following components, fixed cash remuneration, variable cash remuneration, pension benefits and other benefits. The components of remuneration shall be on market terms. Additionally, the General Meeting may – irrespective of these guidelines – resolve on, among other things, share-related or share price-related remuneration.

Variable cash remuneration

The satisfaction of criteria for awarding short-term variable cash remuneration shall be measured over a period of one year, whereas the satisfaction of criteria for awarding long-term variable cash remuneration shall be measured over a period of three years.

For the CEO, the short-term variable cash remuneration may amount to not more than 200 per cent of the annual fixed cash salary on 31 December at the end of each performance year, and the long-term variable cash remuneration may amount to not more than 150 per cent of the annual fixed cash salary the year the programme was implemented. For the other EMT members, the short-term variable cash remuneration may vary but amount to not more than 140 per cent of the annual fixed cash salary on 31 December at the end of each performance year, and the long-term variable cash remuneration may vary but amount to not more than 120 per cent of the annual fixed cash salary the year the programme was implemented.

Extraordinary arrangements

Further variable cash remuneration may also be paid out in extraordinary circumstances, provided that such arrangement is of a one-time nature and is agreed on an individual basis for management recruitment or retention purposes or as compensation for extraordinary efforts beyond the individual's ordinary assignment. Such remuneration shall be in line with market practice and may for example include a one-time cash payment, retention bonus or severance payment in case of a change of control, or similar. The remuneration may amount to not more than the fixed annual cash salary for one year and shall not be paid more than once a year per individual. Resolutions on such compensation shall be made by the Board of Directors based on a proposal from the People and Sustainability Committee.

Share-based incentive programmes

The Board of Directors may propose general meetings to resolve on long-term share-based incentive programmes. The current intention of the Board of Directors is to propose the Annual General Meeting 2022 to approve a long-term share-based incentive programme to comprise, amongst others, the EMT. If such a programme would be implemented, no new long-term variable cash programme would be offered the EMT in 2022.

Pension benefits

For the CEO, pension benefits shall be a defined contribution scheme and the pension premiums may amount to no more than 50 per cent of the annual fixed cash salary. Variable cash remuneration shall not qualify for pension benefits.

For other EMT members, pension benefits shall be a defined contribution scheme and the pension premiums may amount to no more than 30 per cent of the annual fixed cash salary. Some current EMT members have a defined benefit pension as part of a pre-existing agreement. To the extent that variable cash remuneration qualifies for pension benefits under the applicable collective bargaining agreement, the pension benefits shall be deducted from the cash payment and paid as pension.

Other benefits

Other benefits may include, for example, medical insurance, annual health check-up and company cars. Such benefits may amount to no more than 20 per cent of the annual fixed cash salary.

For employments governed by rules other than Swedish, pension benefits and other benefits may be duly adjusted for compliance with mandatory rules or established local practice, taking into account, to the extent possible, the overall purpose of these guidelines.

EMT members who are expatriates (i.e., are sent on an international assignment and are not on a local employment contract) may receive additional remuneration and other benefits determined in line with Volvo Car Group's International Assignment Instruction which may include (but are not limited to) relocation cost, cost of living allowance, housing, schooling, home travel allowance and tax assistance. Such benefits may amount to no more than 160 per cent of the annual fixed cash salary.

Termination of employment

Upon termination of an employment, the notice period may not exceed twelve (12) months. Fixed cash salary during the notice period and severance pay may together not exceed an amount corresponding to the individual's fixed cash salary for two (2) years, subject to applicable law. When termination is made by the EMT member, the notice period may not exceed twelve (12) months, without any right to severance pay.

Additionally, remuneration may be paid for non-compete undertakings. Such remuneration shall com-pensate for loss of income and shall only be paid in so far as the previously employed executive is not entitled to severance pay. The remuneration may amount to not more than 60 per cent of the monthly base salary at the time of termination of employment and be paid during the time the non-compete undertaking applies, however not for more than twelve (12) months following the termination of employment.

Criteria for awarding variable cash remuneration

The variable cash remuneration shall be linked to predetermined and measurable criteria which can be financial or non-financial. They may also be individualised, quantitative or qualitative objectives. The criteria shall be designed so as to contribute to the Group's business strategy and long-term interests, including its sustainability, by for example being clearly linked to the business strategy or promote the executive's long-term development.

The variable short-term cash remuneration shall be linked to Volvo Car Group's earnings before interest and taxes (EBIT), quality, and strategic transformation activities.

The variable long-term cash remuneration shall be linked to the development of the market value of Volvo Car Group as well as satisfaction of certain performance conditions related to operating margin and revenue growth measured over the term of the programme, as established by the Board of Directors.

To which extent the criteria for awarding variable cash remuneration have been satisfied shall be evaluated when the measurement period has ended. The People and Sustainability Committee is responsible for the evaluation. For financial objectives, the evaluation shall be based on the latest financial information made public by Volvo Car Group.

The Board of Directors shall have the possibility, under applicable law or contractual provisions, subject to the restrictions that may apply under law or contract, to in whole or in part reclaim variable remuneration paid on incorrect grounds (claw-back).

Salary and employment conditions for employees

In the preparation of the Board of Directors' proposal for these remuneration guidelines, salary and employment conditions for employees of the company have been taken into account by including information on the employees' total income, the components of the remuneration and increase and growth rate over time, in the People and Sustainability Committee's and the Board of Directors' basis of decision when evaluating whether the guidelines and the limitations set out herein are reasonable.

Remuneration guidelines governance

The Board of Directors has established the People and Sustainability Committee, whose tasks include preparing the Board of Directors' decision to propose guidelines for EMT remuneration. The Board of Directors shall prepare a proposal for new guidelines at least every fourth year and submit it to the general meeting. The guidelines shall be in force until new guidelines are adopted by the general meeting.

The People and Sustainability Committee shall also monitor and evaluate variable pay programmes, the application of the guidelines for executive remuneration as well as the current remuneration structures and compensation levels in the company.

The members of the People and Sustainability Committee are independent of the company and its executive management. Neither the CEO nor any other EMT member participate in the Board of Directors' processing of and resolutions regarding remuneration-related matters in so far as they are affected by such matters.

Deviation from the guidelines

The Board of Directors may temporarily resolve to deviate from the guidelines, in whole or in part, if in a specific case there is special cause for the deviation and a deviation is necessary to serve Volvo Car Group's long-term interests, including its sustainability, or to ensure the Group's financial viability. The People and Sustainability Committee's tasks include preparing the Board of Directors' resolution in remuneration-related matters. This includes any resolutions to deviate from the guidelines.

The Board of Directors' proposal to guidelines for executive remuneration 2022

The Board of Directors of Volvo Car AB ("Volvo Cars") proposes that the 2022 annual general meeting resolves on updated guidelines for remuneration to the Executive Management Team (including the CEO) ("EMT"). The guidelines replace the guidelines adopted by the extraordinary general meeting held in October 2021. In relation to the current guidelines, the proposal implies, in addition to editorial amendments, that the People Committee, instead of the Board of Directors in its entirety, is responsible for certain resolutions pursuant to these guidelines. The Board of Directors has not received any views from the shareholders on the existing guidelines for executive remuneration. Furthermore, the Board of Directors propose to update the section related to Share-based incentive programmes to include share price-related incentive programmes and to add a section related to share ownership guidelines for members of EMT, see the following sections for the these proposed updates.

Share-based or share price-related incentive programmes

The Board of Directors may, irrespective of these guidelines, propose general meetings to resolve on long-term share-based or share price-related incentive programmes. The Board of Directors has proposed the annual general meeting 2022 to approve a long-term share-based incentive programme to comprise, amongst others, the EMT. If the annual general meeting resolves in accordance with the Board of Directors' proposal, no new long-term variable cash programme will be offered the EMT in 2022, and the same principle will apply in the following years as long as there is a long-term share-based program in place.

Share ownership guidelines for members of the EMT

Since the Board of Directors believes that long-term share ownership is an important way to create alignment between the EMT members and Volvo Cars' shareholders, it has implemented the following policy of share ownership for members of the EMT.

The Board of Directors expects the CEO and other members of the EMT to accumulate personal holdings in shares with a market value corresponding to the value of 100 per cent of the EMT member's annual fixed cash salary. It is expected that the personal holding of shares be established within five years from the listing of the Company and, for new hires, within five years from commencement of employment with the Group as CEO or other member of the EMT. The CEO and the other members of the EMT are expected to achieve share ownership by retaining shares allotted (net after taxes payable) under future incentive programmes. Further, upon reaching the recommended share ownership level, it is expected that the CEO and the other members of the EMT maintain shares of such value for the duration of their appointment as CEO or the other member of the EMT.

HOW WE MANAGE RISK

Our risk management is a key success factor for sustainable profitable growth

Enterprise Risk Management

Risk Management is critical to the Group's success in having sustainable profitable growth and reaching a top position in the future electric premium segment with access to international financial equity markets. The principles of Risk management are founded on the strategies and policies of the Group.

Management summary

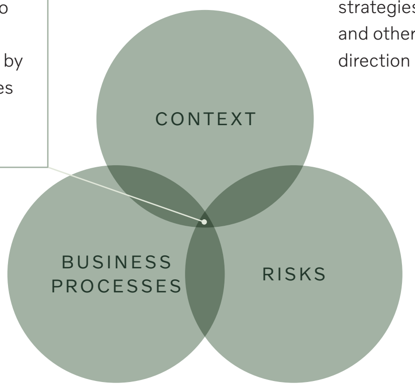
The Top Risks for the end of 2021 reflect the strategies of the company – Transformation, Electrification and Sustainability as well as our extensive collaborations with strategic partners, affiliates and further through the total supply chain. The year of 2021 was a black swan consisting of a combined cause of events with major supply chain disturbances. Our swift way of adjusting when threats materialise, is a key strength in our resilience capabilities.

The Enterprise Risk Management function in Volvo Car Group started a transformation journey last year focusing on cultural changes and efficient processes to exceed stakeholder expectations for a listed company. By the end of 2022 we will have taken a major leap towards a modern and integrated Risk Management, a journey that will continue tomorrow, as the main theme for Risk Management is continuous improvement.

Enterprise Risk Management (ERM) is integrated in the business with an objective to improve decision making, proactively protect the fulfilment of strategies and plans and protecting our assets. The ERM also supports effective Business Continuity Management and transparency towards our external stakeholders.

Risk management – is the combined countermeasures taken to manage risks. Integrated RM means that it is primarily driven by the business where the RM roles support with tools and competence.

Context – consists of the policies, strategies, plans, targets, purposes and other that are pointing out the direction of the business.



Business Processes – The analysis, decision-making and execution necessary to move in the right direction.

Risks – External and internal uncertainties, threats and weaknesses that can make us deviate from the direction.

Risk management shall be integrated in all levels of the Group and is basically a shared responsibility for all employees with aggregation and consolidation through management dialogue.

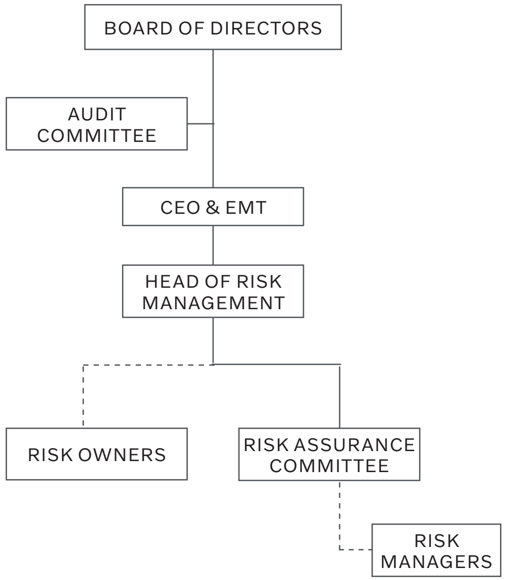
Governance

The ultimate responsibility for ensuring risks (including climate related risks and opportunities) of Volvo Car Group are sufficiently managed lies with the Board of Directors. However, certain related tasks are delegated to the Audit Committee. Ensuring an appropriate level of risk management on the operational level is the responsibility of the Chief Executive Officer and the Executive Management Team, where the Head of Risk Management reports through the CFO.

The formal Enterprise Risk reporting process towards the Board occurs twice a year. Input is gathered throughout the organisation via the local risk managers, resulting in a comprehensive overview of risks in the organisation. For all identified risks, Risk Owners are appointed, and the risk owner will ensure we are managing risks in alignment with our Risk Management principles. For sustainability risks we follow the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).

Risks are prioritised through collaboration in a cross functional team of Senior Managers. The top risks are presented to the Board of Directors and discussed by the Audit Committee twice a year.

Additionally, the Internal Audit function serves as a 3rd line of defence by providing an objective review of the effectiveness of Risk Management all through the Group.



ENTERPRISE RISK MANAGEMENT

Risk management principles and approach to risk

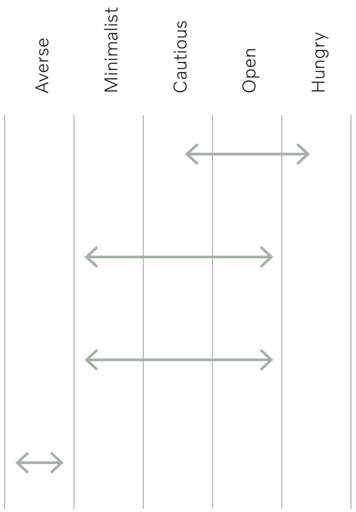
The risk management function at Volvo Car Group strives to be dynamic, iterative, and responsive to changes. Dynamic risk management means that we consider that the risk landscape changes rapidly, evolves, and integrates with other risks constantly. Iterative means that the risk management cycle is constantly active in our business. Our business context and business model constantly change, and risk management must be responsive to these changes.

In addition, we want risk management to be driven by culture and leadership behaviours, integrated in our daily operation, and based on best practice way of working.

Approach to risk

Risk management at its core is based on what approach we choose to have for risks. At Volvo Car Group, the approach is dependent on the category of risk in question.

APPROACH TO RISK



Note

STRATEGIC
E.g., Commercial Transformation

Medium – High risk appetite because of high opportunities. High management attention.

OPERATIONAL
E.g., Supply Chain Risks

Wide range due to wide range of risk areas. Each area to do cost benefit analysis and review insurable risks. Strong process control.

FINANCIAL
E.g., Residual Value

Wide range connected to relevant business decisions. Strong second line control. Normally includes both downside and upside.

COMPLIANCE & FINANCIAL REPORTING

Zero to Low appetite, strong first and second line control. Company policy sets the principles.

Risk drivers and accelerators

There are some key, more generic, factors that influence our business and drive risk. Individually, these are not considered risks, but rather drivers/accelerators, which in combination with other factors can simultaneously accelerate the pace at which a risk is evolving or even create completely new risks.

These drivers/accelerators are also in turn important factors for the Group's strategy work.

We recognise that inaction on climate change and its impacts are the predominant risks facing our world, as set out in the World Economic Forum's (WEF) 2022 Global Risk Report.

- MACROECONOMIC AND GEOPOLITICAL DEVELOPMENTS
- CONSTANTLY EVOLVING CONSUMER BEHAVIOUR AND DEMAND
- THE COMPETITIVE ENVIRONMENT AND TECHNOLOGICAL DEVELOPMENT
- ACCELERATING EFFECTS OF CLIMATE CHANGE

As an organisation, we can only control our preparedness to respond to these factors with the right strategies for the future. Intelligence on the trends is gathered and used as a base for decisions on strategic direction. Intelligence is a crucial part of mitigating risks driven and/or accelerated by these various trends. More information about our industry and market trends you can be found on pages 10–15, and our strategic work on pages 16–37.

Risks

The top risks presented in this section are a summary of prioritised risks for 2021. Each risk is described, and key response actions highlighted. The outlook included refers to how this risk is evolving, thus whether the level of risk can be seen as increasing, stable, or decreasing. Volvo Cars strategy contributes to several UN Sustainable Development Goals towards 2030 and we tie them to business objectives and risks according to UN Guidelines.

For further information on our contribution to the UN SDGs and its sub targets, see the table on page 182 in the Sustainability report. For further information on the UN SDGs , see UN website https://sdgs.un.org/goals.

The main risk categories are:

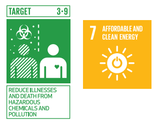
Strategic – the risks that might impact reaching strategic objectives

Operational – the risks that might interfere with operations

Compliance – the risks that might impact our compliance with laws and regulations

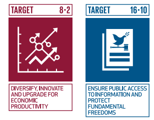
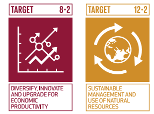
Financial – the risks that might impact the financial result and/or valuation

STRATEGIC RISKS

Risk	Description	Response	Outlook	Connected SDG(s) and subgoals
Market Shift and consumer behaviour in Electrification transformation	As the customers move towards electric vehicles, there is uncertainty on the pace of consumer acceptance, market by market. The move from internal combustion engine vehicles to electric vehicles is dependent on factors like range, charging experience and pricing.	Our Electrification Strategy is to become a leader in the fast-growing premium electric segment by having a product plan with full electrification focus, a clear battery technology and supply roadmap and no ICE legacy business. The ambition mid-decade is to have 50% Electrified vehicles sales of total volume.	Continued uncertainties during transformation until the Market, infrastructure and cost structure for electric vehicles have matured.	
Strategic Competencies and speed of transformation	The fierce competition for strategic competencies leads to a risk of inability to attract and retain the right talents which poses a risk to our speed of transformation. We compete on a new landscape outside of the traditionally automotive sector and are dependent on attracting tomorrow's talent in areas like Software development, Online service offer and financial services.	To have progressive goals and strive to be in the forefront of the automotive transformation with a strong sustainability mindset creates attention and curiosity among key talents. People strategy addresses current and future needs and strategies for people experience management.	As we compete on a broader arena for key talents the pace of competition will increase.	
Strategic Alliances and New ways of Collaboration	Our high transformation ambition requires new business alliances and new models for enabling attractive offers but also to achieve efficiencies in the development of products and our supply chain. These entail potential risk in case of issues with alignment and/or performance.	The transformation journey has high attention, and several strategic milestones are set to ensure a sturdy way forward in our collaborations. Our governance models ensure a transparent dialogue with our partners and mutual dependencies vouch for focused problem solving if needed.	As the number of external interdependencies increase, the higher the potential for errors in relation to alignment.	
Ensuring a Sustainable Transformation	The global risk of climate change generates public expectation on accelerating speed of sustainability transformation. This is a risk if Volvo Cars is not able to proactively adapt business plans and transition of its business, including the complex value chain, potentially risking negative brand reputation and loss of sales.	Volvo Cars' sustainability strategy and sustainability commitment is designed to enable a proactive approach by addressing and mitigating effects of climate change with climate action and circular economy as two key areas. These are fundamental to actively contribute to the Paris agreement and achieve below 2 degrees global warming. We have set the ambition to become a climate neutral company by 2040 and our climate action CO_2 reduction targets for 2030 has been verified by SBTi. We focus on decreasing our CO_2 footprint in operations, supply chain and tailpipe, with the transformation into 100% BEV company by 2030 is fundamental. We are also working to secure access to renewable energy throughout the value chain. Strategy refinement for content of recycled materials ongoing and new business models explored. Several strategic sustainability milestones included in the 2022 plan. For more details on our sustainability strategy, see the Sustainability chapter.	Legislation and regulations getting more stringent and public expectations continuously increasing thus continuing driving the need for proactivity.	

ENTERPRISE RISK MANAGEMENT

OPERATIONAL RISKS

Risk	Description	Response	Outlook	Connected SDG(s) and subgoals
Battery Supply Chain	The battery technology shift and the increased capacity requirement in combination with a volatile Supply Chain and potential raw material limitations is a risk to our electrification strategy.	Close collaboration with leading battery suppliers and new collaboration models serve as steps towards securing needed battery volume and access to next generation batteries. Joint venture established with Northvolt as a way to ensure capacity.	As the demand for batteries has not reached its peak yet, there is expected battery supply chain volatility ahead.	
Cyber Security	With the automotive industries continued shift toward connected cars, autonomous drive, vehicle electrification, and smart mobility, Cyber Security has risen in importance. In addition, Global Automotive Regulations, Standards, and requirements to address Cyber Security continue to emerge, thus Cyber Security is a critical business requirement for Volvo Cars and is fundamental towards protecting Volvo Cars' Assets and operations.	Volvo Cars has a broad range of Policies, Directives, Manufacturing Cybersecurity Programme, Cybersecurity Awareness Training, Multifactor Authentication in place. There is also an IT Security Incident organisation in place to identify and manage when ransomware or other malicious code attack might be to happen.	The cyber risk is increasing in general in society thus also affecting Volvo Cars.	
Trade Tariffs	Increased political instability and protectionism driving increased cost of trade by increased tariffs, taxation policies, duties, re-routing and supplier delivery restrictions, potentially increasing our material costs	We are continuously developing our supply chain to ensure a controlled exposure to the increased complexity of trade and trade tariffs.	Geopolitical instability and power struggles amplify the risk.	
Material Cost & Supply Chain	Volvo Cars relies on a global network of appr. 9,700 suppliers at 1,700 manufacturing sites for sourcing raw materials, parts, systems, software, and components. In times of a difficult business climate for our suppliers e.g., volatile commodity market, raw material shortages, supply chain disruptions, Covid and semiconductor constraints, this can result in price increases and potential production disruptions due to potential business performance issues for suppliers.	Supplier Risk Management closely monitors the financial situation of critical suppliers, also engineers on site provides information on local situations. Supplier relationship management for close dialogue on business outlook. Continuous work ongoing to secure critical raw materials. Increased hedging scope for commodities and improved supply chain oversight with close supplier collaboration.	Currently on higher-than-normal level due to Covid/Chip shortage situation, experience lack of raw materials/commodities more often, however, stabilisation on commodity price.	

COMPLIANCE RISKS

Risk	Description	Response	Outlook	Connected SDG(s) and subgoals
Product liability compliance	The growing complexity of automotive industry laws and governmental regulations, which often are country specific or regional, concerning, among other things, greenhouse gas emissions, vehicle fuel economy, vehicle emissions, energy security, car safety and environmental matters. There is a risk that the number and extent of legal and regulatory automotive industry requirements will increase significantly in the future. We also notice an increasing trend of litigations in this area.	The most important strategy to prevent this risk is to deliver high quality products. We also continue to improve the digital solutions to cope with growing complexity for information management and continue secure efficient data sharing with authorities.	Governmental requirements rising and getting more complex.	
Compliance & Ethics	The rising public expectations on corporate responsibility across the world create challenges and opportunities. Volvo Cars aspires to be a leader in Ethical and Responsible business; however, we have an international and complex supply chain amongst sourcing in high-risk countries.	Aligning the corporate agenda in Ethical Business areas and monitoring the risks. Securing all activities in our supply chain and Code of Conduct for business partners to be fulfilled. Upcoming EU Due Diligence legislation will help standardise according to OECD guidelines.	The public's expectations and awareness are increasing.	See table on page 182 in the Sustainability Chapter (almost all SDGs are relevant to this risk)

FINANCIAL RISKS

Risk	Description	Response	Outlook	Connected SDG(s) and subgoals
Affiliate Performance	The potential of weak performance in our affiliates poses a risk for negative impact on Volvo Cars as it could hinder us from reaching our strategic goals.	An active "owners' control" organisation with well-defined processes and regular follow up for governance and steering of our affiliate relations.	The risk increases as our affiliate base expands.	TARGET 16-6 DEVELOP EFFECTIVE, ACCOUNTABLE AND TRANSPARENT INSTITUTIONS
Residual value	The risk of the market value of used cars deteriorating, realising losses when remarketing the cars. Risk driven by increased volume and business transformation due to market change.	With close monitoring of different market trade guides, used vehicle forecast and frequent trend analysis simultaneously working with software offers in combination with OTA to improve used vehicle value over time.	Customer behaviour drives new business models within automotive which are increasing this risk.	TARGET 8-2 DIVERSIFY, INNOVATE AND UPGRADE FOR ECONOMIC PRODUCTIVITY

Reference to other key financial risks

It is important to note that ERM part of the annual report only focuses on the top risks of the group. In addition, we have extensive risk management ongoing in the company within several areas with daily focuses on risks and preventive actions.

A major risk area is Financial Risks, which are highly regulated with regard to transparency of reporting. A sensitivity analysis of selected financial risks and further details can be found in Note 21 – Financial risks and financial instruments.

Multi-risk scenario analysis

Often multiple risks can materialise at the same time, adding complexity to our risk management procedure. Therefore, multi-risk scenario analysis is a useful tool to explore how to manage situations where the level of complexity is high. Working with such scenarios, both learning from the past and looking ahead to increase preparedness is key. Particularly in an environment where so-called 'Black Swan' risks might occur, which are by nature unpredictable, preparedness to act on any type of risk – or combination of risks – is of utmost importance.

Two scenarios explored highlight two different perspectives; one focusing on how we managed a multi-risk scenario of the global pandemic and resulting challenges, and one to understand potential scenarios ahead of us. As an example of a future scenario, we have explored the global warming scenarios. Global warming puts focus on interconnectivity of our physical environment to our business and links strongly to our core value of sustainability.

In the global warming scenario, we, being an Automotive industry actor, acknowledge the global threat of climate change, particularly the importance of our own contribution to prevent Global Climate Action failure. In the WEF's 2022 Global Risk Report, this was highlighted as the most severe risk facing the world in both the short term (0–2 years), medium term (2–5 years) and long term (5–20 years). Climate-related risks accounted for the top 3 greatest risks over the next 10 years (extreme weather, biodiversity loss and climate action failure).

MULTI-RISK SCENARIOS – HOW WE MANAGED

2021 – an example of a year of a multi-risk scenario

What actually happened	What risk areas materialised	Impact severity	How did we manage
The global Covid-19 pandemic has had, and continues to have, consequences on people, societies, businesses, and financial markets across the world. During 2021, global supply chain disruptions, changed consumer demand and spending patterns had an adverse impact on the automotive industry. The constantly evolving nature of the Covid-19 pandemic makes it difficult to predict its ultimate adverse impact. The Group relies on a global network of suppliers for sourcing raw-materials, parts, systems, software, and components. A global shortage of semiconductors arose at the beginning 2021 mainly due to increased demand for consumer electronics and halted production during the Covid-19 pandemic. In addition, the transportation sector experienced severe capacity issues driven by Covid-19 restrictions combined with container shortages and other disruptions.	• Health & Safety • MI & Consumer Behaviour • Business Interruption • Financial Market • Material Cost & Supply Chain	The course of events during 2021 led to temporary production halts at manufacturing plants in China, the United States, Belgium, and Sweden. The temporary production halts have resulted in loss of production volumes which led to loss of sales volumes.	Global cross-functional Taskforce was quickly put in place with the intention to keep our workforce safe, secure material and to balance production with customer demands. Massive effort was put in place to coordinate manufacturing and component supplies dependent on Covid-19 lockdowns or local requirements. Global cross-functional Taskforce was well prepared with recent training of unfolded scenario. Creative procurement team enabled a week-by-week supply for semiconductors and the production planning was continuously adjusted to focus on volumes with best margins. All together the impact on the group's profitability was kept on a controllable level and liquidity was maintained.

MULTI-RISK SCENARIOS – HOW WE WILL MANAGE

Potential next global Multi-risk scenario.

What could happen	What risk areas may be triggered/accelerated	What impact might we see	What is our plan
The IPCC 6th Assessment report underlines the increased likelihood of Global warming scenarios especially with the increased risk that the Paris Agreement targets are not met. Volvo Cars uses IPCC 8.5 *) as base for the Physical risk scenario analysis. For Transitional risk scenario analysis Volvo Cars uses both 4Degrees = IEA Stated Policies Scenario (STEPS), and <2Degrees = IEA Sustainability Development Scenario. The global warming will trigger physical climate change where we likely see a higher frequency of natural disasters. Both transitional and physical risks will impact Volvo Cars during these time horizons.	• Market Shift and Consumer Behaviour – transitional – short, medium and long term • Strategic Alliances and New Ways of Collaboration – transitional – medium term • Climate Change – Sustainable Transformation – transitional – short, medium and long term • Material Cost & Supply Chain – medium and long term • Property & Machinery – physical – medium and long term • Compliance & Ethics – transitional – medium term • Residual Value – transitional – long term	More frequent and severe natural disasters will increase impact on our employees, our industrial footprint, and our supply chain. Consequently, we would see more disruption and likely increased costs. Increased flooding and rainfall raised sea levels might impact land quality and cause long term effects for our employees and our facilities. As the impact differs from region to region, we might see changes in collaboration models and the direction for our corporate responsibility. Speed and scope of new legislation and policies regulating environmental impact is likely to increase. We would see changes in consumer demand when global warming effects impact consumer preferences and mobility behaviours.	To address emerging physical risks, since our core value is Safety, we will always put people's health and safety first, this is the most important strategy when crisis unfold. Our industrial strategy to become more geographically aligned between sourcing, manufacturing and customers will decrease our transportation exposure as well as support our Sustainability commitment. To address emerging transitional risks, our sustainability strategy and commitments is created to mitigate those. Our climate action CO_2 reduction targets for 2030 are in line with a well below 2-degree scenario as verified by the Science-Based Targets initiative (SBTi), thereby fulfilling the IEA <2DS scenario. In addition, we have taken the decision in 2021 to implement an internal carbon price of 1,000 SEK to further speed up our sustainability transition and mitigate the global warming scenario, read more in the Sustainability chapter pages 39–46 and 151–190.

*) IPCC RCP 8.5
United Nations IPCC (Intergovernmental Panel on Climate Change), RPC (Representative Concentration Pathways)
RPC8.5 Represent high-emissions scenario also frequently referred to as "business as usual" or "worst case" meaning a continued fossil fuel-based development which likely result in above 4 degrees temperature increase by year 2100. Resulting from a society that does not take climate action efforts to reduce greenhouse gas emissions.

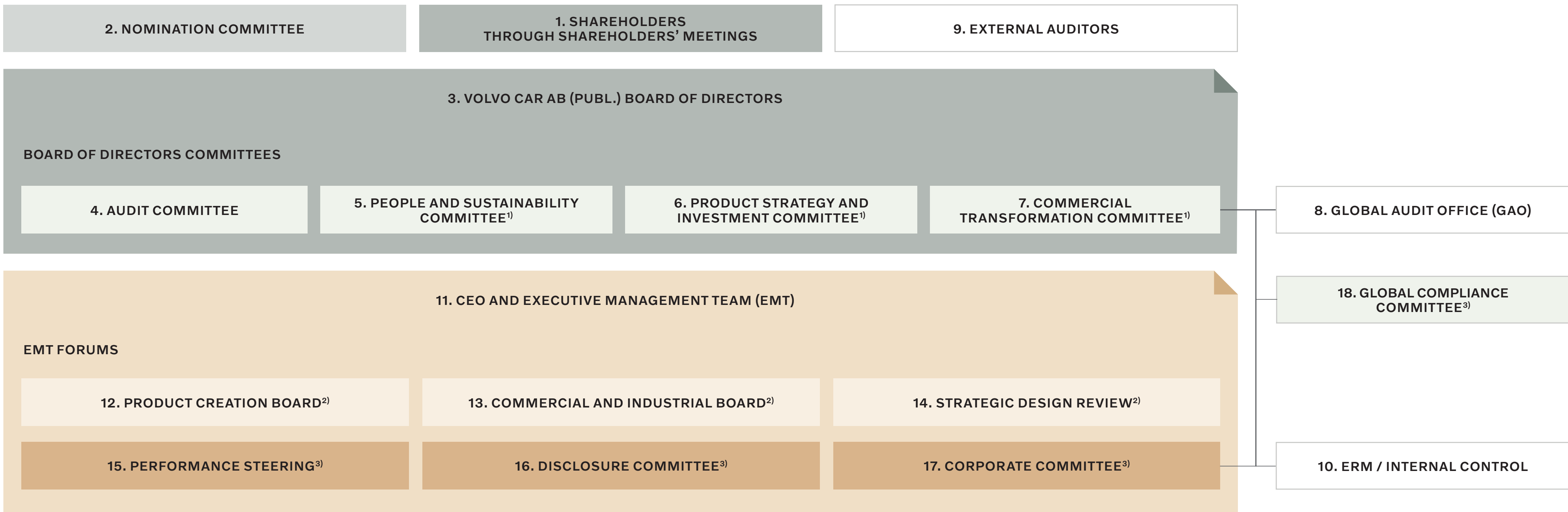
OUR CORPORATE GOVERNANCE

A distinct purpose for our corporate governance is active and responsible ownership of our affiliates, proper distribution of responsibilities and good communication with all stakeholders.

Corporate Governance Report

Corporate governance within Volvo Car Group
The purpose of Volvo Car Group's corporate governance is to create a good foundation for active and responsible ownership, a proper distribution of responsibilities between the different company bodies, as well as good communication with all of the Group's stakeholders.

The corporate governance principles adhered to by Volvo Car Group are based on Swedish law, mainly the Swedish Companies Act and the Swedish Annual Accounts Act (Sw. årsredovisningslagen (1995:1554), the Swedish Code of Corporate Governance (the "Code") and Nasdaq Stockholm's rulebook for issuers as well as other relevant laws and regulations. The Code is based on the "comply or explain" principle, meaning that companies are not obliged to at all times apply every rule in the Code, but are allowed the freedom to choose alternative solutions which they feel are better in their particular circumstances, provided they report every deviation, describe the alternative solution and explain the reasons for the deviation. Volvo Car Group applies the principles of sound corporate governance and responsible business practice and the Code without any deviation with the exception of a deviation from the Code, rule 2.5, stipulating that the company is to announce the names of members of the nomination committee on its website no later



1) As of 10 February 2022, the Board decided that the People and Sustainability Committee's assignment shall only relate remuneration to the CEO and executive management. The Board also resolved that it will handle the work of the the Product Strategy and Investment Committee and Commercial Transformation Committee and that these committees will cease to exist.
2) Full EMT participation.
3) Selected members representing EMT.

than six months before the Annual General Meeting. The members of Volvo Cars' Nomination Committee for the Annual General Meeting 2022 were appointed based on the ownership information as of 11 November 2021 and the names of the members were announced on 2 December 2021. The Annual General Meeting will be held on 11 May 2022 meaning that the names of the Nomination Committee members were announced later than six months before the Annual General Meeting. The reason for the deviation is that Volvo Cars was listed on Nasdaq Stockholm on 29 October 2021 and wanted the appointment of members to the Nomination Committee to be based on ownership information post listing. Next year the Company intend to comply also with the aforementioned rule 2.5 of the Code.

The Board of Directors of the Company (the "Board") is responsible for Volvo Car Group's organisation and the management of its business worldwide and is obliged to follow directives provided by the General Meetings. The Board may appoint committees with specific areas of responsibility and furthermore authorise such committees to decide on specific matters in accordance with regulations established by the Board. During 2021, the Board had the Audit Committee, the People and Sustainability Committee, the Product Strategy and Investment Committee and established the temporary Commercial Transformation Committee.

The Chairperson of the Board directs the work of the Board and monitors the Board's fulfilment of its obligations. A Vice Chairperson has been appointed to support the Chairperson as appropriate. The Board annually adopts regulations for the work of the Board, which set out the principles on governance of the Board and its committees.

The President of Volvo Car Group, who is also the Chief Executive Officer (CEO), is appointed by the Board to handle the Group's day-to-day management and to lead the Executive Management Team (EMT) as overseen by the Board. The EMT's role is to assist the CEO in the operation of Volvo Car Group's business. The EMT has appointed its own boards (responsible for e.g. product strategies, sustainability, volume and production planning, corporate development, etc., as further outlined in the corporate governance model above) to assist in carrying out decisions and actions, but the CEO retains responsibility for the actions of the EMT boards.

1. Shareholders and General Meetings

The General Meetings, the Company's highest decision-making body, is where shareholders exercise their influence. The Annual General Meeting is held within six months after the end of the financial year. Decisions made by shareholders' at the General Meetings include (i) adoption of instructions for the Nomination Committee which nominates members to the Company's Board of Directors, (ii) determination of the number of Board members, composition of the Board (including the Chairperson of the Board) and remuneration of Board members, based on recommendations by the Nomination Committee, (iii) election of external auditors, (iv) determination of the distribution of dividends (v) confirmation of income statements and balance sheets and the disposition of the Company's profit or loss, (vi) discharge from liability of the Board of Directors and CEO as well as (vii) guidelines for remuneration to the CEO and other members of the Executive Management Team. In addition, the shareholders of the Company can resolve on other matters that are important to the Company at the General Meeting, for example changes to the Articles of Association.

In addition to the Annual General Meeting, Extraordinary General Meetings can be convened when required.

Notice of the Annual General Meeting, as well as an Extraordinary General Meeting at which the matter of amendment to the Articles of Association is to be addressed, shall be issued not earlier than six weeks and not later than four weeks prior to the General Meeting. Notices of other Extraordinary General Meetings shall be issued not earlier than six weeks and not later than three weeks prior to the Extraordinary General Meeting. Notice of General Meetings shall be published in the Swedish Official Gazette (Sw. Post- och Inrikes Tidningar) and on the Company's website. Simultaneously, an announcement with information that the notice has been issued shall be published in Dagens Industri.

Right to attend General Meetings

All shareholders who are directly recorded in the Company's share register maintained by Euroclear Sweden six banking days prior to the General Meeting and who have notified the Company of their intention to participate in the General Meeting not later than the date indicated in the notice of the General Meeting, are entitled to attend the General Meeting and vote for the number of shares they hold.

In addition to notifying the Company, shareholders whose shares are nominee registered through a bank or other nominee must request that their shares are temporarily registered in their own names in the register of shareholders maintained by Euroclear Sweden, in order to be entitled to participate in the General Meeting. Shareholders should inform their nominees well in advance of the record date. Voting registrations made by nominees not later than four banking days prior to the General Meeting will be taken into account.

Shareholders may attend the Company's General Meetings in person or by proxy and may be accompanied by a maximum of two assistants. It will normally be possible for shareholders to register for the General Meeting in several different ways, as indicated in the notice of the meeting.

Shareholder initiatives

Any shareholder of the Company who wishes to have a matter dealt with at a General Meeting must submit a written request to the Board of Directors to that effect. The matter will be dealt with at a General Meeting if the request has been received by the Company no later than seven weeks prior to the General Meeting, or after such date, if it still is in due time for the matter to be included in the notice of the General Meeting.

Number of shareholders and ownership structure

The total number of shares in Volvo Car AB (publ.) amounts to 2,979,524,179 shares of series B which are listed on the Nasdaq Stockholm Stock Exchange. Volvo Cars largest shareholder is Geely Sweden Holdings AB holding approximately 82 per cent of the total number of shares in the Company representing approximately 82 percent of the total number of votes in the Company. The remaining 18% of the shares are held by Nordic and international investos and approximately 190,000 other investors. For further information on the ownership structure, please refer to page 48.

2. Nomination Committee

Under the Code, a company listed on Nasdaq Stockholm shall have a Nomination Committee, the purpose of which is to make proposals to the General Meeting in respect of the Chairperson at General Meetings, number of Board members, elections of Board members, Chairperson of the Board and auditor, remuneration of each Board member (divided between the Chairperson of the Board and other

Board members, and remuneration for committee work), remuneration to the auditor, and to the extent deemed necessary, proposals for amendments to the instruction for the Nomination Committee.

At the Extraordinary General Meeting held on 17 October 2021, the current instruction for the Nomination Committee was adopted to apply until further notice.

The Nomination Committee prior to the Annual General Meeting 2022 consists of representatives of the three largest shareholders in terms of voting rights, as of 11 November 2021. Members of the Nomination Committee are:

- Eric Li, Chairperson of the Board of Volvo Car AB
- Hans-Olov Olsson, appointed by Geely Sweden Holdings AB, Chairperson of the Nomination Committee
- Yimin Chen, appointed by Geely Sweden Holdings AB
- Anders Oscarsson, appointed by AMF
- Ylva Wessén, appointed by Folksam

The Nomination Committee has adopted a framework for nomination of members to the Board, which stipulated that the composition of the Board shall be diverse in terms of gender, nationality, professional background and other competences. This 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 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, an ambition not yet fully reached. The Unions represented in the Volvo Cars Board shall be encouraged to apply the corresponding goal when appointing their representatives.

3. Board of Directors

The Board of Directors, which is the highest decision-making body after the General Meeting, bears ultimate responsibility for Volvo Car Group's organisation, management and control of the Company's financial conditions. The Board of Directors shall further ensure that the Company applies the Code and complies with applicable laws and regulations, Nasdaq Stockholm's rulebook for issuers, the listing rules of the Luxembourg Stock Exchange's Euro MTF market, the Company's Articles of Association and the regulations for the work of the Board.

Composition

At all times, the Board shall consist of a minimum of three and a maximum of twelve members and in addition thereto the number of employee representatives as required under Swedish law. No member of the Executive Management Team other than the CEO shall be a member of the Board. Each new Board member is provided with an induction programme to learn about the Volvo Car Group, the regulatory requirements and it is the Board's intention, during normal conditions, to visit a Volvo Car Group site other than the headquarters at least once a year.

In accordance with the Code, the regulations for the work of the Board stipulate that the majority of the Board members shall be independent of the Company and the EMT and at least two of these independent members shall also be independent of major shareholders. In order to determine whether a member of the Board is independent in relation to the Company and the EMT, an overall assessment must be made of all circumstances which might give reason to call into question the independence of the Board member, for example, if the Board member has recently been hired by the Company or an affiliate. Furthermore, in order to determine the independence in relation to major shareholders,

Name of the Board members	Independent of the company/senior management	Independent of the company's major shareholder	Board meeting attendance	Committee meeting attendance	Remuneration, Board and Committees[1], SEK
Li Shufu (Chairperson of the Board)	N	N	12/16	N/A	N/A
Lone Fønss Schrøder (Vice Chairperson of the Board)	Y	N[2]	15/16	13/13	2,765,000
Håkan Samuelsson (CEO)	N	Y	16/16	5/5	N/A
Li Donghui	Y	N	14/16	3/13	N/A
Jonas Samuelson	Y	Y	16/16	4/4	1,025,000
Thomas Johnstone	Y	Y	15/16	9/10	1,178,000
Betsy Atkins	Y	Y	15/16	10/10	1,150,000
Michael Jackson	Y	Y	16/16	17/17	1,212,000
Xingsheng (Jim) Zhang	Y	Y	16/16	8/9	1,150,000
Winfried Vahland	Y	Y	15/16	5/5	1,050,000
Lila Tretikov[3]	Y	Y	12/13	N/A	900,000
Diarmuid O'Connell[4]	Y	Y	13/13	N/A	900,000
Winnie Fok[5]	Y	Y	3/3	3/3	900,000[6]

1) Annual average remuneration of the Board and Committees as adopted by the Annual General Meeting in March 2021 valid for March–October 2021 and by the Extra Shareholders' Meeting in September 2021 valid for November 2021–April 2022.
2) Lone Fønss Schrøder is, as of 2020, a director in the board of Geely Sweden Holdings AB, the main owner of Volvo Cars.
3) Member of the Board from 18 March 2021.
4) Member of the Board from 18 March 2021.
5) Winnie Fok left the board in connection with the Annual General Meeting held on 18 March 2021.
6) Annual remuneration as adopted by the Annual General Meeting in March 2020.

consideration must be given to the scope of the Board member's direct or indirect relationship to the Company's major shareholders. Pursuant to the Code, "major shareholder" means a shareholder who, directly or indirectly, controls 10 per cent or more of the shares or voting rights in the Company. The Nomination Committee's assessment of the independence of the Board members in relation to the Company, the EMT and major shareholders is presented below. Lone Fønss Schrøder, Daniel Li, Thomas Johnstone, Winfried Vahland, Betsy Atkins, Xingsheng (Jim) Zhang, Michael Jackson, Jonas Samuelson, Lila Tretikov, and Diarmuid O'Connell are deemed independent in relation to the Company and the EMT, and, among these members, Thomas Johnstone, Winfried Vahland, Betsy Atkins, Xingsheng (Jim) Zhang, Michael Jackson, Jonas Samuelson, Lila Tretikov, and Diarmuid O'Connell are also deemed independent in relation to major shareholders. The Company thereby satisfies the Code's independence requirement.

Conflicts of interest

Board members shall inform the Chairperson and/or the Vice Chairperson immediately if they find themselves in a conflict-of-interest situation. A Board member with 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.

Matters for the Board

The Board is responsible for the organisation of Volvo Car Group and the management of its business worldwide. The Board continuously monitors Volvo Car Group's performance, evaluates Volvo Car Group's strategic direction and business plan as well as other aspects such as adherence to its Code of Conduct.

Sustainability is an integral part of Volvo Car Group's strategy and the Board monitors Volvo Car Group's efforts in that area. Certain matters that have not been expressly allocated to the Board are delegated to the Board's Committees or the CEO as set out in the regulations for the work of the Board.

The work of the Board follows an annual cycle in order to allow the Board to address matters within the scope of its responsibility on a yearly basis. To ensure that the Board has good visibility of the Group's operations, the President and CEO of the Volvo Car Group submits a report on the business, including reporting from the Group's strategic affiliates, where appropriate, at all Board meetings. The CFO also reports on the financials of Volvo Car Group, including relevant matters relating to treasury, hedging, risk management, insurance etc., as appropriate. In addition, the Board discusses specific strategic topics of relevance and the Board Committees report on their work. At each Board meeting the Board is also presented with a number of decision items for consideration and approval as set out in the regulations for the work of the Board.

Authorisation for the Board to resolve on new issues of shares

At the Extra General Meeting held on 17 October 2021, the shareholders resolved to authorise the Board to, on one or several occasions up to the next Annual General Meeting, resolve on new issues of common shares series B. The total number of shares that may be issued by virtue of the authorisation shall be within the limits of the articles of association and not exceed ten (10) per cent of the total number of shares in the Company at the time of the Board's resolution. The authorisation includes a right to resolve to issue new shares for cash consideration, by contribution in kind or payment by set-off. Issues for cash consideration or for consideration by set-off may be made with deviation from the shareholders' preferential rights only for the purpose of financing acquisitions and provided that the share issue is made on market terms. The purpose of the authorisation is to enable payment though issuance of shares in connection with potential acquisitions that the Company may carry out, and to enable capital raises in connection with, and in order to finance, such acquisitions.

Board meetings

In accordance with the regulations for the work of the Board, the Board is expected to meet six to eight times per year at venues to be agreed by the Board. The Board has held sixteen meetings during 2021, of which eight were ordinary and eight extraordinary. The Board meets the statutory auditor at least once a year without the CEO or any other member of the EMT present. In addition, the Board occasionally holds non-executive meetings. The CFO and the General Counsel, who is the secretary of the Board, also attend Board meetings.

The table on page 64 shows the Board members' attendance to the Board meetings in addition to their independence according to the requirements of the Code in relation to (i) the Company and (ii) the major shareholder, and the remuneration to the Board members for Board and Committee work.

Evaluation of the work of the Board

The Board conducts an annual survey of its work performed 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, Board leadership and relations with the Executive Management Team. Based on the result of the survey the Board will evaluate the performance and identify possible areas of improvement. In addition to the annual survey, the Vice Chairperson conducts meetings with each individual Board member during the year.

Board committees

According to the Swedish Companies Act and the Code, the Board of Directors shall institute an Audit Committee and a Remuneration Committee. The Chairperson of the Board may chair the Remuneration Committee. The other members of the Remuneration Committee that have been elected by the General Meeting are to be independent of the Company and the Executive Management Team. A majority of the Audit Committee's members are to be independent in relation to the Company and its Executive Management Team and at least one of the members who is independent in relation to the Company and the Executive Management Team is also to be independent in relation to the Company's major shareholders. At least one member of the Audit Committee must also have accounting or auditing proficiency.

The Board has established three permanent committees, the Audit Committee, the People and Sustainability Committee (which fulfils the tasks of the Remuneration Committee pursuant to the Code) the Product Strategy and Investment Committee, and the temporary Commercial Transformation Committee.

The major tasks of these committees are of preparatory and advisory nature, but the Board of Directors may also delegate decision-making powers on specific issues to the committees. The issues considered at committee meetings shall be recorded in minutes of the meetings and continuously reported to the Board. The committees are appointed at the statutory Board meeting following election of Board members. The Board has also determined that issues may be referred to ad hoc committees dealing with specific matters.

4. Audit Committee
The Board has assigned an Audit Committee to oversee corporate governance, financial reporting, ESG (Environmental, Social and Governance) reporting and risks and compliance with external and internal regulations.

The Audit Committee is responsible for identifying and reporting relevant issues to the Board within the Audit Committee's areas of responsibility. The Audit Committees tasks are to monitor the integrity of Volvo Car Group's financial and ESG reporting system, internal controls, related-party transactions, operation procedure and the enterprise risk management framework, recommend to the Board the appointment, removal and remuneration of 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. The statutory auditors participate in the Audit Committee meetings. The Audit Committee has during the year met with the statutory auditors, without management precent, to discuss management matters and related topics. The Internal Audit function reports directly to the Audit Committee and the Compliance and Ethics function has a direct reporting line to the Audit Committee for escalation. The Audit Committee has held thirteen meetings during 2021, four of which were ordinary and nine extraordinary interim meetings. Lone Fønss Schrøder (Chairperson), Donghui (Daniel) Li and Michael Jackson are the current members of the Audit Committee. The Audit Committee complies with the Swedish Companies Act's and the Code's requirements for independence as well as accounting and audit competence.

5. People and Sustainability Committee
The Board has assigned a People and Sustainability Committee to prepare remuneration principles for the CEO and the EMT members. Furthermore, the committee support the Chairperson or Vice Chairperson of the Board, as applicable, with the approval of remuneration and benefits of the CEO and is responsible for preparing the remuneration report to be presented at the Annual General Meeting for its approval, and, in dialogue with the CEO, assist with or resolve on various other people and remuneration matters in relation to the EMT. The committee is also responsible for approval and monitoring of global incentive arrangements for the EMT and other key employees and necessary coordination of such incentives and the Volvo bonus to all employees, succession planning for the CEO in dialogue with the Chairperson or the Vice Chairperson of the Board, as applicable, as well as other EMT positions. The committee also approves the EMT members' engagements outside Volvo Car Group. The Company's performance in the sustainability area, including Volvo Car Group's progress in delivering on its sustainability ambitions is also on the agenda for the People and Sustainability Committee twice a year. The People and Sustainability Committee has held five meetings during 2021 which were ordinary and two meetings per capsulam. Thomas Johnstone (Chairperson), Betsy Atkins and Xingsheng (Jim) Zhang are the current members of the People and Sustainability Committee. The People and Sustainability Committee complies with the Code's requirements for independence.

As of 10 February 2022, the Board decided that the People and Sustainability Committee's assignment shall only relate remuneration to the CEO and EMT. From that date, People and Sustainability Committee will be named People Committee.

6. Product Strategy and Investment Committee
The Board has assigned a Product Strategy and Investment Committee to oversee Volvo Car Group's product strategy and the investments linked to it. The purpose of the Product Strategy and Investment Committee is to review Volvo Car Group's product strategy, cycle plan and product programmes in order to confirm that the strategy, plans and programmes for the overall strategy meet customer demand and market development and address new technology and business opportunities in all segments relevant to Volvo Car Group. The responsibility of the committee is also to ensure that the long-term strategic product plan is reflected in the cycle plan as well as the business plan, to prepare decisions to be taken by the Board related to product programmes and investments associated therewith, to oversee the capital expenditures related to already approved programmes and to follow-up that approved programmes are executed within the investment frames set. The Product Strategy and Investment Committee has held five meetings during 2021, four of which were ordinary and one extraordinary. Winfried Vahland (Chairperson), Thomas Johnstone, Betsy Atkins and Håkan Samuelsson are the current members of the Product Strategy and Investment Committee.

As of 10 February 2022, the Board decided that going forward, the work of the Product Strategy and Investment Committee shall be transferred to the full Board and the Committee shall therefore no longer exist.

7. Commercial Transformation Committee
In December 2020, the Board decided to establish a new temporary Commercial Transformation Committee with effect from January 1, 2021. The Board has assigned the Commercial Transformation Committee to oversee the implementation of Volvo Car Group's Commercial Strategy and transformation plan, including the subscription offering, Global Online and direct sales, the transformation of the retailer relationship and overall sales development. The responsibility of the committee is also to ensure that Volvo Car Group's business plan and financial reporting reflect the financial implications of the different parts of the commercial transformation plan, to review the Company's capabilities, systems and processes required for the commercial transformation and to ensure that the commercial transformation plan and risks and opportunities associated therewith are assessed and presented to the Board. The Commercial Transformation Committee has held four meetings during 2021, of which all were ordinary. Michael Jackson (Chairperson), Diarmuid O'Connell, Jonas Samuelson and Xingsheng (Jim) Zhang are the current members of the Commercial Transformation Committee.

As of 10 February 2022, the Board decided that going forward, the work of the Commercial Transformation Committee shall be transferred to the full Board and the Committee shall therefore no longer exist.

8. Global Audit Office
Volvo Car Group has an independent Internal Audit department referred to as the Global Audit Office with the assignment to determine whether Volvo Car Group's governance, internal control and risk management processes, as designed, operated and represented by management, are adequate and effective. The scope of the internal audit is determined by means of a risk assessment process and any additional requirements by the Board. The Audit Committee approves the internal audit plan which includes risks associated with the execution of the corporate strategy, business operations and processes. Audit results and status of implemented

corrective actions by management is reported to the Audit Committee. The head of the Global Audit Office reports to the Audit Committee.

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 Car Group's Compliance and Ethics Programme focusing on the areas of anti-corruption, data protection, trade sanctions and export control and competition law. This Programme consists of ten programme elements designed on the basis of guidelines describing "effective compliance programmes" and "adequate procedures", such as the US Sentencing Guidelines and the UK Bribery Act Guidance (supporting the Foreign Corrupt Practices Act and the UK Bribery Act) as well as guidance from Anti-Trust Offices throughout Europe. Among these ten programme elements are: tone from the top, a regular risk assessment that leads to identification and prioritisation of the main risk fields to which Volvo Car Group is exposed, so as to tailor the programme; implementation of a Compliance and Ethics framework (Code of Conduct and Corporate Policies, Directives and Guidelines); training, awareness and communication; Internal reporting and investigations; and monitoring and assessment with a view to continuously improving the Compliance and Ethics Programme. Volvo Car Group's Code of Conduct (called Our Code – How We Act) reflects Volvo Car Group's culture and how it should act for doing business in a responsible manner, by placing the emphasis on Volvo Car Group's values and commitments in addition to focusing on the requirements set out in Volvo Car Group's corporate policies. The Compliance and Ethics office is led by the Chief Compliance and Ethics Officer, who reports to the General Counsel and continuously reports on compliance issues to the Global Compliance Committee. The Chief Compliance and Ethics Officer also has a direct reporting line, and continuously reports, to the Audit Committee and ensures that compliance training is provided for the Board of Directors.

Related Party Business Office

In order to specify the requirements that apply when Volvo Car Group is engaged in related-party transactions, the Board has adopted a related party directive. The directive also sets a framework for approval of related party transactions and to ensure that Volvo Car Group can fulfil legal regulations and disclosure requirements, shareholders' approval and reporting requirements related to such transactions. Moreover, Volvo Car Group has established the Related Party Business Office, a department established within the Group's finance department with global responsibility for logging and maintaining a record of all related party transactions and to ensure that the relevant evaluations and approvals are obtained before such transactions are entered into. The record of the related party transactions shall, among other things, include information on when agreements are approved and entered into or purchase orders have been issued, and if a transaction is deemed to be a significant related party transaction pursuant to the Swedish Companies Act, including record keeping of the value of the transactions with one and the same related party.

Under the related party directive, related parties include, for example, affiliates and joint ventures of Volvo Car Group and legal entities within the Geely ecosystem, i.e. legal entities that are directly or indirectly owned by, or affiliates to, Geely Holding or otherwise ultimately owned or controlled as to 20 per cent or more by the Chairperson of the Board (other than Volvo Car Group). In practice, all types of transactions with related parties are covered by the directive, and all such transactions must be reported to the Group's Related Party Business Office and be approved as outlined in the related party directive. Pursuant to the related party directive, Volvo Car Group must enter into a written agreement for all related party transactions and all transactions between companies within and outside the Group shall be on arm's length terms, meaning that the price/consideration and other contractual terms and conditions must be in line with market practice and what would have been agreed with a third party without any connection to Volvo Car Group. The main rule is that terms and conditions and the agreed price/consideration in related-party transactions shall be supported by a third party valuation or a market benchmark. Furthermore, the related party directive sets out procedures for how certain transactions must be approved by the Board and that transactions meeting certain requirements pursuant to the Swedish Companies Act must be approved by the Company's General Meeting.

9. External auditors

The Company's auditors are appointed by the Annual General Meeting. At the Annual General Meeting held on March 18, 2021, Deloitte AB was re-elected as the Company's auditors, with Jan Nilsson as auditor in charge.

The external auditors discuss the external audit plan, audit findings and risk management with the Audit Committee. The auditors review one interim report per year and present the results of their work to Audit Committee. The results of their financial year audit and the audit of the Annual Report of the parent company and the consolidated financial statements are 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, this is done in accordance with general independence rules. Deloitte provides an annual written assurance of its impartiality and independence to the Audit Committee in accordance with the Swedish Companies Act and ISA 260.

10. 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 the Executive Management Team in their internal control responsibilities, Volvo Car Group has implemented an internal control over financial reporting (ICFR) function, with the purpose of ensuring 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 Car Group bases its internal control on the framework for internal control issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) consisting of five components; Control Environment, Risk Assessment, Control Activities, Information and Communication and Monitoring.

Control Environment

The foundation of Volvo Car Group's control environment is the Code of Conduct, which is the guiding principle for Volvo Car Group and the Group's corporate policies and directives. The foundation of the control environment is also based upon functional policies, directives and guidelines and the Delegation of Authority directive.

Control activities are the procedures that help to ensure that Volvo Car Group's policies, directives and instructions are implemented and documented in Volvo Car Group's Internal Control framework. 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.

Risk Assessment

From an ICFR perspective, the outcome of the risk assessment will define the internal control reviews for the coming year. Each entity and function is responsible for identifying risks, which are then consolidated and reported according to the Enterprise Risk Management Directive. Additionally, every other year, the functions of Internal Control, Compliance and Ethics Office, Digital and Sustainability jointly perform a risk assessment to evaluate and determine risks that could hinder the achievement of Volvo Car Group's business objectives. The outcome from the joint risk assessment is reported to various EMT forums and to the functions having operational responsibility.

Information and Communication

The information and communication component within Volvo Car Group includes the systems and processes that support the identification, capture and exchange of information enabling personnel to carry out their responsibilities and ensure that financial reports are generated completely and accurately. Information concerning 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, the 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-assessment of IT general controls through the Internal Control digital team. When control deficiencies are identified through self-assessment, regular operations or internal or external audits they are tracked and appropriate corrective actions undertaken to resolve these deficiencies. The head of Internal Control maintains regular contact with the CFO.

11. CEO and the Executive Management Team

The CEO is subordinated to the Board and is responsible for Volvo Car Group's everyday management and operations. The division of work between the Board and the CEO is set out in the regulations for the work of the Board and follows the Swedish Companies Act. The CEO is also responsible for the preparation of reports and compiling information to the Board meetings and for presenting such material at the Board meetings.

The CEO is further responsible for Volvo Car Group's financial reporting and consequently must ensure that the Board receives adequate information for the Board to be able to evaluate the Group's financial condition. The CEO regularly keeps the Board informed of the developments in Volvo Car Group's operations, the development of sales, Volvo Car Group's results and financial position, important business events and all other events, circumstances or conditions which can be assumed to be of significance to Volvo Car Group's shareholders.

The CEO leads the work of the EMT, which is responsible for the overall business development and operations of Volvo Car Group. The EMT consists of the members of the Executive Management, save for the head of EMEA and the head of Communication, who, however, participate in EMT meetings when matters within their respective area are on the agenda. The EMT has weekly meetings addressing operational performance, including, volume and sales performance, corporate actuals, performance steering, including direct consumer business, and strategic transformation activities. In addition, at the meetings, the EMT discusses pre-announced topics and backlog from actions, sustainability review and affiliate updates.

EMT forums

In order to assist the EMT in carrying out decisions and actions related to certain topics, the EMT has established certain operational forums, namely a Product Creation Board, a Commercial and Industrial Board, a Strategic Design Review and a Performance Steering. Furthermore, a Corporate Committee, a Disclosure Committee and a Global Compliance Committee have been established to support with various corporate governance and compliance matters.

12. Product Creation Board

The EMT has established a Product Creation Board to be responsible for Volvo Car Group's product strategy and strategic business ownership matters. This also includes matters related to the development process of cars, digital products and solutions and services before launch and deployment, as well as sustainability product aspects. Certain design items approved by the Product Creation Board shall be brought to the Volvo Car Group Board for decision, as applicable. The full EMT participates in the Product Creation Board.

13. Commercial and Industrial Board

The EMT has established a Commercial and Industrial Board to decide on strategies and plans between industrial operations and quality, commercial operations as well as sales forecast and production programme, in both short and long-term. The Commercial and Industrial Board is also responsible for non-product industrial operations and quality investment as well as commercial operations investment. In addition, the board is the forum for reporting of quality and customer satisfaction status. Items approved by the Commercial and Industrial Board shall be brought to the Volvo Car Group Board for decision, as applicable. The full EMT participates in the Commercial and Industrial Board.

14. Strategic Design Review

The EMT has established a Strategic Design Review board to be responsible for demonstration and visualisation of cars, digital products and services. This includes the responsibility of Volvo Car Group's design strategy and directions. Items approved by the Strategic Design Review shall be brought to Product Matters Meetings for decision and thereafter to the Product Creation Board, as applicable. The full EMT participates in the Strategic Design Review.

15. Performance Steering

The EMT has established a Performance Steering board to review actual financial and operational performance as well as future performance. The Performance Steering is also responsible for deciding actions to secure that targets are achieved and has monthly meetings. Members of the Performance Steering board are the CFO, the head of Commercial Operations, the head of Engineering and Operations, the head of Product Creation, the head of Corporate Functions and the Deputy CFO.

16. Disclosure Committee
Volvo Car Group is required to comply with certain disclosure obligations, under the listing rules of the Luxembourg Stock Exchange's Euro MTF market as well as the Nasdaq rulebook for issuers, including the Market Abuse Regulation (MAR). In order to ensure compliance with the relevant requirements, Volvo Car Group has established a Disclosure Committee and the Board of Directors has adopted a set of procedures for the Disclosure Committee. The Board and the Audit Committee are kept updated on the discussions and decisions of the Disclosure Committee by means of summary reports and access to the minutes kept at the committee meetings. The members of the Disclosure Committee are the General Counsel (Chairperson), the CFO, the head of Investor Relations, the head of Communication and the head of Legal (secretary). The Group Controller and the head of Accounting and Group Reporting are required participants in financial report review meetings, and other senior company representatives attend the meetings on an agenda-driven basis. The Disclosure Committee has been established to implement required disclosure controls and procedures, resolve whether or not information is to be categorised as inside information or not and consider whether there is reason to delay disclosure of inside information or whether immediate disclosure is required.

17. Corporate Committee
The EMT has established a Corporate Committee to oversee Volvo Car Group's corporate development and governance matters in a broad sense. This includes the responsibility for, among other things, corporate development projects, ERM matters, internal audit and internal control matters, security risk, public affairs matters, people, organisation and culture as well as communication. In addition, the Corporate Committee is responsible for governance and structure matters as well as related party agreements and external projects. The Corporate Committee meets on a monthly basis. The General Counsel (Chairperson), the CFO and the head of Corporate Functions are permanent members of the Corporate Committee and other EMT members or senior company representatives attend the meetings on an agenda-driven basis.

18. Global Compliance Committee
The EMT has established a Global Compliance Committee to review and decide upon compliance cases reported by Volvo Car Groups Compliance and Ethics Office. The committee also receives status updates on the implementation and continuous improvements of the Group's Compliance and Ethics programmes, including updates from relevant parts of the organisations on how adherence to the programmes is ensured. Furthermore, the Global Compliance Committee when appropriate reviews compliance-related matters reported by the Internal Audit and Internal Control functions, respectively. The Global Compliance Committee meets four times per year. Ad hoc meetings may be called for if and when required. The General Counsel (Chairperson), the CFO, the Head of Corporate Functions, the Head of Engineering & Operations, the Head of Commercial Operations and the heads of APAC and Americas are permanent EMT members of the Global Compliance Committee. In addition, Volvo Car Group's Chief Compliance & Ethics Officer and head of Internal Audit participate at the meetings. Other EMT members or senior company representatives attend the meetings when relevant, in particular when a compliance case is reported within their region or area of business.

Sustainability reporting
The 2021 report has been prepared in accordance with GRI Standards, accordance Core level. Volvo Cars reports on an annual basis, and this report covers the period January 1 to December 31, 2021 (except where otherwise stated). Volvo Cars' Sustainability Report has been prepared to meet the statutory requirements in accordance with the Swedish Annual Accounts Act, Chapter 6, section 11. The scope and content of the Sustainability Report is defined by the GRI Index, for more information see page 185 in this report. Definitions regarding boundaries as well as measurement techniques and calculations for each performance indicator are given in respect of the disclosure concerned. The eleven recommended disclosures of the Task Force on Climate-related Financial Disclosures (TCFD) are introduced on page 185. As a signatory to the UN Global Compact, the Sustainability Report is also our Communication on Progress. In addition, we are in the 2021 report including World Economic Forum Core set of Stakeholder Capitalism Metrics. 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 188.

AUDITOR'S REPORT ON THE CORPORATE GOVERNANCE STATEMENT

To the general meeting of the shareholders in Volvo Car AB (publ) corporate identity number 556810-8988

Engagement and responsibility
It is the board of directors who is responsible for the corporate governance statement for the financial year 2021-01-01–2021-12-31 on pages 62–76 and that it has been prepared in accordance with the Annual Accounts Act.

The scope of the audit
Our examination has been conducted in accordance with FAR's standard RevU 16 The auditor's examination of the corporate governance statement. This means that our examination of the corporate governance statement 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. We believe that the examination has provided us with sufficient basis for our opinions.

Opinions
A corporate governance statement has been prepared. Disclosures in accordance with chapter 6 section 6 the second paragraph points 2–6 the Annual Accounts Act and chapter 7 section 31 the second paragraph the same law are consistent with the annual accounts and the consolidated accounts and are in accordance with the Annual Accounts Act.

Göteborg, March 31, 20222
Deloitte AB

Signature on Swedish original
Jan Nilsson
Authorized Public Accountant

This is a translation of the Swedish language original. In the event of any differences between this translation and the Swedish language original, the latter shall prevail.

Board of Directors Volvo Car AB (publ.)

Volvo Car AB (publ.) is the parent company of Volvo Car Group.

Eric Li (Li Shufu)

Born 1963.

Chairperson and member of the Board since 2010.

Education: Bachelor's Degree in Management Engineering from the Harbin University of Science and Technology, China. Master's Degree in Mechanical Engineering from the Yanshan University, China.

Current Board assignments and similar: Chairperson and founder of Zhejiang Geely Holding Group Co. Ltd. Chairperson of Geely Technology Group Co. Ltd, Geely Talents Development Group Co. Ltd, and smart Automobile Co. Ltd. Member of the Board of Geely Group Limited, Geely Sweden Holdings AB and Polestar Automotive Holding Ltd.

Previous work experience and other information: CEO of Zhejiang Geely Holding Group Co. Ltd.

Not independent in relation to the Company and Executive Management Team nor the Company's major shareholders.

Shareholding in Volvo Car Group: 2,443,396,227[1)]

Lone Fønss Schrøder

Born 1960.

Vice Chairperson of the Board since 2018 and Board member since 2010. Chairperson of the Audit Committee.

Education: Master of Laws, University of Copenhagen, Denmark. Master of Science in Economics and Business Administration, Copenhagen Business School, Denmark. Studies in Aviation and Insurance Law, London Polytechnics (now University of Westminster), United Kingdom. Studies in Blockchain at MIT Sloan School of Management, United States. Studies in Management at IMD Business School, Switzerland.

Current board assignments and similar: CEO of Concordium AG, Vice Chairperson of the Board of Akastor ASA, Board member of Aker Solutions ASA, Aker Horizons ASA, Queen's Gambit Growth Capital (SPAC), Geely Sweden Holdings AB and CSL Group, Inc. Member of the supervisory Board of INGKA Holding B.V. Member of the EMEA advisory Board of ServiceNow, Inc. Owner of Engelberg Zug Financial Group AG, Cashworks AG and Fredlyst Aps.

Previous work experience and other information: Over 20 years of experience from various senior positions at A.P. Möller Maersk A/S. President and CEO of Wallenius Lines. Senior advisor at Credit Suisse.

Independent in relation to the Company and Executive Management Team, but not in relation to the Company's major shareholders.

Shareholding in Volvo Car Group: 24,897[1)]

Thomas Johnstone

Born 1955.

Board member since 2015. Chairperson of the People Committee.

Education: Master of Arts from the University of Glasgow, United Kingdom. Honorary Doctorate in Bachelor of Arts from the University of South California, United States. Honorary Doctorate in Science from Cranfield University, United Kingdom.

Current board assignments and similar: Chairperson of the Board of Husqvarna AB, Combient AB, Collegial AB, Wärtsilä Oyj Abp, The British Swedish Chamber of Commerce, The English School in Gothenburg and Tom J Consulting AB. Board member of Northvolt AB and Investor AB.

Previous work experience and other information: Several positions within the SKF Group, including President and CEO.

Independent in relation to the Company and Executive Management Team as well as the Company's major shareholders.

Shareholding in Volvo Car Group: 5,627[1)]

Lila Tretikov

Born 1978.

Board member since 2021.

Education: Studies in Computer Science at the University of California Berkeley, United States. Studies at SAAD School of Business, University of Oxford, United Kingdom.

Current board assignments and similar: Board member of Xylem Inc., Onfido Limited, Affinifi and Cervest Limited. Member of the Advisory Board of Capgemini SE. Founder and Board member of nam.R S.A.

Previous work experience and other information: CEO of Engie SA, Terrawatt Initiative and Wikimedia Foundation. Several senior positions within SugarCRM Inc., Software General Manager of Evolving Systems Inc., Digital General Manager of Bank of America and founder of GrokDigital. Corporate VP and Deputy CTO of Microsoft.

Independent in relation to the Company and Executive Management Team as well as the Company's major shareholders.

Shareholding in Volvo Car Group: 1,197[1)]

1) The Volvo Cars holdings reported reflect the holdings as of 31 December, 2021 and includes holdings by related parties, if applicable. For information on transactions made since this date, please refer to the website of the Swedish Financial Supervisory Authority.

BOARD OF DIRECTORS

Daniel Li (Li Donghui)

Born 1970.

Board member since 2012. Member of the Audit Committee.

Education: Bachelor of Philosophy, Renmin University of China. Master of Management Engineering, Beijing Institute of Machinery Industry, China. Master of Business Administration, Kelly School of Business, Indiana University, United States.

Current Board assignments and similar: CEO of Zhejiang Geely Holding Group Co. Ltd., Chairperson of the Board of Lotus Group International Limited. Board member of Saxo Bank A/S, Proton Holdings Berhad, Polestar Automotive Holding Ltd and Lynk & Co Investment Co., Ltd. Independent Board member of YTO Express (International) Holdings Ltd.

Previous work experience and other information: VP and CFO of Zhejiang Geely Holding Group Co. Ltd. CFO and General Manager of several companies, including Guanxi Liugong Machinery Co. Ltd, China Academy of Post and Telecommunication, Cummins Inc., BMW Brilliance Automotive Ltd., ASIMCO Braking System (Guangzhou) Co. Ltd. and ASIMCO Braking System (Zhuhai) Co. Ltd.

Independent in relation to the Company and Executive Management Team, but not in relation to the Company's major shareholders.

Shareholding in Volvo Car Group: 0[1)]

Diarmuid O'Connell

Born 1963.

Board member since 2021.

Education: Bachelor of Arts in History and Government from Dartmouth College, United States. Master of Arts in Foreign Policy and Political Economy from the University of Virginia, United States. MBA in Strategy and Finance from Kellogg Graduate School of Management, United States. Studies in marketing from McCann School of Business & Technology, United States.

Current Board assignments and similar: Member of the Supervisory Board of Albemarle Corp, Dana Inc. Technology and Energy Transition Corporation and Mobility House AG.

Previous work experience and other information: Accenture Consulting, Real Time Learning, Young & Rubicam and the U.S Department of State. Several executive roles at Tesla. Member of the Executive team of Fair Financial Corp. Energy/Mobility Consulting for Antin Infrastructure Partners. Energy consulting for Norsk Hydro ASA.

Independent in relation to the Company and Executive Management Team as well as the Company's major shareholders.

Shareholding in Volvo Car Group: 2,394[1)]

Jonas Samuelson

Born 1968.

Board member since 2020.

Education: Master of Science in Economics and Business Administration from the School of Business, Economics and Law at the University of Gothenburg, Sweden.

Current Board assignments and similar: CEO at AB Electrolux. Board member of AB Electrolux, Axel Johnson AB and Ideella Föreningen Teknikföretagen i Sverige.

Previous work experience and other information: Various roles in finance, Saab Automobile AB and General Motors Corporation. CFO at Munters AB, CFO, COO and CEO Major Appliances EMEA at AB Electrolux.

Independent in relation to the Company and Executive Management Team as well as the Company's major shareholders.

Shareholding in Volvo Car Group: 19,807[1)]

1) The Volvo Cars holdings reported reflect the holdings as of 31 December, 2021 and includes holdings by related parties, if applicable. For information on transactions made since this date, please refer to the website of the Swedish Financial Supervisory Authority.

BOARD OF DIRECTORS

Winfried Vahland

Born 1957.

Board member since 2019.

Education: MSc in Mechanical Engineering and Business Administration from Technical University THD Darmstadt, Germany, Master of Business Administration from GMI Engineering & Management Institute, Michigan, United States,

Current board assignments and similar: Chairperson of the Supervisory Board of Eldor Corporation S.p.A. and EuroCar AG. Board member of Proton Holdings Berhad. Member of the Supervisory Board of Vibracoustic SE.

Previuos work experience and other information: Advisory Professor Shanghai Tongji University, China. Honorary Doctorate in Economics, University of Economics,Prague, Czech Republic. Honorary Doctorate in Mechanical Engineering, Dalian University of Technology, China. Several positions within Volkswagen Group, including CEO and President of Volkswagen Group China, Executive VP in Finance and Strategy of Volkswagen America do Sul, São Paulo, Brazil. Former Chairperson of the Executive Board of Skoda Auto, Czech Republic.

Independent in relation to the Company and Executive Management Team as well as the Company's major shareholders.

Shareholding in Volvo Car Group: 8,618[1)]

Xingsheng (Jim) Zhang

Born 1955.

Board member since 2018. Member of the People Committee.

Education: University Certificate in Telecom Engineering and Bachelor's Degree in Modern Communication, Beijing University of Posts & Telecommunications, China. Master of Business Administration from BI Norwegian School of Management, Norway. Master's Degree in Infocom Business Management from the School of Management at Fudan University, China.

Current board assignments and similar: Chairperson of Forever Nature Capital Foundation. Board member of ECARX Technology Co. Ltd. Founding partner of Daotong Investment Co., Ltd. and Haiying Capital.

Previous work experience and other information: Former Engineer at Beijing Long Distance Telecom Office, Deputy Manager at China Telecom Construction Corporation and Executive VP and Chief Marketing Officer at Ericsson (China). President and CEO of Asiainfo Holdings, Inc. Chairperson of Beijing Link Capital Investment Co. Ltd. Former Managing Director of North Asia Region,The Nature Conservancy.

Independent in relation to the Company and Executive Management Team as well as the Company's major shareholders.

Shareholding in Volvo Car Group: 41,098[1)]

Betsy Atkins

Born 1953.

Board member since 2016. Member of the People Committee.

Education: Bachelor's Degree in Liberal Arts from the University of Massachusetts, United States. University of Copenhagen. Trinity College Oxford.

Current board assignments and similar: Board member of Wynn Resorts Ltd., SL Green Realty Corp.

Previous work experience and other information: Founder of Baja Group.

Independent in relation to the Company and Executive Management Team as well as the Company's major shareholders.

Shareholding in Volvo Car Group: 9,576[1)]

Michael Jackson

Born 1962.

Board member since 2018. Member of the Audit Committee.

Education: Bachelor of Science (Hon) in Electrical and Electronic Engineering, University College London, United Kingdom.

Current board assignments and similar: Board member of Kneip Communications SA. Member of the Supervisory Board of Luminor Bank AS.Specialist consultant to growth stage technology companies.

Previous work experience and other information: Various positions with Digital Mobile Communications, Motorola, NKT and Tele2. COO of Skype and Partner at Mangrove Capital Partners.

Independent in relation to the Company and Executive Management Team, but not in relation to the Company's major shareholders.

Shareholding in Volvo Car Group: 10,054[1)]

1) The Volvo Cars holdings reported reflect the holdings as of 31 December, 2021 and includes holdings by related parties, if applicable. For information on transactions made since this date, please refer to the website of the Swedish Financial Supervisory Authority.

Employee representatives

Adrian Avdullahu

Born 1978.

Board member since 2021. Representative of IF Metall.

Education: Upper secondary school education. Leadership training at Bommersvikakademin and IF Metall Stockholm.

Current Board assignments and similar: Chairperson IF Metall Group Volvo Car Sweden. Board member IF Metall Section 36 Gothenburg.

Previous work experience and other information:

Shareholding in Volvo Car Group: 0[1]

Glenn Bergström

Born 1955.

Board member since 2009. Representative of IF Metall.

Education: Upper secondary school education.

Current Board assignments and similar: Chairperson of IF Metall, Volvo Car Group. Chairperson of the Board of VFF Pension Tjänstepensionsförening.

Previous work experience and other information:

Shareholding in Volvo Car Group: 396[1]

Jörgen Olsson

Born 1968.

Board member since 2016. Representative of Unionen.

Education: Upper secondary school education.

Current Board assignments and similar: Chairperson of Unionen, Volvo Car Group.

Previous work experience and other information:

Shareholding in Volvo Car Group: 580[1]

Anna Margitin

Born 1969.

Deputy Board member since 2016. Representative of Akademikerna.

Education: Master in Physics and Electrical engineering from the University of Gothenburg, Sweden. Executive MBA Business and Law from the School of Business, Economics and Law at the University of Gothenburg, Sweden.

Current Board assignments and similar: Group Chairperson Akademikerna, Volvo Car Group.

Previous work experience and other information: Several positions within Volvo Car Group, including Chief Program Engineer, Senior Director Business Quality, Senior Director Current Model Quality and Senior Director Customer Service.

Shareholding in Volvo Car Group: 786[1]

1) The Volvo Cars holdings reported reflect the holdings as of 31 December, 2021 and includes holdings by related parties, if applicable. For information on transactions made since this date, please refer to the website of the Swedish Financial Supervisory Authority.

Executive Management Team – April 2022

Jim Rowan

PRESIDENT AND CEO

In current position since March 2022. Member of the EMT since 2022.

Scotland / Born 1965

Education: MSc in Mechanical and Production Engineering and electrical and electronic engineering at Glasgow Caledonian University and Glasgow School of Technology. MSc in Business Northumbria University, UK.

Principal work experience and other information: Former President and CEO of Dyson 2017–2020. Chief Operating Officer at Dyson 2012–2017. Chief Operating Officer at Research in Motion 2008–2012. Vice President of operations at Flextronics 1998–2005.

Board assignments and other assignments: tbd

Holdings in Volvo Cars incl. related parties (holdings as of 21 March, 2022): 151,000

Björn Annwall

CHIEF FINANCIAL OFFICER

In current position since April 2021. Member of EMT since 2015.

Sweden / Born 1975

Education: MSc in Economics and Business Administration, Stockholm School of Economics.

Principal work experience and other information: Various management positions within Volvo Cars, including leader of Global Commercial Operations, EMEA, Global Consumer Experience and SVP Marketing. Senior Partner at McKinsey & Co.

Board assignments and other assignments: Board member of HaleyTek AB. Board member of Zenseact.

Holdings in Volvo Cars incl. related parties: 237,170[1]

Maria Hemberg

GENERAL COUNSEL AND HEAD OF GROUP LEGAL & CORPORATE GOVERNANCE

In current position since 2012. Member of EMT since 2012.

Sweden / Born 1964.

Education: LL.M., Lund University, Sweden.

Principal work experience and other information: Legal counsel at AB SKF. Lawyer and Senior Associate at Mannheimer Swartling Advokatbyrå. Legal counsel at SCA Hygiene Products AB.

Board assignments and other assignments: Secretary to the Volvo Car AB Board. Secretary to the Nomination Committee.

Holdings in Volvo Cars incl. related parties: 49,411[1]

Javier Varela

HEAD OF ENGINEERING AND OPERATIONS

In current position since 2016. Member of EMT since 2016.

Spain / Born 1964.

Education: MSc Industrial engineering, University of Vigo, Spain

Principal work experience and other information: Former President and CEO of PSA Peugeot Citroën Argentina. Various senior positions within the PSA Group, including Industrial Strategy Coordinator, President and CEO of PSA Argentina and Executive VP for Toyota Peugeot Citroën Automobile's operations in Czech Republic.

Board assignments and other assignments: Board member of GV Technology Sweden AB Powertrain Engineering Sweden AB.

Holdings in Volvo Cars incl. related parties: 83,185[1]

1) The Volvo Cars holdings reported reflect the holdings as of 31 December, 2021 and includes holdings by related parties, if applicable. For information on transactions made since this date, please refer to the website of the Swedish Financial Supervisory Authority.

EXECUTIVE MANAGEMENT TEAM VOLVO CAR CORPORATION

Hanna Fager

HEAD OF CORPORATE FUNCTIONS

In current position since 2020. Member of EMT since 2016.

Sweden / Born 1975.

Education: B.S. in Human Resource Development, Labour Relations, University West, Sweden. Studies in labour law and EU law at Halmstad University.

Principal work experience and other information: Various management positions within Volvo Car Group, including Senior Director HR Marketing, Sales & Services, VP HR, Centre of Expertise and VP Employee & Benefits.

Board assignments and other assignments: —

Holdings in Volvo Cars incl. related parties: 43,600[1)]

Henrik Green

CHIEF PRODUCT OFFICER

In current position since 2021. Member of EMT since 2016.

Sweden / Born 1973.

Education: MSc in Computer Engineering, Chalmers University of Technology, Sweden.

Principal work experience and other information: Various management positions within Volvo Cars, including SVP for Research and Development, SVP Operations Planning and Customer Service, VP for Product Strategy and Vehicle Line Management, VP for Vehicle Line Management Volvo Cars 40-series.

Board assignments and other assignments: Chairperson of the Board of GV Technology Sweden AB and HaleyTek AB.

Holdings in Volvo Cars incl. related parties: 87,093[1)]

Olivia Ross-Wilson

HEAD OF COMMUNICATION

In current position since 2021. Member of EMT since 2021.

Australia / Born 1977.

Education: Diploma in Business Management from East Sydney College, Australia.

Principal work experience and other information: Global Communication Manager of Ingka Group. Global Sustainability Communication Manager at IKEA. Communication Director at Clinton Foundation. PR Manager at Marks & Spencer Group Plc. Account Director at Ketchum Inc.

Board assignments and other assignments: –

Holdings in Volvo Cars incl. related parties: 0[1)]

1) The Volvo Cars holdings reported reflect the holdings as of 31 December, 2021 and includes holdings by related parties, if applicable. For information on transactions made since this date, please refer to the website of the Swedish Financial Supervisory Authority.

EXECUTIVE MANAGEMENT TEAM VOLVO CAR CORPORATION

Lex Kerssemakers

HEAD OF GLOBAL COMMERCIAL OPERATIONS

In current position since 2021. Member of EMT since 2004.

The Netherlands / Born 1960.

Education: Degree in Automotive Business Management, IVA Driebergen Business School, Netherlands. Degree in Marketing Management, University of Eindhoven, Netherlands.

Principal work experience and other information: Various management positions within Volvo Car Group serving under Swedish, US and Chinese ownership. Positions including SVP Direct Consumer Business, SVP EMEA & Global Commercial Operations, SVP Americas and CEO & President Volvo Cars North America, SVP Product Strategy & Vehicle Line Management, President Volvo Car Overseas Corporation and SVP Brand, Business & Product Strategy.

Board assignments and other assignments: —

Holdings in Volvo Cars incl. related parties: 22,639[1)]

Arek Nowinski

HEAD OF EMEA

In current position since 2021. Member of EMT since 2021.

Poland / Born 1976.

Education: M.A. Finance and Banking, Warsaw School of Economics, Poland. MSc in International Finance and Investment, the University of Derby, United Kingdom. Fellow of the Association of Certified Chartered Accountants (ACCA).

Principal work experience and other information: Previously Managing Director of Volvo Cars Poland and Head of EMEA Product and Consumer Offer. Consultant at KPMG.

Board assignments and other assignments: —

Holdings in Volvo Cars incl. related parties: 14,834[1)]

Anders Gustafsson

HEAD OF AMERICAS

In current position since 2017. Member of EMT since 2015.

Sweden / Born 1968.

Education: Executive Business Management from the School of Business, Economics and Law at the University of Gothenburg, Sweden. Business Management from IHM Business School, Sweden. Studies at Hult International Business School and MiL Institute Stockholm.

Principal work experience and other information: Various management positions within Volvo Car Group, including SVP EMEA, CEO Volvo Car Sverige AB and Deputy President & Sales Director Nordic of Volvo Car Sverige AB. Former CEO at Hertz First Rent a Car AB.

Board assignments and other assignments: —

Holdings in Volvo Cars incl. related parties: 32,837[1)]

Xiaolin Yuan

HEAD OF APAC

In current position since 2017. Member of EMT since 2017.

China / Born 1969.

Education: BA China Foreign Affairs University, China. Executive MBA, Tsinghua University, China

Principal work experience and other information: Various management positions within Volvo Car Group, including Deputy SVP Asia Pacific, President of China Operations, and Head of Chairperson's Office.

Board assignments and other assignments: —

Holdings in Volvo Cars incl. related parties: 0[1)]

1) The Volvo Cars holdings reported reflect the holdings as of 31 December, 2021 and includes holdings by related parties, if applicable. For information on transactions made since this date, please refer to the website of the Swedish Financial Supervisory Authority.

FINANCIAL REPORT

All figures needed – and more

CONSOLIDATED FINANCIAL STATEMENTS

Contents Financial Report

Consolidated Income Statements

SEKm	Note	2021	2020
Revenue	2	282,045	262,833
Cost of sales	3	–221,632	–216,813
Gross income		**60,413**	**46,020**
Research and development expenses	3, 16	–13,126	–11,362
Selling expenses	3	–19,211	–15,710
Administrative expenses	3	–8,493	–8,539
Other operating income	6	4,144	2,362
Other operating expenses	6	–2,501	–3,903
Share of income in joint ventures and associates	13	–951	–352
Operating income	4, 5, 7, 8, 9, 10	**20,275**	**8,516**
Financial income	11	1,003	2,618
Financial expenses	12	–2,518	–1,588
Income before tax		**18,760**	**9,546**
Income tax	14	–4,583	–1,758
Net income		**14,177**	**7,788**
Net income attributable to			
Owners of the parent company		12,546	5,834
Non-controlling interests		1,631	1,954
		14,177	**7,788**
Basic earnings per share (SEK)	15	4.72	2.28
Diluted earnings per share (SEK)	15	4.72	2.28

Income and result

Volvo Cars operations continued to have strong demand despite supply chain and production constraints. All regions reported volume growth in retail sales. Wholesale volumes remained in line with the previous year and amounted to 654.4 (662.6) thousand cars, while revenue increased by 7 per cent to SEK 282.0 (262.8) bn, supported by mix effects, with a continuously increasing share of XC-models.

Gross income increased by 31 per cent to SEK 60.4 (46.0) bn, resulting in a gross margin of 21.4 (17.5) per cent. The increase in gross margin was mainly supported by positive carline mix effects and strong price realisation.

Operating Income (EBIT) increased to SEK 20.3 (8.5) bn, resulting in an EBIT margin of 7.2 (3.2) per cent. The increase in EBIT was mainly a result of the positive mix effect, strong price realisation, increased volumes and repayment of import duties. Further, the year-over-year increase is also affected by larger costs related to recalls and restructuring costs in prior year. The net effect of foreign exchange rates including hedges was positive and amounted to SEK 0.4 bn. EBIT excluding share of income in joint ventures and associates amounted to SEK 21.2 (8.9) bn, corresponding to a margin of 7.5 (3.4) per cent. The negative result from share of income in JVs and associates was mainly driven by Polestar, due to costs incurred in their early development phase, as well as their change in accounting treatment related to deferred tax assets. The negative effects were partly offset by valuation effects of the private placement in Polestar as well as the dividend from Zenuity.

Net financial items decreased to SEK –1.5 (1.0) bn, mainly driven by the market revaluation of the investment in Luminar of SEK –0.9 (2.0) bn. The effective tax rate increased to 24.4 (18.4) per cent, mainly due to higher taxable income.

Net income was SEK 14.2 (7.8) bn. Net income in relation to revenue was 5.0 (3.0) per cent. Basic earnings per share amounted to SEK 4.72 (2.28).

CONSOLIDATED FINANCIAL STATEMENTS

Research and development spending, SEKbn	2021	2020
Research and development spending	–19.4	–14.8
Capitalised development costs	10.9	7.5
Amortisation and depreciation of Research and development[1]	–4.6	–4.1
Research and development expenses	**–13.1**	**–11.4**

1) The amortisation expenses for 2020 were affected by adjustments of the useful life period to reflect updated assumptions and cycle plan changes.

Changes to revenue, SEKbn	Full year
Revenue 2020	**262.8**
Volume	2.7
Sales mix and pricing	20.4
Sale of licences	–0.5
Foreign exchange rates	–9.7
Other[1]	6.3
Revenue 2021	**282.0**
Change %	**7**

1) Including used cars, parts and accessories, and contract manufacturing.

Changes to Operating income, SEKbn	Full year
EBIT 2020	**8.5**
Volume	0.6
Sales mix and pricing	9.5
Government grants	–0.5
Sale of licences	–0.2
Foreign exchange rates	0.4
Share of income in JVs and associates[2]	–3.1
Items affecting comparability - Volvo Cars operations	–0.9
Items affecting comparability - JVs and associates	2.5
Other[3]	3.5
EBIT 2021	**20.3**
Change %	**138**

2) Excluding items affecting comparability.
3) Mainly including used cars, parts and accessories, raw material increases and cost efficiencies.

Items affecting comparability, SEKbn	Full year 2021	Full year 2020
Whereof affecting JVs & associates		
Share of income, Zenuity	1.2	0.7
Valuation effect from the private placement in Polestar Automotive Holding Ltd	2.0	—
Subtotal	***3.2***	***0.7***
Whereof affecting Volvo Cars operations		
Governmental support related to Covid-19	0.1	1.0
Subtotal	***0.1***	***1.0***
Total	**3.3**	**1.7**

CONSOLIDATED FINANCIAL STATEMENTS

Consolidated Comprehensive Income

SEKm	**2021**	2020
Net income	14,177	7,788
Other comprehensive income		
Items that will not be reclassified subsequently to income statement:		
Remeasurements of provisions for post-employment benefits[1)]	3,123	–992
Tax on items that will not be reclassified to income statement	–669	212
Items that may be reclassified subsequently to income statement:		
Translation difference on foreign operations	4,375	–3,401
Translation difference of hedge instruments of net investments in foreign operations	–265	368
Change in fair value of cash flow hedge related to currency and commodity price risks	–2,641	2,862
Currency and commodity risk hedge contracts recycled to income statement	326	3,156
Tax on items that may be reclassified to income statement	526	–1,318
Other comprehensive income, net of income tax	**4,775**	**887**
Total comprehensive income	**18,952**	**8,675**
Total comprehensive income attributable to		
Owners of the parent company	16,320	7,430
Non–controlling interests	2,632	1,245
	18,952	**8,675**

1) Included in the change of provisions for post-employment benefits for 2020 is an adjustment due to changes in actuarial calculation method related to the Swedish ITP2 plan amounting to SEK –473 m.

CONSOLIDATED FINANCIAL STATEMENTS

Consolidated Balance Sheets

SEKm	Note	31 Dec 2021	31 Dec 2020
ASSETS			
Non-current assets			
Intangible assets	16	43,840	37,168
Tangible assets[1]	7, 17	70,903	61,943
Investments in joint ventures and associates	13	6,931	9,997
Other long-term securities holdings	21	1,765	2,449
Deferred tax assets	14	7,367	7,164
Other non-current interest-bearing receivables		5,046	—
Derivative assets, non-current[2]	21	169	1,277
Other non-current assets	18	4,863	3,481
Total non-current assets		**140,884**	**123,479**
Current assets			
Inventories	19	36,603	35,513
Accounts receivable	4, 20	18,553	14,776
Current tax assets		951	886
Derivative assets, current[2]	21	824	718
Other current assets	20	11,838	9,412
Marketable securities	22	7,996	8,087
Cash and cash equivalents	22	62,265	61,592
Assets held for sale	34	3,910	7,849
Total current assets		**142,940**	**138,833**
TOTAL ASSETS		**283,824**	**262,312**

SEKm	Note	31 Dec 2021	31 Dec 2020
EQUITY & LIABILITIES			
Equity	23		
Equity attributable to owners of the parent company		90,418	59,412
Non-controlling interests		4,560	11,006
Total equity		**94,978**	**70,418**
Non-current liabilities			
Provisions for post-employment benefits	24	11,961	14,187
Deferred tax liabilities	14	2,340	1,044
Other non-current provisions	25	8,623	8,155
Liabilities to credit institutions	21	2,543	5,882
Bonds, non-current	21	18,401	20,950
Non-current contract liabilities to customers	26	6,967	5,630
Other non-current interest bearing liabilities	7	5,509	4,815
Derivative liabilities, non-current[2]	21	348	300
Other non-current liabilities	4, 27	6,039	4,577
Total non-current liabilities		**62,731**	**65,540**
Current liabilities			
Current provisions	25	8,607	8,530
Liabilities to credit institutions	21	4,471	2,512
Bonds, current	21	—	5,017
Current contract liabilities to customers	26	22,929	21,842
Accounts payable	4	48,283	46,635
Current tax liabilities		1,402	1,486
Other current interest bearing liabilities	7	1,462	1,160
Derivative liabilities, current[2]	21	2,312	1,705
Other current liabilities	28	34,524	35,718
Liabilities held for sale	34	2,125	1,749
Total current liabilities		**126,115**	**126,354**
TOTAL EQUITY & LIABILITIES		**283,824**	**262,312**

1) Assets held under operating leases are from 2021 reported as a part of Tangible assets. Comparative figures have been adjusted accordingly.
2) Derivative assets and liabilities were previously reported as a part of Other assets/liabilities. Comparative figures have been adjusted accordingly.

Consolidated Statement of Changes in Equity

SEKm	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 1 January 2020	**51**	**11,497**	**8,452**	**1,023**	**–4,310**	**37,170**	**53,883**	**9,765**	**63,648**
Net income	**—**	**—**	**—**	**—**	**—**	**5,834**	**5,834**	**1,954**	**7,788**
Other comprehensive income									
Remeasurements of provisions for post-employment benefits[2]	—	—	—	—	—	–992	–992	—	–992
Translation difference on foreign operations	—	—	—	–2,691	—	—	–2,691	–710	–3,401
Translation difference of hedge instruments of net investments in foreign operations	—	—	—	368	—	—	368	—	368
Change in fair value of cash flow hedge related to currency and commodity price risks	—	—	—	—	2,862	—	2,862	—	2,862
Currency and commodity risk hedge contracts recycled to income statement	—	—	—	—	3,155	—	3,155	1	3,156
Tax attributable to items recognised in other comprehensive income	—	—	—	–79	–1,239	212	–1,106	—	–1,106
Other comprehensive income	**—**	**—**	**—**	**–2,402**	**4,778**	**–780**	**1,596**	**–709**	**887**
Total comprehensive income	**—**	**—**	**—**	**–2,402**	**4,778**	**5,054**	**7,430**	**1,245**	**8,675**
Transactions with owners									
Shareholder transaction in joint venture under common control[3]	—	—	—	—	—	–1,901	–1,901	—	–1,901
Dividend to shareholders[4]	—	—	—	—	—	—	—	–4	–4
Transactions with owners	**—**	**—**	**—**	**—**	**—**	**–1,901**	**–1,901**	**–4**	**–1,905**
Balance at 31 December 2020	**51**	**11,497**	**8,452**	**–1,379**	**468**	**40,323**	**59,412**	**11,006**	**70,418**

1) Share capital amounted to SEK 51,138,794.
2) Included in the change of provision for post-employment benefits is an adjustment due to changes in actuarial calculation method related to the Swedish ITP2 plan amounting to SEK –473 m, see Note 24 – Post Employment Benefits.
3) For further information, see Note 13 – Investments in joint ventures and associates.
4) The proposed distribution of the non-restricted equity in the Annual report 2019 has been revised and all funds are carried forward.

Consolidated Statement of Changes in Equity

SEKm	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 1 January 2021	**51**	**11,497**	**8,452**	**–1,379**	**468**	**40,323**	**59,412**	**11,006**	**70,418**
Net income	**—**	**—**	**—**	**—**	**—**	**12,546**	**12,546**	**1,631**	**14,177**
Other comprehensive income									
Remeasurements of provisions for post-employment benefits	—	—	—	—	—	3,123	3,123	—	3,123
Translation difference on foreign operations	—	—	—	3,243	—	—	3,243	1,132	4,375
Translation difference of hedge instruments of net investments in foreign operations	—	—	—	–265	—	—	–265	—	–265
Change in fair value of cash flow hedge related to currency and commodity price risks	—	—	—	—	–2,479	—	–2,479	–162	–2,641
Currency and commodity risk hedge contracts recycled to income statement	—	—	—	—	326	—	326	—	326
Tax attributable to items recognised in other comprehensive income	—	—	—	54	441	–669	–174	31	–143
Other comprehensive income	**—**	**—**	**—**	**3,032**	**–1,712**	**2,454**	**3,774**	**1,001**	**4,775**
Total comprehensive income	**—**	**—**	**—**	**3,032**	**–1,712**	**15,000**	**16,320**	**2,632**	**18,952**
Transactions with owners									
Capital contribution from non-controlling interests[2]	—	—	—	—	—	—	—	1,267	1,267
Transactions with non-controlling interests[2]	—	—	—	—	—	409	409	–409	—
Divestment of non-controlling interests[3]	—	—	—	—	—	163	163	–228	–65
Business combinations under common control[4]	—	—	—	—	—	82	82	—	82
Redemption of preference shares[5]	–1	–4,988	—	—	—	–335	–5,324	—	–5,324
Bonus issue[5]	1	—	—	—	—	–1	—	—	—
New issue[5]	8	19,733	—	—	—	—	19,741	—	19,741
Issue in kind[5]	—	91	—	—	—	–91	—	—	—
Directed new issue to preference shareholders[5]	2	5,322	—	—	—	—	5,324	—	5,324
Dividend to shareholders[2]	—	—	—	—	—	–5,709	–5,709	–9,708	–15,417
Transactions with owners	**10**	**20,158**	**—**	**—**	**—**	**–5,482**	**14,686**	**–9,078**	**5,608**
Balance at 31 December 2021	**61**	**31,655**	**8,452**	**1,653**	**–1,244**	**49,841**	**90,418**	**4,560**	**94,978**

Equity

Total equity increased to SEK 95.0 (70.4) bn, resulting in an equity ratio of 33.5 (26.8) per cent. The change is mainly attributable to the issue of new shares of SEK 19.7 bn, positive net income of SEK 14.2 bn, positive effect in other comprehensive income of SEK 4.8 bn and capital contribution from non-controlling interests of SEK 1.3 bn offset by dividends to shareholders of SEK –15.4 bn, including SEK 0.2 bn to preference shareholders and SEK 9.7 bn to non-controlling interests. The acquisition of Asia Euro Automobile Manufacturing (Taizhou) Co., Ltd had a positive effect of SEK 0.1 bn.

The change in other comprehensive income is related to a positive foreign exchange translation effect, including hedges of net investments in foreign operations of SEK 4.2 bn (net of tax) and remeasurements of provisions for post-employment benefits of SEK 2.4 bn (net of tax), mainly due to higher interest rates. This was partly offset by a negative change in cash flow hedge reserve from unrealised hedge contracts of SEK –1.8 bn (net of tax), whereof hedge contracts recycled to the income statement amounted to SEK 0.3 bn. The change in value of cash flow hedges is mainly due to a weakened SEK against most major currencies.

1) Share capital amounted to SEK 60,947,709.
2) For further information, see Note 23 - Equity and Note 4 – Related party.
3) For further information, see Note 23 – Equity and Note 8 – Participation in subsidiaries (Parent company).
4) For further information, see Note 32 – Business combinations.
5) For further information, see Note 23 – Equity.

CONSOLIDATED FINANCIAL STATEMENTS

Consolidated Statement of Cash Flows

SEKm	Note	2021	2020
OPERATING ACTIVITIES			
Operating income		20,275	8,516
Depreciation and amortisation of non-current assets	9	15,005	14,449
Dividends received from joint ventures and associates[1]		1,991	333
Interest and similar items received		602	550
Interest and similar items paid		–1,139	–1,268
Other financial items		–815	–437
Income tax paid		–3,673	–2,856
Adjustments for items not affecting cash flow	31	–750	3,989
		31,496	**23,276**
Movements in working capital			
Change in inventories		3,643	–454
Change in accounts receivable		2,845	–2,137
Change in accounts payable		–3,328	5,183
Change in provisions		–1,126	–303
Change in contract liabilities to customers		2,239	3,872
Change in other working capital assets/liabilities		–5,917	4,848
Cash flow from movements in working capital		**–1,644**	**11,009**
Cash flow from operating activities		**29,852**	**34,285**
INVESTING ACTIVITIES			
Investments in shares and participations	13, 32	–11,518	–4,589
Capital repayments from shares and participations		132	464
Repayment of loans from affiliated companies		—	1,251
Investments in intangible assets		–11,972	–8,574
Investments in tangible assets		–11,352	–9,986
Disposal of tangible assets		123	431
Other		–150	—
Cash flow from investing activities		**–34,737**	**–21,003**
Cash flow from operating and investing activities		**–4,885**	**13,282**

SEKm	Note	2021	2020
FINANCING ACTIVITIES			
Proceeds from credit institutions		1,579	5,011
Proceeds from bond issuance	21	—	5,209
New share issue		20,807	—
Capital contribution from Non-controlling interest		360	—
Repayment of bond		–8,064	—
Repayment of liabilities to credit institutions		–2,957	–4,612
Repayment of interest bearing liabilities		–1,450	–1,350
Dividend paid to shareholders and /or Non-controlling interest[2]	4	–10,462	–4
Investments in marketable securities	22	–15,015	–8,806
Matured marketable securities		15,475	4,114
Other[3]		905	–396
Cash flow from financing activities		**1,178**	**–834**
Cash flow for the year		**–3,707**	**12,448**
Cash and cash equivalents at beginning of year		**61,592**	**51,997**
Exchange difference on cash and cash equivalents		4,380	–2,853
Cash and cash equivalents at end of year	22	**62,265**	**61,592**

1) During 2021, Dividends received from joint ventures and associates was reclassified from Investing to Operating activities and the comparative figures have been adjusted accordingly.
2) For further information, see Consolidated statement of Changes in Equity on page 84.
3) Other is attributable to realised result from financial instruments of SEK 947 (–424) m and change in Other non-current liabilities of SEK –42 (28) m.

Net financial position and liquidity

Total cash and cash equivalents, including marketable securities, increased to SEK 70.3 (69.7) bn. Net cash increased to SEK 44.8 (35.2) bn. Liquidity amounted to SEK 83.6 (94.4) bn, including undrawn credit facilities of SEK 13.4 (24.7) bn.

Cash flow from operating activities was positive and amounted to SEK 29.9 (34.3) bn, mainly due to a positive EBITDA of 35.3 (23.0) bn, offset by paid income tax of SEK –3.7 (–2.9) bn and a negative development in working capital of SEK –1.6 (11.0) bn. Volvo Cars continued to invest in the transformation into a fully electric car company and cash flow from investing activities amounted to SEK –34.7 (–21.0) bn.

Cash flow from financing activities amounted to SEK 1.2 (–0.8) bn. Proceeds from new share issue contributed SEK 20.8 (—) bn, offset by repayments of loans amounting to SEK –3.0 (–4.6) bn and repayment of bonds of SEK –8.1 (—) bn, and paid dividend to shareholders of SEK –10.5 (—) bn.

Notes to the Consolidated Financial Statements

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

NOTE 1 – GENERAL INFORMATION FOR FINANCIAL REPORTING IN VOLVO CAR GROUP

Basis of preparation

The consolidated financial statements of Volvo Car AB (publ.) have been prepared in accordance 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, a standard 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. Group companies apply the same accounting principles, irrespective of national legislation, as defined in Volvo Car Group accounting directives and they have been applied consistently for all periods, unless otherwise stated.

The financial statements are based on cost, apart from certain financial instruments and provisions for pensions and other post-employment benefits which are reported at fair value. Preparation of the financial statements in accordance with IFRS requires the Company's Executive Management and the Board of Directors to make estimations and judgements that affect the value of the reported assets, liabilities, income and expenses. Estimates and judgements will affect the values of assets and liabilities. The actual outcome (value) may differ from these estimates and judgements and corrections may be necessary to make. Therefore, the estimates and judgements are reviewed on a regular basis. Changes are recognised in the period of the change and in future periods if the change affects both.

All accounting policies considered material to Volvo Car Group are described in conjunction with each note. When a new accounting policy has been implemented or when there has been changes in disclosures this is described as part of the relevant note.

The estimates and judgements that are deemed to be the most important for an understanding of Volvo Car Group's financial reports within each area, taking into account the degree of materiality and uncertainty, are presented as part of each applicable note.

In order to avoid duplication of information, cross-references have been made between different parts of the annual report.

New accounting principles

New accounting principles 2021

IASB has published amendments to standards that were endorsed by EU, effective after 1 January 2021. These additions have not had any significant impact on the financial statements.

New accounting principles 2022

IASB has published amendments to standards that were endorsed by EU, effective after 1 January 2022. None of these are expected to have a material effect on the financial statements.

Basis of consolidation

The consolidated accounts include Volvo Car AB (publ.) and its subsidiaries. Subsidiaries are all entities over which Volvo Car Group has control. Volvo Car Group controls an entity when 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.

All wholly owned subsidiaries and certain companies owned to 50 per cent, mainly in China, are consolidated, see Note 8 – Participation in subsidiaries (parent company). Subsidiaries are fully consolidated from the date on which control is transferred to Volvo Car Group. They are deconsolidated from the date that control ceases. When a subsidiary is not wholly owned by Volvo Car Group, the equity related to non-controlling interest is separated reported within Equity.

Foreign currency

The primary economic environment is the one in which a group company primarily generates and spends 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).

Assets and liabilities denominated in foreign currencies other than the functional currency are translated to the functional currency using the balance sheet closing rate. Exchange rate differences are recognised in the income statement.

Exchange rate differences on operating assets and liabilities are recognised in other operating income and expenses, while exchange rate differences arising on financial assets and liabilities are recognised in financial income and expenses.

When preparing the consolidated financial statements, items in the income statements of foreign subsidiaries are translated to SEK using monthly average exchange rates. Balance sheet items are translated into SEK using exchange rates at year-end (closing rate). Exchange rate differences arising on translation are recognised in other comprehensive income and accumulated in equity. The accumulated translation differences related to subsidiaries, joint ventures or associates are reversed to the income statement as a part of the gain/loss arising from disposal of such a company.

The main exchange rates applied are presented in the table below:

		Average rate		Close rate	
Country	Currency	**2021**	2020	**2021**	2020
China	CNY	1.32	1.34	1.43	1.25
Euro zone	EUR	10.13	10.51	10.29	10.02
United Kingdom	GBP	11.74	11.90	12.26	11.16
United States	USD	8.53	9.26	9.07	8.17
Japan	JPY	0.08	0.09	0.08	0.08

Classification of current and non-current assets and liabilities
An asset is classified as current 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. A liability is classified as current when it is held primarily for the purpose of trading or is expected to be settled within twelve months after the balance sheet date and we do not have the right to defer settlement of the liability for at least twelve months after the balance date. All other liabilities are classified as non-current.

When the criteria for being classified as a non-current asset held for sale are fulfilled and the asset or disposal group are of significant value, the asset or disposal group and the related liabilities are recognised on a separate line in the balance sheet.

NOTE 2 – REVENUE

ACCOUNTING POLICIES

Revenue is recognised when the customer obtains control of a delivered good or service, and thus has the ability to direct the use and obtain the benefits from the goods or services. Revenue could either be recognised at a point in time or over time depending on the applied business model. The sale of goods or services will sometimes give rise to recognition of contract liabilities to customers. These liabilities are recognised when Volvo Car Group are obligated to transfer goods or services for which consideration is already received. Contract liabilities to customers include sales generated obligations, deferred revenue from service contracts, sales with repurchase commitments as well as advance payments from customers.

Revenue from sale of goods
Revenue is recognised when the customer has gained control over the goods according to agreed contract terms. If the customer contracts include variable considerations or consideration payables the revenue recognised will be affected. If a variable consideration or a consideration payable, e.g. a volume discount or incentive programme, is paid out at a later point in time then the revenue for the good or service is recognised, the value is estimated and recognised as a contract liability.

Revenue from sale of a vehicle to a customer, where there is a residual value guarantee issued to an independent financing provider, is recognised at the time of sale, less an amount corresponding to the estimated residual value risk. The estimated residual value risk remaining in Volvo Car Group is recognised as a contract liability, see Note 26 – Current and non-current contract liabilities to customers. Revenue is only recognised provided that transfer of control over the vehicle can be confirmed.

Revenue from sale of a vehicle to a customer combined with a repurchase commitment (the right or obligation (put option) to buy back the car) is recognised over the contract period as if it were an operating lease contract. This is based on the fact that the customer has not obtained the control of the vehicle. Based on historical experience a majority of customers use the put option at the end of the contract period. During the contract period the cars are recognised on the balance sheet and are depreciated to the estimated residual value, see Note 9 – Depreciation and amortisation. The useful life of the asset and the corresponding residual value is monitored closely and changed if necessary, see Note 19 – Inventories and Note 17 – Tangible assets. Liabilities related to repurchase commitments are recognised as other non-current and other current liabilities, see Note 27 – Other non-current liabilities and Note 28 – Other current liabilities. Deferred revenue related to sale with repurchase commitments are recognised as current and non-current contract liabilities to customers, see Note 26 – Current and non-current contract liabilities to customers.

Revenue from sale of services
Volvo Car Group sells services in the form of for example maintenance contracts and extended warranties to customers. Revenue from these sales is deferred and revenue recognised on a straight-line basis over the contract period. The deferred revenue is recognised as contract liabilities to customers, since the customers payment is made before the service is performed. When an extended warranty contract is included in the sales price of the car, and the inclusion in the contract is assessed to be common practice in the market, such extended warranty costs is recognised as a provision. Where an extended warranty is included in the sale of a car and the offer goes beyond common practice in the market, it is instead 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. The stand-alone selling price is not directly observable, why the price in general is estimated based on expected cost plus a reasonable margin.

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

Revenue from subscription, leasing and rental business
Revenue from subscription, leasing and rental business is recognised as revenue on a straight-line basis over the contract period. Revenue related to an operating lease arrangement is recognised on a straight-line basis over the leasing period.

CO_2 emission credits
In year 2020, Volvo Car Group fulfilled and overachieved its emission targets, set by the EU. Volvo Cars entered into a pooling arrangement with Ford offering its surplus CO_2 emissions in line with the pooling system implemented by the European Commission. The pooling arrangement also included CO_2 emission credits from Volvo Car Group's joint venture Polestar. The compensation received by Ford was accounted for as revenue, and an additional part is received through the share of income from Polestar. The classification as revenue since it is directly related to Volvo Cars' core business.

CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS

Variable consideration
The inherent risk with regard to different forms of variable considerations is the probability of a reversal of revenue in future periods. As a direct effect of this, Volvo Car Group use either the expected value method or the most likely amount as appropriate when assessing the variable sales price. Revenue is recognised when it is highly probable that a revenue reversal in future periods will not occur. Estimates and judgements initially made are updated continuously at each reporting period.

Volume discounts
Cars may be sold with volume discounts based on aggregate sales over a 3–12 months period. Revenue from these sales is recognised based on the price specified in the contract, adjusted for volume discounts for the whole sales period. Accumulated historical experience is used to estimate and calculate the total discount. A contract liability is recognised for expected volume discounts to customers in relation to sales made.

Residual value guarantees
Volvo Car Group is exposed to residual value risks, meaning that there is a potential loss for Volvo Car Group if the future market value of a used car is lower than the guaranteed value of the car according to the contract. This potential negative effect is recognised as a contract liability and the future market value of cars is monitored individually on a continuing basis with a special emphasis on residual value of internal combustion engine vehicles in line with the market shifting towards electric vehicles. An estimate is made based on evaluating recent car auction values, future price deterioration due to expected change of market conditions, vehicle quality data and repair and reconditioning costs etc.

Repurchase Commitments
Cars sold with a repurchase obligation are recognised in the balance sheet as assets under operating leases or inventories depending on the contract period. During the contract period there is risk for a potential loss for Volvo Car Group if the estimated value of the car is lower than the market value at the time. This potential negative effect is recognised as an increased depreciation or an impairment of the car. An estimate of the value of the car is therefore made based on recent car auction values, future price deterioration due to expected change of market conditions, vehicle quality data and repair and reconditioning costs etc. The value of the car in the balance sheet is adjusted if necessary.

Consideration payables
When the customer as part of a sale transaction will receive cash or goods with a monetary value, revenue will be recognised net of the consideration paid to the customer.

Revenue allocated to geographical regions:	**2021**	2020
China	63,526	61,236
US	52,015	40,581
Europe[1]	121,027	121,904
of which Sweden	*28,245*	*25,546*
of which Germany	*16,823*	*18,319*
of which United Kingdom	*15,610*	*15,866*
Other markets	45,477	39,112
of which Japan	*7,477*	*7,345*
of which South Korea	*5,893*	*5,059*
Total	**282,045**	**262,833**

Revenue allocated to category:		
Sale of products and related goods and services	251,422	239,563
Sale of used cars	21,051	16,288
JV contract manufacturing	1,622	—
Revenue from subscription, leasing and rental business	3,497	2,706
Sale of licences and royalties	2,670	2,068
Other revenue[2]	1,783	2,208
Total	**282,045**	**262,833**

1) Europe is defined as EU27+EFTA+UK.
2) Including effects of CO_2 credits.

Revenue recognised in relation to contract liabilities to customers
For revenue recognised in the current reporting period in relation to opening balance of contract liabilities see Note 26 – Current and non-current contract liabilities to customers. The majority of Volvo Car Group´s contract liabilities are classified as current and will most likely be recognised as revenue during the coming year.

NOTE 3 – EXPENSES BY NATURE

	2021	2020
Material cost incl. freight, distribution and warranty	–188,835	–185,268
Personnel	–37,215	–34,695
Amortisation/depreciation[1]	–15,005	–14,449
Other	–21,407	–18,012
Total	**–262,462**	**–252,424**

1) The amortisation expenses for 2020 were affected by adjustments of the useful life period to reflect updated assumptions and cycle plan changes.

The amounts presented as Personnel have been reduced by capitalised salary costs related to product development. Received government grants (see Note 10 – Government grants) have reduced the amounts presented as Personnel and Other.

NOTE 4 – RELATED PARTY TRANSACTIONS

ACCOUNTING POLICIES

Volvo Car Group has a close collaboration with its related parties. The main part of the transactions relates to sales of components, licences and technology, and purchase of cars. Related parties include companies outside the Volvo Car Group, but within the Geely sphere of companies as well as other companies, such as associates and joint ventures. All transactions with related parties are being performed on commercial terms.

Significant transactions and agreements with Related parties during the year

- In January, Geely Holding divested Polestar Automotive (Shanghai) Co., Ltd. following an agreement signed in December 2020. The company was consequently converted into a wholly-owned subsidiary of Volvo Cars (China) Investment Co., Ltd. The transaction had no impact on the Group balance sheet, other than a reclassification of shares in joint ventures of SEK 1,882 m to Cash.
- Zenuity AB, the joint venture between Volvo Car Group and Veoneer Sweden AB, distributed a dividend to its shareholders of which Volvo Cars received SEK 1,175 (326) m. Since the investment value of Zenuity AB was zero, the dividend was recognised as share of income in Volvo Car Group.
- In March, Polestar Automotive Holding Group raised USD 550 m in external capital from long-term financial investors. The private placement was conducted through newly issued shares and diluted Volvo Cars ownership in Polestar. The valuation effects in connection with the transaction amounted to SEK 2,039 m and were recognised as income from shares in joint ventures and associates.
- Lynk & Co Investment Co., Ltd, the joint venture between Volvo Car Group, Zheijang Jirun Automobile Co., Ltd and Zheijang Haoqing Automobile Manufacturing Co., Ltd, paid dividend to its shareholders, including SEK 703 (—) m to Volvo Car Group. Furthermore, the joint venture Volvofinans Bank AB paid a dividend of SEK 107 (—) m to its shareholders Volvo Car Group and AB Volverkinvest.
- Volvo Car AB (publ.) distributed dividends of SEK 179 (—) m to the preference shareholders and SEK 5,979 m to the shareholder Geely Sweden Holdings AB. The dividend to Geely Sweden Holdings AB was settled on 30 June, as part of the separation of the ICE business, through distribution of the entire shareholding in Powertrain Engineering Sweden AB and Powertrain Engineering Sweden Real Estate AB, with a net effect in Equity of SEK 5,530 m in the Group's Equity, due to the fair value of the shares being higher than their carrying amount. Furthermore, a dividend of SEK 9,691 (—) m was distributed to the shareholder Zhejiang Geely Holding Group Co., Ltd, whereof SEK 9,199 m from the 50 per cent owned Chinese subsidiary Daqing Volvo Car Manufacturing Co., Ltd. and SEK 492 m from the 50 per cent owned Chinese subsidiary Zhangjiakou Volvo Car Engine Manufacturing Co., Ltd.
- In July, Volvo Cars signed an agreement with PSD Investment Ltd to acquire a smaller part of their shares in Polestar Automotive Holding Ltd. Following the agreement, PSD Investment Ltd sold 7.3 per cent of its shares to Volvo Cars, which increased Volvo Cars share in Polestar from 46.1 per cent to 49.5 per cent. The transaction did not have any effect on Volvo Cars' share of voting power in Polestar Automotive Holding Ltd.
- In July, ECARX Technology Co., Ltd, a related company with the same ultimate shareholder as Volvo Cars, but outside the Geely sphere of companies, acquired 15 per cent of the shareholding in Zenseact AB through a directed share issue. The consideration amounted to SEK 907 m.
- In July, Volvo Cars and Geely Holding entered into an agreement with the intention for Volvo Cars to acquire the remaining shareholding of the already fully consolidated "Chinese Operations", i.e. the non-controlling interest in the manufacturing plants in Daqing and Chengdu, as well as the R&D centre in Shanghai. The completion of these transactions is subject to regulatory approvals in China, and closing is expected during 2022–2023.
- In September, Volvo Cars and ECARX Technology Co., Ltd, jointly established the company HaleyTek AB, with the aim to further develop and commercialise the infotainment system used in Volvo and Polestar cars. Based on Volvo Cars' 60 per cent ownership HaleyTek is a consolidated subsidiary in the Group and ECARX Technology Co., Ltd has a non-controlling interest of 40 per cent in the company. The capital contribution from ECARX Technology Co., Ltd to HaleyTek AB amounted to SEK 360 m.
- On 27 September 2021, Polestar announced its intentions to be listed on Nasdaq New York, through the special purpose acquisition company (SPAC), Gores Guggenheim. Polestar's implied enterprise value is approximately USD 20 bn. The business combination is expected to be finalised during the first half of 2022. In connection with, and subject to, completion of the de-SPAC, Polestar has entered into subscription agreements for a share issue, raising gross proceeds of approximately USD 250 m, whereof Volvo Car Group has agreed to subscribe for up to USD 100 m worth of shares, with a current executed subscription agreement for a value of USD 11 m. In addition, immediately prior to completion of the de-SPAC, Volvo Car Group has agreed to subscribe for convertible preference shares in Polestar up to a value of USD 600 m, with a current executed subscription agreement of USD 589 m. The proceeds received by Polestar for the convertible preference shares shall be used to repay accounts payable to Volvo Car Group. The final amounts to be invested in the share issue and in convertible preference shares may change, but Volvo Car Group's total additional investment in Polestar shall not exceed USD 600 m. Upon completion of the de-SPAC, it is anticipated that the convertible preference shares will be converted into common shares of class A in Polestar, at a conversion price of USD 10 per share, subject to customary recalculation provisions, and provided, among other things, that Volvo Car Group directly or indirectly holds less than 50 per cent of voting power in Polestar following the conversion. Following completion of the business combination and the listing on Nasdaq New York, Volvo Car Group expects to indirectly hold 47.8 per cent of the shares and 49.4 per cent of the votes in Polestar, provided that no existing shareholders in Gores Guggenheim exercise their redemption rights. Volvo Cars also has the opportunity to receive Earn Out Shares from Polestar, in the event the share price exceeds a predetermined price. The total maximum number of shares that could be obtained is approximately 7,5 per cent multiplied by the number of shares Volvo Cars holds after the completion of the de-SPAC. Provided Earn Out Shares is expected to give a minor increase in our voting share of Polestar and our voting share will remain below 50 per cent.
- In December, Volvo Cars acquired 100 per cent of the shares in Asia Euro Automobile Manufacturing (Taizhou) Co., Ltd. (previously called Luqiao) from Geely Auto Group Co., Ltd. The invest-

ment in shares amounted to SEK –10,551 m, including repayment of loans. The framework agreement also includes an option for Volvo Cars to acquire the leased land and building from Zhejiang Jingang Automobile Co., Ltd. The plant produces the new range of the smaller 40-series CMA-based car, the XC40 for Volvo Cars and the Polestar 2 model for Polestar.

Tables of transactions with Related Parties

The information presented below includes all assets and liabilities regarding related parties. All assets and liabilities are current except non-current assets of SEK 5,196 (694)[3] m. For further details refer to section Specification of transactions with Related Parties.

	Sales of goods, services and other		Purchases of goods, services and other	
	2021	2020	**2021**	2020
Related companies[1) 2) 4)]	7,128	5,131	–12,665	–7,085
Associated companies and joint ventures[1)]	1,448	1,303	–1,815	–2,363

	Receivables		Payables	
	31 Dec 2021	31 Dec 2020	**31 Dec 2021**	31 Dec 2020
Related companies[1) 2) 3) 4)]	18,626	9,248	4,758	5,486
Associated companies and joint ventures[1)]	991	518	499	1,202

1) Related companies are companies within the Geely sphere of companies. Joint ventures within the Geely sphere are presented as Related companies. For joint ventures and associated companies see Note 13 – Investments in joint ventures and associates.
2) Revenue from sale of licences and technology amounted to SEK 1,471 (1,774) m.
3) The increase in receivables is primarily due to Polestar receivables which formed part of the Volvo Cars acquisition of the Taizhou plant from Geely. The increase in purchases is primarily related to Powertrain Engineering Sweden AB.
4) The comparative number related to transactions with Polestar up until mid-September 2020 refers to the Polestar Automotive Shanghai Group and transactions thereafter refer to the Polestar Automotive Holding Group.

Specification of transactions with Related Parties

The Polestar Group

Volvo Car Group recognised revenue related to the sale of technology licences and development of technology of SEK 1,281 (1,541) m. Further, following the acquisition of Taizhou on 1 December 2021, revenue of SEK 1,641 m was recognised related to sale of Polestar cars. The sale of other services, recognised as other income, amounted to SEK 529 (432) m. Volvo Car Group sold patents for SEK 153 (—) m, which has been recognised as other income. Volvo Car Group's purchases of Polestar cars from Polestar amounted to SEK –377 (–302) m. Volvo Car Group's purchases related to a performance enhancement product provided to the end customers amounted to SEK –227 (–307) m. The purchases have been recognised as cost of sales.

Volvo Car Group's acquisition of the Taizhou plant included receivables related to Polestar amounting to SEK 8,977 m.

Taizhou (previously called Luqiao)

With effect from 1 December 2021, Taizhou plant is a subsidiary within Volvo Car Group. The transactions below cover the period up until the transaction date. The support service for operating the plant has resulted in other income of SEK 253 (424) m. Volvo Car Group has also sold engines to the plant for its production of CMA-based vehicles. The sales have been recognised as revenue of SEK 845 (922) m. Volvo Car Group's purchases from Taizhou amounted to SEK –3,434 (–4,426) m and have been recognised as cost of sales. Furthermore, Volvo Car Group provided machinery to the plant through a leasing agreement, which resulted in a non-current asset of SEK — (694) m.

Ningbo

Volvo Car Group has several agreements with Ningbo Geely Automobile Research & Development Co., Ltd for research and development of technology of future cars. Volvo Car Group also has an agreement with Ningbo UMD Automobile Transmission Co., Ltd. related to the purchase of gearboxes for PHEV XC40 plug-in hybrid cars as well as an agreement related to the sale of fleet cars to Ningbo Fuhong Auto Sales Co Ltd. The purchase of research and development services from Ningbo amounted to SEK –938 (—) m, whereof SEK –641 (—) m has been capitalised as intangible assets. The purchase of gearboxes amounted to SEK –898 (–716) m and has been recognised as cost of sales. The sale of fleet cars amounted to SEK 791 (747) m and has been recognised as revenue.

China-Euro Vehicle Technology AB (CEVT)

Volvo Car Group holds a cost sharing agreement with China-Euro Vehicle Technology AB and Ningbo Geely Automobile Research & Development Co., Ltd regarding development of technology for the CMA platform, where CEVT is the administrator in the cost sharing project. During 2021 the agreement was amended to include technology updates of the CMA platform to be able to use it for future cars. Total purchases of research and development services from CEVT amounted to SEK –356 (–52) m whereof SEK –315 (–36) m has been capitalised as intangible assets.

Powertrain Engineering Sweden AB (PES)

Powertrain Engineering Sweden AB (PES) is, with effect from 30 June 2021, a related company to Volvo Cars, 100 per cent owned by Geely Sweden Holdings AB. The intention is that PES shall be owned by the newly established company Zhejiang Aurobay Powertrain Co., Ltd, in which Volvo Cars has a shareholding of 33 per cent, and hence PES will remain a related company. Volvo Cars has several agreements with PES relating to purchases for research and development services of combustion engines. Purchases from Powertrain Engineering Sweden AB amounted to SEK –5,039 m and were mainly related to combustion engines and product development. The purchase of combustion engines amounted to SEK –4,354 m and has mainly been recognised as cost of sales. The purchase of development amounted to SEK –695 m, whereof SEK –385 m has been capitalised as product development.

Zhejiang Forever New Energy

Volvo Car Group has an agreement with Zhejiang Forever New Energy Co., Ltd, for purchases of batteries. The purchases amounted to SEK –461 (–207) m and have been recognised as cost of sales.

Zeekr Automobile

Since September 2021, Volvo Car Group has an agreement with Zeekr Automobile (Ningbo Hangzhou Bay New Zone) Co., Ltd, for research and development of technology of future cars. Total purchases of research and development services from Zeekr amounted to SEK –110 (—) m.

NOTE 5 – AUDIT FEES

	2021	2020
Deloitte		
Audit fees	–43	–49
Audit-related fees	–14	–8
Tax services	–1	–2
Other services	–5	–2
Total	**–63**	**–61**

Audit fees involve audit of the Annual Report, interim report 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 advisory.

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

NOTE 6 – OTHER OPERATING INCOME AND EXPENSES

	2021	2020
Other operating income		
Foreign exchange rate gains[1]	1,597	—
Sold services	1,107	971
Government grants	86	234
Other	1,354	1,157
Total	**4,144**	**2,362**

	2021	2020
Other operating expenses		
Amortisation and depreciation of intangible and tangible assets	–388	–248
Foreign exchange rate loss[2]	—	–1,010
Royalty	—	–772
Property tax	–124	–118
Other	–1,989	–1,755
Total	**–2,501**	**–3,903**

1) The gross foreign exchange rate gain on operating assets and liabilities amounted to SEK 1,929 (1,036) m.
2) The gross foreign exchange rate loss on operating assets and liabilities amounted to SEK –332 (–2,046) m.

NOTE 7 – LEASING

ACCOUNTING POLICIES

Volvo Car Group as a lessee

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 future lease payments under the lease contract. 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 cases where the interest rate is not implicit in the lease, Volvo Car Group generally has used 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. For more information regarding deprecation see Note 9 – Depreciation and amortisation. 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 12 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.

In the balance sheet, lease liabilities are presented as Other non-current and current interest bearing liabilities. The asset is presented as a right of use asset, see Note 17 – Tangible assets.
In the income statement, depreciation of the right-of-use asset is presented on the same line item/items with similar expenses. Interest expense on the lease liability is presented as part of finance expenses. In the statement of cash flows, amortisation on the lease liability is 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

When Volvo Car Group is a lessor the accounting treatment differs based on the classification into operating and finance leases. The classification is made on the basis of the distribution of risks and rewards incidental to ownership of the lease asset. If they are transferred to the lessee it is classified as a finance lease or if it remains with Volvo Cars it is classified as an operating lease.

Volvo Car Group is acting as a manufacturer finance lessor in a few cases. In these cases revenue is recognised at fair value of the underlying asset or the present value of the lease payments, if lower, reduced with the carrying amount of the asset less any unguaranteed residual values.

When accounting for other finance leases, the lease asset is derecognised, and instead a receivable is recognised in the amount of the net investment in the lease, corresponding to the present value of the lease payments less any unguaranteed residual values.

Any initial direct costs are included in the net investment in the lease. Income as recognised over the lease term using the effective interest rate.

Sale transactions including repurchase commitments are recognised as operating leases. Operating lease contracts with a maturity less or equal to 12 months are recognised as inventory, see Note 19 – Inventories. Operating lease contracts with a maturity more than 12 months are recognised as an asset under operating lease, see Note 17 – Tangible asset. These operating leases are mainly related 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, see Note 2 – Revenue. The remaining lease revenue yet to be recognised is presented as part of current and non-current contract liabilities to customers in the balance sheet, see Note 26 – Current and non-current contract liabilities to customers. The repurchase obligation is considered to be a financial liability and is classified as non-current or current liabilities, see Note 27 – Other non-current liabilities and see Note 28 – Other current liabilities.

Sub-leases and sale and leaseback transactions are not considered material for Volvo Car Group.

CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS

Complex contracts requires Volvo Car Group to make judgemental decisions when determining the lease term for contracts, especially for the leasing of buildings. Factors included in the determination of 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 Group's operations.

Lease term

When determining the lease term, management is considering all facts and circumstances that create an economic incentive to exercise an extension option, or not to exercise a termination option in addition to the non-cancellable lease term. In determining the lease term, those options are only considered if they are reasonably certain. The assessment is reviewed if a significant event or a significant change in circumstances occurs that may affect the assessment.

Discount rate

When determining the discount rate, Volvo Car Group uses an applicable industrial yield curve and takes into consideration for example credit risk, adjustment for currency, lease term and economic environment.

Volvo Car Group as lessee

Volvo Car Group mainly leases buildings and other items such as IT-equipment and production equipment.

Right-of-use asset	Buildings and land	Machinery and equipment	Total
Acquisition cost			
Balance at 1 January 2020	6,638	779	7,417
Additions	704	545	1,249
Divestments and disposals	–147	–196	–343
Reclassifications	–16	—	–16
Effect of foreign currency exchange rate differences	–279	–20	–299
Balance at 31 December 2020	**6,900**	**1,108**	**8,008**
Acquired through business combinations	1,230	1	1,231
Additions	1,273	123	1,396
Divestments and disposals	–353	–264	–617
Reclassifications	3	—	3
Effect of foreign currency exchange rate differences	299	17	316
Balance at 31 December 2021	**9,352**	**985**	**10,337**
Accumulated depreciation			
Balance at 1 January 2020	–981	–221	–1,202
Depreciation expense	–994	–277	–1,271
Divestments and disposals	180	187	367
Reclassifications	1	—	1
Effect of foreign currency exchange rate differences	46	19	65
Balance at 31 December 2020	**– 1,748**	**– 292**	**– 2,040**

Right-of-use asset	Buildings and land	Machinery and equipment	Total
Acquired through business combinations	–92	—	–92
Depreciation expense	–1,138	–249	–1,387
Divestments and disposals	25	77	102
Reclassifications	2	11	13
Effect of foreign currency exchange rate differences	–2	9	7
Balance at 31 December 2021	**–2,953**	**–444**	**–3,397**
Net balance at 31 December 2020	**5,152**	**816**	**5,968**
Net balance at 31 December 2021	**6,399**	**541**	**6,940**

Lease liabilities	2021	2020
Non-current lease liabilities	5,509	4,815
Current lease liabilities	1,477	1,175

The maturity analysis of lease liabilities is presented in Note 21 – Financial risks and financial instruments.

Amounts recognised in profit and loss	2021	2020
Deprecation expenses on right-of-use assets	–1,387	–1,271
Interest expense on lease liabilities	–215	–219
Expense relating to short-term leases	–134	–123
Expense relating to leases of low value assets	–72	–29
Expense relating to variable lease payments not included in the measurement of the lease liability	–45	–29
Income from sub-leasing right-of-use assets	159	46

The total cash outflow for leases amounts to SEK 1,694 (1,625) m. The amount include payments for lease agreements recognised as liabilities, variable payments, short-term payments and payments for leases of low value.

Volvo Car Group as lessor

Operating lease contracts mainly relate to vehicles sold with repurchase commitments and contracts under the name of Care by Volvo.

Operating leases contracts

The table contains a maturity analysis of leasing payments and the total of undiscounted lease payments that will be received after the balance sheet day.

Future lease income of operating lease contracts, undiscounted	2021	2020
No later than 1 year	1,678	1,217
Later than 1 year but no later than 2 years	747	466
Later than 2 year but no later than 3 years	75	8
Later than 3 year but no later than 4 years	21	7
Later than 4 year but no later than 5 years	17	7
Later than 5 years	86	83
Total	**2,624**	**1,788**

Finance lease contracts

In 2021 Volvo Car Group are into finance leasing arrangement as a lessor of cars in China as well as arrangement as a manufacturing finance lessor. The finance leasing arrangements for certain equipment in 2020 is no longer valid in 2021 due to organisational changes.

Amounts receivable under finance leases	2021	2020
No later than 1 year	154	125
Later than 1 year but no later than 2 years	282	125
Later than 2 year but no later than 3 years	199	125
Later than 3 year but no later than 4 years	40	125
Later than 4 year but no later than 5 years	19	125
Later than 5 years	—	338
Undiscounted lease payments	**694**	**963**
Less unearned finance income	37	146
Net investment in the lease	**657**	**817**

The following table presents the amounts included in income statement

	2021	2020
Finance income on the net investment in finance leases	7	29

The selling profit for financial lease amounts to SEK — (—) m.

NOTE 8 – EMPLOYEES AND REMUNERATION

ACCOUNTING POLICIES

Incentive programmes

Volvo Car Group manages in total five different global incentive programmes:

- The Short Term Variable Pay Programme for Senior Leaders (STVP for Senior Leaders)
- The Volvo Bonus programme
- The Long Term Variable Pay (LTVP) programme
- The Volvo Car AB share-based programme
- The Polestar share-based programme

The design and payout of all programmes are subject to approval of the Board of Directors. Certain decisions related to the share-based programmes are subject to decision by the Annual General Meeting.

Short-term incentive programmes

For the short-term incentive programmes a liability is recognised if all prerequisites are met and the cost is recognised as an operating expense.

Long-term incentive programme

The LTVP is a cash-settled share based programme.

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

The fair value is based on the share price reduced by dividends connected with the share during the vesting period. Additional social expenses are reported as a liability, revalued at each balance sheet date.

Share-based incentive programme

The Volvo Car AB share-based incentive programme was a cash-settled programme that was terminated during the year. The fair value of the warrants acquired by the participants was determined at the grant date and was recognised as a financial liability. The liability was revalued at each balance sheet date and changes of the fair value was recognised in the income statement as a financial expense or income.

The programme did not render any recognition of personnel cost as it was based on fair values.

Polestar programme

The programme is recognised as a share-based incentive programme that will be cash-settled based on the participants option to receive cash at fair value for the shares under certain circumstances and during predetermined periods. Based on this a liability is recognised in Volvo Car Group´s balance sheet.

Average number of employees by region:	2021	Of whom women	2020	Of whom women
Sweden	22,718	27%	21,071	27%
Nordic countries other than Sweden	641	35%	587	33%
Belgium	4,749	14%	4,789	14%
Europe other than the Nordic countries and Belgium	1,452	36%	1,316	35%
North and South America	1,876	35%	1,850	35%
China	8,422	16%	7,709	17%
Asia other than China	929	20%	899	20%
Other countries	104	40%	122	43%
Total[1]	**40,891**	**24%**	**38,343**	**24%**

Number of Board members and senior executives[2]	31 Dec 2021 Board members (Chief Executive Officers and senior executives)	Of whom women	31 Dec 2020 Board members (Chief Executive Officers and senior executives)	Of whom women
Parent company	12	25%	11	27%
Subsidiaries	110 (313)	21% (29%)	111 (300)	23% (29%)
Total	**122 (313)**	**21% (29%)**	**122 (300)**	**23% (29%)**

Salaries and other remunerations	2021 Wages and salaries, other remunerations	2021 Social security expenses (of which pension expenses)	2020 Wages and salaries, other remunerations	2020 Social security expenses (of which pension expenses)
Parent company	17	4(—)	9	3(—)
Subsidiaries	22,951	9,360 (4,738)	21,305	8,895 (4,644)
Total	**22,968**	**9,364 (4,738)**	**21,314**	**8,988 (4,644)**

Salaries and other remuneration to the Board[3], CEO, Executive Management Team (EMT)[4] and other employees	2021 Wages and salaries, other remunerations (of which variable salaries)	2021 Social security expenses (of which pension expenses)	2020 Wages and salaries, other remunerations (of which variable salaries)	2020 Social security expenses (of which pension expenses)
Board, Chief Executive Officers and EMT	355 (131)	152 (65)	310 (89)	116 (43)
Other employees	22,613	9,212 (4,673)	21,004	8,872 (4,601)
Total	**22,968 (131)**	**9,364 (4,738)**	**21,314 (89)**	**8,988 (4,644)**

1) The FTE number in 2020 and 2021 reflects temporary layoffs.
2) Senior executives are defined as key personnel within the subsidiaries.
3) The Board includes all board members in the subsidiaries within Volvo Car Group.
4) The Executive Management Team (EMT) consists of the CEO in Volvo Car Corporation and key management personnel other than Board members, in total 11 (10).

Compensation to Board members

The shareholders have elected a Nomination Committee, which on a yearly basis proposes 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 2021 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 Group´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.

In observance of the Board of Directors hard work to achieve a listing of the Company´s shares on Nasdaq Stockholm, an Extraordinary General Meeting resolved, based on a proposal from the Nomination Committee, on a cash one-off payment to the members of the Board of Directors that are not employed or otherwise remunerated by Volvo Car Group or the Zheijang Geely Holding Group. The Board one-off payment (gross) corresponded to 75 per cent of the board remuneration resolved by the Annual General Meeting 2021. Board members whose assignments have been shorter than three years have received a reduced cash amount where the size of the amount was calculated pro rata with one-third per year. A condition for receiving the one-off payment was that the cash amount, net after deduction of preliminary tax, was reinvested by acquiring common shares of class B in Volvo Car AB (publ.). This was in order to keep the Board of Directors strong engagement in Volvo Car Group, and to further align the Board members and the Groups interests in accordance with the share ownership policy for members of the Board. Expensed remuneration to the individual Board members is specified below:

Board member	2021 Ordinary compensation, TSEK	2021 Other compensation, TSEK	2020 Ordinary compensation, TSEK
Li Shufu, Chairperson	—	—	—
Håkan Samuelsson	—	—	—
Li Donghui	—	—	—
Winfried Vahland	959	675	900
Winnie K. W. Fok (until March 2021)	225	—	900
Lone Fønss Schrøder	2,665	1,950	2,600
Thomas Johnstone	1,085	769	1,025
Betsy Atkins	1,059	750	1,000
Michael Jackson	1,114	788	900
Jim Zhang	1,059	750	875
Jonas Samuelsson (from September 2020)	934	219	189
Diarmud O'Connell (from March 2021)	650	94	—
Lila Tretikov (from March 2021)	650	94	—
Total	**10,400**	**6,089**	**8,389**

Terms of employment and remuneration to the CEO

The Board has assigned a People and Sustainability Committee, PSC (in 2022 renamed People Committee) to determine the remuneration principles for the CEO, subject to the shareholders' meetings approval. The chairperson of the board shall in dialogue with PSC decide the remuneration to the CEO. The CEO is entitled to a remuneration consisting of a fixed annual salary, STVP, 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 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, STVP, LTVP and other benefits such as company car 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 fulfilment of the member of EMT's yearly individual objectives and can vary from 0 up to maximum 20 per cent of the annual salary depending on fulfilment rate.

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

During 2021, 1 (2) members of EMT left their positions. For EMT members leaving Volvo Car Group, remuneration during the notice period and severance pay amounted to SEK 14 (8) m, excluding social expenses.

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 amounted to SEK 47 (52) m.

In March 2020, the EMT and the CEO decided to reduce their salaries with 15 per cent for the second quarter 2020, when many of the employees were working part-time due to the Covid-19 situation.

Other long-term benefits

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

Incentive programmes

Short-term incentive programmes

Volvo Bonus

The Volvo Bonus programme is a programme that includes all Volvo Car employees, except those who participates in the STVP for Senior Leaders. 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. The qualifier for the Volvo Bonus is that the Volvo Car Group profit target (EBIT) is reached. In order for the Volvo Bonus to be paid out at all, a minimum acceptable performance regarding EBIT 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. The pay-out is capped at 200 per cent of the so-called target bonus. Depending on the employee's 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. To be eligible for pay-out, the employee must remain within Volvo Car Group at the pay-out date. The remuneration is paid in cash.

The financials for the first half year 2020 were severely impacted by the Covid-19 pandemic. The Board decided to cancel the Volvo Bonus targets for Full Year 2020 and to establish new financial targets for H2 2020. The bonus amounts were adjusted accordingly to only 50 per cent of the full year amount. The corresponding change was done for the profit target (EBIT) included as an element in the STVP as the same principles are applied in the two programmes.

STVP for Senior Leaders

The STVP for Senior Leaders is an incentive programme for the CEO, EMT and certain senior executives. The purpose of the STVP for Senior Leaders is to support the corporate strategy and the transformation of Volvo Cars. To reach maximum pay-out a number of performance targets must be reached. Targets include Volvo Car Group profit target (EBIT), but also other targets related to quality and transformation activities. A threshold, target and maximum level is set for each performance indicator. In order for any STVP to be paid out in respect of each performance indicator, the threshold level needs to be met. If the higher target, or maximum, level is reached, the pay-out related to the relevant performance indicator will increase (with linear pay-outs for performance between levels). The amount subject to payment for each level of performance is a percentage of the employee's annual base salary, with a cap on the maximum amount payable when reaching or exceeding the maximum level of all performance indicators. The pay-out is capped at 200 per cent of the so-called target award. The target award is a percentage of the employee's annual base salary on 31 December at the end of each performance year. To be eligible for pay-out, the employee must remain within Volvo Car Group on the pay-out date. The remuneration is paid in cash.

Liability and cost

The cost for the Volvo Bonus and STVP programmes amounted to SEK 2,426 (1,105) m including social security expenses, of which SEK 58 (56) m was related to EMT.

Other short term incentives

In observance of the Executive Managements hard work to achieve a listing of the Company's shares on Nasdaq Stockholm, the People and Sustainability Committee resolved on a cash one-off payment to the Executive Management. The management one-off payment (gross) correspond to between 50–100 per cent of the annual base salary for the respective senior executive (100 per cent for the CEO). A condition for receiving the one-off payment was that the cash amount, net after deduction of preliminary tax, was reinvested by acquiring common shares of class B in Volvo Car AB (publ.), if possible. This in order to keep the Executive´s strong engagement in Volvo Car Group, and to further align the executives and the Groups interests in accordance with the share ownership policy for members of the EMT. However, those Executive Management members resident in a jurisdiction where it is practically not possible to acquire shares in Volvo Car AB (publ.) have received the one-off payment without requirement to acquire shares.

Long-term incentive programmes

LTVP

The purpose of the LTVP-programme is to (i) strengthen the alignment of key people around Volvo Car Group's vision, objectives, strategies and business plan, (ii) improve Volvo Car Group's ability to attract and retain key people with key competencies, and (iii) reward potential future contribution in relation to increased shareholder value. Under the 2019 programme, the pay-out solely depends on the development of the market value of Volvo Car Group during the term of the programme. Under the 2020 and 2021 programmes, the pay-out depends on the development of the market value of Volvo Car

Group as well as satisfaction of certain financial performance factors related to profit (EBIT) and revenue growth measured over the term of the programme, as established by the Board of Directors. A threshold and a maximum level is set for each performance factor. In order for any LTVP to be paid out in respect of each performance factor, the threshold level needs to be met. If the higher maximum level is reached , the pay-out related to the relevant performance condition will increase (with linear pay-outs for performance between the levels).

Depending on the participant's position they receive a LTVP bonus award equivalent to a certain percentage of their 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 and the achievement of financial performance factors.

The 2019 programme is capped to a maximum of 200 per cent of the value of the award at grant and the 2020 and 2021 programmes are capped to a maximum of 300 per cent of the value of the award at grant. To be eligible for pay-out, the employee must remain within Volvo Car Group (and not be under notice of termination) on the pay-out date.

Other long term incentives

In addition to the LTVP programme there are individual agreements with members of management that are classified as long term. These agreements also refer to performance for periods prior to 2020.

Liability and cost

The cost for the LTVP-programme amounted to SEK 70 (110) m including social security expenses, of which SEK 28 (34) m was related to EMT. The total liability amounted to SEK 136 (180) m.

Expensed compensation to Executive Management Team (EMT), TSEK	2021 Salary[5]	2021 Variable pay[6]	2021 Long term variable pay[7]	2021 Social security expenses (of which pension expenses)	2020 Salary[5]	2020 Variable pay[6]	2020 Long term variable pay[7]	2020 Social security expenses (of which pension expenses)
Håkan Samuelsson, CEO in Volvo Car Corporation	14,328	30,923	7,149	14,211 (8,861)	13,835	14,250	21,704	13,944 (8,861)
Other members of EMT	66,753	51,120	14,664	88,516 (42,350)	69,355	27,947	18,563	60,307 (21,167)
Total	**81,081**	**82,043**	**21,813**	**102,727 (51,211)**	**83,190**	**42,197**	**40,267**	**74,251 (30,028)**

5) Includes benefits such as housing and company car.
6) Includes STVP and also other additional short term variable pay in accordance with individual agreements. The amount for 2021 also includes the one-off payments received as an observance of the EMTs hard work to achieve the listing of Volvo Car AB (publ.).
7) Includes LTVP and also other additional long term variable pay in accordance with individual agreements. Long term variable pay also includes payments related to performance in previous periods.

Share-based incentive programmes

Volvo Car AB 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. The offer to acquire the warrants was directed to, and accepted by, a number of current and former members of EMT and the Board. The purchases were made by way of private investments at fair market value in accordance with an external valuation. Each warrant entitled to subscription for one share in Volvo Car Corporation for a predetermined amount, with the last day for subscription being 30 September 2021.

In case a participant was no longer employed, and also during other specified circumstances, the parent company had 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 had an option to sell the warrants at fair market value to Volvo Car AB (publ.).

On 13 September 2021, the warrants were exercised by all then-current participants, in accordance with the terms of the investment programme, who thus received shares in Volvo Car Corporation. In connection with the listing of the common shares of class B on Nasdaq Stockholm, the participants' shares in Volvo Car Corporation was exchanged for shares in Volvo Car AB (publ.) through an issue in kind. In total 437 shares in Volvo Car Corporation was exchanged for 1,721, 903 new common shares of class B in Volvo Car AB (publ.). When the warrants were exercised the financial liability was reversed and accounted for as a financial income in the income statement.

Considering a weighted assessment of the conditions in the agreement the programme was accounted for as a share-based programme with cash-settlement and was therefore accounted for as a financial liability at fair value through the income statement, with changes to fair value recognised as a financial expense or income.

As the participants was offered to purchase the warrants at fair market value the programme has not rendered any personnel costs.

TSEK	Number of warrants	Assessed fair market value
At the beginning of the year	567	153,767
Sold during the year	–130	–35,255
Change in valuation	—	45,619
Exercised	–437	–164,131
At the end of the year	**—**	**—**

Exercise of warrants	Number of shares in Volvo Car Corporation	Number of common shares of class B in Volvo Car AB
CEO	316	1,245,131
Other existing and former members of the EMT and the Board of Directors	121	476,772
Total	**437**	**1,721,903**

Polestar programme

During 2019, Volvo Car AB (publ.), through its subsidiary Volvo Car Corporation launched a share based incentive programme to certain members of the executive management of Volvo Car Group, Polestar Group and Polestar Board. Each participant was offered to purchase shares in Volvo Car Group´s subsidiary PSINV AB, which in turn owns shares in Volvo Car Group´s joint venture Polestar Automotive Holding Limited and hence the participants are indirectly minority owners of the Polestar Group. The investment was made at fair market value in accordance with an external valuation. In case a participant is no longer employed, and during other specified certain predetermined periods, the participants (i.e the shareholders) have an option to sell the shares at fair market value to Volvo Cars and at the same time Volvo Cars has an option to repurchase the shares from the participants. At the time of the transaction, the fair value of each share was determined to SEK 1,000. In total 38,125 number of shares have been acquired by the participants, which corresponds to an indirect ownership in the Polestar Group of 0.16 per cent.

Following completion of Polestar's announced business combination with Gores Guggenheim, the intention is that the Polestar programme shall be dissolved in accordance with the terms of the programme, entailing that the participants after dissolvement shall hold shares directly in Polestar Automotive Holding UK Ltd. The participants may have a 180 days' lock-up period following completion of the de-SPAC.

TSEK	Number of shares	Assessed fair market value
At the beginning of the year	38,125	38,125
Redeemed during the year	—	—
Sold during the year	—	—
Change in valuation	—	222,845
At the end of the year	**38,125**	**260,970**

As the accounting is made at fair value, there is no difference between book value and fair value. The fair value is based on a valuation by an external party.

Specification of share programme	Number of shares
CEO and Board of Directors in Volvo Car Group	12,500
Other members of EMT in Volvo Car Group	8,375
Members of Polestar Board and management	17,250
Total	**38,125**

NOTE 9 – DEPRECIATION AND AMORTISATION

ACCOUNTING POLICIES

Amortisation methods for intangible assets
Intangible assets with finite useful lives' are amortised on a straight-line basis over their respective expected useful lives. The amortisation period for contractual rights such as licences does not exceed the contract period. All intangible assets are considered to have a finite 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 following useful lives are applied to intangible assets with finite useful lives:

Dealer network	30 years
Software	3–8 years
Product development	3–10 years
Patents, licences and similar rights	3–10 years

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

Depreciation methods for tangible assets
Tangible assets are systematically depreciated over the expected useful life of the asset. Each part of a tangible assets, 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.

Vehicles sold combined with a repurchase commitment are depreciated evenly over their respective useful lives. They are depreciated from their original acquisition cost to their expected residual value, being the estimated net realisable value, at the end of the lease term. If the market value of these vehicles is lower than the originally set residual value, the depreciations is accelerated over the remaining contract period.

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 how the assets have been used.

Impairment of assets
The carrying amount of tangible and intangible assets with finite useful lives are tested whenever events or changes in circumstances indicate that the value of the asset will not be recovered. 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 at least annually or whenever there is an indication that the value will not be recoverable. Assets may sometimes be grouped into cash-generating units for the purpose of testing impairment.

When performing an impairment test, the asset's or cash-generated unit's recoverable amount is calculated. The recoverable amount is the higher of an asset's or cash-generated unit's fair value less costs to sell and its value in use. Value in use is defined as the present value of the future cash flows expected to be derived from an asset or cash-generated unit. If the recoverable amount is lower than the carrying value, an impairment loss is recognised. Previously recognised impairment losses are reversed, with the exception of goodwill, if reasons for the previously made impairment no longer exist. An impairment loss is reversed only to the extent that the asset's or cash-generated unit's carrying amount after reversal does not exceed the carrying amount, net of amortisation, which would have been recognised if no impairment loss had been recognised.

CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS

The useful life of intangible assets is to a large extent based on historical experience, expected application as well as other individual characteristics of the asset. The useful life of the assets are regularly assessed and adjusted if necessary.

To test an asset or a group of cash-generating unit for impairment several estimates need to be performed, as described in this note as well as in Note 16 – Intangible assets and Note 17 – Tangible assets.

Operating income includes depreciation and amortisation as specified below:	**2021**	2020
Software	–367	–288
Product development	–4,607	–4,051
Other intangible assets	–792	–514
Buildings and land improvements	–893	–864
Machinery and equipment	–6,397	–7,117
Right of use asset[1)]	–1,387	–1,271
Assets under operating leases	–562	–344
Total	**–15,005**	**–14,449**

Depreciation and amortisation according to plan by function:	**2021**	2020
Cost of sales	–7,492	–8,061
Research and development expenses	–5,238	–4,635
Selling expenses	–778	–507
Administrative expenses	–1,109	–999
Other income and expense	–388	–248
Total	**–15,005**	**–14,449**

1) Depreciation of Right of use assets amounted to SEK –1,388 (–1,271) m, whereof SEK –1,165 (–994) m is related to Buildings and land, and SEK –222 (–277) m is related to Machinery and equipment.

NOTE 10 – GOVERNMENT GRANTS

ACCOUNTING POLICIES

Government grants are recognised in the financial statements in accordance with their purpose, either as a reduction of expense or as a reduction of the carrying amount of the asset. Government grants recognised for as a cost reduction, are recognised in the same periods as the expenses for which the grant was intended to compensate for has occurred. Government grants related to acquiring 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 for any expenses or the acquisition of assets, it is recognised as other income. Government grants for future expenses are recognised as deferred income.

CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS

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.

Judgement includes assessing if Volvo Car Group is in compliance with the prerequisites in the contract or not and if there is a potential risk of repayment if these prerequisites are breached during the contract period. As of today Volvo Car Group's assessment is that there are no government grants received where there is a risk of material repayments.

Volvo Car Group receives grants from several parties, mainly from the Swedish, American, Chinese and Belgian Governments as well as from the European Union. In 2021, the government grants received amounted to SEK 472 (1,340) m and the government grants realised in the income statement amounted to SEK 355 (1,811) m. Of the government grants realised in the income statement, SEK 75 (1,013) m was recognised as an effect of the Covid-19 pandemic. Furthermore, grants of SEK — (625) m related to support of production facilities of new car models has reduced the carrying amount of the related machinery and equipment.

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 the manufacturing site.

NOTE 11 – FINANCIAL INCOME

ACCOUNTING POLICIES

Financial income consist of interest income on interest-bearing assets in accordance to the effective interest method, fair value changes on equity holdings and fair value changes on financial derivatives and finally received dividends. Information with regards to the classification of financial instruments, see Note 21 – Financial risks and Financial instruments.

	2021	2020
Interest income on bank deposits	474	416
Interest income from related parties	126	134
Net foreign exchange rate gain on financing activities	224	—
Fair value through profit and loss[1]	14	1,943
Other financial income	165	125
Total	**1,003**	**2,618**

1) For 2020, the changes in fair value mainly related to shares, warrants and earn-out shares in Luminar.

NOTE 12 – FINANCIAL EXPENSES

ACCOUNTING POLICIES

Financial expenses mainly consist of interest expenses and changes related to measurement to fair value on equity holdings and financial derivatives. Information of the classification of financial instruments, see Note 21 – Financial risks and Financial instruments.

	2021	2020
Net foreign exchange rate losses on financing activities	—	–55
Interest effect from the measurement of repurchase obligations	–158	–175
Interest expenses related to provisions for post-employment benefits	–204	–208
Expenses for credit facilities	–126	–120
Interest expenses to related parties	—	–1
Interest expenses to credit institutions	–686	–782
Interest expenses related to lease liabilities	–228	–209
Fair value through profit and loss[1]	–777	—
Other financial expenses	–339	–38
Total	**–2,518**	**–1,588**

1) Mainly includes fair value changes related to shares, warrants and earn-out shares in Luminar.

NOTE 13 – INVESTMENTS IN JOINT VENTURES AND ASSOCIATES

ACCOUNTING POLICIES

Joint ventures refer to joint arrangements whereby Volvo Car Group together with one or more parties have joint control and 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 based on other facts and circumstances.

Investments in joint ventures and associated companies are recognised in accordance with the equity method and are initially valued at acquisition cost. Volvo Car 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 Volvo Car Group's share of losses in an associate or joint venture equals or exceeds its interest in the associate or joint venture, Volvo Cars does not recognise further losses unless it has a legal or constructive obligations in relation to the associate or joint venture.

CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS

The critical judgement in terms of associates refer to situations where Volvo Car Group has got a voting power of less than 20 per cent but based on other facts and circumstances could have significant influence over a company. This could be based on the content of a shareholder agreement or other market-based assumptions and other relationship-based facts. The judgement that is made is whether Volvo Car Group based on these identified facts and circumstances could conclude on having significant influence. Currently Volvo Car Group do not recognise any associate with a voting power of less than 20 per cent.

In terms of a joint venture the judgement is whether joint control really exists when other facts and circumstances are taken into consideration.

	2021	2020
Share of income in joint ventures	–952	–355
Share of income in associates	1	3
Total	**–951**	**–352**

Share of income in joint ventures and associates is specified below:	**2021**	2020
V2 Plug-In Hybrid Vehicle Partnership HB[1)]	—	365
Volvofinans Bank AB[2)]	269	222
Zenuity AB[3)]	1,175	297
Lynk & Co Investment Co., Ltd[4)]	305	160
Polestar Group[5)6)]	–2,693	–1,392
Other companies	–7	–4
Total	**–951**	**–352**

Investments in joint ventures and associates	**31 Dec 2021**	31 Dec 2020
At beginning of the year/acquired acquisition value	9,997	9,211
Share of net income	–951	–352
Investment in Zenuity AB[3)]	—	240
Investment in Polestar Automotive Holding Ltd[6)]	2,068	3,773
Investment in World of Volvo AB[7)]	—	125
Investment in Volvo Car Financial Services UK Ltd[8)]	—	388
Reversal internal profit elimination[5) 6)]	–310	–213
Reclassification from joint venture to subsidiary[5)]	–1,882	—
Shareholder transaction in joint venture under common control[5)]	—	–1,901
Obligation to cover accumulated losses classified as Non-current liabilities[3)]	—	–210
Capital repayment V2 Plug-In Hybrid Vehicle Partnership HB[1)]	–132	–464
Dividends	–1,991	–333
Translation difference	132	–267
Total	**6,931**	**9,997**

Volvo Car Group's carrying amount on investments in joint ventures and associates:	Corp. ID no.	Country of incorporation	% interest held	**31 Dec 2021**	31 Dec 2020
Joint ventures					
Volvo Trademark Holding AB	556567-0428	Sweden	50	6	6
V2 Plug-In Hybrid Vehicle Partnership HB[1)]	969741-9175	Sweden	—	—	132
Volvofinans Bank AB[2)]	556069-0967	Sweden	50	2,811	2,649
VH Systems AB	556820-9455	Sweden	50	37	38
Zenuity AB[3)]	559073-6871	Sweden	50	—	—
World of Volvo AB[7)]	559233-9849	Sweden	50	114	113
VCFS Germany GmbH	HRB 85091	Germany	50	2	2
VCIS Germany GmbH	HRB 86800	Germany	50	6	4
Volvo Car Financial Services UK Ltd[8)]	12718441	United Kingdom	50	370	388
Polestar Automotive (Shanghai) Co., Ltd[5)]	91310000MA1FL17P99	China	50	—	1,817
Polestar Automotive Holding Ltd[6)]	2942747	Hong Kong, China	50	106	1,406
GV Automobile Technology (Ningbo) Co., Ltd[9)]	91330201MA2AGKLQ8E	China	50	36	36
Lynk & Co Investment Co., Ltd[4)]	91330200MA2AF25Y7B	China	30	3,418	3,380
Associated companies					
VCC Tjänstebilar KB	969673-1950	Sweden	50	3	3
VCC Försäljnings KB	969712-0153	Sweden	50	1	2
Volvohandelns PV Försäljnings KB	916839-7009	Sweden	50	2	4
Volvohandelns PV Försäljnings AB	556430-4748	Sweden	50	12	12
Zhejiang Aurobay Powertrain Co., Ltd[10)]	91330200MA2KP5DK52	China	33	—	—
Trio Bilservice AB	556199-1059	Sweden	33	1	—
Göteborgs Tekniska College AB	556570-6768	Sweden	26	5	4
Leiebilservice AS	879 548 632	Norway	20	1	1
Carrying amount, participation in joint ventures and associates				**6,931**	**9,997**

The share of voting power corresponds to holdings in per cent as per above. 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 was a joint venture between Volvo Car PHEV Holding AB and Vattenfall PHEV Holding AB. 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. During 2021, V2 Plug-In Hybrid Vehicle Partnership HB provided a repayment of SEK 132 (464) m to Volvo Car PHEV Holding AB. In 2021, Volvo Car acquired 100 per cent of the shares in Vattenfall PHEV Holding AB hence V2 Plug-In Hybrid is since May 2021 a wholly-owned subsidiary within Volvo Car Group.

2) Volvofinans Bank AB is a joint venture between Volvo Car Corporation and AB Volverkinvest. In Sweden, Volvofinans Bank AB is the leading bank within vehicle financing services.

3) Zenuity AB was until 30 June 2020, a joint venture between Volvo Car Corporation and Veoneer Sweden AB. The purpose of the company was to develop software for autonomous driving and driver assistance systems. In April 2020 the business was divided into two parts in order for the owners Volvo Car Group and Veoneer, to focus more effectively on their respective strategies. On 1 July 2020, the two companies signed and implemented the final agreement whereby Volvo Car Group acquired, through a wholly-owned stand-alone subsidiary Zenseact AB, certain assets and liabilities from Zenuity AB and its subsidiary Zenuity Software Technology Co., Ltd. Therefore, from 1 July 2020, Zenuity AB is a joint venture between Volvo Car Group wholly-owned subsidiary Zenseact AB and Veoneer Sweden AB. The purpose of Zenuity AB, after the final agreement is to hold ownership of IP-rights and will have no other operations since all product development and personnel have been transferred to Volvo Car Group and Veoneer.

4) The joint venture company Lynk & Co Investment Co., Ltd is an establishment 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 vehicles under the "Lynk & Co" brand, and support after-sale services relating thereto.

5) In September 2018, Zhejiang Geely Holding Group Co., Ltd (Geely Group) subscribed for 50 per cent of the equity in Polestar Automotive (Shanghai) Co., Ltd, the parent company in the Polestar Automotive Shanghai Group, resulting in Polestar Automotive Shanghai 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 Automotive Shanghai Group.

In mid September 2020, according to a restructuring plan, Polestar Automotive (Shanghai) Co., Ltd ceased its business operation and transferred all its subsidiaries to a newly created holding company registered in Singapore. In September 2020, Polestar Automotive (Shanghai) Co., Ltd became a stand-alone company jointly owned by Volvo Cars (China) Investment Co., Ltd and Zhejiang Geely Holding Group Co., Ltd. During the autumn Polestar Automotive (Shanghai) Co., Ltd have also transferred all its non-cash assets and liabilities and personnel to the newly formed Polestar Automotive Holding Group with only assets being cash remaining on its balance sheet. In December 2020, Zhejiang Geely Holding Group Co., Ltd and Volvo Cars (China) Investment Co., Ltd signed a capital reduction agreement where Geely Group had in view to withdraw its investment from Polestar Automotive (Shanghai) Co., Ltd. As a consequence of the capital reduction agreement, Volvo Car Group's share value has been reflected accordingly through equity as a shareholder transaction. In January 2021, Geely Group ceased to be a shareholder of Polestar Automotive (Shanghai) Co., Ltd and the joint venture company was in January 2021 reclassified into a wholly-owned subsidiary of Volvo Cars (China) Investment Co., Ltd. The transaction had no impact on the Group balance sheet, other than a reclassification of shares in joint ventures of SEK 1,882 m to Cash.

Share of income from Polestar Group up until mid-September 2020 refers to the Polestar Automotive Shanghai Group and share of income thereafter refers to the Polestar Automotive Holding Group.

6) In 2020, the joint venture company Polestar Automotive Holding Ltd was established between Volvo Car Group's wholly-owned subsidiary Snita Holding B.V. 50 per cent shareholding and PSD Investment Ltd. The purpose of the establishment of Polestar Automotive Holding Ltd is to be the parent company in the new Polestar Automotive Holding Group. In mid September 2020, Polestar Automotive Holding Ltd's new established wholly-owned subsidiary, Polestar Automotive (Singapore) Pte. Ltd, acquired all the shares in Polestar Performance AB including its subsidiaries, Polestar Holding AB and Polestar Automotive Shanghai Co., Ltd including its subsidiaries from Polestar Automotive (Shanghai) Co., Ltd. According to the restructuring plan, the business operation in the underlying subsidiaries were also transferred to Polestar Automotive (Singapore) Pte. Ltd. The restructuring of the Polestar Group as such, has not had any effect on Volvo Car Groups' interest in Polestar Group's underlying operational activities. In November 2020, Snita Holding B.V. sold 0.86 per cent of its shares in Polestar Automotive Holding Ltd to PSINV AB, another subsidiary within Volvo Car Group.
In March 2021, Polestar Automotive Holding Ltd Group raised external capital from long-term financial investors. The private placement was conducted through newly issued shares and diluted Volvo Cars ownership in Polestar. The valuation effects in connection with the transaction amounted to SEK 2,039 m and were recognised as income from shares in joint ventures and associates. In July 2021, PSD Investment Ltd sold 7.3 per cent of its shares to Volvo Cars, which increased Volvo Cars share in Polestar from 46.1 per cent to 49.5 per cent following an investment of SEK 2,068 m. In September 2021, Polestar announced its intention to be listed in a planned combination with Gores Guggenheim.
Share of income from Polestar Group up until mid-September 2020 refers to the Polestar Automotive Shanghai Group and share of income thereafter refers to the Polestar Automotive Holding Group.

7) World of Volvo AB is a joint venture between Volvo Car Corporation and AB Volvo (publ.). The World of Volvo Group consists of the parent company World of Volvo AB and its subsidiaries World of Volvo Fastighetsholding AB and World of Volvo Fastighets AB. The purpose of the company is to reinforce the Volvo brand position and the Volvo trademark by creating a new centrally-located premium brand experience center, which will include the Volvo Museum, in Gothenburg, Sweden.

8) In November 2020, the joint venture company Volvo Car Financial Services UK Ltd was established between Volvo Car Corporation and Santander Consumer (UK) Plc. The purpose of the company is to provide financial services in the UK market and improve dealer and customer satisfaction.

9) GV Automobile Technology (Ningbo) Co., Ltd is a joint venture between Volvo Car Corporation and Ningbo Geely Automobile Research & Development Co., Ltd. The purpose of the company is to coordinate engineering of shared technologies and common sourcing in order to reach industrial synergies and economics of scale. The GV Automobile Technology Group consists of the parent company GV Automobile Technology (Ningbo) Co., Ltd and its subsidiary GV Technology Sweden AB. Following an announcement made in October 2021, the joint venture has completed its mission and are now in the process of liquidation.

10) In August 2021, the company Zhejiang Aurobay Powertrain Co., Ltd. (Aurobay) was established as a subsidiary to Volvo Cars (China) Investment Co., Ltd. In November 2021, the subsidiary was reclassified to an associated company when Zhejiang Geely Chantou Holding Co., Ltd was registered as majority owner of the company. Thereafter Zhejiang Aurobay Powertrain Co., Ltd. (Aurobay) is owned by Volvo Cars (China) Investment Co. Ltd (33 per cent) and Zhejiang Geely Chantou Holding Co., Ltd (67 per cent). The purpose of the company is to be a global supplier of complete powertrain solutions including next generation combustion engines, transmissions and hybrid solutions.
On 31 January 2022, the associated company Aurobay acquired the 50 per cent owned subsidiary Zhangjiakou Volvo Car Enginge Manufacturing Co., Ltd. from Volvo Cars (China) Investment Co., Ltd., for further information see Note 32 – Business combinations.

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

	Volvofinans Bank AB[2) 17)]		Zenuity AB[3) 18)]		Lynk & Co Investment Co., Ltd[4) 19)]		Polestar Automotive (Shanghai) Co., Ltd[5) 20)]		Polestar Automotive Holding Ltd[6) 21)]	
Summarised balance sheets	**2021**	2020	**2021**	2020	**2021**	2020	**2021**	2020	**2021**	2020
Percentage voting/ownership	50	50	50	50	30	30	—	50	50	50
Non-current assets	38,799	37,390	—	—	19,901	14,093	—	7	13,628	12,743
Cash and cash equivalents	2,262	2,357	7	232	2,419	826	—	7,429	6,863	2,995
Other current assets	3,995	4,352	1	2,139	13,241	15,058	—	—	8,586	6,627
Total assets	**45,056**	**44,099**	**8**	**2,371**	**35,561**	**29,977**	**—**	**7,436**	**29,077**	**22,365**
Equity[11)]	4,870	4,546	7	2,364	11,354	11,230	—	7,436	931	6,144
Non-current liabilities[11) 12) 13) 14)]	37,661	37,084	—	—	5,513	4,609	—	—	1,324	651
Current liabilities[15) 16)]	2,525	2,469	1	7	18,694	14,138	—	—	26,822	15,570
Total equity and liabilities	**45,056**	**44,099**	**8**	**2,371**	**35,561**	**29,977**	**—**	**7,436**	**29,077**	**22,365**

11) Equity and non-current liabilities are adjusted with the portion of untaxed reserves where appropriate.
12) In Volvofinans Bank AB, the non-current liabilities include financial liabilities of SEK 36,623 (36,093) m.
13) In Lynk & Co Investment Co., Ltd, the non-current liabilities include financial liabilities of SEK 1,390 (1,251) m.
14) In Polestar Automotive Holding Ltd, the non-current liabilities include financial liabilities of SEK 604 (—) m.
15) In Lynk & Co Investment Co., Ltd, the current liabilities include financial liabilities of SEK 28 (1,251) m.
16) In Polestar Automotive Holding Ltd, the current liabilities include financial liabilities of SEK 5,981 (2,921) m.
17) Volvofinans Bank AB's equity share in the Volvo Car Group is included with a time lag of a quarter.
18) The figures include the consolidated figures from Zenuity AB and its subsidiaries Zenuity GmbH, Zenuity Inc and Zenuity Software Technology Co., Ltd up until 30 June 2020. Thereafter Zenuity AB is a stand alone company.
19) 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 Automobile International Sales (Yuyao) Co., Ltd, Lynk & Co Automobile(Taizhou) Co., Ltd, Ningbo Lynk Automobile Culture Co., Ltd, Lynk & Co International AB, Lynk & Co Hong Kong International Co., Ltd, Lynk & Co Europe AB, Yuyao Lynk & Co Automobile Part Co., Ltd, Chengdu Lynk & Co Automobile Co., Ltd, Lynk & Co Automobile (Zhang Jiakou) Co., Ltd, Geely Asia Europe (Ningbo Meishan free trade port) Technology Co., Ltd, Lynk & Co Sales Belgium Ltd, Lynk & Co Sales Sweden AB, Lynk & Co Sales Italy S.R.L, Lynk & Co Sales France SAS, Lynk & Co Sales Germany GmbH, Lynk & Co Sales Spain S.L. and Lynk & Co Sales Netherlands B.V.

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	Volvofinans Bank AB[2) 17)]		Zenuity AB[3) 18)]		Lynk & Co Investment Co., Ltd[4) 19)]		Polestar Automotive (Shanghai) Co., Ltd[5) 20)]		Polestar Automotive Holding Ltd[6) 21) 27)]	
Summarised income statements	**2021**	2020	**2021**	2020	**2021**	2020	**2021**	2020	**2021**	2020
Revenue	5,164	4,861	5	2,595	40,036	31,708	—	1,492	11,721	4,048
Profit/loss from continuing operations[22) 23) 24) 25) 26)]	414	364	–8	1,894	836	607	—	–2,380	–8,758	–1,180
Profit (loss) for the year	**414**	**364**	**–8**	**1,894**	**836**	**607**	**—**	**–2,380**	**–8,758**	–1,180
Other comprehensive income for the year	**—**	**—**	**—**	**–3**	**23**	**9**	—	**–146**	**–302**	**81**
Total comprehensive income for the year	**414**	**364**	**–8**	**1,891**	**859**	**616**	**—**	**–2,525**	**–9,060**	**–1,099**
Dividends received from joint ventures during the year	107	—	1,175	326	703	—	—	—	—	—

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

	Volvofinans Bank AB[2) 17)]		Zenuity AB[3) 18)]		Lynk & Co Investment Co., Ltd[4) 19)]		Polestar Automotive (Shanghai) Co., Ltd[5) 20)]		Polestar Automotive Holding Ltd[6) 21) 27)]	
Reconciliation of summarised financial information	**2021**	2020	**2021**	2020	**2021**	2020	**2021**	2020	**2021**	2020
Net asset of the joint venture	4,870	4,546	7	2,364	11,354	11,230	—	7,436	931	6,144
Proportion of Volvo Car Group's ownership in the joint venture	50%	50%	50%	50%	30%	30%	—	50%	50%	50%
Adjustments for differences in accounting principles	—	—	–4	1	—	—	—	—		—
Goodwill	376	376	—	—	—	—	—	—		—
Adjustments for Common control transaction	—	—	—	—	11	11	—	—	17	—
Elimination of intra-group profit	—	—	—	–736	—	—	—	—		—
Capital injection from investors other than Volvo Car Group	—	—	—	–447	—	—	—	—	–145	–1,834
Shareholder transaction in joint venture under common control[5)]	—	—	—	—	—	—	—	–1,901		—
Net foreign exchange rate effect	—	—	—	—	1	—	—	—	–226	168
Carrying amount of Volvo Car Group's interest in joint ventures	**2,811**	**2,649**	**—**	**—**	**3,418**	**3,380**	**—**	**1,817**	**106**	**1,406**

Significant restrictions

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

20) The figures include the consolidated figures from Polestar Automotive (Shanghai) Co., Ltd and its subsidiaries Polestar Holding AB, Polestar Performance AB, Polestar Automotive Sweden AB, Polestar Automotive USA Inc, Polestar Automotive UK Ltd, Polestar Automotive Canada Inc, Polestar Automotive Norway AS, Polestar Automotive Netherlands B.V., Polestar Automotive Germany GmbH, Polestar Automotive Belgium BV, Polestar Automotive Switzerland GmbH, Polestar Automotive Shanghai Co., Ltd, Polestar Consulting Service (Shanghai) Co., Ltd, Polestar Automotive China Distribution Co., Ltd, Polestar Automotive China Distribution Co., Ltd (Taizhou) and Polestar New Energy Vehicle Co., Ltd up until mid September 2020. Thereafter Polestar Automotive (Shanghai) Co., Ltd is a stand alone company.
21) The figures include the consolidated figures from Polestar Automotive Holding Ltd and its subsidiaries Polestar Automotive (Singapore) Pte. Ltd, Polestar Automotive Holding UK Ltd, PAH UK Merger Sub Inc, Polestar Holding AB, Polestar Performance AB, Polestar Automotive Sweden AB, Polestar Automotive USA Inc, Polestar Automotive UK Ltd, Polestar Automotive Canada Inc, Polestar Automotive Norway AS, Polestar Automotive Netherlands B.V., Polestar Automotive Germany GmbH, Polestar Automotive Belgium BV, Polestar Automotive Switzerland GmbH, Polestar Automotive Denmark ApS, Polestar Austria GmbH, Polestar Automotive Finland Oy, Polestar Automotive Korea Ltd, Polestar Automotive Australia Pty Ltd, Polestar Automotive (Shanghai) Distribution PTE. Ltd, Polestar Automotive Luxembourg SARL, Polestar Automotive Czech Republic s.r.o, Polestar Automotive Spain S.L, PLSTR Automotive Portugal Unipessoal, Lda, Polestar Automotive Ireland Ltd, Polestar Automotive Poland Sp. z.o.o, Polestar Automotive Shanghai Co., Ltd, Polestar Automotive Consulting Service (Shanghai) Co., Ltd, Polestar Automotive China Distribution Co., Ltd, Polestar Automotive China Distribution Co., Ltd (Taizhou), Polestar Automotive (Chongqing) Co., Ltd, and Polestar New Energy Vehicle Co., Ltd.
22) In Volvofinans Bank AB the profit for the year includes depreciation and amortisation of SEK –9 (–8) m.
23) In Zenuity AB the profit (loss) for the year includes depreciation and amortisation of SEK — (–67) m.
24) In Lynk & Co Investment Co., Ltd the profit for the year includes depreciation and amortisation of SEK –3,087 (–2,114) m, interest income of SEK 60 (38) m and interest expenses of SEK –90 (–79) m.
25) In Polestar Automotive (Shanghai) Co., Ltd the loss for the year includes depreciation and amortisation of SEK — (–1,248) m, interest income of SEK — (38) mand interest expenses of SEK — (–143) m.
26) In Polestar Automotive Holding Ltd the loss for the year includes depreciation and amortisation of SEK –2,039 (–632) m, interest income of SEK 12 (4) m and interest expenses of SEK –382 (–84) m.
27) The net income from Polestar for the respective year is based on Polestar's preliminary reporting at the time of the Volvo Car's year-end closing. There are some differences between the years 2020 and 2021 compared to Polestar's official filed annual reports consisting of certain adjustments in 2020 that have been reflected in Volvo Car's result in 2021.

NOTE 14 – TAXES

ACCOUNTING POLICIES

Income taxes

Volvo Car Group's tax expense consists of current tax (including withholding tax on licence sale to China) 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 to be applied 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 adopted 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.

CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS

Deferred tax assets

The recognition 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.

Income tax recognised in income statement	2021	2020
Current income tax for the year	–2,873	–3,221
Current income tax for previous years	–620	20
Deferred taxes	–1,445	1,180
Withholding taxes[1]	–96	54
Other taxes	451	209
Total	**–4,583**	**–1,758**

1) Withholding tax on royalty and licence sales mainly to China.

Reconciliation between current tax rate in Sweden and effective tax rate	2021	2020
Income before tax for the year	18,760	9,546
Tax according to applicable Swedish tax rate, 20.6% (21.4%)	–3,865	–2,043
Operating income/costs, non-taxable	–24	56
Withholding taxes	–96	54
Other taxes, non-taxable	451	209
Share of income in joint ventures, non-taxable	–402	–235
Capital gains or losses, non-taxable	–2	–6
Effect of different tax rates	–211	–44
Tax effect on deferred tax due to change of tax rate	–1	238
Non recognised deferred tax asset on tax losses carry forward	–258	—
Revaluation of previously non-valued losses and other temporary differences	–203	61
Other	28	–48
Total	**–4,583**	**–1,758**

Income tax recognised in other comprehensive income	2021	2020
Deferred tax		
Tax effects on cash flow hedge reserve	–472	1,239
Tax effect of remeasurement of provisions for post-employment benefits	669	–212
Tax effects on translation difference of hedge instruments of net investments in foreign operations	–54	79
Total	**143**	**1,106**

Specification of deferred tax assets	31 Dec 2021	31 Dec 2020
Goodwill arising from the purchase of the net assets of a business	102	125
Provision for employee benefits	2,306	2,848
Unutilised tax loss carry-forwards	5,488	5,630
Accruals	4,659	4,531
Reserve for unrealised income in inventory	1,007	721
Provision for warranty	1,370	1,275
Fair value of financial instruments	283	—
Other temporary differences	2,288	1,653
Total deferred tax assets	**17,503**	**16,783**
Netting of assets/liabilities	–10,136	–9,619
Total deferred tax assets, net	**7,367**	**7,164**

Specification of deferred tax liabilities	31 Dec 2021	31 Dec 2020
Fixed assets	9,655	8,260
Untaxed reserves	21	25
Auto lease portfolio	2,326	1,984
Fair value of financial instruments	—	202
Other temporary differences	474	192
Total deferred tax liabilities	**12,476**	**10,663**
Netting of assets/liabilities	–10,136	–9,619
Total deferred tax liabilities, net	**2,340**	**1,044**

Deferred tax assets and deferred tax liabilites 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 the US. Of the total SEK 5,488 (5,630) m recognised deferred tax assets related to tax loss carry-forwards, SEK 4,540 (5,054) m relates to Sweden with indefinite periods of utilisation. SEK 667 (440) m relates to US where tax loss carry-forwards are expected to be utilised before expiration date. The assessment 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	31 Dec 2021	31 Dec 2020
Net book value of deferred taxes at 1 January	6,120	6,300
Deferred tax income/expense recognised through income statement	–1,445	1,180
Change in deferred taxes recognised directly in other comprehensive income	–143	–1,106
Reclassifications[2]	–181	–17
Business combinations	25	—
Exchange rate impact	651	–237
Net book value of deferred taxes at 31 December	**5,027**	**6,120**

2) SEK –36 (–17) m of deferred tax assets and SEK –95 (—) m of deferred tax liabilities have been reclassified to assets and liabilities held for sale. For more information, see Note 34 - Assets and liabilities held for sale.

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.

Per 2021 and as of 31 December 2021, the recognised tax loss carry-forwards amounted to SEK 25,898 (26,804) m. 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	31 Dec 2021	31 Dec 2020
Due date		
2021	—	91
2022	—	—
2023	—	—
2024	—	33
2025	8	144
2026	559	—
2027–	25,331	26,536
Total	**25,898**	**26,804**

NOTE 15 – EARNINGS PER SHARE

ACCOUNTING POLICIES

Basic earnings per share is calculated as net income attributable to owners of the parent company divided by the weighted average number of ordinary shares outstanding during the period, where net income is reduced by preference dividends for preference shares, which are cumulative, and required for the period whether or not the dividends have been declared. Diluted earnings per share is calculated on an "if-converted" basis in respect of the preference shares, which are convertible into ordinary shares. The preference dividends deducted in basic earnings per share are added back and the number of ordinary shares that would be attributable to the preference shares on conversion are added into the denominator. However, such adjustment is made only when it would decrease earnings per share. If it would increase earnings per share, the preference shares are considered anti-dilutive and are not included in diluted earnings per share.

All outstanding share-related incentive programmes are cash-settled, with no option or substantive option to settle in equity instruments, meaning that they do not contain any dilutive features.

Basic earnings per share	2021	2020
Net income attributable to owners of the parent company	12,546	5,834
Preference share returns relating to the year	–360	–126
Net income attributable to owners of ordinary shares in the parent company	**12,186**	**5,708**
Weighted average number of ordinary shares outstanding, undiluted	2,579,920,697	2,500,000,000
Basic earnings per share (SEK)	**4.72**	**2.28**

Diluted earnings per share[1]	2021	2020
Net income in basic earnings per share	12,186	5,708
If preference shares had been converted, no preference yield had accrued	360	126
Net income in diluted earnings per share	**12,546**	**5,834**
Weighted average number of ordinary shares outstanding, diluted	2,627,370,447	2,556,939,700
Diluted earnings per share (SEK)	**4.72**	**2.28**

1) Calculation of diluted earnings per share is made for the year/years for which the preference share not are considered anti-dilutive. If considered anti-dilutive, the diluted earnings per shares equals basic earnings per share. For 2021, the preference shares are considered anti-dilutive hence diluted earnings per share equals basic earnings per share.

NOTE 16 – INTANGIBLE ASSETS

ACCOUNTING POLICIES

An intangible asset is recognised when it is identifiable, Volvo Car Group controls the asset, it is expected and probable to generate future economic benefits and the cost can be measured reliably. Intangible assets consist of internally developed products, licences and patents, trademarks, goodwill, dealer network and investments in IT-systems and software.

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 acquisition less any accumulated impairment losses.

Subsequent expenditure on intangible assets increases the cost only if it give rise to future economic benefit. All other subsequent expenditures are expensed in the period in which they are incurred.

Product development

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 are met. The cost of an internally generated intangible asset comprises of all expenditures that can be directly attributed to the development phase and that serve to create, produce and prepare the asset for use. All other development costs are expensed as incurred.

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 recognised as intangible assets, reflecting the relevant proportion of Volvo Car Group interests.

Volvo Car Group incur development costs on behalf of other parties. In cases where the developed technology is sold and therefore not controlled by Volvo Car Group, the costs are expensed as cost of sales at the time of the sale. These costs are also used to measure development progress for revenue recognition for the sold technology, licences or IP. See Note 2 – Revenue for further information.

CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS

Intangible assets with a finite useful life are amortised on a straight-line basis over their estimated useful lives. Management regularly reassesses the useful life of all significant assets. If circumstances change such that the estimated useful life has to be revised, additional amortisation could be the result in future periods.

In the assessments of useful life, climate-related risks have been considered, mainly impacting capitalised costs related to product development for internal combustion engines in line with Volvo Cars plans to be fully electric by 2030.

The carrying amount of intangible assets with finite useful lives are tested whenever events or changes in circumstances indicate that the value of the asset will not be recovered. Intangible assets with indefinite useful lives, i.e. trademark, goodwill, and other intangible assets not yet ready for use, are not subject for amortisation and are tested for impairment at least annually or whenever there is an indication that the value will not be recoverable.

An impairment test is made by calculating the asset or assets recoverable amount. If the recoverable amount is less than the carrying value, the asset is written down to its recoverable value. The recoverable amount is the higher of an asset's or cash-generating unit's fair value less costs to sell and its value in use. Value in use is defined as the present value of the future cash flows expected to be derived from an asset or cash-generating unit. 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 useful life 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 valid at the date of preparation of the impairment test. The planning is based on expectations regarding future market share, the market growth, Volvo Car Group's expected performance in this environment as well as the products' profitability.

Previously recognised impairment losses are reversed, with the exception of goodwill, if reasons for the previously made impairment no longer exist. An impairment loss is reversed only to the extent that the asset's or cash-generating unit's carrying amount after reversal does not exceed the carrying amount, net of amortisation, which would have been recognised if no impairment loss had been recognised.

When performing impairment test by calculating the asset's or assets' recoverable value based on discounted cashflow, Volvo Car Group constitutes 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 2022–2025 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 2021, 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 or in the discount rate would result in impairment. The discount rate before tax was 11 (11.5) per cent. No impairment loss was recognised as a result of performed test.

CONSOLIDATED FINANCIAL STATEMENTS

	Product development[1]	Software	Trademark and goodwill[2]	Other intangible assets[3]	Total
Acquisition cost					
Balance at 1 January 2020	46,043	4,063	3,738	5,513	**59,357**
Additions	7,517	554	—	1,256	**9,327**
Acquired through business combinations	—	3	447	22	**472**
Divestments and disposals	–377	–178	—	–2	**–557**
Reclassifications[4]	—	–117	—	–71	**–188**
Effect of foreign currency exchange rate differences	—	3	—	–101	**–98**
Balance at 31 December 2020	**53,183**	**4,328**	**4,185**	**6,617**	**68,313**
Additions	10,935	964	—	251	**12,150**
Acquired through business combinations	—	19	245	—	**264**
Divestments and disposals	–122	–121	—	–96	**–339**
Reclassifications[4,5]	—	–149	—	1,034	**885**
Effect of foreign currency exchange rate differences	—	–46	1	168	**123**
Balance at 31 December 2021	**63,996**	**4,995**	**4,431**	**7,974**	**81,396**
Accumulated amortisation and impairment					
Balance at 1 January 2020	–21,710	–1,909	–4	–2,948	**–26,571**
Amortisation expense[6]	–4,051	–287	—	–508	**–4,846**
Acquired through business combinations	—	–1	—	–6	**–7**
Divestments and disposals	—	61	—	2	**63**
Reclassifications[4]	—	104	—	43	**147**
Effect of foreign currency exchange rate differences	—	–16	—	85	**69**
Balance at 31 December 2020	**–25,761**	**–2,048**	**–4**	**–3,332**	**–31,145**
Amortisation expense	–4,607	–367	—	–792	**–5,766**
Acquired through business combinations	—	–5	—	—	**–5**
Divestments and disposals	—	99	–2	30	**127**
Reclassifications[4,5]	—	–54	—	–609	**–663**
Effect of foreign currency exchange rate differences	—	60	—	–164	**–104**
Balance at 31 December 2021	**–30,368**	**–2,315**	**–6**	**–4,867**	**–37,556**
Net balance at 31 December 2020	**27,422**	**2,280**	**4,181**	**3,285**	**37,168**
Net balance at 31 December 2021	**33,628**	**2,680**	**4,425**	**3,107**	**43,840**

1) Volvo Car Group has capitalised borrowing costs related to product development of SEK 199 (142) m. A capitalisation rate of 2.2 (2.4) per cent was used to determine the amount of borrowing costs eligible for capitalisation.
2) Of the total Net balance at 31 December 2021, Goodwill amounted to SEK 827 (583) m.
3) Other intangible assets refers to licences, dealer network and patents.
4) Includes reclassification of intangible assets to assets held for sale. Gross intangible assets of SEK –243 (–297) m and amortisation of SEK 156 (147) m with a net value of SEK –87 (–150) m have been reclassified. For more information, see Note 34 – Assets and liabilities held for sale.
5) Other intangible assets includes a patent, since during the year the joint venture company V2 Plug-In-Hybrid has been reclassified to a wholly-owned subsidiary. Gross value SEK 580m and accumulated amortisation SEK –580m.
6) The amortisation expenses for 2020 were affected by adjustments of the useful life period to reflect updated assumptions and cycle plan changes.

NOTE 17 – TANGIBLE ASSETS

ACCOUNTING POLICIES

A tangible asset is recognised when it is controlled by Volvo Car Group, it is expected to generate future economic benefits and is measurable. Tangible assets are recognised at acquisition cost, less accumulated depreciation and potential impairment loss. The cost of the asset includes expenditures that can be directly attributed to the acquisition and bringing the asset in place for its intended use. Borrowing costs are sometimes included in the acquisition cost of an asset if it takes more than 12 months to get it ready for its intended use or sale.

Repair and maintenance expenditures are recognised in the income statement during the period in which they incur.

CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS

Tangible assets are depreciated on a straight-line basis over their estimated useful lives. Management regularly reassesses the useful life of all significant assets. If circumstances change and the estimated useful life has to be revised, it could mean additional depreciation in future periods. In the assessments of useful life, climate-related risks have been considered, mainly impacting assets related to the production of internal combustion engines in line with Volvo Cars plans to be fully electric by 2030.

The carrying amounts of non-current tangible assets are tested for impairment if there are indicators of a decline in value with regards to future economic benefits related to the asset. Impairment is recognised if the carrying value of the asset exceeds the recoverable amount. The recoverable amount is the higher of the net selling price and its value in use. For these calculations, certain estimations must be made with regards to 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 useful life and are based on internal business plans or forecasts. Future cash flows are determined on the basis of long-term planning, valid at the date of preparation of the impairment test, and is approved by Management. The planning is based on expectations regarding future market share, the market growth as well as the products' profitability.

	Buildings and land[1) 2) 3)]	Machinery and equipment[1) 2) 3)]	Construction in progress	Right of use assets[1),4)]	Assets under operating leases[5)]	**Total**
Acquisition cost						
Balance at 1 January 2020	24,086	110,918	4,759	7,417	3,739	**150,919**
Additions	288	3,282	3,015	1,249	2,885	**10,719**
Acquired through business combinations	2	211	6	—	—	**219**
Divestments and disposals	–158	–2,826	–36	–343	–1,690	**–5,053**
Reclassifications[6)]	453	–8,060	–4,680	–16	—	**–12,303**
Effect of foreign currency exchange rate differences	–1,017	–2,214	–191	–299	–43	**–3,764**
Balance at 31 December 2020	**23,654**	**101,311**	**2,873**	**8,008**	**4,891**	**140,737**
Additions	487	3,901	3,428	1,396	5,747	**14,959**
Acquired through business combinations	534	4,186	13	1,231	562	**6,526**
Divestments and disposals	–1,243	–10,896	–83	–617	–13	**–12,852**
Reclassifications[6)]	531	8,562	–2,008	3	–2,682	**4,406**
Effect of foreign currency exchange rate differences	996	2,420	51	316	91	**3,874**
Balance at 31 December 2021	**24,959**	**109,484**	**4,274**	**10,337**	**8,596**	**157,650**
Accumulated depreciation and impairment						
Balance at 1 January 2020	–10,430	–65,810	—	–1,202	–496	**–77,938**
Depreciation expense	–864	–7,117	—	–1,271	–344	**–9,596**
Acquired through business combinations	–1	–92	—	—	—	**–93**
Divestments and disposals	86	1,726	—	367	436	**2,615**
Reclassifications[6)]	134	4,832	—	1	—	**4,967**
Effect of foreign currency exchange rate differences	269	914	—	65	3	**1,251**
Balance at 31 December 2020	**–10,806**	**–65,547**	—	**–2,040**	**–401**	**–78,794**
Depreciation expense	–893	–6,397	—	–1,387	–562	**–9,239**
Acquired through business combinations	–97	–984	—	–92	–107	**–1,280**
Divestments and disposals[1)]	800	6,332	—	102	1	**7,235**
Reclassifications[6)]	–44	–3,852	—	13	452	**–3,431**
Effect of foreign currency exchange rate differences	–216	–1,023	—	7	–6	**–1,238**
Balance at 31 December 2021	**–11,256**	**–71,471**	—	**–3,397**	**–623**	**–86,747**
Net balance at 31 December 2020	**12,848**	**35,764**	**2,873**	**5,968**	**4,490**	**61,943**
Net balance at 31 December 2021	**13,703**	**38,013**	**4,274**	**6,940**	**7,973**	**70,903**

1) Includes an impairment loss of SEK –89 (–22) m.
2) Volvo Car Group has no mortgages in Buildings and land or Machinery and equipment. For further information regarding pledged assets, see Note 29 – Pledged assets.
3) Volvo Car Group has capitalised borrowing costs related to Machinery and equipment amounted to SEK 2 (2) m.
4) For information about Right of use assets, see Note 7 – Leasing.
5) Assets under operating leases mainly relate to vehicles sold with repurchase commitments and contracts under the name of Care by Volvo.
6) Gross tangible assets of SEK –4,204 (–11,618) m and depreciation of SEK 1,162 (5,024) m with a net value of SEK –3,042 (–6,594) m, have been reclassified to assets held for sale. For more information, see Note 34 – Assets and liabilities held for sale.

NOTE 18 – OTHER NON-CURRENT ASSETS

	31 Dec 2021	31 Dec 2020
Restricted cash	137	133
Endowment insurance for pensions	395	379
Rental deposition	56	50
Other non-current assets	4,275	2,919
Total	**4,863**	**3,481**

NOTE 19 – INVENTORIES

ACCOUNTING POLICIES

Inventories consist 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 12 months, are also recognised 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). 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.

CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS

Inventories are measured at the lower of cost 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 decline 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.

	31 Dec 2021	31 Dec 2020
Raw materials and consumables	189	106
Work in progress	10,731	7,565
Current assets held under operating lease	6,147	8,186
Finished goods and goods for resale	19,536	19,656
Total[1]	**36,603**	**35,513**
Of which value adjustment reserve:	–713	–858

1) SEK 668 (968) m of recognised inventories have been reclassified to asset held for sale. For more information, see Note 34 – Assets and liabilities held for sale.

The cost of inventories recognised as an expense and included in cost of sales amounted to SEK 217,191 (208,121) m. Current assets held under operating lease consists of a sale of vehicles combined with a repurchase commitment with a maturity less or equal to 12 months.

NOTE 20 – ACCOUNTS RECEIVABLE AND OTHER CURRENT ASSETS

ACCOUNTING POLICIES

Accounts receivables are recognised at amortised cost. An allowance for expected credit loss is recognised when the receivable is initially recognised. The recognised allowance for credit losses are consisting of incurred as well as of expected credit losses. A credit loss has been incurred when there has been an event that has triggered the customers inability to pay. The expected credit loss allowance is based on a multiplier consisting of average historical write-offs and forward-looking macroeconomic data. In these cases there has not yet been any events incurred showing any inability to pay.

If it has been determined that an accounts receivable is uncollectible, it will be written off and removed. It usally means that collection have been unsuccessful and an entity has no reasonable expectations of recovering the contractual cash flows on the receivable in its entirety or a portion thereof.

	31 Dec 2021	31 Dec 2020
Accounts receivable, non-group companies	6,388	6,182
Accounts receivable, related companies	12,165	8,594
VAT receivables	2,367	1,827
Prepaid expenses and accrued income	4,532	2,305
Other financial receivables	184	272
Restricted cash	4	103
Other receivables[1]	4,751	4,905
Total[2]	**30,391**	**24,188**

1) Whereof other receivables from related companies amounted to SEK 479 (474) m.
2) SEK 29 (24) m of recognised other current assets have been reclassified to assets held for sale. For more information, see Note 34 – Assets and liabilities held for sale.

Accounts receivable amounted to SEK 18,553 (14,776) m including a credit loss allowance of SEK 127 (113) m in which SEK 34 (16) m is related to allowance for expected credit losses. As of 31 December 2021 the total credit loss allowance amounted to 0.68 (0.76) per cent of total accounts receivable.

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

Change in loss allowance for accounts receivable is as follows:	**2021**	2020
Balance at 1 January	113	128
Additions	53	57
Reversals	–18	–22
Write-offs	–23	–46
Translation difference	2	–4
Balance at 31 December	**127**	**113**

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
2021					
Accounts receivable gross	17,618	131	28	903	18,680
Loss allowance	–77	—	–5	–45	–127
Accounts receivable net	**17,541**	**131**	**23**	**858**	**18,553**
2020					
Accounts receivable gross	13,742	314	84	749	14,889
Loss allowance	–87	—	–1	–25	–113
Accounts receivable net	**13,655**	**314**	**83**	**724**	**14,776**

NOTE 21 – FINANCIAL RISKS AND FINANCIAL INSTRUMENTS

ACCOUNTING POLICIES

Financial assets and liabilities

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

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.

Financial assets in the consolidated balance sheet encompass interest-bearing investments, accounts receivables, other current and non-current financial assets, derivative assets and cash and cash equivalents. Derivatives include forwards, options, warrants and swaps.

Financial liabilities in the consolidated balance sheet encompass liabilities to credit institutions, issued bonds, accounts payables, other current and non-current financial liabilities and derivative liabilities, including issued warrants related to share-based incentive programme, see Note 8 – Employees and remuneration.

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. Measurement 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 measurement is based on the Black-Scholes model. This is the case also for unlisted warrants.

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 derived from the Credit Default Swap curve per counterparty to adjust the positive fair value on derivatives and commercial papers. The same adjustment for Volvo Car Group own credit risk is using the Default Probability of Volvo Car AB credit default swaps.

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 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 when the obligation in the contract has been fulfilled, cancelled or has expired.

Classification of financial assets and liabilities

Derivatives as well as some equity instruments are carried at fair value through the income statement.

Financial assets in the form of interest-bearing instruments are categorised as either an asset;

- carried at fair value through the income statement, or
- carried at amortised cost

The classification depends on the entity's applied business model and the contractual cash flow characteristics of the financial asset. Volvo Car Group applies different business models for interest-bearing instruments. Financial assets that are held for trading are carried at fair value through the income statement. In Volvo Car Group, this encompass interest-bearing investments such as commercial papers recognised as marketable securities and cash and cash equivalents. All remaining interest-bearing instruments are held to collect contractual cash flows and are carried at amortised cost.

Volvo Car Group classifies its financial liabilities as either:

- financial liabilities carried at fair value through the income statement, or
- other financial liabilities

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

Financial instruments carried at fair value through the income statement consists of derivatives, warrants on equity instruments, including issued warrants related to share-based incentive programme (see Note 8 – Employees and remuneration), equity investments as well as commercial papers 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. 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.

Financial assets carried at amortised cost

These assets include accounts receivables, other financial assets as well as time deposits recognised in marketable 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. Initially, these financial assets are recognised 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. 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. 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.

Other financial liabilities are recognised in the balance sheet at fair value less transaction costs and are subsequently measured at amortised cost.

Hedge accounting

Hedge accounting is applied when derivative instruments are included in a documented hedge relationship. For hedge accounting to be applied, a direct connection between the hedge instrument and the hedged item is required. At the inception of the hedge, Volvo Car Group documents the relationship between hedging instruments and hedged items, as well as its risk management strategy and objectives for undertaking various hedging transactions. Volvo Car 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.

Volvo Car Group designates certain derivatives and financial liabilities as either a:

a) Fair value hedge
b) Net investment hedge, or
c) Cash flow hedge

A hedge instrument is classified as a non-current asset or liability when the maturity of the hedged item is more than 12 months, and as a current asset or liability when the maturity is less than 12 months.

a) Fair value hedge

The purpose of a fair value hedge is to hedge the variability in the fair value of a fixed-rate debt (issued bond) from changes in the relevant benchmark yield curve for its entire term by converting fixed interest rate to a floating rate 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 recognised 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. 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 hedge

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 fair value changes on the hedge instrument are recognised in other comprehensive income.

In the event of a divestment, the accumulated hedge effect is transferred from the hedge reserve in equity to the income statement.

c) Cash flow hedge

Cash flow hedging refers to the hedging of expected future commercial cash flows in foreign currencies against currency rate risks, as well as for the purpose of hedging expected future commodity consumption against commodity price risk. In cash flow hedge accounting the changes in fair value of the hedging instruments is recognised in other comprehensive income and accumulated in the other reserves in equity. These reserves are recycled to the income statement in the same period as an underlying sales/cost of sales transaction is being recognised in the income statement. The effect from realised cash flow hedges is classified as 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 other comprehensive income to the income statement and are included in Operating income.

Benchmark rate reform

The interest rate benchmark reform refers to the transition from the existing interest rate benchmark, Interbank Offered Rates (IBOR), to new benchmark rates. During 2021 the administrators of benchmark rates announced that from the end of year 2021 it will stop publishing fixings for different currencies such as GBP, EUR, CHF, JPY and two-month and two-weeks USD LIBOR fixings. All remaining USD LIBOR fixings will be discontinued after June 2023. The Euro Overnight Interest Average (EONIA) has been replaced by the Euro short term-rate (ESTER). During 2021 a transition was initiated to a new method of determining STIBOR in accordance with the requirements of the interest rate reference reform. During 2021 a new overnight risk-free interest rate was presented; the Swedish krona Short Term Rate (SWESTR). The aim is to use this as an overnight risk-free interest rate and in the long run all STIBOR fixings will be transitioned.

To prepare for the Benchmark rate reform, the Volvo Car Group adopted early the Phase 1 amendments to IFRS 9 'Financial Instruments' and IFRS 7 'Financial Instruments: Disclosures' in 2019. These amendments provided relief from applying specific hedge accounting requirements to hedge relationships directly affected by benchmark rates reform and have the effect that the reform should generally not cause hedge accounting to terminate. There was no financial impact from the early adoption of these amendments. Further amendments (Phase 2) were issued on 27 August 2020 and the Volvo Car Group applied these in 2021.

CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS

Accounting for financial instruments includes performing certain estimates and judgements, among others:

- **Applied business model with regards to the measurement of interest-bearing instruments:** The main purpose of holding interest-bearing assets is to collect contractual cash flows of interest and principal. Sales of receivables are not performed in that magnitude that the business model could be challenged. A majority of interest-bearing assets will therefore be measured at amortised cost.
- **Derecognition of receivables:** Invoiced sales are in certain cases subject to contracts for factoring or other financing solutions with a third party (bank or financial institution). If the criteria for derecognition of receivable are not fulfilled, the receivable remains recognised on the balance sheet.
- **Other long-term securities holdings - recognition of fair value changes:** Volvo Car Group has holdings of listed and unlisted equity instruments as well as unlisted warrants and so called earn-out shares. The valuation of the unlisted warrants is measured in accordance with the Black-Scholes model and the most relevant fact is whether Volvo Car Group will fulfil the vesting criteria and when they would do so, the risk-free interest rate and volatility of the underlying share price. It is difficult to fair value the unlisted securities on a regularly basis as there is not available information. Therefore these holdings are remeasured each time a transaction is performed and makes a current value available to Volvo Car Group.

Financial risks

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 Volvo Cars 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 review every other year or when required. The policy is focused on minimising the effects from fluctuating financial markets on Volvo Car Group's financial earnings. Policy compliance is reported to the CFO on monthly basis; policy compliance is also a part of the general treasury reporting to the BoD. There is an alert function in place safeguarding mandate limits on a daily basis.

Currency risk

The currency exposure arises from 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 purchases in foreign currencies (transaction risk)
- Changes in value of assets and liabilities denominated 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 Volvo Car 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 24 months and up to 60 per cent of the future expected cash flows in the coming 25 to 48 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 48 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, FX rates, market volatility and correlations.

The steering model for hedging of transaction risk is stipulated in the Volvo Car 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 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	
	2021	2020	**2021**	2020
CNY	25%	27%	24%	27%
EUR	24%	25%	50%	48%
GBP	6%	7%	1%	1%
JPY	3%	3%	7%	8%
USD	21%	19%	12%	11%
Other	21%	19%	6%	5%

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. Hedging of the currency risk in the Chinese industrial entities can be made onshore in China.

The CFaR at year end for the cash flows in one year for the Group, excluding hedges, was approximately SEK 6,498 (4,430) m. The table below shows the percentage of the forecasted cash flows that were hedged expressed both in nominal terms and in CFaR.

	0–12 months		13–24 months		25–48 months	
	2021	2020	**2021**	2020	**2021**	2020
Nominal hedge, %	56	50	20	19	—	1
CFaR hedge %	46	41	16	13	—	1

Hedge accounting – cash flow hedge

The highly probable forecast transactions in foreign currencies that are hedged are expected to occur at various dates during the next 48 months. Gains and losses recognised in other comprehensive income and accumulated in other reserves in equity on foreign exchange forward contracts as of 31 December 2021 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 below.

As of 31 December 2021, the cash flow hedge reserve related to currency hedges amounts to SEK –1,875 (578) m before tax. The fluctuation from 31 December 2020 to 31 December 2021 within the hedge reserve that has had an impact on other comprehensive income in 2021 is SEK –2,453 (6,036) m before tax. The balance of SEK –1,875 (578) m represents the fair value of derivatives used for cash flow hedging per 31 December 2021.

Prospective effectiveness testing is performed at inception of the hedge and on an aggregated level on a monthly basis. The test is performed by comparing the critical terms (nominal amount, timing, and foreign currency) of the hedging instrument and the hedged item. If critical terms match and the credit risk of the counterparty has not changed significantly, the hedge relationship is highly effective.

Fair value of currency derivatives for cash flow hedging	**2021**	2020
Hedge reserve	–1,875	578
Recognised in other comprehensive income	**–1,875**	**578**
Time value in options and cross currency options	—	–1
Recognised in other operating income and expenses	**—**	**–1**
Total fair value	**–1,875**	**577**

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

Maturity	AUD	EUR	GBP	JPY	KRW	NOK	USD	TWD	CNY	PLN
Average hedge rate	6.43	10.24	11.86	7.87	0.0075	1.00	8.85	0.32	1.30	2.21
1–12 months	–496	2,946	–1,107	73,655	–331,717	–3,672	–1,796	– 8,506	–3,638	–800
13–24 months	–302	909	–612	23,377	–26,998	–500	–243	–5,210	—	—
25–36 months	—	—	—	—	—	—	—	—	—	—
37–48 months	—	—	—	—	—	—	—	—	—	—

The average duration of the portfolio was nine (10) months. The fair value of the outstanding currency derivatives as at 31 December 2021 amounted to SEK –1,875 (578) m.

Translation exposure risk

Volvo Car Group Financial Policy Framework

Translation risk in Volvo Car Group relates to the translation of net investments in foreign operations and translation risk of assets and liabilities in foreign currencies related to the operations. The translation of net investments in foreign operations 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.

A one per cent change in the Swedish krona against major currencies has a net impact on other comprehensive income of approximately SEK 395 (450) m. Part of the investments in operations in the Eurozone and Americas are hedged which is 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 SEK 4,375 (–3,401) m. This effect is recognised in other comprehensive income.

Status at year end

The table below shows the translation exposure of net investments in foreign operations as of 31 December 2021.

	CNY	EUR	USD	JPY	MYR	Other	Total
Investments in foreign operations (SEKm)	26,179	9,001	–1,111	906	849	3,684	39,508
Translation exposure	**26,179**	**9,001**	**–1,111**	**906**	**849**	**3,684**	**39,508**

Hedge accounting – hedge of net investments in foreign operations

Hedge accounting is applied for net investment in foreign operations. Volvo Car Group designates EUR 320 m of the EUR debt and USD 200 m of the USD debt to reduce the translation exposure on net investments in EUR and USD. The exchange rate from the translation of the net investments in operations in EUR and USD are recognised in other comprehensive income. The hedge reserve for net investment in foreign operations, included in equity in the currency translation reserve, as of 31 December 2021 amounts to SEK –514 (–252) m before tax. No ineffectiveness has affected net income for 2021 or 2020.

Fair value of financial instruments for hedging of net investment in foreign operations	2021	2020
Hedge reserve	–514	–252
Recognised in other comprehensive income	**–514**	**–252**
Total fair value	**–514**	**–252**

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 long-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 31 December 2021 is 33.5 (26.8) per cent, whereof shareholders' equity amounted to SEK 94,978 (70,418) m.

Funding risk management

Volvo Car Group Financial Policy Framework

Funding risk is the risk that the Volvo Car 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 12 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 12 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

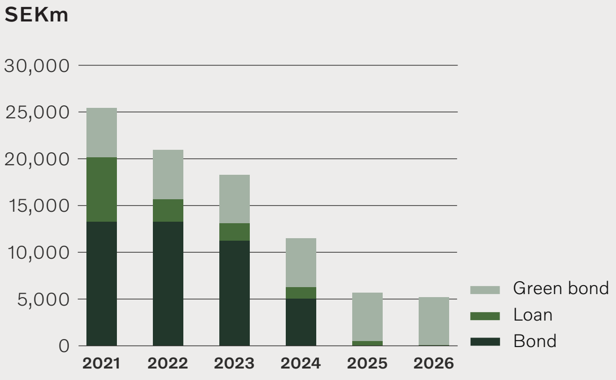
In December 2021, the two bonds maturing in March 2022 with a total outstanding nominal amount of SEK 3,000 m were repaid early by exercising the embedded call option of the bonds.

As of 31 December 2021 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 2021 was SEK 25,424 (34,396) m. During 2021 loans of SEK 10,788 (3,608) m matured or amortised. Remaining credit duration of the outstanding facilities was 2.8 (2.8) years. Debt maturing over the next 12 months was at year end 18 per cent. 55 per cent of the Volvo Car Group's long- term debt is refinanceable within three years. Mitigating actions are ongoing in this regard.

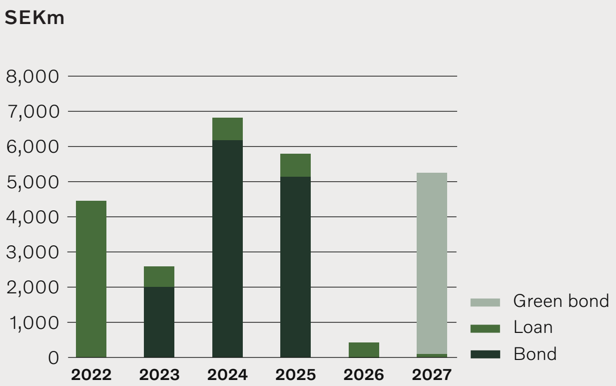
Outstanding debt is shown below.

Funding	Currency	Nominal amount in respective currency (million)	SEKm
Bank loan	USD	210	1,906
Bank loan	SEK	5,013	5,013
Bond	EUR	1,100	11,319
Bond	SEK	2,000	2,000
Green bond	EUR	500	5,145
Other	PLN	18	41
Total			**25,424**

Outstanding bonds and liabilities to credit institutions (at successive year end)



Bank 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 measurements such as EBITDA and Net debt. As of 31 December 2021 there is substantial headroom in the fulfilment of all covenants.

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 Revenue. The rolling 12 months cash flow forecasts are the basis for the risk assessment of the liquidity risk management.

Volvo Car Group has the following undrawn committed credit facilities (SEK m):	31 Dec 2021	31 Dec 2020
– Expiring after one year but within five years	13,377	23,698
– Expiring after five years	—	1,002
Total	**13,377**	**24,700**

Status at year end

In January 2021, Volvo Cars signed a sustainability-linked revolving credit facility of EUR 1, 300 m refinancing its existing revolving credit facility from 2017. The revolving credit facility is a three-year facility with two one-year extension options. The first option was utilised in November and as a result extended the revolving credit facility to 2025. As of 31 December 2021, Volvo Car Group had committed credit facilities and cash and marketable securities available of SEK 83,638 (94,379) m, approximately 30 (36) per cent of Revenue. In 2021, cash and cash equivalent increased with SEK 19,900 m partly due to new share issue of SEK 20 bn when Volvo Cars was listed on the Nasdaq Stockholm stock exchange, securing the funding of Volvo Car Group's transformation strategy and the delivery of its mid-decade ambitions. The liquidity of Volvo Car Group is strong considering the maturity profile of the external borrowings, the balance of cash and cash equivalents, marketable securities and available credit facilities from banks.

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

	2021				2020			
31 Dec 2021	Less than 3 months	3 months to 1 year	1–5 years	Over 5 years	Less than 3 months	3 months to 1 year	1–5 years	Over 5 years
Assets								
Receivables on parent company	—	—	—	—	—	—	—	—
Other long-term securities holdings	—	—	153	277	—	—	243	464
Derivative assets	—	—	169	—	—	—	1,261	16
Other non-current assets	—	—	8,636	375	—	—	2,809	483
Total non-current financial assets	—	—	**8,958**	**652**	**—**	**—**	**4,313**	**963**
Accounts receivable	17,494	1,059	—	—	13,957	819	—	—
Derivative assets	244	580	—	—	210	508	—	—
Other current assets	2,179	2,653	—	—	1,982	3,035	—	—
Marketable securities	3,864	4,132	—	—	2,639	5,448	—	—
Cash and cash equivalents	62,265	—	—	—	61,592	—	—	—
Total current financial assets	**86,046**	**8,424**	—	—	**80,380**	**9,810**	—	—
Total financial assets	**86,046**	**8,424**	**8,958**	**652**	**80,380**	**9,810**	**4,313**	**963**
Liabilities								
Bonds[1]	—	—	13,256	5,145	138	319	12,308	10,228
Liabilities to credit institutions[1]	—	—	2,443	99	—	—	5,758	223
Derivative liabilities	—	—	329	19	—	—	300	—
Other non-current interest bearing liabilities	—	—	3,688	1,821	—	—	2,975	1,756
Other non-current liabilities	—	—	6,035	5	—	—	4,657	5
Total non-current financial liabilities	—	—	**25,751**	**7,089**	**138**	**319**	**25,998**	**12,212**
Bonds[1]	—	—	—	—	—	5,086	—	—
Liabilities to credit institutions[1]	2	4,469	—	—	357	2,294	—	—
Accounts payable	44,465	3,817	—	—	45,451	1,184	—	—
Derivative liabilities	1,001	1,311	—	—	1,076	629	—	—
Other current interest bearing liabilities	323	1,154	—	—	281	879	—	—
Other current liabilities[1]	6,099	5,669	—	—	4,681	7,529	—	—
Total current financial liabilities	**51,890**	**16,420**	—	—	**51,846**	**17,601**	**—**	**—**
Total financial liabilities	**51,890**	**16,420**	**25,751**	**7,089**	**51,984**	**17,920**	**25,998**	**12,212**

1) Including interest.

Interest rate risk management

Changes in interest rates 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 12 months. The policy allows a deviation of –9/+12 months from the benchmark. The interest rate strategy shall be proposed by Group Treasury and approved by the CFO. The hedging strategy shall be revised at least quarterly.

Status at year end

As of 31 December 2021 Volvo Car Group's interest-bearing assets consisted of cash in the form of cash at bank, short-term deposits and commercial papers. The average interest fixing term on these assets was less than one (one) month. The average interest fixing term on debt was around 24 (24) months. At year end the duration of the net debt position was 23 (22) months. The average cost of borrowing was 2.2 (2.5) per cent.

To manage interest rate risk, the Volvo Car Group uses interest rate swaps.

The table below shows the estimated effect in SEKm 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	**2021**	2020
Market rate +1%	–41	–22
Market rate –1%	41	17

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.

During 2021 the EUR 500 m bond issued in May 2016 matured. Volvo Car Group hedged the fair value risk of the bond by using interest rate swaps, the bond with fixed interest payments has been swapped into floating interest. Hedge accounting has not been applied on other bonds.

Benchmark rate reform

The implications on the wider business of IBOR reform have been assessed and the Volvo Car Group have been preparing to move to the new benchmark rates during 2021. The change of reference rate due to the upcoming IBOR transition does not affect future cash flows on interest income and interest expense which means Volvo Car Group expects continued 100 percent effectiveness of the hedges and no net interest impact. Volvo Car Group is exposed to external interest rate risk in EUR, SEK and USD from EURIBOR, STIBOR and USD LIBOR benchmarks respectively, however there is no expected cash flow risk as these benchmarks are not to be discontinued in the short-term and will therefore continue to decide interest cash flows. Volvo Car Group expect however a minor valuation effect from the discounting of future cash flows using new risk-free rate curves in 2022.

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.

The tables represents the exposure of interest rate benchmark reform by balance sheet account, which have yet to transition. The exposure disclosed is for positions with contractual maturities after 31 December 2021. Balances reported at amortised cost are disclosed at their gross carrying value. Balances reported at fair value are disclosed at their fair value on the balance sheet date.

	Carrying Value at 31 December 2021				
	USD IBOR	EUR IBOR	SEK IBOR	Balance not subject to IBOR reform	Total
Non-derivatives financial assets					
Marketable securities	1,814	4,322	1,860	—	**7,996**
Cash and cash equivalents[1]	2,267	3,396	156	56,446	**62,265**
Non-derivatives financial liabilties[2]					
Other liability	1,904	16,422	7,010	79	**25,415**

	Carrying Value at 31 December 2021				
	USD IBOR	EUR IBOR	SEK IBOR	Balance not subject to IBOR reform	Total
Derivatives					
Derivative instruments for hedging of currency risk in future commercial cash flows[2]	—	—	–1,545	–311	**–1,856**
Derivative instruments for hedging of currency risk related to financial assets and liabilities	—	—	51	—	**51**
Derivative instruments for hedging of interest rate risk	—	–13	—	—	**–13**
Commodity derivatives	—	—	150	—	**150**
Total	**—**	**–13**	**–1,344**	**–312**	**–1,668**

1) Mainly commercial papers are affected by the IBOR transition.
2) Including Debit valuation adjustment (DVA).

Volvo Car Group Financial Policy Framework
Forecasted cash flows in commodities for the coming 48 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
Raw material
In 2021, Volvo Car Group had cost for raw materials of approximately SEK 32,450 (17,369) m. A one per cent change in the prices of raw materials has an impact on operating income of approximately SEK 140 (105) m.

Volvo Car Group manages risk of changes in raw material prices in the forecasted consumption with forwards and futures contracts.

Electricity
Volvo Car Group manages the changes in prices for electricity by using forward contracts. The hedging is performed for the electricity usage in the European factories and is managed under an advisory contract. The highly probable forecast transactions in electricity consumption that are hedged are expected to occur in any chosen calendar quarter during the next 48 months.

The hedging instruments used are bilateral over-the-counter (OTC) contracts.

A one per cent change in the electricity spot price has an impact on other comprehensive income of SEK 3 (2) m.

Hedge accounting – cash flow hedge of commodity price risk
Hedge accounting is applied for cash flow hedging of commodity 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 commodity 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 in which the hedged forecast transaction affects the income statement. Any ineffectiveness in a hedge relationship is recognised in the income statement.

As of 31 December 2021 the cash flow hedge reserve related to commodity hedges, included in other reserves in shareholders' equity, amounts to SEK 150 (12) m before tax. Ineffectiveness has affected net income for 2021 and amounts to SEK — (–1) m.

Fair value of derivatives for commodity hedging	2021	2020
Hedge reserve	150	12
Recognised in other comprehensive income	**150**	**12**
Non hedge accounting	—	—
Recognised in other operating income and expenses	**—**	**—**
Total fair value	**150**	**12**

Credit risk management
Volvo Car Group's credit risk can be divided into 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 Volvo Car 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 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. Subsidiary bank balances are diversified in order to limit credit risk.

Status at year end
As of 31 December 2021, the maximum amount exposed to financial credit risk amounts to SEK 71, 254(71,674) m. This encompass cash and cash equivalents SEK 62,265 (61,592) m, investments in marketable securities SEK 7,996 (8,087) m and fair value of outstanding derivative assets SEK 993 (1,995) m. 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 or 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
31 December 2021					
Derivative assets	993	—	993	–838	155
Derivative liabilities	2,661	—	2,661	–838	1,823
31 December 2020					
Derivative assets	1,995	—	1,995	–1,384	611
Derivative liabilities	2,005	—	2,005	–1,384	621

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 operational credit risk is the carrying amount of accounts receivables, 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: Instruments are measured based on quoted prices (unadjusted) in active markets for identical assets or liabilities that the entity can access at the measurement date.
- Level 2: Instruments are measured based on inputs other than quoted market prices included within Level 1 that are observable for the asset or liability, either directly or indirectly
- Level 3: Instruments are measured based on unobservable inputs for the asset or liability.

Most derivative, financial instruments and commercial papers that Volvo Car Group holds as of 31 December 2021 belong to level 2. See section Accounting policies for valuation technique for these instruments. Investments in other long-term securities amounted to SEK 1,765 (2,449) m whereof SEK 750 (1,208) m are holdings categorised as level 1 financial instruments and SEK 1,015 (1,241) m are categorised as level 3 financial instruments. The most substantial level 3 investment is that of unlisted share warrants in the listed company Luminar. The measurement of these instruments is as of 31 December 2021 based on:

- The probability of whether Volvo Car Group will fulfil contractual terms and when in time we would do this.
- The risk-free interest rate for which have been determined to 0.4 per cent and 1.2 per cent.
- Volatility of the underlying share price which has been determined at 94 per cent.

There are also traditional holdings of equity instruments in Luminar. The Luminar stock became listed in December 2020. Before the listing, the equity holdings in Luminar were categorised as a level 3 instrument but have now become a level 1 instrument. Transfers between the levels of the fair value hierarchy have occurred during 2021 for received earn-outs shares of a total amount of SEK 74 m. The fair value for share warrants and earn-out share rights in the level 3 category financial instruments as per 31 December 2021 amounts to SEK 431 (874) m and the financial income of the same instruments recognised in the income statement is SEK –369 (874) m. The share warrants as of 31 December 2021 were deep in the money with a strike price well under the current list price.

There are also other holdings of non-listed equity instruments that are categorised as level 3 and they are measured at fair value when there is information available indicating that the value has changed, for example if there has been a transaction in the instrument during the period.

Sensitivity analysis for warrants (SEKm)

	Likelihood of triggering event				
Volatility	–10%	–5%	0%	5%	10%
–10%	367	394	420	446	473
–5%	371	398	425	452	478
94%	376	403	430	456	483
5%	381	408	435	463	490
10%	385	413	441	468	496

Fair value estimation

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

31 December 2021	Level 1	Level 2	Level 3	Total
Derivative instruments for hedging of currency risk in future commercial cash flows	—	773	—	**773**
Derivative instruments for hedging of currency risk related to financial assets and liabilities	—	63	—	**63**
Derivative instruments for hedging of interest rate risk	—	6	—	**6**
Commodity derivatives	—	151	—	**151**
Commercial papers[1]	—	2,692	—	**2,692**
Other long-term securities holdings	750	—	1,015	**1,765**
Total assets	**750**	**3,685**	**1,015**	**5,450**
Derivative instruments for hedging of currency risk in future commercial cash flows	—	2,629	—	**2,629**
Derivative instruments for hedging of currency risk related to financial assets and liabilities	—	12	—	**12**
Derivative instruments for hedging of interest rate risk	—	19	—	**19**
Commodity derivatives	—	1	—	**1**
Total liabilities	—	**2,661**	—	**2,661**

31 December 2020	Level 1	Level 2	Level 3	Total
Derivative instruments for hedging of currency risk in future commercial cash flows	—	1,907	—	**1,907**
Derivative instruments for hedging of currency risk related to financial assets and liabilities	—	4	—	**4**
Derivative instruments for hedging of interest rate risk	—	42	—	**42**
Commodity derivatives	—	42	—	**42**
Commercial papers[1]	—	1,526	—	**1,526**
Other long-term securities holdings	1,208	—	1,241	**2,449**
Total assets	**1,208**	**3,521**	**1,241**	**5,970**
Derivative instruments for hedging of currency risk in future commercial cash flows	—	1,341	—	**1,341**
Derivative instruments for hedging of currency risk related to financial assets and liabilities	—	634	—	**634**
Commodity derivatives	—	30	—	**30**
Total liabilities	**—**	**2,005**	**—**	**2,005**

1) Whereof SEK 1,860(750) m are reported as marketable securities in the balance sheet and SEK 832 (776) m 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
31 December 2021							
Receivables on parent company	—	—	—	—	—	**—**	—
Other long-term securities holdings	1,765	—	—	—	—	**1,765**	1,765
Other non-current assets	—	—	—	9,011	—	**9,011**	9,011
Accounts receivable	—	—	—	18,553	—	**18,553**	18,553
Derivative assets	275	718	—	—	—	**993**	993
Other current assets	—	—	—	4,832	—	**4,832**	4,832
Marketable securities	1,860	—	—	6,136	—	**7,996**	7,996
Cash and cash equivalents	832	—	—	61,433	—	**62,265**	62,265
Total financial assets	**4,732**	**718**	—	**99,965**	—	**105,415**	**105,415**
Bonds and liabilities to credit institutions[1]	—	—	—	—	25,415	**25,415**	26,362
Other non-current liabilities	—	—	154	—	5,885	**6,039**	6,039
Accounts payable	—	—	—	—	48, 283	**48,283**	48,283
Derivative liabilities	221	2,440	—	—	—	**2,661**	2,661
Other current liabilities	—	—	—	—	11,767	**11,767**	11,767
Total financial liabilities	**221**	**2,440**	**154**		**91,350**	**94,165**	**95,112**
31 December 2020							
Receivables on parent company	—	—	—	—	—	**—**	—
Other long-term securities holdings	2,449	—	—	—	—	**2,449**	2,449
Other non-current assets	—	—	—	3,292	—	**3,292**	3,292
Accounts receivable	—	—	—	14,776	—	**14,776**	14,776
Derivative assets	181	1,814	—	—	—	**1,995**	1,995
Other current assets	—	—	—	5,017	—	**5,017**	5,017
Marketable securities	750	—	—	7,337	—	**8,087**	8,087
Cash and cash equivalents	776	—	—	60,816	—	**61,592**	61,592
Total financial assets	**4,156**	**1,814**	—	**91,238**	—	**97,208**	**97,208**
Bonds and liabilities to credit institutions[1]	—	—	—	—	34,361	**34,361**	35,252
Other non-current liabilities	—	—	154	—	4,508	**4,662**	4,662
Accounts payable	—	—	—	—	46,635	**46,635**	46,635
Derivative liabilities	782	1,223	—	—	—	**2,005**	2,005
Other current liabilities	—	—	—	—	12,210	**12,210**	12,210
Total financial liabilities	**782**	**1,223**	**154**	—	**97,714**	**99,873**	**100,764**

1) The carrying amount of the bonds are presented above including a fair value adjustment amounting to SEK — (7) m, which relates to the fair value hedge, see 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.

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Nominal amounts and fair values of derivative instruments	31 December 2021		31 December 2020	
	Nominal amount	Fair value	Nominal amount	Fair value
Derivative instruments for hedging of currency risk related to financial assets and liabilities				
Foreign exchange swaps and forward contracts				
– receivable position	8,209	63	1,152	5
– payable position	4,944	–12	30,272	–634
Subtotal	**13,153**	**51**	**31,424**	**–629**
Derivative instruments for hedging of currency risk in future commercial cash flows				
Foreign exchange swaps and forward contracts				
– receivable position	30,121	568	39,660	1,785
– payable position	61,815	–2,430	32,094	–1,194
Currency options				
– receivable position	3,988	205	4,297	121
– payable position	4,989	–199	6,220	–147
Subtotal	**100,913**	**–1,856**	**82,271**	**565**
Derivative instruments for hedging of interest rate risk				
Interest rate swaps				
– receivable position	1,029	6	7,518	42
– payable position	1,544	–19	—	—
Subtotal	**2,573**	–13	**7,518**	**42**
Derivative instruments for hedging of commodity price risk				
Forward contracts				
– receivable position	543	151	157	42
– payable position	40	–1	184	–30
Subtotal	**583**	**150**	**341**	**12**
Total	**117,222**	**–1,668**	**121,554**	**–10**

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	2021			2020		
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 currency and commodity risk[1)]	–2,302	—	—	–3,335	—	—
Financial assets carried at amortised cost, other financial liabilities						
Accounts receivable/accounts payable[2), 3)]	1,576	—	—	–1,001	—	—
Impact on operating income	**–726**			**–4,336**		
Recognised in financial items						
Financial assets and liabilities at fair value through the income statement						
Derivative instruments for hedging of currency risk[5)]	1,638	—	—	–880	—	—
Derivative instruments for hedging of interest rate risk[5)]	–48	17	—	24	17	—
Financial liabilities at fair value through profit and loss	–271	—	—	–32	—	—
Financial assets at fair value through profit and loss[4)]	–777	—	—	1,948	—	—
Marketable securities	291	—	—	–133	37	—
Financial assets carried at amortised cost, other financial liabilities						
Financial assets carried at amortised cost	—	—	—	–384	—	—
Cash and cash equivalents[2)]	1,568	474	—	–1,126	377	—
Other liabilities including currency effects[2)]	–3,259	126	–857	2,462	—	–806
Impact on financial items	**–858**	**617**	**–857**	**1,879**	**431**	**–806**

1) Derivative instruments for hedging of currency and commodity risk for future commercial cash flows rerouted from the hedge reserve, including time value in options and cross currency options.
2) The total income and expenses from items that are not measured at fair value through income statement amounts to SEK 3,743 (2,839) m and SEK –4,115 (–3,317) respectively.
3) Unrealised and realised foreign exchange effect on accounts receivable and accounts payable.
4) Including fair value changes related to warrants and earn-out shares in Luminar.
5) Related to financial assets and liabilities.

NOTE 22 – MARKETABLE SECURITIES AND CASH AND CASH EQUIVALENTS

ACCOUNTING POLICIES

Marketable securities

Marketable securities are financial instruments that can be readily converted into cash. The maturities tend to be less than one year. In Volvo Car Group, marketable securities comprise of interest-bearing investments with a term of more than three months from acquisition date.

Cash and cash equivalents

Cash and cash equivalents consist of cash and bank balances as well as short-term investments in the form of commercial papers with a maturity of maximum 90 days from the date of acquisition and are subject to an insignificant risk of fluctuations in value.

Marketable securities	31 Dec 2021	31 Dec 2020
Commercial papers	1,860	750
Time deposits in banks	6,136	7,337
Total	**7,996**	**8,087**

Cash and cash equivalents	31 Dec 2021	31 Dec 2020
Cash in banks	39,210	41,168
Time deposits in banks	22,223	19,648
Commercial papers	832	776
Total[1]	**62,265**	**61,592**

1) SEK 48(96) m have been reclassified to asset held for sale. For more information, please see Note 34 – Assets and liabilities held for sale.

Cash and Cash equivalents includes SEK 3,881 (2,458) m 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 Volvo Car Group's operation in the respective country.

NOTE 23 – EQUITY

ACCOUNTING POLICIES

Equity

An equity instrument is any contract that constitutes a residual interest in the net assets of an entity. Volvo Car AB (publ.) had issued preference shares recognised as equity instruments but during October 2021 these preference shares were redeemed. Preference shares are equity instruments as long as fundamental criteria for classification as equity is fulfilled. 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.

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.

CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS

Volvo Car Group had issued convertible preference shares and during October 2021 Volvo Cars exercised its call option and the preference shares were redeemed. Based on the fact, there were no unconditional obligation for Volvo Car Group to make any payments to the investors during the contract period, hence the instruments were classified as equity instruments.

The preference shares constituted equity instruments, since payment of dividends was 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. When the conversion of preference shares into ordinary shares occurred, the conversion ratio on Volvo Car Group level was fixed. The conversion of preference shares to ordinary shares was subject to a decision by the annual general meeting.

The share capital consists of 2,979,524,179 common shares of class B. Each share carries one vote. A common share of class B entitles its holder to a dividend that is determined in due course. All issued shares are fully paid.

In 2019, a directed new issue of 1,138,794 convertible preference shares was made, whereby SEK 5,011 m (reduced by transaction costs) was added to equity of Volvo Car Group. During 2021 the preference shares were redeemed.

In 2021, Volvo Car AB (publ.) was listed on the Nasdaq Stockholm, first day of trading was 29th of October. A new issue of 377,358,490 common shares of class B, at subscription price of SEK 53 per share, was made whereby SEK 20,000 m (reduced by transaction costs) was added to equity of Volvo Car Group.

A directed new issue to preference shareholders of 100,443,786 common shares of class B was made, whereby SEK 5,324 m was added to equity of Volvo Car Group.

As part of the listing a conversion of 12,735,850 common shares of class A to 12,735,850 common shares of class B on a 1:1 basis was made. At the same time a split of common shares of class A and B on a 50:1 was carried out. After the share split, an additional conversion of 1,863,207,500 common shares of class A to 1,863,207,500 common shares of class B on a 1:1 basis was made.

In connection with the listing of the common shares of class B on Nasdaq, Stockholm, shares held in Volvo Car Corporation by a number of current and former members of the EMT and the Board as a consequence of their private investments under a previous investment programme in Volvo Car Corporation was exchanged for 1,721,903 common shares of class B in Volvo Car AB (publ.) through an issue in kind.

Outstanding shares	31 Dec 2021	31 Dec 2020
Common shares of class A	—	50,000,000
Common shares of class B	2,979,524,179	—
Preference shares class C	—	1,138,794
Total number of shares	**2,979,524,179**	**51,138,794**

Share capital trend

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
06	2010	Start date	100,000	100,000	1.00	100,000	100,000
05	2016	Bonus issue	—	100,000	5.00	400,000	500,000
12	2016	Split	400,000	500,000	1.00	—	500,000
12	2016	Bonus issue	49,500,000	50,000,000	1.00	49,500,000	50,000,000
12	2016	Directed new issue of preference shares	500,000	50,500,000	1.00	500,000	50,500,000
12	2019	Redemption of preference shares	–500,000	50,000,000	1.00	–500,000	50,000,000
12	2019	Directed new issue of preference shares	1,138,794	51,138,794	1.00	1,138,794	51,138,794
10	2021	Redemption of preference shares	–1,138,794	50,000,000	1.00	–1,138,794	50,000,000
10	2021	Bonus issue	—	50,000,000	1.02	1,138,794	51,138,794
10	2021	Conversion of common shares of class A to common shares of class B	—	50,000,000	1.02	—	51,138,794
10	2021	Share split	2,450,000,000	2,500,000,000	0.02	—	51,138,794
10	2021	New issue	377,358,490	2,877,358,490	0.02	7,719,063	58,857,857
10	2021	Issue in kind	1,721,903	2,879,080,393	0.02	35,222	58,893,079
10	2021	Directed new issue to preference shareholders	100,443,786	2,979,524,179	0.02	2,054,630	60,947,709
10	2021	Conversion of common shares of class A to common shares of class B	—	2,979,524,179	0.02	—	60,947,709

The share premium relates to issue in kind attributable to Zhejiang Geely Holding Group Co., Ltd's acquisition in year 2010. Share premium also include 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 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 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 mainly 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 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 decreased during the year 2021 due to a dividend paid of SEK 9,199 (—) m from Daqing Volvo Car Manufacturing Co., Ltd and SEK 492 (—) m from Zhangjiakou Volvo Car Engine Manufacturing Co., Ltd to its shareholder Zhejiang Geely Holding Group Co., Ltd. In July 2021 the non-controlling interest increased through a direct share issue in Zenseact AB of SEK 907 (—) m and in September 2021 through a capital contribution to HaleyTek AB of SEK 360 (—) m from ECARX Technology Co., Ltd.

In September 2021, the wholly-owned subsidiary Volvo Car Retail AB acquired the 50 per cent non-controlling interest in Bra Bil Sverige AB, resulting in a divestment of non-controlling interests of SEK – 228 m. See Note 8 – Participation in subsidiaries (Parent company) for further information. In year 2021 Bra Bil Sverige AB paid dividend of SEK 17 (4) m to its shareholders.

At year end 2021, non-controlling interests amounted to SEK 4,560 (11,006) m.

Total equity consists of the equity attributable to the owners of the parent company and non-controlling interests. At year-end 2021, the Volvo Car Group's total equity amounted to SEK 94,978 (70,418) m.

NOTE 24 – POST EMPLOYMENT BENEFITS

ACCOUNTING POLICIES

Pension 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 for qualifying employees in some subsidiaries and the largest plans are in Sweden and Belgium.

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. For funded defined benefits plans, plan 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 obligations is performed according to the Projected Unit Credit method. 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 bonds, or when these are 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 below.

Actuarial gains and losses arising from changes in actuarial assumptions and adjustments based on experience are charged or credited to other 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

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

CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS

The value of defined benefit obligations is determined through actuarial calculations performed by independent actuaries. The calculations are based on different assumptions and estimates, for instance with regards to 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 decrease in the discount rate increases the present value of post-employee benefits obligations while an increase in the discount rate has the opposite effect.

Description of the substantial pension schemes within Volvo Car Group is presented below.

Sweden

In Sweden, Volvo Car Group has seven retirement plans of which four 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. 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. In Sweden, these plans 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 2021, Volvo Car Group did not have access to the information to report its proportionate 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. Volvo Cars estimates payments of premiums of about SEK 168 m to Alecta in 2022. Volvo Car Group's share of the total saving premiums for ITP2 in Alecta as at 31 December 2021 amounted to 0.32 (0.22) per cent and Volvo Car Group's share of the total number of active policy holders amounted to 1.42 (1.56) 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 is normally allowed to vary between 125 and 175 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 2021, the consolidation level amounted to 172 (148) 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 which are all 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 provision for post-employment benefits have been recognised in the balance sheet as follows:

	31 Dec 2021	31 Dec 2020
Post-employment benefits	11,961	14,187
Other provisions (Note 25)	395	379
Closing balance	**12,356**	**14,566**

The tables below show Volvo Car Group's provision for post employment benefits, the assumptions used to calculate the value of these provisions and the plan assets related to these provisions, as well as the amounts recognised in the income statement. Volvo Car Group's reported pension provision amounts to SEK 12,356 (14,566) m in total, which includes endowment insurances and similar undertakings amounting to SEK 395 (379) m 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	**31 Dec 2021**	**31 Dec 2021**	**31 Dec 2021**	31 Dec 2020	31 Dec 2020	31 Dec 2020
Amounts recognised in the statement of financial position						
Defined benefit obligation	28,167	19,891	4,266	29,093	20,912	4,297
Fair value of plan assets	16,206	9,760	3,379	14,906	9,239	3,116
Funded status	**11,961**	**10,131**	**887**	**14,187**	**11,673**	**1,181**
Net provision (asset) as recorded in the balance sheets	**11,961**	**10,131**	**887**	**14,187**	**11,673**	**1,181**
Principal actuarial assumptions						
Weighted average assumptions to determine benefit obligations						
Discount rate, %	1.84	2.00	1.10	1.34	1.45	0.73
Rate of salary increase, %	3.10	3.15	2.91	2.98	3.00	2.91
Rate of price inflation, %	1.88	1.75	1.75	1.72	1.60	1.75
Rate of pension indexation, %	1.89	1.75	N/A	1.73	1.60	N/A

The actuarial assumptions are the most significant assumptions applied when calculating the value of a defined benefit pension plan. Volvo Car Group determines the discount rate based on AA-rated corporate bonds and mortgage 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.

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	Total	of which Sweden	of which Belgium	Total	of which Sweden	of which Belgium
Financial year ending on	**31 Dec 2021**	**31 Dec 2021**	**31 Dec 2021**	31 Dec 2020	31 Dec 2020	31 Dec 2020
Change in defined benefit obligation						
Defined benefit obligation at end of prior year	29,093	20,912	4,297	27,345	19,145	4,227
Service cost	1,103	867	176	1,030	793	183
Interest expense	389	304	31	430	323	35
Cash flows	–566	–326	–89	–626	–310	–119
Increase due to effect of business combination	201	201	—	—	—	—
Remeasurements	–2,479	–2,067	–261	1,469	961	158
Effect of changes in foreign exchange rates	426	—	112	–555	—	–187
Defined benefit obligation at end of year	**28,167**	**19,891**	**4,266**	**29,093**	**20,912**	**4,297**
Change in fair value of plan assets						
Fair value of plan assets at end of prior year	14,906	9,239	3,116	14,762	8,873	3,046
Interest income	198	134	24	236	151	27
Cash flows	98	91	83	–57	—	67
Remeasurements	652	296	70	383	215	112
Effect of changes in foreign exchange rates	352	—	86	–418	—	–136
Fair value of plan assets at end of year	**16,206**	**9,760**	**3,379**	**14,906**	**9,239**	**3,116**
Components of defined pension cost						
Service cost	1,103	867	176	1,030	793	183
Net interest cost	191	170	7	194	172	8
Remeasurements of Other long term benefits	–3	—	–3	95	—	94
Administrative expenses and taxes	24	—	21	25	—	21
Total pension cost for defined benefit plans	**1,315**	**1,037**	**201**	**1,344**	**965**	**306**
Pension cost for defined contribution plans	3,423	2,866	268	3,299	2,784	272
Total pension cost recognised in P&L	**4,738**	**3,903**	**469**	**4,643**	**3,749**	**578**
Remeasurements (recognised in other comprehensive income)	–3,123	–2,363	–331	992	745	–47
Effect of changes in demographic assumptions	–4	—	—	–12	—	—
Effect of changes in financial assumptions	–2,087	–1,814	–164	1,422	1,009	40
Effect of experience adjustments	–384	–253	–94	–36	–49	24
Return on plan assets (excluding interest income)	–648	–296	–73	–382	–215	–111
Total defined benefit cost recognised in P&L and OCI	**–1,808**	**–1,326**	**–130**	**2,336**	**1,710**	**259**

Financial year ending on	Total 31 Dec 2021	of which Sweden 31 Dec 2021	of which Belgium 31 Dec 2021	Total 31 Dec 2020	of which Sweden 31 Dec 2020	of which Belgium 31 Dec 2020
Net defined benefit provision (asset) reconciliation						
Net defined benefit provision (asset)	14,187	11,673	1,181	12,583	10,272	1,181
Defined benefit cost included in the income statement	1,315	1,037	201	1,344	965	306
Total remeasurements included in OCI	–3,123	–2,363	–331	992	745[1]	–47
Effect of business combinations	201	201	—	—	—	—
Cash flows	–692	–417	–190	–595	–309	–208
Employer contributions	–293	–91	–159	–227	—	–187
Employer direct benefit payments	–399	–326	–31	–368	–309	–21
Effect of changes in foreign exchange rates	73	—	26	–137	—	–51
Net defined benefit provision (asset) as of end of year	**11,961**	**10,131**	**887**	**14,187**	**11,673**	**1,181**
Defined benefit obligation by participant status						
Actives	15,538	11,139	3,521	16,124	11,684	3,586
Vested deferreds	6,356	4,350	569	6,793	4,756	502
Retirees	6,273	4,402	176	6,176	4,472	209
Total	**28,167**	**19,891**	**4,266**	**29,093**	**20,912**	**4,297**

1) Whereof SEK 596 m is an adjustment due to changes in the actuarial calculation method related to the Swedish ITP2 plan.

Plan assets

Fair value of plan assets	2021	2020	Of which with a quoted market price 2021	Of which with a quoted market price 2020
Cash and cash equivalents	511	2,481	260	2,481
Equity instruments	2,172	2,114	1,208	2,011
Debt instruments	7,387	5,423	6,206	4,780
Real estate	11	9	11	9
Investment funds	4,247	3,077	4,244	3,072
Other	1,878	1,802	1,811	1,622
Total	**16,206**	**14,906**	**13,740**	**13,975**

Responsibility for the management of several pension plans rest with Volvo Car Group and therefore pension trusts have been set up in different countries. The assets are held by long-term employee benefit trusts that are legally separated from Volvo Car Group. The assets are available to fund employee benefits only. Sweden, Belgium and United Kingdom have the largest pension trusts. The pension trusts are managed in accordance with a capital preservation strategy where the risk exposure is adjusted accordingly. The investment strategies are long term and the distribution of assets ensures that investment portfolios are well diversified. The capital is managed in accordance with the investment policies of each pension trust. Continuous monitoring is performed by the trustees to ensure that capital is allocated and managed according to the investment policies. In Sweden the minimum funding level is decided by PRI Pensionsgaranti.

Volvo Car Group has a wholly-owned subsidiary, Volvo Car Pension Management AB ("VCPM") to monitor and review Volvo Car Group's pension fund assets.

The actual return on plan assets amounts to SEK 851 (619) m.

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 principal 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 the discount rate used for measuring the obligation and the plan assets. 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%	–2,021	–206
Discount rate –0.5%	2,303	239
Inflation rate +0.5 %	2,303	135
Inflation rate –0.5%	–2,021	–126

The weighted average duration of the obligation is 21.7 years for Sweden and 10.4 years for Belgium.

NOTE 25 – CURRENT AND OTHER NON–CURRENT PROVISIONS

ACCOUNTING POLICIES

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.

Warranties

Warranty provisions include Volvo Car Group's cost of satisfying the customers with specific contractual warranties, as well as other costs not covered by standard 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.

CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS

Provisions

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 of estimated cash flows (both amount and likelihood) are recognised 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.

There is always a risk for changing governmental regulations and changes in environmental policies affecting our business as well as accounting estimates and judgements related to CO_2 emissions. Based on our performance to date, current product and volume plans and current knowledge of global emissions regulations, Volvo Car Group does not foresee any significant financial risks or judgemental accounting issues short to mid-term related to not meeting global, regional or national CO_2 emissions regulations.

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 coverage 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.

	Warranties	Other provisions	**Total**
Balance at 1 January 2020	**11,393**	**4,255**	**15,648**
Provided for during the year	9,335	4,003	**13,338**
Utilised during the year	–7,035	–3,157	**–10,192**
Reversal of unutilised amounts	–962	–288	**–1,250**
Translation differences and other	–709	–150	**–859**
Balance at 31 December 2020	**12,022**	**4,663**	**16,685**
Of which current[1]	4,721	3,809	**8,530**
Of which non-current[1]	7,301	854	**8,155**

	Warranties	Other provisions	**Total**
Balance at 1 January 2021	**12,022**	**4,663**	**16,685**
Provided for during the year	8,309	7,058	**15,367**
Utilised during the year	–7,413	–5,671	**–13,084**
Reversal of unutilised amounts	–2,495	–89	**–2,584**
Translation differences and other	664	182	**846**
Balance at 31 December 2021	**11,087**	**6,143**	**17,230**
Of which current[1]	3,615	4,992	**8,607**
Of which non-current[1]	7,472	1,151	**8,623**

1) SEK — (2) m of recognised other non-current provisions and SEK 24 (117) m of recognised current provisions have been reclassified to Liabilities held for sale. For more information, see Note 34 – Assets and liabilities held for sale.

NOTE 26 – CURRENT AND NON–CURRENT CONTRACT LIABILITIES TO CUSTOMERS

ACCOUNTING POLICIES

Contract liabilities to customers are obligations related to contracts with customers. The amounts include transactions where Volvo Cars either;

- Has an obligation to transfer goods or services to the customer for which Volvo Car Group has received consideration (or an amount of consideration is due) from the customer. This applies to sales with repurchase commitment (recognised as an operating lease), sales related to extended service as well as advance payments from customers.
- Has transferred goods or services to the customer but a variable consideration or a consideration payable, such as a discount, is not yet to be paid out or settled by Volvo Cars.

The contract liability is derecognised, and revenue is recognised, when the good or service is transferred to the customer and the performance obligation is satisfied. The contract liability is derecog-nised against cash and cash equivalent when it pays out or settles the variable consideration or consideration payable.

	Sales generated obligations	Deferred revenue – extended service business	Deferred revenue – sale with repurchase commitment	Advance payments from customers	**Total**
Balance at 1 January 2020	**18,114**	**4,916**	**923**	**1,735**	**25,688**
Provided for during the year	48,559	2,788	2,700	85,383	**139,430**
Utilised during the year	–47,045	–2,544	–1,867	–84,454	**–135,910**
Translation differences and other	–1,268	–380	–36	–52	**–1,736**
Balance at 31 December 2020	**18,360**	**4,780**	**1,720**	**2,612**	**27,472**
Of which current	17,195	1,675	1,434	1,538	21,842
Of which non-current	1,165	3,105	286	1,074	5,630
Balance at 1 January 2021	**18,360**	**4,780**	**1,720**	**2,612**	**27,472**
Provided for during the year	44,684	3,559	4,903	100,065	**153,211**
Utilised during the year	–45,654	–2,720	–5,151	–99,446	**–152,971**
Translation differences and other	1,613	335	63	173	**2,184**
Balance at 31 December 2021	**19,003**	**5,954**	**1,535**	**3,404**	**29,896**
Of which current	15,995	2,248	1,284	3,402	22,929
Of which non-current	3,008	3,706	251	2	6,967

Sales generated obligations

Sales generated obligations refer to all variable marketing pro-grammes not effectuated on the balance sheet date, including discounts and residual value guarantees.

Deferred revenue – extended service business

Volvo Car Group is on some markets offering service contracts to customers, normally referred to Extended Service Business where the customer signs up for regular services paid for upfront.

Deferred revenue – sale with repurchase commitment

Deferred revenue – sale with repurchase commitment, is recognised as an operating lease contract, where the revenue is recognised over the contract period.

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.

NOTE 27 – OTHER NON–CURRENT LIABILITIES

	31 Dec 2021	31 Dec 2020
Liabilities related to repurchase commitments	1,354	1,537
Other liabilities[1) 2)]	4,685	3,040
Total	**6,039**	**4,577**

1) The internal profit elimination related to sale of licences and technology to Polestar amounted to SEK 2,596 (2,129) m.
2) SEK 3 (6) m of recognised Other non-current liabilities have been reclassified to liabilities held for sale. For more information, see Note 34 – Assets and liabilities held for sale.

NOTE 28 – OTHER CURRENT LIABILITIES

	31 Dec 2021	31 Dec 2020
Accrued expenses and prepaid income[1)]	13,907	10,765
Liabilities related to repurchase commitments	7,754	8,843
Personnel related liabilities[1)]	6,142	8,047
VAT liabilities	3,016	4,991
Other liabilities[1)]	3,705	3,072
Total	**34,524**	**35,718**

1) SEK 105 (406) m of recognised other current liabilities have been reclassified to liabilities held for sale. For more information, see Note 34 – Assets and liabilities held for sale.

NOTE 29 – PLEDGED ASSETS

	31 Dec 2021	31 Dec 2020
Restricted cash	141	236
Inventory	303	304
Real estate mortgages	—	175
Floating charges	253	251
Other pledged assets	788	632
Total	**1,485**	**1,598**

NOTE 30 – CONTINGENT LIABILITIES

ACCOUNTING POLICIES

When a possible obligation does not meet the criteria for recognition as a liability 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 less likely (<50 per cent) or when the amount of the obligation cannot be reliably measured.

CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS

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. The number of class action litigations is increasing and they are expensive and time consuming to defend. 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 reliably estimated. In instances where these criteria are not met, a contingent liability has been disclosed provided the risk qualifies as such a liability.

Other processes

Volvo Car Group is as well, like other global companies, from time to time involved in processes of varying scope and in various stages with regards to for instance import duties and transfer prices. These processes are evaluated regularly and provisions are made when it is more likely than not that additional fees must be paid and the outcome can be reliably estimated. If it is not probable that the additional fees will be paid but the risk is more than remote, such amounts are disclosed as contingent liabilities.

	31 Dec 2021	31 Dec 2020
Guarantees to insurance company FPG	180	173
Legal claims	—	61
Other claims[1)]	21	410
Guarantee commitments	59	59
Other contingent liabilities[2)]	284	314
Total	**544**	**1,017**

1) In addition to the contingent liabilities related to other claims there is also tax related contingent asset amounting to SEK 53 (—) m.
2) 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

	2021	2020
Adjustments for other non-cash items:		
Capital gains/losses on sale of tangible and intangible assets	5,263	1,249
Share of income in joint ventures and associates	951	352
Interest effect from the measurement of repurchase obligations	–158	–175
Provision for variable pay	2,239	1,025
Provision for repurchase commitments	—	20
Other provisions	–1,818	2,704
Deferred revenue	–2,779	–1,246
Reclassification of residual value guarantee	–728	—
Distribution of parts of the ICE business	–2,074	—
Inventory impairment	–149	169
Elimination of intra-group profit	794	1,132
IFRS16 adjustments	–890	–1,416
Assets held for sale	–257	—
IPO transaction costs	–210	—
Other non-cash items	–934	175
Total	**–750**	**3,989**

Change in net cash	1 Jan 2020	Cash flows	Non-cash changes: Reclassifications	Foreign exchange movement	Fair value changes	Other non-cash changes	31 Dec 2020
Cash and cash equivalents[1]	51,997	12,544	–96	–2,853	—	—	61,592
Marketable securities	3,518	4,692	—	–94	–5	–24	8,087
Liabilities to credit institutions (non-current)	–4,489	–4,009	2,017	604	—	–5	–5,882
Bonds, non-current[2]	–21,623	–5,209	5,254	674	—	–46	–20,950
Bonds, current[2]	—	—	–5,254	241	13	–10	–5,010
Other interest-bearing non-current liabilities	–84	—	—	—	—	—	–84
Liabilities to credit institutions (current)	–4,105	3,610	–2,017	–8	—	7	–2,512
Net cash	**25,214**	**11,628**	**–96**	**–1,435**	**8**	**–78**	**35,241**

Change in net cash	1 Jan 2021						31 Dec 2021
Cash and cash equivalents[1]	61,592	–3,659	–48	4,380	—	—	62,265
Marketable securities	8,087	–460	—	354	15	—	7,996
Liabilities to credit institutions (non-current)	–5,882	–895	4,401	–167	—	—	–2,543
Bonds, non-current[2]	–20,950	—	2,999	–430	—	–20	–18,401
Bonds, current[2]	–5,010	8,055	–2,999	–46	—	—	—
Other interest-bearing non-current liabilities	–84	84	—	—	—	—	—
Liabilities to credit institutions (current)	–2,512	2,604	–4,401	–162	—	—	–4,471
Net cash	**35,241**	**5,729**	**–48**	**3,929**	**15**	**–20**	**44,846**

1) SEK 48 (96) m of cash and cash equivalents have been reclassified to assets held for sale. For more information, see Note 34 – Assets and liabilities held for sale.
2) The bonds are presented above at amortised cost. The EUR 500 m fixed interest rate bond issued in May 2016 (matured in May 2021), was hedged into a variable interest rate bond, hence a part of the bond was valued at fair value through the income statement and the remaining part was valued at amortised cost. On 31 December 2020 the fair value component amounted to SEK 7 m.

NOTE 32 – BUSINESS COMBINATIONS

ACCOUNTING POLICIES

In a business combination Volvo Car Group measures all acquired identifiable assets and liabilities at fair value. Any surplus amount from the purchase price, possible non-controlling interest and fair value of previously held equity interests at the acquisition date compared to 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 non-controlling interest are recognised within equity as long as control of the subsidiary is retained.

All acquisition-related transaction 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.

CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS

One area of critical judgement, relevant to Volvo Car Group is the one of common control, a situation where there is an acquisition between parties under common control. This means the acquired company has the same ultimate parent as the acquiring company. The standard is silent on the subject and Volvo Car Group has therefore made a policy choice when it comes to handle common control transactions. Volvo Car Group has elected to apply predecessor accounting, meaning that the acquirer consolidates the predecessors respective carrying values for assets and liabilities. 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 and for which consolidated financial statements are prepared. Any difference between the cost of the combination (i.e. the fair value of the consideration paid) and the carrying values for assets and liabilities are recognised directly in equity within retained earnings.

Business combinations under common control

Asia Euro Automobile Manufacturing (Taizhou) Co., Ltd

On 1 December 2021, Volvo Car Group, through one of its wholly-owned subsidiaries, Volvo Cars (China) Investment Co., Ltd, acquired by way of appropriation 100 per cent of the shares in Asia Euro Automobile Manufacturing (Taizhou) Co., Ltd. (AELQ) from Geely Auto Group Co., Ltd. The acquired company consists of the operating company of the manufacturing plant in Luqiao, Taizhou, China. In Taizhou the new range of smaller 40-series CMA-based car, the XC40 to Volvo Cars and the Polestar 2 model to Polestar, are produced. The acquisition is part of Volvo Car Group's long-term strategic decision to own its manufacturing production plants.

The acquisition is between parties under common control and Volvo Car Group has applied predecessor accounting, see section Critical accounting estimates and judgements. Volvo Car Group has consolidated the company from the transaction date, 1st of December.

	2021
Purchase price	
Purchase consideration	1,112
Total cost of the combination	**1,112**
Acquired assets and liabilities at carrying value	
Intangible assets	9
Tangible assets	3,672
Inventories	1,626
Accounts receivable	9,431
Other current assets	252
Cash and cash equivalents	94
Other non-current interest bearing liabilities	–386
Other non-current liabilities	–1,141
Accounts payable	–2,167
Other current interest-bearing liabilities	–84
Other current liabilities	–10,112
Total carrying value of net assets acquired	**1,194**
Deficit of consideration paid recognised in Equity	**–82**
Cash effect on business combination	
Purchase consideration[1]	–1,110
Repayment of debts	–9,535
Acquired cash and cash equivalents	94
Change in cash and cash equivalents due to acquisitions	**–10,551**

1) Exchange rate difference between acquisition date and payment date of the Purchase price payment.

Acquisition-related costs for 2021 amounted to SEK 4 m and have been reported as administration costs in the income statement. There were no contingent liabilities assumed or collateral pledged arising from the acquisition. For Chinese companies there are some restrictions on the Volvo Car Group's ability to access cash outside China. The carrying value of the acquired accounts receivable corresponds to the gross contractual value and amounts to SEK 9 431 m. All receivables are expected to be collectible.

The real estate (i.e. land and building) related to Taizhou plant is currently owned by Zhejiang Jingang Automobile Co., Ltd and leased by AELQ. In the framework agreement Zhejiang Jingang Automobile Co., Ltd has granted AELQ an option to acquire the land and building within one year at a predetermined purchase price.

The acquired business contributed revenues of SEK 1,431 m and net profit of SEK 262 m to the Group for the period from 1 December to 31 December 2021. If the acquisition had occurred on 1 January 2021 the acquired business would have contributed revenues of SEK 8,899 m and Net profit of SEK 881 m to the Group. The total cost of combination and carrying values have been determined provisionally, thus, the acquisition analyses may be subject to adjustment during a twelve-month period.

Polestar Automotive (Shanghai) Co., Ltd

On 12 January 2021, Geely Holding Co., Ltd. ceased to be a shareholder of Polestar Automotive (Shanghai) Co., Ltd. and the joint venture company became a wholly-owned subsidiary of Volvo Cars (China) Investment Co., Ltd. The net assets of the company only consisted of Cash, which corresponded to Volvo Car's investment value of SEK 1,882 m, why the transaction had no material impact on the Group financial statements. See Note 13 – Investments in joint ventures and associates for further information.

Business combinations

Real estate companies Sörred

On 1 September 2021, Volvo Car Group, through one of its wholly-owned subsidiaries, Volvo Car Corporation, acquired by way of appropriation 100 per cent of the shares in Fastighetsbolag Sörred 7:24 AB[1] and Fastighetsbolag Sörred 8:11 AB. The acquired real estate companies own land and office buildings. The acquisition is part of Volvo Car Groups long-term strategic decision to own its facilities.

	2021
Purchase price	
Purchase consideration	202
Total cost of the combination	**202**
Acquired assets and liabilities at fair value	
Tangible assets	294
Current tax assets	1
Other current assets	1
Deferred tax liabilities	–2
Current liabilities	–92
Total fair value of net assets acquired	**202**
Goodwill	**—**
Cash effect on business combination	
Purchase consideration	–202
Repayment of debts	–89
Acquired cash and cash equivalents	—
Change in cash and cash equivalents due to acquisitions	**–291**

1) Name changed to Volvo Car Real Estate and Assets 7:24 AB

Acquisition-related costs for 2021 amounted to SEK 2 m and have been reported as administration costs in the income statement. There were no contingent liabilities assumed or collateral pledged arising from the acquisition. The acquisition is conditional on Volvo Car Corporation signing a 10-year lease agreement with the seller to lease another property within the area.

The acquired business contributed revenues of SEK 0 m and net profit of SEK 2 m to the Group for the period from 1 September to 31 December 2021. The total cost of combination and fair values have been determined provisionally, thus, the acquisition analyses may be subject to adjustment during a twelve-month period.

Upplands Motor

On 13 January 2021, after approval from competition authorities, Volvo Car Group, through one of its wholly-owned subsidiaries, Volvo Personvagnar Norden AB finalised the acquisition of Upplands Motor. The acquisition of Upplands Motor, the Stockholm-based dealership, is a vital part of Volvo Cars aim to transform its retail business into a modern customer experience with a seamless interaction between online and offline sales. The acquisition consisted of 100 per cent of the shares in Upplands Motor AB, Upplands Motor Kronåsen AB, Bilpark i Hufvudstaden AB, Upplands Motor Hyrbilar AB, Upplands Motor Personvagnar AB and 10 per cent of the shareholding in Upplands Motor Mark KB and Upplands Motor Fastigheter i Märsta KB.

	2021
Purchase price	
Purchase consideration	493
Total cost of the combination	**493**
Acquired assets and liabilities at fair value	
Intangible assets	5
Tangible assets	1,280
Financial assets	1,336
Deferred tax assets	28
Inventories	334
Current receivables	440
Other current assets	85
Cash and cash equivalents	32
Deferred tax liabilities	–1
Pension and other provision	–202
Other non-current liabilities	–2,237
Current liabilities	–852
Total fair value of net assets acquired	**248**
Goodwill	**245**
Cash effect on business combination	
Purchase consideration	–493
Redemption of debt	292
Acquired cash and cash equivalents	32
Change in cash and cash equivalents due to acquisitions	**–169**

Goodwill attributable to the acquisition is explained by estimated synergies with Volvo Cars current retail operation in the Swedish market and increased income over time from the acquired business.

Acquisition-related costs for 2021 amounted to SEK 11 m and have been reported as administration costs in the income statement. There were contingent liabilities of SEK 2 m assumed and collateral pledged of SEK 275 m arising from the acquisition. The fair value of the acquired receivables amounts to SEK 440 m.

The acquired business contributed revenues of SEK 2,683 m and net loss of SEK 18 m to the Group for the period from 13 January to 31 December 2021. On 3 December 2021 Upplands Motor AB, Bilpark i Hufvudstaden AB and Upplands Motor Hyrbilar AB were merged into Volvo Car Retail AB. The total cost of combination and fair values have been adopted in January 2022.

Adoption of preliminary acquisition analysis

An acquisition analysis is preliminary until adopted which must take place within 12 months from the acquisition. The preliminary acquisition analysis previously recognised for Zenuity AB and Zenuity Software Technology (Shanghai) Co., Ltd were adopted in 2021.

Divestment after the balance sheet date

Zhangjiakou Volvo Car Engine Manufacturing Co., Ltd.

On 31 December 2021, Volvo Cars (China) Investment Co., Ltd and Zhejiang Geely Holding Group Co., Ltd signed a share transfer agreement with Zhejiang Aurobay Powertrain Co., Ltd. regarding their shareholdings in Zhangjiakou Volvo Car Engine Manufacturing Co., Ltd. On 31 January 2022, Volvo Car Group finalised the separation of its combustion engine operations and the control of the 50% owned subsidiary Zhangjiakou Volvo Car Engine Manufacturing Co., Ltd. was transferred to the acquirer, the associated company Zhejiang Aurobay Powertrain Co., Ltd (Aurobay), China. Aurobay will be a global supplier of complete powertrain solutions, including next generation combustion engines, transmissions and hybrid solutions. The divestment will enable Volvo Car Group to focus on the development of its fully electric range of premium cars.

The divestment is between parties under common control and Volvo Car Group has applied predecessor accounting, see section Critical accounting estimates and judgements. As part of the divestment, the registered company name has been changed to Zhangjiakou Aurobay Powertrain Manufacturing Co., Ltd. Volvo Car Group has consolidated the company until 31 January 2022 when control was ceased. The purchase consideration received amounted to SEK 958 m. The carrying amount of assets and liabilities as at the date of the divestment were SEK 1,245 m. Deficit of consideration received recognised in Equity amounted to SEK 267 m. At the time of disposal, cash and cash equivalents over which control was lost amounted to SEK 358 m. The total cost of divestment and carrying values have been determined provisionally, thus, the divestment analyses may be subject to adjustment during a twelve-month period.

NOTE 33 – SEGMENT REPORTING

ACCOUNTING POLICIES

Operating segments are defined as parts of Volvo Car Group for which separate financial information is available and is evaluated regularly by the Chief operating decision-making body how to allocate resources and in assessing performance.

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 Volvo Cars derives its revenues. Volvo Car Group is managed by the Executive management team (EMT) with 11 (10) 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. All substantial decisions regarding allocation of resources as well as the assessment of the performance is based on Volvo Car Group as a whole.

CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS

The regional organisation 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 Volvo Car Group as a whole. The allocation of resources is not performed by regions, but rather directly to individual markets. Therefore Volvo Car Group is considered to have only one operating segment.

For further information of the geographic spread of revenue, see Note 2 – Revenue. The geographic spread of non-current assets is disclosed below.

	Sweden	China	Rest of the world
31 Dec 2021			
Non-current assets	65%	14%	21%
31 Dec 2020			
Non-current assets	69%	11%	20%

NOTE 34 – ASSET AND LIABILITIES HELD FOR SALE

ACCOUNTING POLICIES

For a non-current asset or disposal group to be classified as held for sale it needs to be available for immediate sale in its present condition and the sale needs to be highly probable. For the sale to be highly probable, management needs to be committed to a plan to locate a buyer and sell the non-current asset or disposal group. The sales price has to be reasonable in relation to its current fair value and the sale should be completed within one year from the date of classification.

When the criteria for being classified as a non-current asset or a disposal group held for sale are fulfilled, the asset or disposal group is presented separately in the balance sheet. The related liabilities of a non-current asset or disposal group are also recognised separately in the balance sheet. The asset or disposal group is recognised at the lower end of its carrying amount and fair value after deduction of selling expenses.

Assets and liabilities held for sale, net, amounted to SEK 1,785 m and are related to the remaining part of the combustion engine operations, carried out in Zhangjiakou Volvo Car Engine Manufacturing Co., Ltd. During 2021, the shares in Powertrain Engineering Sweden AB and Powertrain Engineering Sweden Real Estate AB were distributed to Geely Sweden Holdings AB resulting in a derecognition of the relating assets and liabilities held for sale.

Zhangjiakou Volvo Car Engine Manufacturing Co., Ltd. is consolidated by Volvo Car Group, why the presented net amount includes the company's total assets and liabilities held for sale. Volvo Cars (China) Investment Co., Ltd. ownership in the company of 50 percent needs to be considered when comparing the net amount of the assets and liabilities held for sale against the consideration Volvo Cars expects to receive for its share in the company. As of 31 December 2021, there are no indications of impairment. No translation difference has been recognised in other comprehensive income related to the reclassified assets and liabilities held for sale. The sale was completed on 31 January 2022 and the buyer was the newly created company Zhejiang Aurobay Powertrain Co., Ltd. See Note 32 – Business combinations for further information.

The major categories of assets and liabilities classified as held for sale are:

	2021	2020
Intangible assets	87	150
Tangible assets	3,042	6,594
Deferred tax assets	36	17
Inventories	668	968
Other current assets	29	24
Cash and cash equivalents	48	96
Total assets	**3,910**	**7,849**
Deferred tax liabilities	95	—
Other non-current provisions	—	2
Other non-current liabilities	3	6
Current provisions	24	117
Accounts payable	1,814	1,198
Current tax liabilities	84	20
Other current liabilities	105	406
Total liabilities	**2,125**	**1,749**

Alternative performance measures presented by Volvo Car Group

The alternative performance measures presented and disclosed in this annual report are used internally by management in conjunction with IFRS measures to measure performance and make decisions regarding the future direction of the business. The Group believes that these alternative performance measures, when provided in combination with reported IFRS measures, provide helpful supplementary information for investors. These alternative performance measures are not a substitute for or superior to IFRS measures and should be used in conjunction with reported IFRS measures. Further, these alternative performance measures, as defined by the Group, may not be comparable to other similarly titled measures used by other groups.

Gross margin
Gross margin is defined as Gross income as a percentage of revenue. Gross margin presents the per cent of revenue that Volvo Cars retains after incurring the direct costs associated with producing the goods and services sold.

EBIT
EBIT is defined as Net income excluding financial income, financial expenses and Income taxes, that is operating income presented in the income statement. EBIT presents the operating income of Volvo Car Group.

EBIT margin
EBIT margin is defined as EBIT as a percentage of revenue. The EBIT margin presents the profitability of the operation in relation to the recognised revenue earned by Volvo Car Group during the accounting period.

EBIT margin excl. share of income from JVs & associates
EBIT margin excl. share of income from JVs & associates is defined as EBIT less the result from share of income from JVs & associates as a percentage of revenue. The margin presents the profitability of the operation excluding share of income from JVs & associates in relation to the recognised revenue earned by Volvo Car Group during the accounting period.

EBITDA
EBITDA is defined as EBIT excluding depreciation and amortisation of non-current assets. EBITDA presents an overview of the profitability of Volvo Car Group operations.

EBITDA margin
EBITDA margin is EBITDA as a percentage of revenue. The EBITDA margin presents the profitability of the operation in relation to the recognised revenue earned by the Group during the accounting period.

Return on invested capital, ROIC
ROIC is defined as EBIT divided by invested capital. Return on invested capital ratio gives an overview of how efficient Volvo Car Group is at allocating capital to profitable investments. Invested capital is the amount of net assets needed in day to day operations (total assets less receivables on parent company less other long-term securities holding less cash and cash equivalents less marketable securities plus operating cash (average two-year revenue*10%) less total current liabilities less current liabilities to parent company plus total current interest-bearing liabilities (including liabilities to credit institutions, bonds current, other current interest-bearing liabilities) calculated on two-year average figures.

Equity ratio
The equity ratio is defined as total equity divided by total assets in the balance sheet. This measures the Volvo Car Group's long-term solvency and financial leverage level.

Net cash
Net cash is defined as cash, cash equivalents and marketable securities less liabilities to credit institutions, bonds and other interest-bearing non-current liabilities (excluding non-current lease liabilities). Net cash represents Volvo Car Group's ability to meet its financial obligations.

Items affecting comparability
Transactions that are not related to recurring business operations and where the probability of reoccurrence over the coming years is limited.

RECONCILIATION OF ALTERNATIVE PERFORMANCE MEASURES

SEKm	2021	2020
Revenue	282,045	262,833
Cost of sales	–221,632	–216,813
Research and development expenses	–13,126	–11,362
Operating income, EBIT	20,275	8,516
EBIT margin, excl. share of income from JVs & associates	21,226	8,868
Net income	14,177	7,788
EBITDA	35,280	22,965
Gross margin %	21.4	17.5
EBIT margin %	7.2	3.2
EBIT margin, excl. share of income from JVs & associates %	7.5	3.4
EBITDA margin %	12.5	8.7
Equity ratio %	33.5	26.8
Net cash	44,846	35,241
Return on invested capital, ROIC %	18.5	8.4

Operating income, EBIT/EBIT margin, %	2021	2020
Operating income, EBIT	20,275	8,516
Revenue	282,045	262,833
EBIT margin %	**7.2**	**3.2**

EBIT and EBIT margin, excl. share of income from JVs & associates, %	2021	2020
EBIT	20,275	8,516
Share of income from JVs & associates	–951	–352
EBIT excl. share of income from JVs & associates	**21,226**	**8,868**
Revenue	282,045	262,833
EBIT margin, excl. share of income from JVs & associates %	**7.5**	**3.4**

EBITDA/EBITDA margin, %	2021	2020
Operating income, EBIT	20,275	8,516
Depreciation and amortisation of non-current assets	15,005	14,449
EBITDA	***35,280***	***22,965***
Revenue	282,045	262,833
EBITDA margin %	**12.5**	**8.7**

Gross margin, %	2021	2020
Gross income	60,413	46,020
Revenue	282,045	262,833
Gross margin %	**21.4**	**17.5**

Operating cash, SEKm	2021	2020
Average two-year revenue* 10%	27,244	26,848
Operating cash	**27,244**	**26,848**

Invested capital[1], SEKm	2021	2020
Total assets	273,068	252,840
Receivables from parent company	—	–27
Other long-term securities holdings	–2,107	–1,373
Cash and cash equivalents	–61,929	–56,795
Marketable securities	–8,042	–5,803
Operating cash	27,244	26,848
Total current liabilities	–126,234	–121,168
Current liabilities to parent company	—	—
Total current interest-bearing liabilities	7,311	6,934
Total invested capital	**109,311**	**101,457**

1) Calculated on two-year average figures.

Return on invested capital, ROIC, %	2021	2020
EBIT (last twelve months)	20,275	8,516
Invested capital	109,311	101,457
Return on invested capital, ROIC, %	**18.5**	**8.4**

Equity ratio, SEKm	31 Dec 2021	31 Dec 2020
Total equity	94,978	70,418
Total assets	283,824	262,312
Equity ratio, %	**33.5**	**26.8**

Net cash, SEKm	31 Dec 2021	31 Dec 2020
Cash and cash equivalents	62,265	61,592
Marketable securities	7,996	8,087
Liabilities to credit institutions (non-current)	–2,543	–5,882
Bonds (non-current)	–18,401	–20,950
Other interest-bearing liabilities[2]	—	–84
Liabilities to credit institutions (current)	–4,471	–2,512
Bonds (current)[1]	—	–5,010
Net cash[2]	**44,846**	**35,241**

1) The bonds are presented above at amortised cost. The EUR 500 m fixed interest rate bond issued in May 2016 (matured in May 2021), was hedged into a variable interest rate bond, hence a part of the bond was valued at fair value through the income statement and the remaining part was valued at amortised cost. On 31 December 2020 the fair value component amounted to SEK 7 m.

2) The net cash calculation excludes current SEK –1,462 (–1,160) m and non-current SEK –5,509 (–4,731) m financial liabilities related to IFRS 16.

Other measures presented by Volvo Car Group

Other measures presented and disclosed in this annual report are used internally by management. The Group believes that these measures provide helpful supplementary information for investors. The measures are not a substitute for or superior to the Alternative performance measures or IFRS measures and should be used in conjunction with reported Alternative performance measures and IFRS measures. Further, the measures, as defined by the Group, may not be comparable to other similarly titled measures used by other groups.

Liquidity

Liquidity is defined as cash, cash equivalents, undrawn credit facilities and marketable securities.

Liquidity, SEKm	31 Dec 2021	31 Dec 2020
Cash and cash equivalents	62,265	61,592
Undrawn credit facilities	13,377	24,700
Marketable securities	7,996	8,087
Liquidity	**83,638**	**94,379**

Income Statements and Comprehensive Income – Parent Company

SEKm	Note	2021	2020
Administrative expenses	3, 4, 5	–26	–17
Operating income/(loss)		**–26**	**–17**
Income from participation in subsidiaries	3	3,000	—
Financial income	3, 6	886	730
Financial expenses	3, 4, 6	–763	–707
Income before tax		**3,097**	**6**
Income tax	7	58	–11
Net income		**3,155**	**–5**

Other comprehensive income and Net income are consistent since there are no items in other comprehensive income.

Balance Sheets – Parent Company

SEKm	Note	31 Dec 2021	31 Dec 2020
ASSETS			
Non-current assets			
Participation in subsidiaries	8	13,359	13,267
Deferred tax assets	7	2,129	2,071
Receivables from group companies	3	18,421	24,976
Total non-current assets		**33,909**	**40,314**
Current assets			
Receivables from group companies	3	22,449	5,909
Other current assets		39	45
Cash and cash equivalents		—	2
Total current assets		**22,488**	**5,956**
TOTAL ASSETS		**56,397**	**46,270**

SEKm	Note	31 Dec 2021	31 Dec 2020
EQUITY & LIABILITIES			
Equity	9		
Restricted equity			
Share capital		61	51
		61	**51**
Non-restricted equity			
Share premium reserve		31,655	11,497
Retained earnings		–1,215	4,330
Net income		3,155	–5
		33,595	**15,822**
Total equity		**33,656**	**15,873**
Non-current liabilities			
Bonds	10	18,401	20,953
Liabilities to credit institutions	10	—	3,997
Total non-current liabilities		**18,401**	**24,950**
Current liabilities			
Bonds		—	5,012
Liabilities to credit institutions	10	3,999	—
Liabilities to group companies	3	1	1
Accounts payable		47	—
Other current liabilities		4	154
Accrued expenses and prepaid income		289	280
Total current liabilities		**4,340**	**5,447**
TOTAL EQUITY & LIABILITIES		**56,397**	**46,270**

CONSOLIDATED FINANCIAL STATEMENTS

Changes in Equity – Parent Company

	Restricted equity	Non-restricted equity			
SEKm	Share capital[1]	Share premium reserve	Other contributed capital	Retained earnings	Total
Balance at 1 January 2020	**51**	**11,497**	**–3,500**	**7,830**	**15,878**
Net income for the year	**—**	**—**	**—**	**–5**	**–5**
Balance at 31 December 2020	**51**	**11,497**	**–3,500**	**7,825**	**15,873**
Net income for the year	**—**	**—**	**—**	**3,155**	**3,155**
Transactions with owners					
Redemption of preference shares	–1	–4,988	—	–335	**–5,324**
Bonus issue	1	—	—	–1	**—**
New issue	8	19,733	—	—	**19,741**
Issue in kind	—	91	—	—	**91**
Direct new issue to preference shareholders	2	5,322	—	—	**5,324**
Dividend to shareholders	—	—	—	–5,204	**–5,204**
Balance at 31 December 2021	**61**	**31,655**	**–3,500**	**5,440**	**33,656**

1) Share capital amounts to SEK 60,947,709 (51,138,794)

Statement of Cash Flows – Parent Company

SEKm	Note	2021	2020
OPERATING ACTIVITIES			
Operating income		–26	–17
Interest received		767	665
Interest paid		–676	–611
		65	**37**
Movements in working capital			
Change in current receivables group companies	3	–17,602	–1,992
Change in current receivables		6	–10
Change in current liabilities group companies	3	—	–1
Change in liabilities		–107	–10
Cash flow from movements in working capital		**–17,703**	**–2,013**
Cash flow from operating activities		**–17,638**	**–1,976**
Investments in shares and participations		–5,025	–3,000
Cash flow from investing activities		**–5,025**	**–3,000**
Cash flow from operating and investing activities		**–22,663**	**–4,976**
FINANCING ACTIVITIES			
Proceeds from bond issuance	10	—	5,206
Proceeds from credit institutions	10	—	4,000
Repayment of bond	10	–8,064	—
Change in non-current receivables group companies	3	8,064	–4,207
Dividend received from subsidiary		3,000	—
Dividend paid to shareholders	3	–179	—
New share issue	9	19,900	—
Other		–60	–24
Cash flow from financing activities		**22,661**	**4,975**
Cash flow for the year		**–2**	**–1**
Cash and cash equivalents at beginning of year		**2**	**3**
Cash and cash equivalents at end of year		**—**	**2**

Notes to The Parent Company Financial Statements

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

NOTE 1 – SIGNIFICANT ACCOUNTING POLiCIES

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 1 January 2021, have had no material impact on the financial statements of the Parent company.

All specific accounting policies considered material to Volvo Car Group are described in conjunction with each presented note in 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 or whenever there is an indication to do so. 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.

Group contributions made to subsidiaries are reported as an increase of investments in these subsidiaries. A review is at the same time made to conclude whether or not there is an impairment risk with regards to the same shares of the subsidiaries having received the group contribution. Tax effect of these group contributions are recognised in the income statement. Group contributions made to the parent company are recognised in equity, along with the tax effect. Received group contributions from subsidiaries are recognised as financial income. Tax effect on received group contributions are recognised in the income statement. Received group contributions from the parent company are recorded in equity, along with the tax effect.

Made shareholders' contributions are recognised in shares in subsidiaries and as such they are subject to impairment testing.

Income taxes
Deferred tax liability on untaxed reserves is 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 estimates and judgements 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 conjunction with applicable note in the consolidated financial statements. None of these critical accounting estimates are applicable to the parent company. Shares and participations in Group companies recognised at cost in the Parent company are being tested for impairment annually or if an indication of impairment exists.

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	
	2021	2020	**2021**	2020
Companies within the Volvo Car Group	96%	100%	2%	1%

	Receivables		Payables	
	31 Dec 2021	31 Dec 2020	**31 Dec 2021**	31 Dec 2020
Companies within the Volvo Car Group	40,804	30,819	1	—
whereof short-term	*22,383*	*5,843*	*1*	—
Companies within the Geely Sweden Holdings Group	66	66	—	1
whereof short-term	*66*	*66*	—	*1*

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. Volvo Car AB (publ.) has received dividend of SEK 3,000 (—) m from its subsidiary, Volvo Car Corporation, and paid dividend SEK 179 (—) m to its preference shareholders and distributed dividend of SEK 5,979 (—) m to its shareholder Geely Sweden Holdings AB. For further information regarding dividends, see Note 9 – Equity.

Volvo Car AB (publ.) does not engage in any transactions with Board members or senior executives except ordinary remunerations for services. For further information regarding remunerations, see Note 8 – Employees and remuneration, in the consolidated financial statements.

NOTE 4 – AUDIT FEES

TSEK	2021	2020
Deloitte		
Audit fees	–1,606	–129
Audit-related fees	–6,572	–350
Other services	—	—
Total	**–8,178**	**–479**

The amount for 2021 includes expenses related to the IPO.

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.

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 8 – Employees and remuneration, in the consolidated statements.

NOTE 6 – FINANCIAL INCOME AND EXPENSES

	2021	2020
Financial income		
Interest income from subsidiaries	722	730
Other	164	—
Total	**886**	**730**
Financial expenses		
Interest expenses to subsidiaries	–8	—
Interest expenses[1]	–637	–640
Other	–118	–67
Total	**–763**	**–707**

1) Net foreign exchange rate losses on financial activities consist of SEK 907 (918) m in foreign exchange gains and SEK –907 (–918) m in foregin exchange losses.

NOTE 7 – TAXES

Income tax recognised in income statement	2021	2020
Deferred taxes	58	–11
Total	**58**	**–11**
Information regarding current year tax expense compared to tax expense based on the applicable Swedish tax rate		
Income before tax for the year	3,097	6
Tax according to applicable Swedish tax rate, 20.6 % (21.4%)	–638	–1
Costs non-deductible	–9	–8
Non-taxable dividends	618	—
Non-taxable income	34	—
Tax effect of deductible costs reported over equity	53	—
Deferred taxes related to previous year	—	–2
Total	**58**	**–11**

Total deferred tax assets of SEK 2,129 (2,071) m 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. Deferred tax is mainly tax loss-carry forward with an indefinite period of utilisation.

NOTE 8 – PARTICIPATION IN SUBSIDIARIES

	31 Dec 2021	31 Dec 2020
At beginning of the year/acquired acquisition value	13,267	10,267
Shareholder's contribution	—	3,000
Investment	5,025	—
Desinvestment	–5,025	—
Conversion of warranty programme	1	—
Issue in kind	91	—
Total	**13,359**	**13,267**

Volvo Car AB's (publ.) investments in subsidiaries:	Corp. ID no.	Registered office	No. of shares	% interest held	Book value 31 Dec 2021	Book value 31 Dec 2020
Volvo Personvagnar AB[1]	556074-3089	Gothenburg / Sweden	724,889	100	13,359	13,267

Details of Volvo Car Corporation's directly owned subsidiaries at the end of the reporting period are presented in the following table.

CONSOLIDATED FINANCIAL STATEMENTS

Legal entity	Corp. ID no.	Registered office	% interest held
Sweden			
Automotive Components Floby AB	556981-8874	Falköping / Sweden	100
Care by Volvo Car AB	556746-9407	Gothenburg / Sweden	100
CLPE AB[2)]	556955-7118	Gothenburg / Sweden	100
Fastighetsbolag Sörred 8:9 AB	559176-3890	Gothenburg / Sweden	100
Fastighetsbolag Sörred 8:11 AB	556994-2351	Gothenburg / Sweden	100
HaleyTek AB	559307-9485	Gothenburg / Sweden	60
PSINV AB	559140-6409	Gothenburg / Sweden	79
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 Mobility AB	556955-6441	Stockholm / Sweden	100
Volvo Car NSC Holding AB	556754-8283	Gothenburg / Sweden	100
Volvo Car Pension Management AB	559140-6417	Gothenburg / Sweden	100
Volvo Car PHEV Holding AB	556785-9375	Gothenburg / Sweden	100
Volvo Car PHEV Holding 2 AB	556785-9383	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 Real Estate and Assets 7:24 AB	559064-3457	Gothenburg / Sweden	100
Volvo Car Services 6 AB[3)]	559140-6433	Gothenburg / Sweden	100
Volvo Car Services 7 AB	559228-9341	Gothenburg / Sweden	100
Volvo Car Services 9 AB	559228-9366	Gothenburg / Sweden	100
Volvo Car Services 11 AB	559354-9545	Gothenburg / Sweden	100
Volvo Car Services 12 AB	559354-9552	Gothenburg / Sweden	100
Volvo Car Services Sweden AB	556601-7843	Gothenburg / Sweden	100
Volvo Car Sverige AB	556034-3484	Gothenburg / Sweden	100
Volvo Car Technology Fund AB	556877-5760	Gothenburg / Sweden	100
Volvo Personvagnar Norden AB	556413-4848	Gothenburg / Sweden	100
Zenseact AB	559228-9358	Gothenburg / Sweden	85
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[4)]		Greece	100
Volvo Car Hungary Trading and Service Ltd		Hungary	100

Legal entity	Registered office	% interest held
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
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 Car Group Financial Leasing (Shanghai) Co., Ltd.[5)]	China	100
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 Singapore PTE Ltd	Singapore	100
Volvo Car South Africa Pty Ltd	South Africa	100
Volvo Car Taiwan Ltd	Taiwan	100
Volvo Car Turkey Otomobil Ltd Sirketi	Turkey	100
Volvo Car RDC Middle East FZE	United Arab Emirates	100

1) Referred to as Volvo Car Corporation
2) Prior name: VCG Investment Management
3) Prior name: M Mobility Services Sweden AB, previously indirect wholly-owned subsidiary
4) Legal name in full: Volvo Car Hellas Anonymous and Industrial company of car and spare parts imports and trade
5) Previously indirect wholly-owned subsidiary

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

On 30 June 2021, following a decision by the Board on 31 May, the wholly-owned subsidiaries Powertrain Engineering Sweden AB and Powertrain Engineering Sweden Real Estate AB were divested from Volvo Car Group through a dividend distribution of the entire shareholdings to the main shareholder Geely Sweden Holdings AB. As a consequence Volvo Car Group lost control and the subsidiaries were deconsolidated and from 1 July, classified as related party companies. For further information, see Note 9 – Equity.

On 1 July 2021, ECARX Technology Co., Ltd, a related company with the same ultimate shareholder as Volvo Car Group, but outside the Geely sphere of companies, acquired 15 per cent of the shareholding in the wholly-owned subsidiary Zenseact AB through a direct share issue.

Further on 1 September 2021, ECARX Technology Co., Ltd acquired 40 per cent of the shareholding in the wholly-owned subsidiary HaleyTek AB. Hereafter Zensact AB and HaleyTek AB are still classified as subsidiaries and fully consolidated with a non-controlling interests of 15 per cent respective 40 per cent since Volvo Car Group still have the power of control.

Details of non-wholly owned subsidiaries that have material non-controlling interests[6)]

On 25 June 2015, Volvo Car Group, 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 28 September 2020, Volvo Car Group, through one of its wholly-owned subsidiaries First Rent Invest AB, renamed to Volvo Car Retail AB, exercised a call option and entered into an agreement to acquire the remaining 50 per cent of the shares in the car retail company Bra Bil Sverige AB. Volvo Car Group was assessed to have the power of control over Bra Bil Group, through its 50 per cent ownership in combination with a shareholder agreement. As a result, Bra Bil Group was classified as subsidiary and fully consolidated into Volvo Car Group with a non-controlling interest of 50 per cent.

On 30 September 2021, Volvo Car Retail AB acquired the remaining 50 per cent shareholding in Bra Bil Sverige AB and consequently the non-controlling interest ceased.

The table below shows details of non-wholly owned subsidiaries of the Group that have material non-controlling interests.

	Registered office	% interest held		Profit allocated to non-controlling interests		Accumulated non-controlling interests	
Legal entity:		**31 Dec, 2021**	31 Dec, 2020	**31 Dec, 2021**	31 Dec, 2020	**31 Dec, 2021**	31 Dec, 2020
Daqing Volvo Car Manufacturing Co., Ltd.[7)]	China	50	50	1,389	1,844	2,462	9,441
Zhangjiakou Volvo Car Engine Manufacturing Co., Ltd.[7)]	China	50	50	277	74	1,148	1,207
Shanghai Volvo Car Research and Development Co., Ltd.[7)]	China	50	50	—	1	116	102
Bra Bil Sverige AB	Sweden	—	50	27	35	—	218
HaleyTek AB	Sweden	40	—	–20	—	340	—
Zenseact AB	Sweden	15	—	–42	—	457	—
Total non-controlling interests				**1,631**	**1,954**	**4,523**	**10,968**

7) 50 per cent held by Zhejiang Geely Holding Group Co., Ltd, which is the ultimate parent company of the Volvo Car Group.

NOTE 9 – EQUITY

In 2021, Volvo Car Group AB (publ.) was listed on the Nasdaq Stockholm. For further information, see Note 23 – Equity in the consolidated financial statements.

Dividends to shareholders include dividends to preference shareholders of 179 (–)m and SEK 5,979 (–) m to the main shareholder Geely Sweden Holdings AB. The dividend to Geely Sweden Holdings AB was, following a decision by the Board, settled through distribution of the entire shareholding in Powertrain Engineering Sweden AB and Powertrain Engineering Sweden Real Estate AB, with a net effect in Equity of SEK 5,025 m due to the fair value of the shares being higher than their carrying amount in the parent company.

NOTE 10 – FINANCIAL INSTRUMENTS

Bonds

In May 2021, Volvo Car AB (publ.) repaid a bond, issued in May 2016, of EUR 500 m. In December 2021, two bonds maturing in March 2022, with a total outstanding amount of SEK 3,000 m, were expired early by exercising the embedded call option of the bonds. In October 2020 Volvo Car AB (publ) issued its first Green bond on the capital markets amounting to EUR 500 m nominally, it is a seven-year bond with a fixed coupon rate.

Liabilities to credit institutions

A new, fully drawn, two-year credit facility amounting to SEK 4,000 m with a one-year extension option, was signed with the Swedish Export Credit Corporation in May 2020.

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.).

NOTE 11 – CONTINGENT LIABILITIES

Volvo Car AB (publ.) has a parental guarantee for Volvo Car Corporation for the purpose of securing the various obligations and liabilities under facility agreement with the European Investment Bank (EIB). The guarantee is in total of EUR 345 (245) m.

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	31,654,602,449
Retained earnings brought forward	SEK	–1,215,315,784
Net income for the year	SEK	3,155,589,257
At the disposal of the AGM	**SEK**	**33,594,875,922**

The Board proposes the following allocations of funds:

Carried forward	**SEK**	**33,594,875,922**

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, 31 March 2022

Eric Li (Li Shufu)
Chairperson of the Board

Jim Rowan
CEO

Lone Fønss Schrøder
Vice Chairperson of the Board

Michael Jackson
Board member

Daniel Li (Li Donghui)
Board member

Xingsheng (Jim) Zhang
Board member

Winfried Vahland
Board member

Betsy Atkins
Board member

Diarmuid O'Connell
Board member

Thomas Johnstone
Board member

Jonas Samuelson
Board member

Lila Tretikov
Board member

Adrian Avdullahu
Employee representative

Jörgen Olsson
Employee representative

Glenn Bergström
Employee representative

Our audit report was submitted on 31 March 2022
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 2021-01-01–2021-12-31. The annual accounts and consolidated accounts of the company are included on pages 48–53, 78–135 and 139–146 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 2021 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 2021 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.

Our opinions in this report on the annual accounts and consolidated accounts are consistent with the content of the additional report that has been submitted to the parent company's audit committee in accordance with the Audit Regulation (537/2014) Article 11.

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. This includes that, based on the best of our knowledge and belief, no prohibited services referred to in the Audit Regulation (537/2014) Article 5.1 have been provided to the audited company or, where applicable, its parent company or its controlled companies within the EU.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinions.

Key Audit Matters

Key audit matters of the audit are those matters that, in our professional judgment, were of most significance in our audit of the annual accounts and consolidated accounts of the current period. These matters were addressed in the context of our audit of, and in forming our opinion thereon, the annual accounts and consolidated accounts as a whole, but we do not provide a separate opinion on these matters.

Accounting for campaign warranty

The Company grants product warranties to their end customers, which are contractual warranties covering certain defects in material and workmanship of Volvo Car products sold. Estimated warranty costs include contractual warranty and other costs not covered by standard contractual commitments. All warranty provisions are recognized at the point of time when the sale of the vehicles or spare parts are made, subsequently adjusted for trends in claims data. Provision for campaign warranty is adjusted when campaign decisions for specific quality problems are made. The accounting principles for warranty and management's significant judgments applied in relation thereto are further described in Note 25 "Current and Other Non-Current Provisions" to the annual report.

Sufficient level of supporting data is required before the Company can make campaign decisions regarding specific quality problems and account for related campaign warranty provisions. Once decisions are taken, judgements and estimates are made by management to assess the expected campaign warranty spend and to conclude whether adjustments to provisions are required. Considering that the accounting for campaign warranty involves complexities and significant uncertainties, the accounting for completeness and measurement of provisions for campaign warranty was determined to be a key audit matter.

Our audit procedures included, but were not limited to:

- Evaluating the design of a relevant internal control related to accounting for campaign warranty.
- Assessing the reasonableness of the methodology used in determination of provision for campaign warranty, including accounting principles applied.
- On a sample basis, assessing and challenging the reasonableness of management´s significant assumptions in relation to expected number of products returned and the valuation of estimated cost for approved campaigns.
- Reading minutes and making inquiries to management to evaluate if decisions on campaigns have been taken subsequent to December 31, 2021 up to the signing of the annual report, that should have been reflected in the provision as of December 31, 2021.
- In collaboration with our IT-specialists, audited general IT-controls and relevant application controls for relevant warranty IT-systems.

Other information than the annual accounts and consolidated accounts

This document also contains other information than the annual accounts and consolidated accounts and is found on pages 1–46, 55–76, 136–138, 151–187, 189 and 191–197. The Board of Directors and the Managing Director are responsible for this other information.

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.

The Audit Committee shall, without prejudice to the Board of Director's responsibilities and tasks in general, among other things oversee the company's financial reporting process.

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.

A further description of our responsibilities for the audit of the annual accounts and consolidated accounts is located at the Swedish Inspectorate of Auditors website: www.revisorsinspektionen.se/revisornsansvar. This description forms part of the auditor's report.

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 2021-01-01–2021-12-31 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.

A further description of our responsibilities for the audit of the management's administration is located at the Swedish Inspectorate of Auditors website: www.revisorsinspektionen.se/rn/showdocument/documents/rev_dok/revisors_ansvar.pdf. This description forms part of the auditor´s report.

The auditor's examination of the Esef report

Opinion

In addition to our audit of the annual accounts and consolidated accounts, we have also examined that the Board of Directors and the Managing Director have prepared the annual accounts and consolidated accounts in a format that enables uniform electronic reporting (the Esef report) pursuant to Chapter 16, Section 4 a of the Swedish Securities Market Act (2007:528) for Volvo Car AB for the financial year 2021-01-01–2021-12-31.

Our examination and our opinion relate only to the statutory requirements.

In our opinion, the Esef report #[36a763aab5b2168542ff0e7f 2b5a79b647f33e2d8cc283396cb687d19491cb71] has been prepared in a format that, in all material respects, enables uniform electronic reporting.

Basis for opinion

We have performed the examination in accordance with FAR's recommendation RevR 18 Examination of the Esef report. Our responsibility under this recommendation is described in more detail in the *Auditors' responsibility* section. 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.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

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 Esef report in accordance with the Chapter 16, Section 4 a of the Swedish Securities Market Act (2007:528), and for such internal control that the Board of Directors and the Managing Director determine is necessary to prepare the Esef report without material misstatements, whether due to fraud or error.

Auditor's responsibility

Our responsibility is to obtain reasonable assurance whether the Esef report is in all material respects prepared in a format that meets the requirements of Chapter 16, Section 4(a) of the Swedish Securities Market Act (2007:528), based on the procedures performed.

RevR 18 requires us to plan and execute procedures to achieve reasonable assurance that the Esef report is prepared in a format that meets these requirements.

Reasonable assurance is a high level of assurance, but it is not a guarantee that an engagement carried out according to RevR 18 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 aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the Esef report.

The audit firm applies ISQC 1 *Quality Control for Firms that Perform Audits and Reviews of Financial Statements, and other Assurance and Related Services Engagements* and accordingly maintains a comprehensive system of quality control, including documented policies and procedures regarding compliance with professional ethical requirements, professional standards and legal and regulatory requirements.

The examination involves obtaining evidence, through various procedures, that the Esef report has been prepared in a format that enables uniform electronic reporting of the annual accounts and consolidated accounts. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement in the report, whether due to fraud or error. In carrying out this risk assessment, and in order to design audit procedures that are appropriate in the circumstances, the auditor considers those elements of internal control that are relevant to the preparation of the Esef report by the Board of Directors and the Managing Director, but not for the purpose of expressing an opinion on the effectiveness of those internal controls. The examination also includes an evaluation of the appropriateness and reasonableness of assumptions made by the Board of Directors and the Managing Director.

The procedures mainly include a technical validation of the Esef report, i.e., if the file containing the Esef report meets the technical specification set out in the Commission's Delegated Regulation (EU) 2019/815 and a reconciliation of the Esef report with the audited annual accounts and consolidated accounts.

Furthermore, the procedures also include an assessment of whether the Esef report has been marked with iXBRL which enables a fair and complete machine-readable version of the consolidated statement of financial performance, financial position, changes in equity and cash flow.

Deloitte AB, was appointed auditor of Volvo Car AB (publ) by the general meeting of the shareholders on the 2021-03-18 and has been the company's auditor since 2010-06-22.

Göteborg 2022-03-31
Deloitte AB

Jan Nilsson
Authorized public accountant

OUR SUSTAINABILITY PERFORMANCE

Setting ambitious targets, regular follow-up and transparent communication on progress make us better and more sustainable in our day-to-day operations.

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CLIMATE ACTION

CIRCULAR ECONOMY

ETHICAL & RESPONSIBLE BUSINESS

SUSTAINABILITY INFO

Stakeholder engagement

Stakeholder engagement

Our stakeholder involvement provides guidance on how we should develop and communicate our sustainability work. 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. Throughout 2021, we continued to communicate our sustainability progress to our stakeholders through press releases, our website, social media, our presence at conferences such as COP26 and in individual meetings.

IDENTIFIED STAKEHOLDERS GROUPS FOR VOLVO CARS

In the autumn of 2021, we carried out an international survey where external and internal stakeholders were asked which sustainability-related issues Volvo Cars should prioritise as a company. The stakeholders were selected based on relevance and previous contacts. Stakeholder input helps Volvo Cars define the most relevant areas linked to sustainability and this survey has supported the development of our sustainability strategy. Volvo Cars have performed this survey on a regular basis since 2014.

Materiality analysis

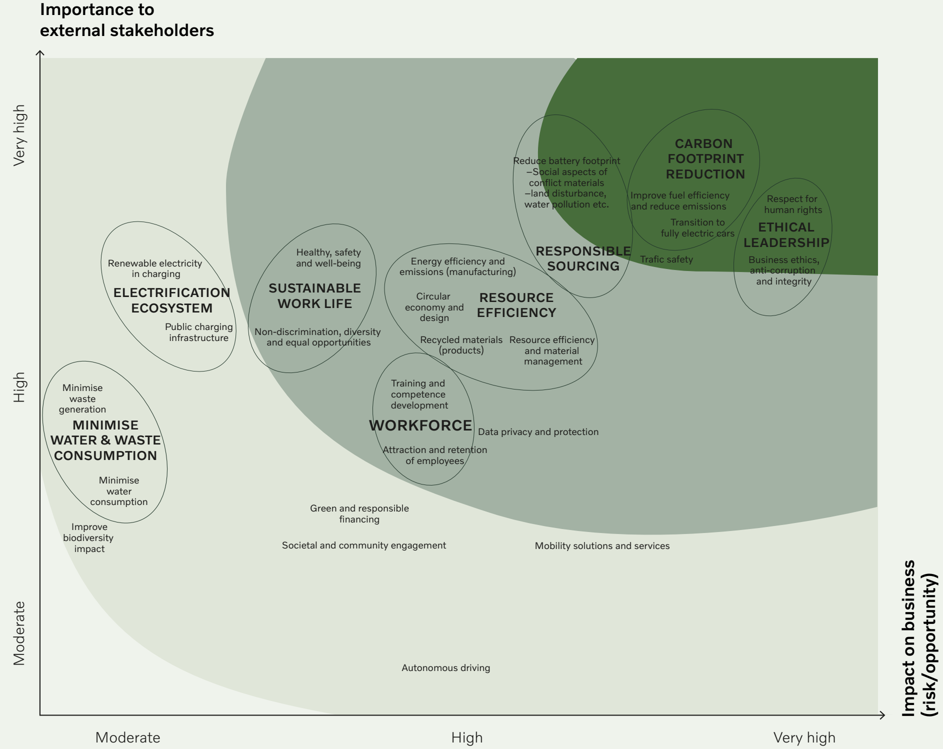
The topics assessed in the stakeholder survey have been analysed regarding impact on business (risk/opportunity). This is an internal qualitative analysis based on expertise, internal stakeholder input and risk management (read more about Enterprise Risk Management pages 55–60).

The graph combines two perspectives, the importance of the topics to external stakeholders (y-axis) and impact on business (risk/opportunity) (x-axis). The topics have been clustered to simplify and visualise larger trends.

The following are the most important sustainability areas for Volvo Cars to address (in order of importance):

1. Carbon footprint reduction (including electrification)
2. Ethical leadership
3. Responsible sourcing
4. Resource efficiency

OUR STAKEHOLDERS PRIMARILY PRIORITISE CARBON FOOTPRINT REDUCTION AND ETHICAL LEADERSHIP



Illustrative overview of material topics

Compared to our last survey, *Carbon footprint reduction* remains the most important topic. Moreover, Ethical leadership continues to score high. *Responsible sourcing* is of high importance to stakeholders, particularly in the sourcing of batteries. Responsible *battery sourcing* has also regularly been raised in our dialogues with investors, media and NGOs.

SUSTAINABILITY INFO

Our sustainability strategy and ambitions

The materiality analysis and input from our stakeholders have been aligned with our internal strategies, scenario and gap analyses, risk assessments, benchmarking, forecasts and consumer perception data in order to define what we consider to be our most relevant topics. We then developed the structure of our sustainability strategy with Strategic Focus Areas as well as Ambitions and Strategic Initiatives.

MATERIAL TOPICS | **STRATEGIC FOCUS AREAS** | **AMBITIONS AND STRATEGIC INITIATIVES**

Climate Action

Material topics:

- Total emissions and carbon footprint
- Transition to fully electric cars
- Improve fuel efficiency and reduce emissions in products
- Renewable electricity in charging
- Public charging infrastructure
- Improve energy efficiency and reduce emissions in manufacturing

READ MORE ON PAGE 155–161

Be a climate-neutral company by 2040

MID-DECADE AMBITIONS:

- 40 per cent reduction of total lifecycle CO_2 emissions per vehicle (baseline 2018):
  – Tailpipe emissions by 50 per cent
  – Supply chain emissions by 25 per cent
  – Operational emissions (including transport) by 25 per cent
- 50 per cent fully electric vehicles sales
- Climate neutral manufacturing operations

2030 AMBITIONS:

- 100 per cent fully electric vehicles sales
- 60 per cent reduction of absolute scope 1 and 2 GHG emissions (baseline 2019)*
- 52 per cent reduction of scope 3 GHG emissions from use of sold products per vehicle kilometer* (baseline 2019) (well-to-wheel)

Circular Economy

Material topics:

- Circular economy and design for recycling
- Resource efficiency and material management
- Use of recycled materials
- Minimise waste generation and water consumption

READ MORE ON PAGE 162–168

Be a circular business by 2040

MID-DECADE AMBITIONS:

- Achieve savings of SEK 1 bn and reduction of 2.5 m tonnes of CO_2 annually through adoption of circular economic principles (baseline 2018)
- 25 per cent of material in new vehicles to be recycled or bio-based
- Expansion of component value retention
- 20 per cent waste reduction per vehicle in manufacturing[8] (baseline 2018)
- 15 per cent water usage reduction per vehicle in manufacturing[8] (baseline 2018)
- Greater use of climate neutral energy in battery production and recycling partners in all regions

Ethical & Responsible Business

Material topics:

- Responsible sourcing of batteries
- Responsible supply chain
- Human rights
- Business ethics
- Sustainable worklife, including a diverse, inclusive and safe working environment

READ MORE ON PAGE 169–180

Be a recognised leader in ethical and responsible business

MID-DECADE AMBITIONS:

- Take the lead in setting a new global people standard for the industry
- Put sustainability on a par with quality and cost in procurement with responsible sourcing
- Sustainability criteria in debt funding, investments and financial products
- Tackle corruption and unethical business practices

*Our 2030 climate action ambitions are in line with the 1,5-degree scenario as verified by the Science-Based Targets initiative (SBTi) - a partnership between CDP, the United Nations Global Compact, World Resources Institute (WRI) and the World Wide Fund for Nature (WWF).
For further definitions and reporting principles see pages 185–187

SUSTAINABILITY INFO

Our approach to sustainability management

Volvo Car Group's sustainability strategy is fully integrated into our corporate strategy. The purpose of our governance structure is to improve cross-departmental collaboration and understanding and to provide guidance on strategic and operational decisions. We also regularly review our sustainability strategy, including through identification of emerging themes and issues.

Sustainability Governance

As outlined in the chart on this page, Volvo Car Group has put in place a governance structure to monitor the progress of its sustainability strategy, ambitions and initiatives.

Board of Directors (BoD)

Sustainability is deeply integrated into Volvo Cars strategy and the Board closely monitors our sustainability progress, including climate related risks and opportunities, as well as Volvo Cars' adherence to its Code of Conduct.

Executive Management Team (EMT)

The EMT is responsible for governance, execution and implementation of the sustainability strategy and monitors progress through a number of KPIs. Sustainability progress, including climate related risks and opportunities, is reviewed at least quarterly.

Global Sustainability Committee (GSC)

The GSC is chaired by the Head of Global Sustainability and consists of authorised line organisation representatives mandated to make decisions, provide guidance as well as support and drive sustainability performance. The purpose is to improve cross-departmental collaboration and understanding as well as act on major sustainability issues and risks. The GSC regularly updates and reports to relevant EMT Boards for decision. Climate related risks and opportunities are identified and fed into the Enterprise Risk Management process. The Head of Global Sustainability is one of the Corporate Risk Managers, see page 55.

Functional Management Teams

Functional Management Teams are responsible for ensuring that sustainability becomes an integrated part of everyone's daily work. This includes ensuring that necessary resources and funding are secured to enable delivery of their respective targets and ambitions.

Global Sustainability Team (GST)

The GST is centrally responsible for the day-to-day governance and coordination of sustainability. It develops and refines the sustainability strategy, leads and supports the strategic initiatives, and follows up the progress of our KPIs. It gathers business intelligence from stakeholders on sustainability matters and identifies climate related risks and opportunities that are assessed and fed into the Enterprise Risk Management process. GST also governs the Environmental Management System and the ISO14001 certificate adherence.

SUSTAINABILITY AT VOLVO CARS IS CENTRALLY GOVERNED AND COORDINATED

INTERNAL CONTROL OVER SUSTAINABILITY REPORTING

An internal control system for Sustainability Reporting is initiated. We have process maps for every KPI and our internal control activities are documented in Volvo Car Group's Internal Control framework over sustainability reporting.

Green Finance Committee (GFC)

The GFC reviews and validates the selection of the Eligible Green Projects (see Green Financing Report on page 189 for further information) and reviews the EU Taxonomy Report see (EU Taxonomy Report on page 184 for further information).

Tailpipe emissions

Our electrification strategy is key to reaching our tailpipe emission ambition. Volvo Cars was the first established carmaker to commit to full electrification and the phasing out of cars powered only by an internal combustion engine. By 2030, we will be a fully electric car company. We already offer plug-in variants for all our car models and our focus is on driving sales of our electrified vehicles. However, to ensure the success of our electrification strategy, the electric carline requires support from an ecosystem of seamless offers, services, and solutions. This is needed to remove the consumer concerns around electric vehicles and accelerate the shift towards more sustainable mobility. We are focusing on three main areas to make our electrified vehicles as convenient as possible and to support our customers in their transition into electrification:

- **Batteries** – securing sustainable batteries from mining to recycling and provide competitive consumer offers in terms of energy efficiency, charging speed and range
- **Charging** – providing access to the widest reach of charging points, together with a premium and consistent user experience across all touch point, no matter whether the car is charged at home, while travelling or at the retailer
- **Financial value for customers** – educating customers on total cost of ownership and residual value of electric vehicles

The continuous monitoring of fleet CO_2 performance, changes in product mix and developing efficient technological solutions are key enablers to meet and exceed the requirements of current and future emission legislations. Average CO_2 emissions decreased from 155 g/km in 2020 to 139 g/km in 2021. This improvement was mainly driven by increased sales of our Recharge cars. Average CO_2 emissions are based on official Worldwide Harmonized Light Vehicle Test Procedure (WLTP) data of Volvo cars sold in Europe (EU), applied on car types and the global number of manufactured cars. The car variants not tested in WLTP have been assigned CO_2 emission values based on similar WLTP tested variants. Our product offer is global and EU data is a fair estimate of similar products worldwide.

Electrified vehicles	2021	2020	2019	2018
Fully electric vehicles (BEVs) sold	25,727	4,659	—	—
Electrified vehicles sold[5]	189,216	115,436	45,933	37,386
Electrified vehicles sold[5] (percentage of sales)	27	17	7	6
Energy efficiency BEV (average) (Wh/km)	234	241	—	—

For further definitions and reporting principles see pages 185–187

Carbon footprint CO_2		2021	2020	2019	2018
Total CO_2 tailpipe emissions avoided[4] (kilo tonnes)		750	150	—	—
CO_2 emissions of products – EU fleet average (g/km)	WLTP	110	130	157	—
CO_2 emissions of products – EU fleet average (g/km)	NEDC	—	111	132	133

For further definitions and reporting principles see pages 185–187

CLIMATE ACTION: PERFORMANCE 2021

Carbon Footprint[1,3] CO_2 (kilo tonnes)		2021	2020	2019	2018
Total CO_2 emissions		32,024	33,993	38,355	36,765
Scope 1 (Direct GHG emissions)	Company facilities	70	75	85	81
	Company vehicles	7	9	12	12
		77	**84**	**97**	**93**
Scope 2 (Indirect GHG emissions)	Purchased electricity, steam, heating and cooling	45	101	131	96
		45	**101**	**131**	**96**
Scope 3 (Upstream indirect GHG emissions)	Purchased goods and services	11,650	11,017	11,272	10,383
	Transportation & distribution	625	639	680	596
	Waste generated in operations	6	7	7	7
	Business travel	12	15	75	100
	Employee commuting	40	40	70	70
	Leased assets upstream	8	19	14	—
		12,341	**11,737**	**12,118**	**11,156**
Scope 3 (Downstream indirect GHG emissions)	Transportation and distribution	413	350	343	396
	Use of sold products	17,924	20,480	24,345	23,785
	Leased assets downstream	3	4	4	4
	End of life treatment of sold products	404	399	419	385
	Retailers	817	838	898	850
		19,561	**22,071**	**26,009**	**25,420**

If scope 2 is calculated using a location-based methodology, total emissions for purchased electricity, steam, heating and cooling for own use would be 200 kt CO_2.

Emission summary	2021	2020	2019	2018
Total CO_2 emissions per manufactured vehicle[1,2] (tonnes)	49.8	51.6	54.4	55.0
Tailpipe CO_2 emissions per manufactured vehicle[1,2] (tonnes)	27.9	31.1	34.5	35.6
Supply chain CO_2 emissions per manufactured vehicle[1,2] (tonnes)	18.1	16.7	16.0	15.5
Operations CO_2 emissions per manufactured vehicle[1,2] (tonnes)	3.8	3.8	3.9	3.9
SBTi target[1] follow-up – Scope 1 and 2[6] (%)	–46,5%	–18,9%	Baseline	—
SBTi target[2] follow-up – Scope 3 Use of sold products[7] (well-to-wheel) (%)	–10,2%	–5.2%	Baseline	—

For further definitions and reporting principles see pages 185–187

CLIMATE ACTION: PERFORMANCE 2021

Supply chain emissions

Reducing supply chain emissions are a key driver for overall emissions reductions. They also present a challenge, which we are addressing. We believe that through the requirements we place on our suppliers, we can have a positive catalytic effect across many currently carbon-intensive sectors.

We expect to achieve our ambition of a 25 per cent CO_2 per car reduction from the supply chain by working closely with suppliers, including greater usage of sustainable materials (including recycled and bio-based materials) and climate neutral energy as well as limiting wastage.

Close collaboration between us and our suppliers is crucial. Our roadmap to 2025 includes all our Tier 1 suppliers using 100 per cent climate neutral energy and the disclosure of climate data. We are actively including sustainability in sourcing decisions, enabling us to select business partners that share our strategic ambitions and can help us deliver on our targets. We require suppliers to disclose data on emissions and energy use specific to each manufacturing site and location.

For this purpose, we have developed an Environmental Assessment tool that collects this data. The results shows that the Tier 1 suppliers' sites, in total, used 8.5* per cent climate neutral energy in 2020. Volvo Cars also participated in the CDP Supply Chain Program 2021 and collected data via the climate questionnaire for our top 112 strategic suppliers based on emission intense product categories as well as spend. The results of the initial 2021 report shows that these suppliers, in total, used 8.3* per cent climate neutral energy in 2020 for their global operations (including business units that do not deliver to Volvo Cars). We will continue to collect relevant supplier data on a yearly basis to track our supplier's progress within climate action and focus on improvements where it could impact the most e.g., through an increased share of climate neutral energy and CO_2 emission reduction targets.

To further decrease the supply chain emissions, we are targeting components and materials with a high impact. Examples of materials with a major contribution is aluminium and steel. Aluminum is representing 30 per cent of the CO_2 emissions from the material in an average C40 electric car, making it a key focus area. As the majority of the CO_2 emissions from aluminium production is coming from the smelting process, we are directing our suppliers to a number of approved aluminium smelters to be used for components containing aluminium delivered to us. This to enable our suppliers to source aluminium from smelters that are using climate neutral electricity in the refining process and thereby reduce the CO_2 impact.

*The supplier data collected for 2020 on climate neutral energy consists of renewable energy data only.

VOLVO CAR GROUP IS FIRST CAR MAKER TO EXPLORE FOSSIL-FREE STEEL WITH SSAB

Volvo Cars has teamed up with Swedish steel maker SSAB to jointly explore the development of fossil-free, high quality steel for use in the automotive industry. The collaboration makes Volvo Cars the first car maker to work with SSAB and its ground-breaking HYBRIT initiative, the steel industry's most ambitious and advanced project in fossil-free steel development. Steel represents between 20–35 per cent of production emissions within our vehicles, so is an important material to address.

As part of the collaboration, Volvo Cars will be the first car maker to secure SSAB steel made from hydrogen-reduced iron from HYBRIT's pilot plant in Luleå, Sweden. This steel will be used for testing purposes and may be used in a concept car.

In 2026, SSAB aims to supply the market with fossil-free steel at a commercial scale. Volvo Cars aims to also be the first car maker to use fossil-free steel for its own production cars.

"As we continuously reduce our total carbon footprint, we know that steel is a major area for further progress," said Håkan Samuelsson, chief executive at Volvo Car Group. The collaboration with SSAB on fossil-free steel development could give significant emission reductions in our supply chain.

READ MORE – PRESS RELEASE

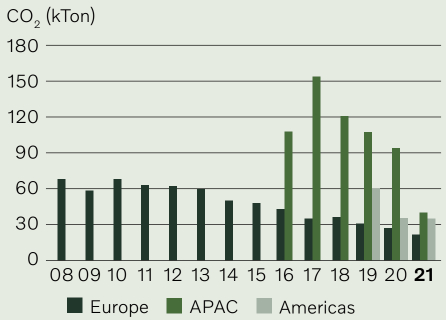
Operational emissions

We will continue to address our total operational emissions. We are making good progress towards our ambition of having climate neutral manufacturing operations by 2025. Since the emissions from manufacturing represents a small part of our operational emissions, we also work to reduce emissions from other operational areas such as our offices, business travel, as well as from our logistical operations.

Toward climate neutral manufacturing operations

Currently our global plants are run on 64 per cent climate neutral energy (including 94 per cent climate neutral electricity). The total CO_2 emissions of Volvo Cars' production sites amounted to 111,000 tonnes in 2021.

NET CO_2 EMISSIONS FROM ENERGY – MANUFACTURING OPERATIONS



Energy use (MWh)		2021	2020	2019	2018
Manufacturing Operations[9]					
Total energy use (direct and indirect)[10]	Europe	626,000	647,000	726,500	778,000
	Asia	312,000	332,000	358,000	400,000
	Americas	92,000	92,000	131,800	—
	Total	**1,030,000**	**1,071,000**	**1,216,300**	**1,178,000**
Energy use per manufactured vehicle[11] (MWh/vehicle)	Europe	1.4	1.5	1.5	1.6
	Asia	1.8	2.0	2.2	2.3
	Americas	5.8	4.1	3.8	—
	Total	**1.6**	**1.7**	**1.8**	**1.8**
Climate neutral electricity (%)		94	84	79	—
Climate neutral energy, i.e. including heating (%)		64	56	54	—
Renewable electricity (%)		93	83	—	—
Renewable energy, i.e. including heating (%)		49	44	—	—
Energy efficiency savings (MWh)		37	56	57	—
Energy efficiency savings (SEK)		18	29	32	—
Own production of renewable energy (Charleston, Ghent, VCBC) (MWh)		25,000	27,000	14,000	13,000
Work place facilities[12]					
Total energy use (MWh)		163,000	—	—	—
Total energy use (MWh)		1,193,000	—	—	—
Total energy use per manufactured vehicle[11] (MWh/vehicle)		1.9	—	—	—
Energy consumption intensity (MWh/MSEK) (revenue)		3.7	—	—	—

For further definitions and reporting principles see pages 185–187

CLIMATE ACTION: PERFORMANCE 2021

2021 was a significant year in our ongoing efforts to reduce carbon footprint within Manufacturing. Our plant in Torslanda, Sweden was the first of our car plants to reach climate neutrality, through shifting to biogas and climate neutral district heating. The plant has been powered by climate neutral electricity since 2008. Furthermore, our plant in Daqing, China, secured a 100 per cent climate neutral electricity supply. Both Torslanda's and Daqing's achievements are important steps towards our ambition to have climate neutral manufacturing at all our manufacturing plants by 2025.

We define a manufacturing plant as climate neutral when there's no net increase in the emission of greenhouse gases due to the electricity and heating used by the plant. That means our operational emission ambition for 2025 depends on the availability of climate neutral heating and electricity.

Our climate neutral ambition includes emissions derived from both electricity and heating (natural gas, LPG, fuel oil and district heating). Our approach is based on three general activities:

1. Reduce energy usage through efficiency improvements and energy recovery
2. Buy climate neutral energy from energy/utility suppliers
3. Implement on-site generation/extraction of renewable energy

Reduce energy usage through efficiency improvements and energy recovery

We have worked systematically with energy saving projects since 2010. Energy efficiency actions in our production plants during 2021 resulted in a yearly energy use reduction of 37 GWh. During 2021, this has resulted in direct and indirect savings of nearly 18 MSEK.

Some examples of the most significant energy conservation measures completed in 2021 include exchanging old gas oil boilers with heat pumps connected to district heating, shutting down certain sealer ovens, reducing airflows in control zones in paint shops, as well as exchanging old air handling units against new units with heat exchangers.

We aim for the new buildings to fulfil LEED (Leadership in Energy and Environmental Design) level Gold and large re-buildings to fulfil LEED level Certified. LEED provides a concise framework for identifying and implementing practical and measurable green building design construction.

Buy climate neutral energy from energy/utility suppliers

In Europe, we have successfully reduced our CO_2 emissions over the years and have stabilised at a low level. In Asia we secured a climate neutral electricity supply at our Daqing plant, following the Chengdu plant that secured climate neutral electricity in 2020. Moving forward, challenges are mainly around the availability of other energy sources and technical solutions for heating the paint shops.

Implement on-site generation/extraction of renewable energy

To date, we have installed solar panels and wind turbines which in 2021 generated 14,3 GWh and 11,1 GWh respectively. Together it cover about 5 per cent of the electricity used in our manufacturing plants.

Toward climate neutral operation in our workplace facilities

We aim for climate neutral workplaces by 2025 (including all Volvo Cars owned and leased offices, showrooms, warehouses, and R&D facilities). Our climate neutral ambition includes reducing emissions derived from both electricity and heating (natural gas, LPG, fuel oil, diesel, and district heating). The total CO_2 emissions of Volvo Cars' workplaces is estimated to be around 18,600 tonnes in 2021.

Logistical operations (Transport)

We are committed to reduce emissions from transports across our supply chain, focusing on an efficient mix of transport modes for end-to-end solutions, with preference for rail and ocean freight options. In 2021, we have redesigned our global logistics networks, for continuous implementation and improvement over the next few years. Our logistics networks will be optimised for electric car transport and the ability to offer our customers rapid delivery, all with a clear focus on stability, sustainability and efficiency.

2021 was a challenging year in terms of supply constraints and we saw a negative impact on our CO_2 transport emission progress, ending the year on an increase by 11 per cent per car, primarily due to the need for air freight in our inbound operations.

We succeeded to mitigate the increase of emissions from switching from rail to ocean in an end-to-end redesign of the APAC outbound network. The solution includes the use of domestic electric rail to transport fully electric cars and the replacing of road transports with the more efficient short sea and inland water ways for domestic distribution in China.

Our intermodal concept in Europe, using rail, sea vessel and on the final leg trucks running on sustainable and renewable HVO diesel, has continued to show proven capability of being flexible and stable, also under challenging pandemic conditions. This solution has performed with a 50 per cent improvement in CO_2 emissions compared to a conventional flow using trucks running of fossil diesel.

CLIMATE ACTION: PERFORMANCE 2021

In 2021, we also opened a new regional distribution centre in Dubai, streamlining the flow of spare parts to Middle East and African markets. The new setup replaces small shipments by air with consolidated sea transports, resulting in a lower CO_2 footprint from transports in this area.

We continue our efforts to design our networks using the most sustainable mode options available, achieving a strong filling rate in our inbound transports and aim to reduce air freight to a minimum.

Sustainability in the retailer network

We have guidance and recommendations in place for our retail partners to decrease their environmental footprint. During 2021 a market-by-market assessment of the retailer network's emissions have been performed, to form the basis for a 50 per cent reduction target for most markets globally by 2025. Action plans are developed on a local (national) level to accommodate the most effective, targeted approach with regards to local opportunities and regulations. The main focus is a shift to renewable electricity, but other opportunities like sustainable furniture, energy-saving construction, water management, waste sorting and employee commuting are also part of the programme.

Progress measurements will take place on an annual frequency as from 2021 (during early 2022).

Logistics	2021		2020		2019		2018	
Total CO_2 Emissions – Supply Chain Logistics (t CO_2)[15] (tonnes)	Up-stream	Down-stream	Up-stream	Down-stream	Up-stream	Down-stream	Up-stream	Down-stream
	625,000	337,000	639,000	291,000	680,000	282,000	596,000	346,000
Transports – Car production & distribution (kg CO_2/ car)[16]	1,476	—	1,323	—	1,277	—	1,389	—
Total CO_2 emissions & Transport work per transport mode (tonnes CO_2/ transport mode)[17]	CO_2 (tonnes)	Transport Work (Mtkm)	CO_2 (tonnes)	Transport Work (Mtkm)	CO_2 (tonnes)	Transport Work (Mtkm)	CO_2 (tonnes)	Transport Work (Mtkm)
Rail	35,312	2,465	—	—	—	—	—	—
Sea	342,073	20,841	—	—	—	—	—	—
Road	340,968	6,429	—	—	—	—	—	—
Air	318,499	212	—	—	—	—	—	—

For further definitions and reporting principles see pages 185–187

CLIMATE ACTION: PERFORMANCE 2021

Implementing a carbon price to future proof our business

In 2021 we introduced a carbon price of 1,000 SEK/tonne CO_2 across our complete operations, to help steer investments and decisions towards our targets. We are the first car maker to move from words to action and implement such a carbon pricing mechanism.

By introducing a price on carbon, and implement in our vehicle programme development, major investments and sourcing decisions, we aim to future-proof our organisation and be ahead of the regulatory curve. We anticipate and are in favour of more governments implementing carbon pricing in the coming years. Carbon pricing is one of the components in our approach to implement CO_2 performance steering, creating a steering mechanism to support decisions in line with our climate action targets - putting sustainability on par with quality and cost. The price level will be re-evaluated regularly to ensure we steer our decisions in the right way.

CO_2 implemented in our quarterly reports

From Q3 2021, we reported our quarterly CO_2 footprint and our quarterly CO_2 reduction. We regard reporting CO_2 and financial data as equally important. Through this measure, we hope to encourage other companies to also include their total carbon footprint in their quarterly reporting.

The lifecycle performance of our products

In 2021, Volvo Cars released its second comprehensive Life Cycle Assessment (LCA) for the Volvo C40 Recharge. It pointed at the importance of increased availability of clean energy for both manufacturing and charging, as it makes a huge difference in terms of the lifecycle CO_2 impact. Indeed, at COP 26, we called for greater availability of clean energy to realise the true climate potential of electric vehicles.

When a driver charges a C40 Recharge with clean energy, such as wind power, the CO_2 life cycle impact of the car is nearly half that of a C40 powered by electricity from the global energy mix (around 60 per cent generated from fossil fuels).

The LCA report for the C40 Recharge shows that when charging it with electricity generated from clean sources, its lifecycle CO_2 footprint comes down to approximately 27 tonnes of CO_2, compared to 59 tonnes for an XC40 powered by a combustion engine. However, when drivers charge their C40 Recharge using an average global energy mix (which is generated for around 60 per cent from fossil fuels), the car's life cycle CO_2 footprint can increase to as much as 50 tonnes, significantly reducing the environmental gains versus a traditionally powered car.

Climate neutral energy is also an important factor in reducing the carbon footprint involved in producing an electric car. The LCA reveals that production emissions of a C40 Recharge are 70 per cent higher than for a petrol-powered XC40. This is mainly due to the carbon intensity of battery and steel production, as well as from the increased share of aluminium in the car. By ensuring fossil free energy in the production of the car, these emissions can be significantly reduced.

In order to ensure our consumers are well informed about the carbon impact of our fully electric cars, key data from the LCAs are readily accessible to them via the vehicle's product page on our website.

READ MORE – LCA REPORTS XC40 & C40

READ MORE – SPECIFICATIONS XC40 & C40

CIRCULAR ECONOMY: PERFORMANCE 2021

Circular Design

Design and engineering play a crucial role for achieving our ambitions of becoming climate neutral and circular. When designing our products and their components we are considering their entire value chain; from the material's origin, through resource efficiency in production to our products reaching the end of their first life. We want our components and materials to live many lives through recirculation and we design for value retention. Already in the design phase we consider the recycling of materials to their highest value and preserving the life and value of components by emphasising both durability and enabling reuse, repair, remanufacturing and refurbishment.

Moreover, we design for durability and product life extension. We design our cars to fulfil the EU End-of-Life Vehicle Directive so that the materials in a minimum of 85 per cent of the vehicles' weight can either be reused or recycled, and a minimum of 95 per cent of the vehicle can be recovered. Beyond that, we are committed to circular material loops and therefore demand raw materials with recycled content, globally. On a global fleet basis we currently use 15 per cent recycled steel, 10 per cent recycled aluminium and 4 per cent recycled plastics and bio-based materials. An average Volvo vehicle on the market today has approximately 10 per cent recycled content. We are continuously developing our engineering design guidelines so that they follow the latest in sustainability knowledge, technology development and offerings from our partners. Beyond that, we are committed to using circular material loops and demand recycled materials, globally.

Recyclability at end-of-life

It is becoming more important to ensure that value can be reclaimed from our vehicles at the end of their life. We are designing our products for recyclability and for retaining the value of materials in the entire value-chain. We are evaluating the potential to eliminate materials which could hinder the recycling process and rationalising the materials we use. The methods we use to build a car are also being reviewed to ensure they don't prevent recycling. We are also looking to partner with suppliers to pilot projects enabling circular material loops.

A circular scenario for passenger cars could reduce CO_2 emissions by 70% in 2050[34]

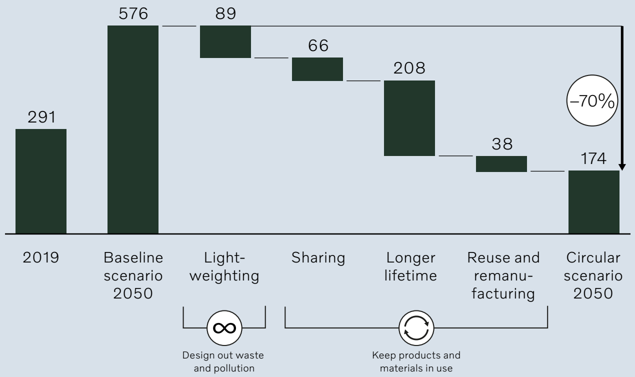
Resource consumption (material use) is expected to grow from 79 giga-tonnes in 2011 to 167 giga tonnes in 2060[33]. The carbon footprint of resource extraction and production accounts for almost 45 per cent of GHG emissions[34] and 90 per cent of water stress and biodiversity loss due to land use[35].

In 2019 emissions from all materials used in passenger cars was 291 million tonnes and estimated scenario (used as baseline) for 2050 is 576 million tonnes[34]. Circular economy strategies such as lighter weight vehicles, car sharing business models, design for durability (longer lifetime), reuse and remanufacturing can reduce global CO_2 emissons by 70 per cent in 2050[34].

Volvo Cars, as an automotive manufacturer plays a significant role in resource consumption of key materials such as steel, aluminium and plastic and must apply circular economy strategies alongside decarbonisation of energy.

For sources and more information see pages 185–187

EMISSIONS FROM ALL MATERIALS USED IN PASSENGER CARS (MILLION TONNES OF CO_2 PER YEAR, GLOBALLY)



Waste and water usage reduction

Reducing waste generation and water usage across the company is essential. The majority of waste generation and water usage occur in the manufacturing operations. However, we understand the importance of tackling our total waste generation and water consumption and we are working to get non-manufacturing quantification and initiatives, including all Volvo Cars owned and leased offices, showrooms, warehouses, test, training and R&D facilities. Reducing waste is also a major focus in our standards for our partners in retail and suppliers.

Waste, Manufacturing Operations[9] (tonnes)		2021	2020	2019	2018
Hazardous waste	Europe	9,200	13,800	17,500	17,900
	Asia	1,400	1,600	2,100	2,700
	Americas	15	15	20	—
	Total	**10,615**	**15,415**	**19,620**	**20,600**
Metal[13]	Europe	134,000	135,000	153,100	166,000
	Asia	70,000	68,000	67,400	72,000
	Americas	5,000	6,700	11,400	—
	Total	**209,000**	**209,700**	**231,900**	**238,000**
Non-hazardous waste (including metal)[13]	Europe	224,000	220,300	232,000	235,000
	Asia	49,000	54,600	61,500	68,500
	Americas	5,100	5,500	9,300	—
	Total	**278,100**	**280,400**	**302,800**	**303,500**
Total waste	Europe	233,200	234,100	249,500	252,900
	Asia	50,400	56,200	63,600	71,200
	Americas	5,115	5,515	9,320	—
	Total	**288,715**	**295,815**	**322,420**	**324,100**
Total waste per manufactured vehicle[11] (kg/vehicle)	Europe	528	531	514	515
	Asia	286	332	386	412
	Americas	323	250	264	—
	Average	**456**	**468**	**471**	**488**
Recycling rate for total waste (%)		96	95	94	94
Waste to landfill (%)		0.5	1	1	1

For further definitions and reporting principles see pages 185–187

Waste management

We focus on reducing waste in all our operations. The ambition is to reduce the waste generated in Manufacturing with 20 per cent between 2018 and 2025[8]. Unfortunately, in 2021 we saw a 1 per cent increase in waste generation per car in manufacturing. This is mainly due to disturbed supply chains due to Covid-19 and rebuilding activities generating waste.

Our largest waste stream is metal from car production, which amounted to 209,000 tonnes in 2021 and is entirely recycled. Moreover, we launched initiatives to reduce the amount of waste by increasing the utilisation degree of metals.

We aim to increase the recycling rate of waste at our manufacturing plants and to 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 count's. In 2021, we achieved a material recycling rate of 96 per cent and the amount of landfilled waste was less than 1 per cent.

Water management

Our target is to reduce the water usage per car by at least 15 per cent between 2018 and 2025[8]. By the end of 2021, we reduced water usage with 23 per cent. Thanks to an increased focus on water usage and process improvements as well as improvements in maintenance and leakages control.

Water use, Manufacturing Operations[9] (m^3)		2021	2020	2019	2018
Total water use	Europe	595,000	655,000	705,000	751,000
	Asia	663,000	851,000	1,047,000	1,190,000
	Americas	133,000	175,000	312,000	—
	Total	**1,391,000**	**1,681,000**	**2,064,000**	**1,941,000**
Total water use per manufactured vehicle[11] (m^3/vehicle)	Europe	1.3	1.5	1.5	1.5
	Asia	3.8	5.0	6.3	6.9
	Americas	8.4	7.9	9.0	—
	Average	**2.2**	**2.7**	**3.0**	**2.9**
Water withdrawal in water-stressed areas[14]					
Megalitres of water consumed in areas with high or extremely high baseline water stress		355	—	—	—
Share of water consumed in areas with high or extremely high baseline water stress (%)		34	—	—	—

For further definitions and reporting principles see pages 185–187

CIRCULAR ECONOMY: PERFORMANCE 2021

Material value retention

We are focusing heavily on improving efficiency of our in-house use of steel and aluminium. We are also setting targets for our suppliers of four per cent waste reduction year-on-year from 2018. Currently, 47 per cent of our suppliers have reported waste reduction targets. Where we cannot avoid waste our focus is on establishing industrial symbiosis and creating high value loops of materials. For an overview of our material footprint versus material weight, see graph on page 166.

Recycled plastics and bio-based materials

In 2018, we announced our ambition that by 2025, at least 25 per cent of plastics in our new vehicles will be made from recycled and bio-based materials. We are continuing to work towards this ambition in close collaboration with raw material suppliers, component suppliers, and the recycling industry. We are also participating in research projects and push for a greater supply of recycled plastics within the automotive industry. Furthermore, we are striving to get more circular material flows, renewable feedstocks and are incorporating bio-based fibres in our components. As an example of our work, in 2021 we changed to recycled plastics in the front bumper in the model year update of our XC60.

Sustainable steel

Iron and steel have always been core materials for the company. However, we recognise that they are carbon-intensive and contain valuable, finite materials. Finding ways to reduce their environmental impact is important in reaching both our climate and circular economy goals, particularly our ambition to secure 25 per cent recycled steel in our new vehicle models by 2025. The multiple technological advancements and breakthroughs towards fossil-free steel production processes will offer unique opportunities to achieve our medium- and long-term ambitions. In the short term, four additional topics are in focus:

- promotion of steel making technologies which enable higher recycled content while generating lower carbon emissions
- material, energy and process efficiency in order to reduce the amount of scrap, and energy, as well as increase the material utilisation degree of our production processes
- mapping of possible future close loop paths to reuse and recycle our steel materials and components
- investigations on upcycling of steel, allowing the material to be used in products with better quality than the original steel material

Material value retention	2021	2020	2019	2018
Aluminium saved due to remanufacturing (tonnes)	132	126	144	216
Copper saved due to remanufacturing (tonnes)	10	—	—	—
Steel saved due to remanufacturing (tonnes)	260	271	341	424
Total material saved due to remanufacturing (weight of parts) (tonnes)[18]	457	—	—	—
Closed loop returns of aluminium (%)	79	—	—	—
CO_2 saved from reuse of aluminium, steel and copper (tonnes)	4,222	4,116	3,321	4,761

For further definitions and reporting principles see pages 185–187

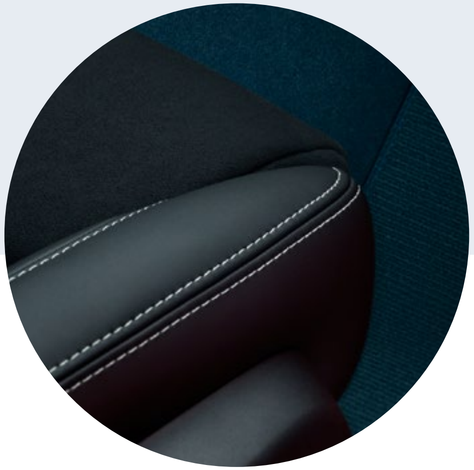
With an increased focus on design and manufacturing solutions, we will be able to increase the material utilisation of sheet steel for our future cars significantly. This is due to a more cross-functional approach early in the design phase, looking at both optimisation but also new design and more integration. A number of advanced engineering projects are ongoing due to the renewed focus and as a result, we look to improve our material utilisation of sheet steel by up to 5 per cent. This will lead to both lower costs and reduced amounts of material that need to be recycled.

Sustainable aluminium

A decreased carbon footprint of aluminium alloys and an increased amount of recycled material (secondary aluminium) in our cars are two major axes of our strategy. To achieve this, we work in close collaboration with our partners. Our actions have focused on both greater use of existing aluminium smelters who are able to provide the most sustainable materials and also encouraging emerging technologies for our future models. We are involving actors along the entire supply chain by setting clear requirements upstream, including an increased use of recycled aluminium material and carbon-lean production processes. Downstream, we are collaborating with our suppliers and closing the material loops through the recycling of all aluminium stamping scrap and ensuring it re-enters our production. We already have a 100 per cent closed loop of aluminium sheets in Europe.

Electronics

Digitalisation is a major enabler for making our products personal, safe and sustainable. However, electronics and materials used to support digitalisation often bear a substantial climate and environmental impact. Therefore Volvo Cars is working to minimise the footprint of our electronics, focusing on developing efficient digital solutions used in our vehicles. Electronics need to be used responsibly, by providing the highest possible functionality with the minimal amount of hardware. It is important to consider the entire value chain of the electronics used in our products throughout the different lifecycle stages: raw material extraction, production, use and end of life. We believe that an important step for reducing the footprint of our digitalisation is enabling circularity and second life for our electronic components.



ANIMAL WELFARE & SUSTAINABLE INTERIOR MATERIALS

Volvo Car Group is taking an ethical stand for animal welfare in its fully electric cars. Starting with the new C40 Recharge, all new fully electric Volvo models will be completely leather free. By 2030 we aim to offer only fully electric cars – all of them leather free.

The company's move towards leather free interiors is also driven by a concern about the negative environmental impacts of cattle farming, including deforestation and global greenhouse gas emissions.

As part of its ambitions to go completely leather free, Volvo Car Group is working actively to find high-quality and sustainable sources for many materials currently used in the wider car industry. Instead of leather interior options, Volvo Car Group will offer its customers alternatives such as high-quality sustainable materials made from biobased and recycled sources.

For example, Nordico, a new interior material created by Volvo Car Group, will consist of textiles made from recycled material such as PET bottles, bio attributed material from sustainable forests, and corks recycled from the wine industry. It has a 74 per cent lower carbon footprint than the leather we currently use.

In 2021, we issued a report "The Rise of Conscious Design," in conjunction with The Future Laboratory, which revealed both the increasing consumer demand for more sustainable material, and the scale of the potential commercial opportunity. The report also highlighted the growing focus of designers on high-quality, sustainable and responsibly-sourced material – which we believe is the future of luxury materials.

READ MORE – PRESS RELEASE

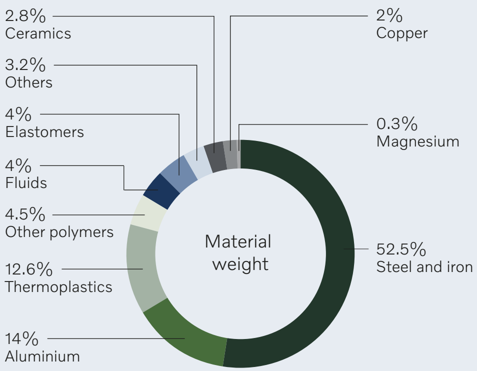
READ MORE – THE RISE OF THE CONSCIOUS DESIGN (FULL REPORT)

CIRCULAR ECONOMY: PERFORMANCE 2021

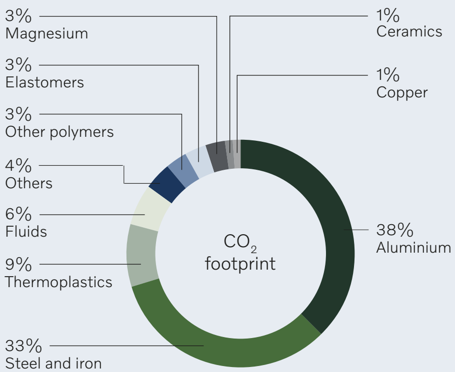
MATERIAL BREAK DOWN PER CAR MODEL

					T8 plug-in hybrid			BEV	
Materials		V60	XC60	V90	XC90	S60	S90L	XC40	C40
Material breakdown per car model (kg)	Steel and iron	878	905	875	1,177	1,087	1,136	934	909
	Aluminium	236	266	255	358	295	323	404	385
	Copper	29	30	32	62	51	59	71	75
	Magnesium	8	11	7	9	7	10	4	4
	Thermoplastics	232	240	239	293	229	271	246	236
	Elastomers	59	91	75	96	74	84	73	68
	Other polymers	64	75	89	93	96	116	90	157
	Glass and ceramics	55	56	59	61	53	55	49	55
	Fluids	70	66	76	89	81	82	26	26
	Others	51	41	58	108	75	87	275	270
	Total	**1,682**	**1,781**	**1,765**	**2,346**	**2,048**	**2,223**	**2,172**	**2,185**

MATERIAL BREAKDOWN PER AVERAGE CAR (WEIGHT)*



MATERIAL BREAKDOWN PER AVERAGE CAR (CO_2)**



The majority of the CO_2 emissions from an average Volvo car comes from the production of Aluminum and Steel. In a battery electric vehicle, the battery is also a significant share of the total emissions. Our priority is to reduce emissions from all areas of the car, with the highest emission categories being of extra importance.

*Based on weighted average of materials and volume of vehicles. Numbers might not add up to 100 per cent due to rounding.
**Based on emission factors per material type, weighted average of materials and volume of vehicles. Numbers might not add up to 100 per cent due to rounding.

Component value retention

Our aim is to ensure longer use of our components by emphasising both durability and retaining value by reuse, repair, remanufacturing and refurbishment.

Remanufacturing

Volvo Cars remanufacturing programme restores replaced parts to their original specifications to realise both environmental and financial savings. A remanufactured part means up to 85 per cent less raw materials and 80 per cent less energy compared to a new part. In 2021 Volvo Cars remanufactured 37,567 parts, which enabled us to save in total 457 tonnes of material. In particular, the programme saved approximately 260 tonnes of steel, 132 tonnes of aluminium and 10 tonnes of copper. The energy saved corresponds to a carbon dioxide emission reduction of 4,222 tonnes per year.

Post first life of electric vehicles batteries

Volvo Cars has a three-step strategy (reuse/repair/refurbish, 2nd life and recycle) for handling electric vehicle batteries after their original use in the cars, i.e., post-first life. The purpose of the strategy is to maximise battery utilisation, minimise our environmental impact by enabling circular material flow, and decrease cost. As of today, we have collected around 1,647 (1,250) batteries that will be used as core material for our reuse, repair and refurbish processes. We have seen an increased number of batteries coming from our R&D and test facilities during 2021.

Reuse/repair/refurbish and 2nd life of batteries

The establishment of Regional Battery Centres are a central part of the strategy. The strategy is realised firstly by the reuse, repair and refurbish of batteries to prolong the use in the cars. Secondly, we are piloting diverse solutions for use of batteries outside the car, i.e., energy management storage systems.

Recycling of batteries

Volvo Cars guarantee that batteries under our control are always recycled by contracted recyclers to avoid batteries ending up as landfill. We have contracted battery recyclers, and we are pursuing to collaborate with recyclers using a hydrometallurgical technology given the potentially high recovery rate, high purity, low energy usage and CO_2 emissions. In Europe we collaborate with Hydrovolt (a joint venture between Norsk Hydro and Northvolt) where batteries in Volvo Cars' control are sent for recycling. The recovered material is sent for further treatment at Northvolt where it is used in new battery cells.

Component value retention	2021	2020	2019	2018
Number of remanufactured parts	37,567	39,828	49,408	67,276
Number of batteries collected and sent for recycling	1,071	—	—	—

CIRCULAR ECONOMY: PERFORMANCE 2021

Usage models

Our mobility solution, M, is evidence to how new business models can support our circular economy strategy. A growing number of progressive cities and companies are focused on reducing their emissions, while traditional views on car ownership are changing. We believe that car sharing will play a critical role in reducing the number of cars in urban settings, and increase the utilisation of fleets, while meeting growing demand for shared ownership. The environmental and quality of life benefits are clear. Each shared M car can replace up to nine privately owned cars[36], which helps to free up space as well as to achieve substantially reduced resource consumption and emission generation.

Vehicle utilisation	2021	2020	2019	2018
Average number of kilometres driven per vehicle – owned/leased vehicles[19]	14,532	–	–	–
Average number of kilometres driven per vehicle – Volvo Car Mobility vehicles	21,027	–	–	–
Average number of passengers per vehicle and kilometre – owned/leased vehicles[20]	1.87	–	–	–

For further definitions and reporting principles see pages 185–187

Biodiversity

Volvo Cars has evaluated how many of our sites, manufacturing plants and offices, that are in or adjacent to Key Biodiversity Areas (KBA). Seven of our sites, with a total area of 230 ha lie within or adjacent a KBA. Our manufacturing and office sites are in total 2,800 ha. In this we include all land that we own (including both land and buildings) plus building area that we lease, e.g. offices and warehouses. Our focus on protecting biodiversity will increase in coming years. Moreover, we follow the development on TNFD.

Biodiversity – Land use and ecological sensitivity [21]	2021	2020	2019	2018
Number of sites in or adjacent to KBA	7	–	–	–
Number of hectares in or adjacent to KBA	230	–	–	–
Share of hectares in or adjacent to KBA	8%	–	–	–

For further definitions and reporting principles see pages 185–187

DIVERSITY AND INCLUSION

We have an open culture and strive to be a truly global and diverse company by promoting inclusiveness and leading by example. We want everyone at Volvo Cars to feel that they can be themselves at work. We encourage and welcome different perspectives to make room for creativity, innovation and better decision-making.

Setting a new global people standard for our industry

During 2021, Volvo Cars employed 43.1 (41.6) thousand full-time employees (FTEs) and 4.0 (3.3) thousand agency personnel. The actual FTE increase in 2021 was attributable to the competence shift, organisational changes and strategic transformation.

As per 31 December 2021, 22 per cent of the total number of our employees were female. See table on page 172 for more information.

People policy and employee engagement

Our people policy ensures that we have health and safety, diversity and inclusion at the top of our agenda, that labour rights are embraced and adhered to, and that we embody compliance and ethics.

Our corporate culture creates an environment of constant improvement; we share knowledge with each other, we give and ask for feedback, and we encourage our people to take a personal responsibility for continuous learning and development. With feedback and engagement, we can grow and innovate as a company. Our employees rewarded us with a 76 engagement score in 2021, which is above the global benchmark of 74.

Well-being and safety

We strive to be an industry leader in well-being and safety. We work proactively to achieve a psychosocial work environment to prevent stress related illness by performing risk observations and promoting safe behaviours. We provide health promotion benefits, training facilities and occupational health services for our employees, including our contractors, such as our contractor safety programme.

All our operations, employees and contractors are governed by our global standards for health, safety and well-being. During the first half of 2021, due to the Covid-19 pandemic, our objective has been to secure a safe workplace and take measures to facilitate remote work where possible. Many workplaces and activities were adapted to help employees to stay safe from Covid-19.

We continue to communicate and have educational campaigns about health and well-being across Volvo Cars. We have increased the focus on safety leadership, we share good practices and recognise successes. For the third year in a row, we celebrated the Global Health, Safety & Security Month in June, with the purpose to enhance awareness of well-being & safety. This year, we also launched the Well-being & Safety Award, to promote a healthy and safe mindset where one winning team per region was recognised.

The number of injuries leading to sick leave, measured as Lost Time Case Rate (LTCR), decreased from 0.10 to 0.06 for employees and from 0.20 to 0.05 for supervised contractors (see table on page 172 for more details). Based on our results, we are in the right direction to become a leader in Well-being and Safety.

During 2021, we have improved the workplace experience and well-being by optimising space and adapting to new ways of working and new demands. At our Gothenburg headquarters, we have opened new restaurants with co-working spaces, conference rooms and food delivery at a high standard and with a strong sustainability focus. For example, 96 per cent of all the free-standing furniture in our main restaurant is made from repurposed material and products. We have also opened an on-site gym in our headquarters building. In the production plants, we have rolled out interior guideline pilots by using daylight and environmental improvements while we have improved and updated the office space in our sales companies in Japan, Denmark and Russia. The Instagram account life@volvocars has been launched to share work environment improvements, as well as the experiences of our employees to inform and inspire our colleagues globally.

Diversity and inclusion

We have an open culture and strive to be a truly global and diverse company by promoting inclusiveness and leading by example. We want everyone at Volvo Cars to feel that they can be themselves at work. We encourage and welcome different perspectives to make room for creativity, innovation and better decision-making.

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

During the year, our focus has been on the launch of our global parental friendly employer initiative, called Family Bond by Volvo Cars, and on our 50/50 gender-neutral leadership commitment.

The Family Bond by Volvo Cars is more than a new parental leave policy for our employees – it is the embodiment of our company culture and values. By acting upon our values, and having an inclusive and diverse workforce, we will drive the best innovation, increase performance and strengthen our business as well as the society. Based on the Swedish model, the policy is one of the most generous in the corporate world and offers 24 weeks paid parental leave. We support all our employees, whether on hourly or monthly pay, and whether a father, mother or a same-sex or adoptive parent, by making it possible for them to spend time with their children. The launch was a success and now we have Family Bond users in all regions and in all major plants. We can see that there is an increased number of men taking parental leave as well as an increase in the number of days used.

To deliver on our 50/50 gender-neutral leadership commitment in recruitment and promotion to leadership positions, we have focused our efforts on digital events, such as International Women's Day, Women Leader platform for sharing experiences as well as a global female mentoring programme. Through our talent review process, Talking talent, we strive to have talent pools and a high potential senior leadership programme that represent diversity of gender and nationality. Moreover, we have continued 50/50 representation in our Global Graduate Programme and will aim to have a more international representation next year.

As women remain underrepresented in the fields of STEM (Science, Technology, Engineering and Maths), we are committed to taking a proactive approach by engaging in activities and external partnerships to increase interest among youth. During the year of the pandemic, we managed to reach out to women in STEM by meeting them in digital events. We are dedicated to creating a senior management team that brings international experience and a global perspective with varied competencies, backgrounds and cultures. We recognise that this is vital for industry-leading, innovative and consumer-focused organisations.

By the end of 2021, about 45 per cent of our executive managers was non-Swedish, and we have 21 nationalities among our senior leaders. We have 29 per cent females in leading positions (see table on page 46 for more details).

Labour rights

Approximately 70 per cent of our global workforce is covered by collective labour agreements. The social dialogue between Volvo Cars and unions, where applicable, regarding information and consultation, creates value and contributes to the development of the company.

We take a zero tolerance approach towards harassment and discrimination as defined in the Volvo Cars' people policy. Training on discrimination, harassment and bullying are carried out throughout the organisation. In 2021, 54 cases of discrimination and harassment were reported globally. All cases were investigated, and corrective and supportive actions were taken in all instances.

People Policy Assessment

We believe that the well-being of people is fundamental to all aspects of life, therefore we are committed to provide a sustainable work environment for all employees through our people policy. This policy outlines our commitment to human rights and is based on international human rights standards. The people policy assessment project started in 2017 and is in line with the United Nations Guiding Principles on Business and Human Rights. It assesses both potential and actual human rights impact through desktop assessments, interviews conducted with key external and internal stakeholders, followed by on-site verification, assessment of risks, analysis of impacts, the creation and delivery of action plans.

During 2021 we have worked actively in mapping and developing our internal due diligence processes. Activities have been performed to ensure that we have adequate procedures, in line with the UN Guiding Principles and efficiently manage the human rights risks related to our operations and value chain. In preparation for forthcoming regulatory requirements, we are also preparing tools and process, as well as developing competencies.

ETHICAL & RESPONSIBLE BUSINESS: PERFORMANCE 2021

LEARNING AND DEVELOPMENT

Volvo Cars is promoting a culture where our people practice continuous learning and learn in their everyday work. Our goal is to build a learning culture that encourages employees to develop knowledge and competence, to improve capabilities and skills through practice and application.

Moreover, Volvo Cars is working with its business partners to ensure the prevention of all forms of child, forced or compulsory labour. There can be no child, forced or compulsory labour of any kind related to Volvo Cars business, products and services. This is clearly stated in our Code of Conduct and Code of Conduct for Business Partners. This prohibition includes debt bondage, trafficking and other forms of modern slavery. Read more on page 175.

Living wage

During the year we have worked to ensure that all our employees are compensated fairly using acknowledged living wage principles, which have been incorporated into our people policy.

We aim to be an example for change within our industry, including through promoting living wage principles among our business partners. In 2021 we exceeded the minimum statutory wages or collective agreement wages in entry level positions

Learning and Development

The transformation of the automotive industry towards electric vehicles and new, direct commercial operating models has led to large reskilling and upskilling initiatives across our company as well as the recruitment of external expertise.

As the competition for talent intensifies there is a scarcity of skills globally, the need for upskilling and reskilling of our workforce becomes more and more important.

Volvo Cars is promoting a culture where our people practice continuous learning and learn in their everyday work. Our goal is to build a learning culture that encourages employees to develop knowledge and competence, to improve capabilities and skills through practice and application. We provide our employees with access to different types of learning opportunities, based on their demand. We value problem-solving highly; that is how we learn and improve business processes at the same time.

The above means that we are intensifying our overall learning and development initiatives throughout the company, bringing a high focus on electromobility, software development, building direct consumer relationships, as well as on cybersecurity. In manufacturing, plant academies are responsible for vocational training, while learning on the job is the main arena for growth.

We also have a special focus on leadership development since our leaders are instrumental for making the transformation a reality. We focus on continuous conversations and feedback between manager and employee, actively working with the development plan, focusing on both functional and behavioural competencies.

Wage level		2021	2020	2019	2018
Wage level (ratio) entry wage level compared to agreement[22)]	Belgium	1.14	—	—	—
	China	2.71	—	—	—
	Sweden	1.17	—	—	—
	United States	2.55	—	—	—
Wage level (ratio) CEO comparison[23)]		98:1	—	—	—

For further definitions and reporting principles see pages 185–187

Training Indicators	2021	2020	2019	2018
Training provided, average hours per FTE[24)]	25	—	—	—
White collars	30	—	—	—
Blue collars	21	—	—	—
Training and development, average expenditures per FTE (SEK)	1,307	—	—	—

For further definitions and reporting principles see pages 185–187

ETHICAL & RESPONSIBLE BUSINESS: PERFORMANCE 2021

Total workforce by employees and supervised workers as per 31 December, 2021	Employees	Supervised workers (consultants)	Total
Global Total (FTE)	43,069	4,017	47,086

Total number of employees by employment contract and gender as per 31 December, 2021 [25] (%)	Women	Men
Permanent contract	23	77
Temporary contract	13	87
Total average	**22**	**78**

For further definitions and reporting principles see pages 185–187

Breakdown of permanent contract employees by gender and age group as per 31 December, 2021 (%)	Board Members[26]		Executive Management Team		All other permanent contract employees[27]	
	Women	Men	Women	Men	Women	Men
<25	—	—	—	—	17	83
25–29	—	—	—	—	26	74
30–34	—	—	—	—	26	74
35–39	—	—	—	—	26	74
40–44	6	6	9	—	27	73
45–49	—	—	9	27	26	74
50–54	6	18	—	18	23	77
55–59	—	24	9	9	22	78
60–65	6	6	—	9	17	83
>65	6	24	—	9	15	85
Total	**24**	**76**	**27**	**73**	**24**	**76**

For further definitions and reporting principles see pages 185–187

Accidents and sick leave	2021	2020	2019	2018
Injury rate (LTCR)* – employees	0.06	0.10	0.13	0.24
Injury rate (LTCR)* – supervised contractors	0.05	0.20	0.11	0.47
Fatalities[28]	0	0	1	0
Rate of fatalities as a result of work-related injury	0	—	—	—
Sick leave – employees (per cent)**	4,6	4.3	4.2	4.3
Number of hours worked (LTCR) - Employees	56,986,946	—	—	—
Number of hours worked (LTCR) - Supervised contractors	7,351,333	—	—	—
Total number of Lost Time Injuries reported	17	—	—	—
Main type of work related injury (fall in the same level - stumble)	9	—	—	—

*Injury rate (LTCR) is defined as the number of work and 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.

**Figures for employees in Sweden only.
For further definitions and reporting principles see pages 185–187

Diversity Indicator	2021	2020	2019	2018
Internationally diverse Executive Management[30] (%)	45	—	—	—

For further definitions and reporting principles see pages 185–187

Labour rights	2021	2020	2019	2018
Total number of reported cases of discrimination or harassment*	54	50	63	69
Coverage of collective labour agreements (%)	70	79	78	75

*In 2021, there were 26 discrimination cases and 28 harrasment cases

ETHICAL & RESPONSIBLE BUSINESS: PERFORMANCE 2021

Employee turnover rate	2021	2020	2019	2018
Total number of new employee hires	5,875	—	—	—
Gender				
Women	1,299	—	—	—
Men	4,576	—	—	—
Age group				
<30 years old	2,553	—	—	—
30–50 years old	3,070	—	—	—
>50 years old	252	—	—	—
Region				
Europe	2,410	—	—	—
Asia	3,043	—	—	—
Americas	422	—	—	—
Rate of new employee hires (%)				
Gender				
Women	22.0	—	—	—
Men	78.0	—	—	—
Age group				
<30 years old	43.5	—	—	—
30–50 years old	52.5	—	—	—
>50 years old	4.0	—	—	—
Region				
Europe	41.0	—	—	—
Asia	52.0	—	—	—
Americas	7.0	—	—	—

	2021	2020	2019	2018
Total number of employee turnover	3,861	—	—	—
Gender				
Women	896	—	—	—
Men	2,965	—	—	—
Age group				
<30 years old	1,083	—	—	—
30–50 years old	1,786	—	—	—
>50 years old	992	—	—	—
Region				
Europe	2,042	—	—	—
Asia	1,537	—	—	—
Americas	282	—	—	—
Rate of employee turnover per category (%)				
Gender				
Women	9.6	—	—	—
Men	10.4	—	—	—
Age group				
<30 years old	15.7	—	—	—
30–50 years old	9.0	—	—	—
>50 years old	8.8	—	—	—
Region				
Europe	7.3	—	—	—
Asia	18.9	—	—	—
Americas	15.1	—	—	—

Local initiatives

We want to make a wider difference to the world we live in, not only through our products, but also through active participation in making our global home cities even better places to live and work in. Below are a few examples from our local community work in 2021 around the world.

EMEA

- We are currently building the World of Volvo in Gothenburg, our new brand experience arena that we co-develop with the Volvo Group. Half a million visitors annually will be exposed to activities that live and breathe the people-centric Scandinavian soul of the Volvo brand.
- The Gothenburg Green City Zone initiative aims to establish an area inside Scandinavia's largest port city that is completely emission-free, with a variety of climate-neutral transportation modes and a connected infrastructure. Using a real city as a testing ground will enable Volvo to accelerate development of technologies and services in the areas of electrification, shared mobility, autonomous driving, connectivity and safety.
- For the suburbs, we focus on Destination Tynnered, a neighbourhood in Gothenburg that was on the Swedish police list of particularly vulnerable areas. Together with two real estate companies, we channel our social sustainability efforts here. We arrange summer jobs for teenagers and help new immigrants find a mentor or a buddy in the same profession. Making Tynnered into an attractive place to live in and visit will help reduce crime rate and social inequalities while also supporting the growth of Volvo Cars through the expansion of our recruitment base.

APAC

- In Shanghai we engage with our local community through the Shanghai volunteer pool with activities once a month. As one example Volvo volunteers participated in beach cleaning at the Dongtan Nature Reserve in China, where marine litter in the area has killed many migratory birds in the wetlands.
- In Chengdu, Volvo Cars teamed up with the China Next Generation Education Foundation to launch the Volvo Cars Safety School CSR Programme. During 2021 more than 1,000 young students have participated in the programme.
- In Malaysia we launched hand-made nanotech face-masks. The Volvo batik reusable facemasks are made by Malaysians who were facing unemployment and various adversities due to the pandemic.

Americas

- In Charleston we have set up a community investment grant where we invite non-profit organisations who share Volvo Cars values of safety, quality, education and protecting the environment, to apply for funding. Members from a local community advisory group review all applications and recommend which to approve.
- To mitigate our Charleston industrial footprint we have conducted a landscape-scale mitigation project in collaboration with local authorities and organisations, adding to the Charleston Green belt.
- There is a voluntary pool in Charleston which employees support two days a year. One example was the US procurement team's involvement in the Sullivan's Island beach clean-up during Earth Day in 2021.
- Volvo Car USA has supported Alex's Lemonade Stand Foundation (ALSF) and its fight against childhood cancer for nearly 20 years. During 2021 we opened Alex's Café, named in honour of the founder of ALSF, in our new Americas headquarters in Mahwah, in collaboration with a local school who operates the restaurant.

Responsible sourcing – Putting sustainability on a par with cost and quality

In 2021, Volvo Cars purchased goods and services from in total approximately 7,400 parent suppliers globally. The diversity of our supplier base has enabled us to select suppliers that have the technological expertise required to produce increasingly sophisticated cars with technologies that are at the forefront of the industry. Furthermore, Volvo Cars has long-standing, strong relationships with many of its key suppliers, which typically participate in the development phase of new models and invest alongside its manufacturing plants to ensure a quick and efficient supply of key components and systems. Volvo Cars purchasing team works closely with our research and development team, including its Sustainability Centre, enabling us to maximise technical as well as sustainability expertise and optimise costs.

Supply Chain Sustainability

Volvo Cars holds itself to high sustainable standards with a diverse supplier base. We select, collaborate with, and steer our supply chain towards our sustainability strategy. In line with a strong focus on sustainability, suppliers are expected to meet social and environmental standards set by Volvo Cars. We aim to have all our suppliers meet the criteria of our supplier assessment programme, under which suppliers are evaluated on their technical and development capabilities, as well as on quality standards and daily operations. The supplier assessment programme also includes a number of sustainability assessments conducted prior to and during business operations on supplier sites as well as at the parent or holding company level. The purpose is to verify compliance with social and environmental requirements as well as to identify areas for improvement. Volvo Cars works with several organisations and industry bodies to support the delivery of our sustainability goals, share best practices and highlight our role in the industry as an ethical and responsible player. These include the UN Global Compact, Drive Sustainability, the Responsible Business Alliance, the Responsible Minerals Initiative and the Carbon Disclosure Project (CDP).

Sustainability requirements for suppliers

Sustainability requirements are an integrated part of our contractual agreements with suppliers. The Volvo Car Group Code of Conduct for Business Partners states our basic expectations on sustainability performance, such as legal compliance, human rights, working conditions, caring for the environment and business integrity. Additionally, suppliers are screened in an anti-corruption and trade sanctions due diligence process prior to entering a contractual arrangement and, thereafter, on a continuous basis. This is to identify and mitigate legal risks in the fields of corruption and trade sanctions, money laundering and violations of human rights. 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 numerous other sustainability requirements, such as having a certified management system for quality and environment (ISO9001, IATF16949 and ISO14001), meeting recycled content targets, reporting material content to the automotive International Material Data System (IMDS). We also place a strong emphasis on the need for suppliers to be proactive in addressing issues and driving improvements.

Supply chain sustainability risk awareness

Volvo Cars analyses its suppliers according to a risk assessment tool provided by the Responsible Business Alliance, an industry coalition dedicated to corporate social responsibility in global supply chains. The risk assessment increases awareness of potential supply chain risks. It also enables a risk-based approach in selecting suppliers for audits and other sustainability assessments. In 2021, 4,551 supplier sites were included in the risk assessment which corresponds to 100 per cent of the active Tier 1 supplier and directed sub-tier supplier sites that deliver parts, components and services to Volvo Cars.

Procurement	2021	2020	2019	2018
Number of RBA audited suppliers	29	25	33	38
Share of addressed audit improvement findings (%)	94	83	79	90
Number of 3rd party SAQ assessment of suppliers	847	663	754	587
RMAP-compliant smelters in 3TG supply chain (%)	82	71	71	75

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 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.

Volvo Cars requires all direct material suppliers to complete the Self-Assessment Questionnaire (SAQ) on sustainability as this is a mandatory element in the sourcing process. The SAQ has been developed in conjunction with the automotive industry as part of the collaborative initiative Drive Sustainability. The questionnaire covers areas such as business ethics, human rights, environmental management and responsible sourcing. All SAQ answers are validated by an external assessor and the suppliers are provided with recommendations on how to improve. The SAQ is a mandatory element in the sourcing process of all suppliers providing production material since 2019. At the end of 2021, 847 supplier sites (82 per cent) had submitted a completed SAQ.

Supplier sustainability audits

The purpose of Volvo Cars' sustainability audit programme is to make comprehensive on-site evaluations of suppliers' sustainability performance with the use of the Responsible Business Alliance (RBA) audit process. 100 per cent of high-risk Tier 1 supplier and directed sub-tier supplier sites are audited and the audits are conducted by an accredited third-party auditor. During 2021, Volvo Cars conducted 29 supplier audits of suppliers with a high-risk assessment score or for other commercial reasons. During the year, Volvo Cars also introduced a supplier self-initiated audit requirement in order to verify fully compliant suppliers before the start of production. The new requirement is applicable for suppliers providing production material located in selected regions based on supply chain sustainability risks. Since 2015, Volvo Cars has performed 182 sustainability audits amongst our Tier 1 and directed sub-tier suppliers. As of 2021, Volvo Cars has addressed approximately 94 per cent of the improvement findings identified in the audit programme. We are continuing to work to address the remaining findings in close collaboration with our suppliers.

Responsible mineral sourcing

Mineral extraction, processing, trade, and transportation may cause or contribute to negative environmental and social impacts such as child or forced labour, money laundering, pollution, and deforestation. Volvo Cars is committed to ensuring that our business operations and supply chains do not directly or indirectly induce human rights abuses, unethical business conduct, environmental harm, or provide funding to conflicts and armed groups. As part of this commitment, we fully support the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas and strive to continuously improve our sourcing practices and management systems.

Due diligence, a process during which companies can identify, prevent, mitigate, and account for how they address their actual and potential adverse impacts, is necessary to ensure responsible sourcing. Volvo Cars acknowledges that due diligence is an ongoing, proactive, and reactive process and that information and risk monitoring systems will progressively be improved over time as a result of constructive engagement with suppliers and other stakeholders.

As a global premium mobility provider, we have an opportunity to have a substantial positive impact on the planet in how we select, collaborate with, and steer our supply chain towards our sustainability strategy. Volvo Cars' sustainability requirements form an important part of the sourcing process and are integrated into contractual agreements with suppliers. Our Procurement Position on Metal and Mineral Sourcing and Code of Conduct for Business Partners are examples of key policy documents expressing Volvo Cars' expectations and requirements towards suppliers regarding responsible sourcing.

Volvo Cars has defined a list of 15 minerals, metals, and bio-based materials associated with high risks from a sustainability perspective. Examples are cobalt, lithium, aluminium, and nickel. The aim is to gradually make the supply chains for these critical raw materials more transparent, to enhance material traceability and to take risk-based measures to ensure responsible sourcing. We are also reviewing our policies, processes, and risk management systems to ensure that we make the right prioritisations and use available resources in the best way possible.

Our ambition is to only source components with tin, tantalum, tungsten, and gold ('3TG' or 'conflict minerals') from validated conflict-free smelters. We conduct regular supply chain investigations to identify, assess, and mitigate risks and improve supply chain performance. Every year we request 3TG suppliers to declare their due diligence measures and disclose the smelters used in their supply chain in a Conflict Minerals Reporting Template (CMRT) provided by the Responsible Minerals Initiative (RMI). By tracing the minerals in our supply chain and buying material from smelters validated to be conformant with the Responsible Minerals Assurance Process (RMAP) – RMI's third-party verification of smelter and refiner management systems and sourcing practices – we can secure responsible sourcing in line with global standards. The aggregated information creates the foundation of our due diligence process for conflict minerals where we identify potential discrepancies, select suppliers for independent OECD-aligned audits, and follow up on risk mitigation action plans to address adverse impacts.

Volvo Cars has investigated smelters' conformance in relation to RMI requirements since 2017. 147 suppliers have been included in this year's conflict minerals survey. After evaluating disclosed supplier data, some of which is preliminary, we conclude that the current level of RMAP-compliant smelters is 82 per cent. Volvo Cars also conducted third-party audits of six 3TG suppliers to evaluate and improve their responsible sourcing practices. We are convinced that we must continue to work closely together with stakeholders to prevent human rights abuses and environmental degradation. For example, Volvo Cars has participated in a smelter outreach initiative to encourage RMAP enrolment and has financially supported RMI's audit fund which fully covers smelters' initial audit costs to further increase the number of RMAP-compliant smelters. Moreover, we are currently examining the timing of our yearly 3TG supplier campaign to allow for enhanced data completeness.

Volvo Cars has signed long-term agreements with various battery manufacturers aiming to ensure the global supply of lithium-ion batteries. These agreements contain provisions designed to manage the value chain of these batteries, including the enabling of circular material flows. In 2019, Volvo Cars announced the use of blockchain technology to further ensure the traceability of cobalt used in batteries. Subsequently, we became the first OEM to utilise blockchain across our entire cobalt supply chain. To increase supply chain transparency and mitigate social and environmental risks, we use blockchain to establish a chain of custody for all the high-risk raw materials used in batteries. During 2021, blockchain traceability has been implemented for mica insulation sheets and expanded to include cathode materials nickel and lithium. It has also been developed to track carbon emissions in the battery supply chain. In addition, when Volvo Cars onboards suppliers to its blockchain programme, an OECD Due Diligence Guidance aligned third-party audit is conducted to assess the performance from a responsible sourcing perspective.

Cross functional collaboration and engagement with external stakeholders is crucial to secure compliant business behaviour and transparency across the supply chain. To support the continuous improvement of working and living conditions in artisanal and small-scale mining (ASM) communities, Volvo Cars collaborates with Better Mining. This assurance and impact programme, led by RCS Global, translates digital sustainability and due diligence data into direct improvements on and around mine sites. Trained monitoring agents are permanently deployed to the sites, where they record information on risks and incidents. The information collected is verified by a team of experts who ensure completeness and follow up with agents on any red flags or data anomalies. Monthly corrective action plans (CAP) are issued through workshops with local stakeholders and implementation is overseen by the agents. Volvo Cars receives communication on CAP implementation progress every quarter. The monitoring programme is mineral agnostic and focuses on Central Africa, including the Democratic Republic of the Congo (DRC). Our engagement in Better Mining allows for upstream risk mitigation, greater market access for responsibly ASM-produced minerals as well as a tangible contribution to positive and quantifiable socio-economic impacts in mining communities.

Trainings and collaborations

All procurement professionals have access to a number of sustainability trainings and all new procurement employees globally are introduced to supply chain sustainability as part of their onboarding programme. We also invite suppliers globally to participate in various sustainability training events to strengthen awareness of the expectations set out in our Code of Conduct for Business Partners, the general importance of sustainability, as well as specific sustainability topics such as carbon management, conflict minerals, and recycled material. We offer our own trainings as well as trainings through our collaboration platforms – Drive Sustainability and the Responsible Business Alliance. In March 2021, Volvo Cars invited all suppliers globally to an online event with the purpose to join forces in the area of sustainability. Supplier feedback was positive and many said that the event was valuable for the understanding of Volvo Cars sustainability strategy and direction for the future. In July 2021, Volvo Cars hosted a Sustainability Tech Show in Shanghai with supplier representatives displaying more than a hundred sustainable product solutions. During the Sustainability Tech Show a few hundred suppliers also participated in sustainability trainings. The collaboration with business partners is important both to drive sustainability performance and to promote change within our industry.

Volvo Cars Sustainability Tech Show in Shanghai 2021. Supplier representatives displayed over a hundred sustainable product solutions.

Tackling corruption and unethical business practices

A strong corporate culture that focuses on ethics and responsible leadership, as well as equal opportunities and decent work for all, is a critical part of Volvo Cars' commitment to responsible business. Volvo Cars incorporates ethical leadership into our operations, and we have been recognised as one of the world's most ethical companies from 2016 to 2019 by Ethisphere Institute.

Furthermore, 'Our Code – How We Act' is our code of conduct and the starting point for how Volvo Cars operates. It makes clear our strong commitment to responsible and ethical business. Our Code aims to be an example for change within our industry in many areas, including through influence on living wages for our people as well as those employed by our business partners.

To support Our Code, and to address the risks of corruption and unethical business practices, Volvo Cars has established a compliance and ethics programme. Responsible and ethical business is obviously broader than our commitment to tackling anti-corruption. Therefore, the compliance and ethics programme, which is managed by the Compliance and Ethics Office, focuses not only on anti-corruption but also on the areas of anti-trust, data protection, trade sanctions and export control as further outlined in the Corporate Governance section (see page 62–69). Another important part of our programme is the Code of Conduct for Business Partners. These two codes set out the principles and standards which employees and business partners are expected to abide to when working at, or doing business with, Volvo Cars. Both are based on international conventions and standards.

To create awareness and ensure that Volvo Cars, as an organisation, does what it is committed to, the Compliance & Ethics Office continuously provide a broad range of training on ethical business practices for its employees. That also includes specific training for managers focusing on behaviour and role modelling.

For 2021, some of the key activities in this regard included:

- The mandatory compliance & ethics e-learning for non-production employees, which this year focused on the main principles that apply when handling data and privacy aspects. The completion rate for the campaign was 83 per cent.
- Leaders being trained in Ethical Leadership for Responsible Business via the leadership programmes. More than 1,700 leaders have been trained since the launch of the leadership programmes, with 96 leaders trained in 2021. An online version of the leadership module is being prepared to increase the reach of the programme.
- +470 leaders and key stakeholders trained in rules governing insider training in connection to the company's IPO.
- +2,250 non-production leaders globally leading discussion(s) on ethical & responsible business conduct through the Responsible Business Discussion kits.
- Senior leaders in APAC from all functions held five additional sessions highlighting compliance & ethics risks with their teams through the regional Compliance Talk Series.
- Seven mandatory risk-specific online courses on topics such as anti-corruption, data privacy and conflicts of interests launched in APAC. On average these courses were completed by +7000 employees.

More information on the training provided to suppliers is available in the Trainings and collaborations section on page 177.

In 2021, 104 suspected violations of Our Code (excluding cases of discrimination & harassment) and our policies were reported to the Compliance and Ethics Office. Following investigation, 27 of these reports were substantiated, and disciplinary actions were taken in 21 cases, including employee dismissals and termination of supplier contracts. Out of the 27 substantiated cases, five related to corruption. Regular compliance risk assessments together with the learnings from the reported cases, allow us to identify and understand the main risk fields and the high-risk areas to which we are exposed. These assessments also serve as the basis for identifying the appropriate improvement and mitigation measures and to ensure that our Programme is customised to address the areas where our main risks are to be found.

If anyone inside Volvo Cars wants to discuss a concern, or if they suspect that there has been a violation of laws or Our Code – How We Act, we encourage our employees to talk to their manager or local People Experience representative. They can also contact their local compliance & ethics

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champion, the Compliance & Ethics Office or the legal department. They can also use our global internal reporting channel, the Tell Us reporting line.

Any external stakeholders, such as business partners, customers or any other third person involved with Volvo Cars, who suspect that there has been a violation of laws or Our Code – How We Act, may also use the Tell Us reporting line to raise their concerns.

The Tell Us reporting line can also be used to seek guidance regarding potential misconduct without fear of retaliation.

The Tell Us reporting line is operated by a third party and is available 24/7, 365 days per year. It enables people to submit a report in more than 200 countries and regions, and in more than 60 different languages. The Tell Us reporting line can be accessed both through the company's intranet and the external volvocars.com site. Reports can be made via phone or in writing via an online web form. In both cases, all reports are anonymous unless the reporter chooses to reveal their identity.

All reports made via the Tell Us reporting line will be provided to the Compliance Investigations Unit, a dedicated function within the Compliance & Ethics Office. All reports and inquiries will be treated as confidential, and all concerns are taken seriously. Appropriate actions will be taken on each report in accordance with a documented compliance investigation procedure. As established in Volvo Cars' Internal Reporting Policy and associated Directive, we do not accept any form of retaliation against individuals who report concerns in good faith or anyone else connected to them, as a result of such a report.

Compliance & Ethics	2021	2020	2019	2018
Reported cases of violations of Our Code - How We Act, excluding discrimination and harassment	104	126	133	76
Substantiated cases of corruption	5	10	9	11
Leaders trained in ethical & responsible business (accumulated figures)	1,700	1,600	1,500	1,200
Share of (non-production) employees trained in ethical and responsible business through the yearly C&E e-learning (%)	83	N/A [32]	85	93

For further definitions and reporting principles see pages 185–187

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Engaging in sustainable finance

Volvo Cars recognises the power and importance of the financial community in driving sustainable development, including the transition to a low-carbon global economy.

In 2020, we successfully issued our first Green Bond of EUR 500 million dedicated to the development and production of our fully electric vehicles. This established us as a serious player on the rapidly growing green bond market.

We strengthened our commitment to sustainable financing in early 2021 with the signing of a EUR 1.3 billion sustainability-linked credit facility, renewing our existing credit facility from 2017. Interest rate margins for the facility are linked to our progress in reducing our carbon emissions. Not only did the successful transaction demonstrate the financial community's confidence in Volvo's climate plans, but it also underlined the growing confidence in the company's financial and operational transformation. See the Green Financing Report on page 189 for more information.

About this sustainability report

Volvo Car Sustainability Report 2021 is an annual report prepared in accordance with GRI Standards Core. This year´s report also contains reporting in accordance with the white paper from World Economic Forum, Measuring Stakeholder Capitalism, Core Metrics and Disclosures. This report covers the period 1 January to 31 December 2021 (except where otherwise stated). Our previous report was published in March 2021. Volvo Car Group's Sustainability Report is also prepared in accordance with the Swedish Annual Accounts Act 6 chapter 11§.

The Sustainability report is found on pages 39–46 and 151–190 and the Enterprise risk management information is found on pages 55–60 in this report. Definitions regarding boundaries as well as measuring techniques and calculations for each performance indicator are given in respect to the disclosure concerned. There are no significant reporting changes compared to previous reporting period. Our auditors have performed a limited assurance of the Sustainability Report being in line with ISAE 3000, see page 188. As a signatory to the UN Global Compact, the Sustainability Report is also our Communication on Progress.

Additionally, we continuously identify, analyse, and if relevant select different initiatives and schemes which support and externally validate our ambitions. Climate action and financial risks related to climate change are focus areas for Volvo cars. Therefore, the Task Force on Climate-related Financial Disclosures (TCFD) is an initiative whose eleven recommended disclosures have been incorporated in the Annual Report.

For full GRI, WEF and TCFD indexes, references linked to Statutory sustainability reporting according to the Swedish Annual Accounts Act and our sustainability polices, see appendices: Sustainability reference index.

Economic contribution

In accordance with the white paper from WEF, Measuring Stakeholder Capitalism	2021	2020
MSEK		
Direct economic value generated and distributed (EVG&D)*		
Revenue	282,045	262,833
Operating costs	–262,462	– 252,424
Employee wages and benefits (personnel)	–32,332	–30,032
Payments to providers of capital	–878	–998
Financial assistance received from the government	472	1,340
Financial investment contribution		
CAPEX	– 23,324	– 18,560
Depreciation/amortisation	–15,005	–14,449
Share buybacks	—	—
Dividend payments	–10,462	–4
Total R&D expenses	–24,061	–18,879

*For information about our community investments see page 174.

Economic dimension	2021	2020	2019	2018
Retail sales (vehicles)	698,693	661,713	705,452	642,253
Manufactured vehicles*	641,979	658,525	705,036	667,754

*Factory completed vehicles.

Volvo Cars and the UN Sustainable Development Goals

In 2015 the United Nations set up 17 Sustainable Development Goals (SDGs) designed to be a blueprint to achieve a better and more sustainable future for all. Volvo Cars is committed to supporting the SDGs, and they act as our guide. Through our products and operations, we have the largest impact on Goals 3, 5, 7, 8, 11, 12, 13 and 16. In addition, we contribute to Goals 1, 4, 6 and 9.

We are aware that Volvo Cars has both a positive and negative impact on the SDGs. We are focused on ensuring our positive impacts are maximised, while any negative impacts are minimised.

For an overview of the SDGs linked to business risks, see Enterprise Risk Management on pages 57–59 for more information.

Abbreviations:

- Code of Conduct = CoC
- Code of Conduct for Business Partners = CoC BP

UN SDG Goal	Examples of Volvo Cars impact and/or contribution to SDG sub target
1 NO POVERTY	• Implementation of living wage for employees. Volvo Cars and its business partners adhere to and respects the ILO Fundamental Conventions and ensure fair wages (1.2)
3 GOOD HEALTH AND WELL-BEING	• Safety is in our heritage and part of our purpose. We have a Zero collision vision and strategy. (3.6). • Carbon emission reduction strategy with the ambition to be a climate neutral company 2040. (3.9)
4 QUALITY EDUCATION	• Building a better future in local communities, through e.g., education and job training. (4.4)
5 GENDER EQUALITY	• Volvo Cars People culture, described in our CoC and People policy. (5.1, 5.2) • Gender neutral global parental leave offer launched, Volvo Cars Family bond. (5.4) • 50/50 leadership and recruitment ambition, ongoing work to increase gender equality in pay and positions. (5.5)
6 CLEAN WATER AND SANITATION	• We have the ambition to reduce water use per vehicle in manufacturing operation by 15 per cent. (6.4)
7 AFFORDABLE AND CLEAN ENERGY	• Ambition to have climate neutral energy in operations and at T1 supplier's mid decade. (7.2) • Ambition to reduce energy use per vehicle in manufacturing by 30 per cent and increase energy efficiency of our cars. (7.3)
8 DECENT WORK AND ECONOMIC GROWTH	• Through our growth, electrification strategy and digitalisation we create jobs and innovation. (8.2, 8.5) • Ambition to become a Circular business by 2040. (8.4) • Building a better future in local communities, through e.g., education, job training and employment. (8.6) • Efforts to protect human and labour rights within our own organisation, as well as our supply chain. We will push for greater focus on these issues within our own industry. (8.7, 8.8)

UN SDG Goal	Examples of Volvo Cars impact and/or contribution to SDG sub target
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	• Sustainability strategy ambitions and electrification strategy. (9.4)
11 SUSTAINABLE CITIES AND COMMUNITIES	• We support development of safe and sustainable urban mobility through our fleet electrification, industry-leading safety technology and our car-sharing offers. Safety is in our heritage and part of our purpose. We have a Zero collision vision and strategy. Green City Zone project (11.2, 11.3)
12 RESPONSIBLE CONSUMPTION AND PRODUCTION	• Through embracing the circular economy, we are working to significantly reduce waste and the use of raw materials, as well as optimise the usage and lifetime of our products and components (12.2, 12.4, 12.5) • Sustainability reporting (12.6)
13 CLIMATE ACTION	• We are committed to reducing our carbon footprint across our value chain with the ambition to reach climate neutrality by 2040, in line with the goals of the Paris Agreement. (13.1) • Volvo Cars climate change measures defined in our sustainability strategy (13.2) • Volvo Cars educate and influence stakeholders on importance of climate change mitigation through e.g. articles and conferences (e.g. LCA and COP26) (13.3)
16 PEACE, JUSTICE AND STRONG INSTITUTIONS	• Volvo Cars has zero tolerance for discrimination, harassment and bullying. (16.1) • Volvo Cars and its Business partners shall work to prevent all forms of child labour and there can be no forced labour of any kind related to VCG business, products and services. (16.2) • We follow up adherence to our CoC and CoC BP and encourage any concerns or suspected violations to be reported to the "Tell-us" grievance channel for investigation and action. (16.3) • Volvo Cars are committed to protecting free competition in the market by avoiding any anti-competitive practice. (16.5) • Volvo Cars Governance model (16.7) • We respect the right to privacy and take all appropriate precautions to protect personal data (16.10)

Sustainability rating agencies assessing Volvo Cars ESG performance

Sustainability rankings and ratings are becoming an increasingly important consideration for investors as well as for customers and other stakeholders.

Volvo Cars believes that as well as giving important external assessments of our sustainability performance, engagement with ratings agencies also enables us to improve our performance. We engage actively with several ESG agencies, and are pleased that our ratings have improved over recent years. This gives us valuable reassurance that we are on the right track in becoming a more sustainable business, and helping address global challenges, such as climate change.

Rating Agencies that Volvo Cars is engaged in	Description
CDP Climate	Provider of environmental disclosure ratings for investors, companies, cities, states and regions, and measurements of a company's environmental sustainability.
Ellen MacArthur Foundation – Circulytics	Provider of methodology and ratings to assess business circularity and to support a company's transition towards the circular economy. Also, encourages transparency to stakeholders about the extent of circularity across its entire operations.
EcoVadis	Provider of business sustainability ratings, and assesses on environment, labour & human rights, ethics and sustainable procurement.
ISS ESG	Provider of ESG ratings mainly for the investment community. The assessment covers a broad range of a company's ESG issues that are analysed based on up to 100 rating criteria, most of them sector specific.
MSCI	Provider of ESG ratings mainly for the investment community. Uses a rules-based methodology to identify industry leaders and laggards according to their exposure to ESG risks and how well they manage those risks relative to peers.
Moody's	Provider of ESG ratings mainly for the investment community. Uses a cross-sector rating methodology and gives an Issuer Profile Risk Score (IPS) in the ESG risk dimensions, based on publicly available information and own assessments versus industry and cross industries.
S&P Global	Provider of annual assessment of a company's sustainability practices and ESG credit evaluations. Uses a consistent, rules-based methodology to assess a company's performance across a wide range of sustainability areas.
Sustainalytics	Provider of ESG ratings mainly for the investment community. Uses a two-dimensional approach to measure a company's exposure to industry-specific material ESG risks and how well a company is managing its exposure.

EU Taxonomy Reporting

The EU Taxonomy aims to direct investments towards sustainable projects and activities in order to help meet the EU's climate and energy targets for 2030 and reach the objectives of the Green Deal, including climate neutrality by 2050.

Volvo Car Group has high ambitions in all areas of sustainability, and we aim to fully support the Taxonomy and help provide greater clarity and confidence to sustainable investors

Reporting 2021

In the first year of the Taxonomy, our report content includes the following according to the Taxonomy: Sustainable Finance Taxonomy Regulation (EU) 2020/852, (Taxonomy Regulation). Proportion of Taxonomy eligible and non-eligible economic activities (%) for turnover, capital expenditures and operational expenditure, respectively. Below are the results for 2021.

	Total (SEKm)	Proportion of Taxonomy eligible activities (%)	Proportion of Taxonomy non-eligible activities (%)
Turnover	282,045	79	21
Capital Expenditure (Capex)	33,654	95	5
Operating Expenditure (Opex)	22,930	99	1

Assessment of compliance:

Our global business is vehicle manufacturing, Volvo Cars, and to provide transport through Care by Volvo and M. These categories are deemed eligible and thus included in the Taxonomy reporting. We have excluded secondhand sales of vehicles, accessory business, and licences.

The manufacturing category refers to "Manufacture of low carbon technologies for transport".

Accounting policy:

Turnover:

To calculate the portion of Taxonomy eligible activities for Turnover we have used Revenue, as a denominator. See "Note 2 Revenue", page 87. The numerator includes revenue for new car sales since its deemed to be eligible within the category of Manufacturing and revenue related to Care by Volvo and M for the category Transport.

Capital Expenditure (Capex):

To calculate the portion of Capex eligible for the Taxonomy we have used a denominator defined as "Additions" and "Acquired through business combinations" for tangibles assets, see "Note 17 Tangible assets" page 107 and for intangible assets, see "Note 16 Intangible assets" page 106. The numerator includes "Additions" and "Acquired through business combinations" related to investment in Manufacturing and Transport but excludes capitalised development bought from third parties as well as new cars manufactured by third parties and CapEx related to buildings rented to external tenants. The Taxonomy calculation of CapEx is not comparable to other metrics related to capitalisation in the financial statement.

Operating Expenditure (Opex):

To calculate the portion of Opex eligible for the Taxonomy we have used a denominator defined as the sum of expenses related to Research and Development together with expenses for short-term lease and expenses related to our property, plant, and equipment.

The numerator consists of the expenses for research and development related to the categories Manufacturing and Transport. The Taxonomy calculation of Opex is not comparable to other operating expenses in the income statement.

Looking ahead:

We share the objectives of the Taxonomy, not least given our science-based climate plan, including our ambition to be a fully electric car company by 2030 – one of the most ambitious electrification strategies within our industry. Our ambition for 2025 is to reach 60 per cent Taxonomy alignment and to reach 100 per cent by 2030 for the eligible activities.

Taxonomy alignment will also require substantial commitment in areas outside climate change and the fulfilment of environmental objectives and technical screening criteria. Those areas are Do No Significant Harm (DNSH) and Minimum Safeguards. Our initial focus is to fulfil the environmental objective, climate mitigation, and the connected DNSH and minimum safeguards.

Technical Screening Criteria

The technical screening criteria for Manufacturing and Transport is a tail pipe emission of less than 50g CO_2 per km. This criterion is valid from 2022 to 2025, while it will be lowered to 0g CO_2 in 2026. Our ambition is to reach 0g CO_2 per km for all our vehicles by 2030.

Status: In 2021 the share of factory complete vehicles with tail pipe emissions below 50g CO_2 per km was 15.5 per cent.

Do No Significant Harm (DNSH)

Some of the DNSH requirements are integrated in current EU legislation which we fulfil while other requirements are outside our current ongoing sustainability activities. The areas included in DNSH are risk analysis, water and marine resources, circular economy, pollution and biodiversity and ecosystems.

Status: In 2021 we have analysed the Taxonomy and identified areas within DNSH that are applicable and for 2022 we will conduct a gap analysis to identify our status towards all the DNSH criteria.

Minimum Safeguards

The Taxonomy require companies to have procedures and processes in place which are aligned with the OECD Guidelines for Multinational Enterprises and the UN Guiding Principles (UNGP) on Business and Human Rights. This includes the principles and rights set out in the eight fundamental conventions identified in the Declaration of the International Labour Organization on Fundamental Principles and Rights at Work and the International Bill of Human Rights.

Status: In 2021 we focused on mapping and developing our internal due diligence processes, with regards to the UN Guiding Principles on Business and Human Rights. Activities have been performed to ensure that we have adequate procedures, that are in-line with the UNGPs and efficiently manage the human rights risks related to our operations and value chain. During 2022 analysis will be performed to verify our compliance towards the Minimum Safeguards criteria.

Definitions, reporting principles and sources

Carbon footprint

1 **Emissions:** (including the greenhouse gases CO_2, CH_4, N_2O, HFC, PFC and SF_6, among others) are calculated based on the guidance of the Green House Gas protocol including emissions within our financial control. The following categories have been excluded; capital goods, fuel and energy related activities, processing of sold products and investments. Due to an updated methodology as well as new input data from an external service provider, the figures for 2018, 2019 and 2020 are adjusted (transportation and distribution, purchased goods and services, end of life treatment of sold products) compared to prior communication to ensure accuracy, completeness and comparability.

Scope 1

Company facilities: GHG emissions from our global manufacturing plants include the energy used, multiplied with an emission factor for each different energy type. GHG emissions from our global offices are reported based on purchased energy and generic emission factors. Where emissions in offices are missing, accessible data is extrapolated to represent global emissions.

Company vehicles: GHG emissions from company vehicles are related to the fuel consumed by our test cars, estimated using external emission factors from DEFRA (Department for Environment, Food and Rural Affairs) and global procured volume of fuels for test cars. Emissions related to the production and end of life treatment of test cars are reported in Scope 3.

Scope 2

Purchased electricity, steam, heating and cooling for own use: Indirect GHG emissions for manufacturing facilities are calculated based on purchased energy and supplier specific emission factors, where such are available. Emissions from global offices as well as Volvo Cars owned warehouses are reported based on an emission baseline study from 2020 and extrapolated based on manufactured cars in 2021. Quality of data will be improved moving forward.

Scope 3

Purchased goods and services: GHG emissions from purchased materials are derived from material compositions of representative vehicles and CO_2 emission factors from Sphera's LCA modelling software Gabi, multiplied with the global manufactured volume. GHG emissions caused by materials and services not directly relating to the car are calculated on a spend-based approach using an extended environmental input-output life cycle assessment model developed by CIRAIG, deemed to have enough accuracy for selected emissions. Emissions from packaging is calculated based on kg materials and relevant emissions factors.

Transportation and distribution: GHG emissions from logistics (01 Dec 2020 - 30 Nov 2021) is calculated by including inbound, outbound and parts supply logistics transports managed and paid for by Volvo Cars. Emission factors derived from NTM (Network for Transport Measures).

Waste generated in operations: GHG emissions from waste generated in our operations are calculated by categorising waste volumes into types and treatment methods, as well as using external generic emissions factors from DEFRA.

Business travel: GHG emissions from air travel are calculated by using the flight distance reported by our travel agency, as well as emissions factors from NTM. Radiative forcing factor is applied for air travel. Emissions caused by other modes of business travel are calculated on a spend-based approach, using relevant emissions factors from public sources.

Employee commuting: GHG emissions from employee commuting are based on global commuting distances and patterns for the reported years, based on a simulation conducted with 31,000 employees with travel choice taken into account for the different regions.

Leased assets upstream: Emissions from leased assets upstream includes emissions from the manufacturing plant in Luqiao, China, owned by Geely between Jan-Nov 2021. Energy used is multiplied with an emission factor per energy type. Volvo Cars' share of Luqiao emissions is calculated based on the total number of produced Volvo cars in Luqiao compared to the total number of cars produced in Luqiao. Emissions from waste generated by the production of Volvo cars is included.

Use of sold products: Average GHG emissions from use of sold products are based on official data Worldwide Harmonized Light Vehicle Test Procedure (WLTP) of Volvo sold cars in Europe (EU28), applied on car types and the global number of manufactured cars. Volvo Cars product offer is global and EU data is a fair estimate of similar products worldwide. Total GHG emissions from use of produced products are then calculated by applying the CO_2 emissions per km, mentioned above, on our global manufactured volume and an average mileage of 200,000 km per car. The accuracy of the calculation method can be influenced by real world factors not covered by the official data such as driving behaviour and different usage of auxiliary loads. Volvo Cars ambition is to increase knowledge and accuracy over time and to be as transparent as possible regarding our GHG emissions from the use of our products. Many markets have car variants that are not tested on WLTP. These variants have previous years been assigned a fuel consumption based on a manually selected similar WLTP tested variant. From 2020 this process has instead been rule-based, automated and applied on all years in this report to ensure consistency.

End of life treatment of sold products: GHG emissions caused by the end of life treatment of sold products are estimated based on emission factors from the Battery electric C40 Recharge carbon footprint study and our global manufactured volume.

Leased assets downstream: Emissions from leased assets downstream is calculated by summarising the Volvo Cars share of emissions reported by leased spare parts warehouses.

Retailers: GHG emissions caused by retailers are based on financial data of EMEA Volvo Cars retailers and a detailed analysis of seven selected retail sites and their CO_2 per sold car. This is multiplied with total number of sold cars globally.

DEFINITIONS/REPORTING PRINCIPLES

2 Based on manufactured vehicles (sales per region)

3 Due to the transfer of the manufacturing plant in Luqiao, China, to Volvo Cars (owned by Geely between Jan-Nov 2021), the December 2021 emissions were reallocated from Scope 3 Leased assets to their respective Volvo Cars GHG protocol category. This was done after publication of the Q4-report thus numbers differ between the Q4-report and annual report.

4 Absolute CO_2 tailpipe emissions avoided is calculated by multiplying number of sold BEVs with the global average CO_2 emissions (WLTP) for all manufactured cars in 2020 and 2021, respectively, excluding BEVs. For calculation purposes an assumed average milage of 200,000 km per car has been applied.

Electrified vehicles

5 Electrified vehicles is defined as plug-in hybrids and fully electric vehicles.

Emissions, other

Verified by the Science-Based Targets initiative (SBTi) - a partnership between CDP, the United Nations Global Compact, World Resources Institute (WRI) and the World Wide Fund for Nature (WWF).

6 Volvo Car Group commits to reduce absolute scope 1 and 2 GHG emissions 60% by 2030 from a 2019 base year.

7 Volvo Car Group commits to reduce scope 3 GHG emissions from use of sold products 52% per vehicle kilometre by 2030 from a 2019 base year (this includes Well-to-Tank emissions).

Energy, Waste and Water

8 KPIs per manufactured cars includes sites currently part of our industrial manufacturing structure. When manufacturing plants have been added and or removed, the baseline number (2018) have been adjusted accordingly.

9 Data for the year 2019 is based on 1 dec 2018 to 30 Nov 2019, except the data for Americas that is based on calendar year 2019. 2019 was the first year Volvo Cars started reporting figures for Americas. The Volvo Cars manufacturing plants included in the data for Europe are Volvo Cars Torslanda Plant (Gothenburg, Sweden), Volvo Cars Ghent Plant (Ghent, Belgium), and Volvo Cars Olofström – Body Components (Olofström, Sweden). The Volvo Cars plant included in the data for US is Volvo Cars Charleston Plant (Charleston, South Carolina, USA). The Volvo Cars manufacturing plants included in APAC are Volvo Cars Malaysia - CKD (Kuala Lumpur, Malaysia), Volvo Cars Chengdu Plant (Chengdu, China), Volvo Cars Daqing Plant (Daqing, China) and Volvo Cars Taizhou Plant (Taizhou, China).

10 Direct energy refers to electricity produced and used on site as well as fuels to produce heat. Indirect energy refers to purchased electricity and heating.

11 Based on manufactured vehicles (produced per region)

12 Including all Volvo Cars owned and leased offices, showrooms, warehouses, and R&D facilities

13 Metal scrap from Volvo Cars Olofström – Body Components (Olofström, Sweden) is allocated to the car factories in Europe, APAC resp. US according to production since they deliver to all car plants. The manufacturing plants Volvo Cars Chengdu Plant (Chengdu, China) and Volvo Cars Daqing Plant (Daqing, China) have stamping operation which means that they get more metal scrap than an ordinary car factory.

14 Water withdrawal in water-stressed areas according to WRI Aqueduct water risk atlas tool

Logistics

15 CO_2-emissions from transports calculated per 01 Dec 2020 - 30 Nov 2021, excluding parts distribution.

16 CO_2 emissions from Inbound and Outbound transports / manufactured car. Calculated per 1 Dec 2020 - 30 Nov 2021. Parts distribution is excluded.

17 Total CO_2 emissions and transport work per transport mode per 01 Dec 2020 - 30 Nov 2021

Material value retention

18 Based on inbound volume

Vehicle utilisation

19 Calculated on a subset of Volvo vehicles; a fleet of cars mainly driven by Volvo Cars employees in Sweden which is not fully representative for all Volvo vehicles. Can be compared to 11000 km driven on average by a registered car in Sweden 2020 (Sources; Trafikanalys and SCB)

20 Calculated on a subset of Volvo vehicles; a fleet of cars mainly driven by Volvo Cars employees in Sweden which is not fully representative for all Volvo vehicles. This can be compared to 1,45 average passengers in a car in Sweden 2020 (Source; Trafikanalys)

Biodiversity – Land use and ecological sensitivity

21 Sometimes we lease a full building and sometimes we lease a floor in a multi-floor building. This is how we summarise total area from leased buildings. Full building lease: a 4 floor building that we lease, each floor is x m^2, we include 4x m^2 for this building. One floor in a multi-floor building: we rent 1 floor of 26 floors. We calculate the area as that floor, not as 1/26 of it. Rented black and green areas are not included due to contractual circumstances.

Wage level

(22) Entry level wage is compared to the local labour agreement in Sweden and Belgium, and to the statutory minimum wage in China and US.

(23) Calculated ratio between two values: Annual total CEO compensation in 2021 and Median annual Swedish Volvo employee total compensation in 2021

Training indicators

(24) On-the-job training is not included in this metric

Number of employees

(25) 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.

Breakdown by gender

(26) Only appointed Board Members are included in these figures. In addition to these, there are 3 representatives from the unions on the Board of Directors. However, Volvo Cars does not have any influence of their appointment.

(27) Breakdown by gender for the category "All other permanent contract employees" is reported within each age group and as a total for all age groups.

Accidents and sick leave

(28) 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. Fatalities among contractors are only reported for projects in which Volvo Cars is the developer.

Diversity indicators

(29) The 2021 figures are global (Sweden, Belgium, APAC, Americas and EMEA). Figures from previous years only include Sweden, Belgium and China.

(30) New scope and calculation based on better data availability. Onwards population will be executive management team and metric based on Non-Swedish citizenship. 2021 metric is not comparable to historically reported data.

Procurement

(31) The supplier data collected consists of renewable energy data only.

Compliance and ethics

(32) A decision was made to launch the yearly C&E course at the start of the year instead of at the end of each year. The course launched in 2020 had it's deadline in 2021 and is therefore accounted for in 2021.

A circular scenario for passenger cars

(Sources and more information regarding circular economy information p. 162):
(33) https://www.oecd.org/environment/waste/highlights-global-material-resources-outlook-to-2060.pdf

(34) https://materialeconomics.com/publications/completing-the-picture

(35) https://www.resourcepanel.org/reports/global-resources-outlook

Usage models

(Sources and more information regarding usage models p. 168):
(36) https://www.capgemini.com/se-en/research/the-sustainability-impact-of-car-sharing-2021/

Auditor's Limited Assurance Report on Volvo Cars' 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 and the Executive Management of Volvo Car AB (publ.) ("Volvo Cars") to undertake a limited assurance engagement of the Volvo Cars Sustainability Report for the year 2021. The Company has defined the scope of the Sustainability Report in connection to the table of content in the Annual and Sustainability Report on page 2 and the Statutory Sustainability Report on page 51.

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 181 in the Sustainability Report, and are part of the Sustainability Reporting Guidelines published by GRI (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 ex-press an opinion regarding the Statutory Sustainability Report. Our engagement is limited to historical information presented and does therefore not cover future-oriented information.

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 Cars 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 31 March 2022
Deloitte AB

Jan Nilsson
Authorized Public Accountant

Lennart Nordqvist
Expert Member of FAR

Green financing report

Introduction

On 7 October, 2020, Volvo Car AB (publ.) (Volvo Car Group) issued its first green bond (the Green Bond) to finance the design, development, and manufacturing of Zero Emission Vehicles (ZEVs), that is Battery Electric Vehicles (BEVs). The transaction supported Volvo Car Group's sustainability strategy and longer ambition to be a climate neutral company by 2040, in line with the 2015 Paris Agreement. In addition, on January 11th, 2021, Volvo Car Group signed a sustainability-linked revolving credit facility (the Credit Facility), refinancing its existing revolving credit facility from 2017. The new facility encompasses 21 participating banks and has clear links to Volvo Car Group's sustainability strategy where the margin for the facility is linked to Volvo Car Group's progress in reducing its carbon emissions.

The Green Financing Framework

The Green Financing Framework (the Framework) is part of Volvo Car Group's sustainability strategy. Its deliverables strengthen the company's focus on contributing to positive environmental impacts and more specifically on clean transportation, ZEVs. Our belief is that the transition to BEVs is part of the solution towards a sustainable society. The Framework is aligned with both the ICMA Green Bond Principles (GBP) and the LMA Green Loan Principles (GLP) and is provided a Second Party Opinion with a Dark Green shading by Cicero.

Included in the overall shading is an assessment of the governance structure which is rated excellent. Deloitte has performed a limited assurance of the Green Financing Report, including the allocation and impact reporting, in line with ISAE 3000, see page 190 for the Limited Assurance Report. For more information about the Framework and Cicero's statement, please see https://investors.volvocars.com/en/debt-information/green-financing.

Terms and conditions

The Green Bond of EUR 500 m has a tenor of seven years and a fixed coupon rate of 2.50 per cent. The bond is listed on the Luxembourg Stock Exchange. The Credit Facility of EUR 1300 m is a 3-year facility with two 1-year extension options. On 29 November 2021, Volvo Car Group utilised the first extension option and as a result extended the Credit Facility to 2025.

Allocation Report

The net proceeds from the issuance of the Green Bond, was used to finance and refinance, in whole or in part, new or existing projects, assets and activities such as new electric powertrain and platform technology for ZEVs, increased BEV production capacity and battery assembly, and investment into Polestar, all according to the Eligibility Criteria (Eligible Green Projects) outlined in the Framework.

Use of proceeds	MEUR
Total amount of green bond issued	500
Total amount used[1]	500
Net proceeds used for refinancing[1]	95.6%
Net proceeds used for financing	4.4%
Total amount of unallocated proceeds invested in cash and/or cash equivalents	—

1) 31.2 per cent was invested in Polestar. Volvo Cars owns 49.5 per cent in Polestar.

Impact Report

The environmental impacts and benefits of the Eligible Category Clean Transportation are evaluated with regards to the following impact indicators:

Indicator	2021	2020
Number of BEVs sold	25,727	4,659
Percentage of BEV cars sold in the overall fleet mix, %	3.7	0.7
Absolute CO_2 tailpipe emissions avoided, million tonnes [1]	0.75	0.15
Percentage reduction in CO_2 tailpipe emissions per vehicle, % [2]	21.7	12.7

1) Absolute CO_2 tailpipe emissions avoided is calculated by multiplying number of sold BEVs by the global average CO_2 emissions (WLTP) for all manufactured cars in 2020 and 2021, respectively, excluding BEVs. For calculation purposes an assumed average milage of 200,000 km per car has been applied.
2) Percentage reduction in CO_2 tailpipe emissions per vehicle is based on the average tailpipe emissions for all cars sold in 2020 and 2021, respectively, compared to the baseline year 2018. For further calculation methodology applied, see page 156 regarding use of sold products.

The percentage of BEVs sold in the overall fleet mix is in line with expectations for 2021. The ambition of having 50 per cent of Volvo Car Group's sales from BEVs by 2025 remains.

ESG aspects

Our ambition is to enable consumers to move and travel in a sustainable way, and we are aware that electric vehicles have environmental and social impact. An ESG assessment of potential controversies was performed regarding our transformation towards electrification. The battery production is a focus area of ours. For more detail see Sustainability Information, Performance 2021 (page 155 and onwards) and more specifically the Lifecycle Performance of Our Products (page 161) and Supply of Minerals and Metals (page 175–177).

Measure methodology

Average GHG emissions from use of sold products are based on official data (WLTP) of Volvo Car Group manufactured cars in Europe (EU28) applied on car types and the global number of manufactured cars. For more information on the reporting methodology and the assumptions applied, see page 185–187.

Auditor's Limited Assurance Report on Volvo Cars' Green Financing Report

To Volvo Car AB (publ.), corporate identity number 556810–8988

Introduction

We have been engaged by Volvo Car AB (publ.) ("Volvo Cars") to undertake a limited assurance engagement of the Green Financing Report ("Reporting") for the year 2021 set out on page 189 in the Annual and Sustainability Report.

Responsibilities of Management

Volvo Cars Management is responsible for the preparation of the Reporting in accordance with the applicable criteria, as explained in the Volvo Cars Green Financing Framework (available at https://investors.volvocars.com/en/debt-information/green-financing) as well as the accounting and cal-culation principles that the Company has developed. This responsibility also includes the internal control relevant to the preparation of the Reporting 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 Reporting based on the limited assurance procedures we have performed. Our engagement is limited to historical information presented and does therefore not cover future-oriented information.

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 Reporting, and applying analytical and other limited assurance procedures. The procedures performed in a limited assurance engagement vary in nature from, and are less in extent than for, a reasonable assurance engagement conducted in accordance with International Standards on Auditing and other 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 Cars in accordance with professional ethics for accountants in Sweden and have otherwise fulfilled our ethical responsibilities in accordance with these requirements.

The procedures performed consequently do not enable us to obtain assurance that we would become aware of all significant matters that might be identified in a reasonable assurance engagement.

Accordingly, the conclusion of the procedures performed do not express a reasonable assurance conclusion.

Our procedures are based on the criteria defined by Volvo Cars Management as described above. We consider these criteria suitable for the preparat-ion of the Reporting.

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 Reporting for the year 2021, is not prepared, in all material respects, in accordance with the applicable criteria, as explained in the Volvo Cars Green Financing Framework.

Göteborg 31 March 2022
Deloitte AB

Jan Nilsson
Authorized Public Accountant

Lennart Nordqvist
Expert Member of FAR

THE SHARE AND OWNERSHIP STRUCTURE

Historic come back for Volvo Cars on Nasdaq Stockholm

To support the company's transformation and its continued growth, Volvo Cars' Board of Directors and its main shareholder, Geely Sweden Holding, agreed to list the company's shares on Nasdaq Stockholm and gain access to the Swedish and international capital markets.

On 29 October 2021 Volvo Cars welcomed over two hundred thousand new shareholders after the initial public offering and listing on Nasdaq Stockholm the same day. The offering was substantially oversubscribed as it attracted strong interest from institutional investors in Sweden and abroad as well as from the general public in the Nordics.

The price per share in the offering was SEK 53, which corresponded to a market capitalisation for Volvo Cars of SEK 158 billion for all outstanding shares in the company. The new issue of 377,358,490 common shares of class B will raise gross proceeds of SEK 20 billion before transaction costs.

Volvo Cars has been a pioneer since its inception in 1927. We are behind some of the most important innovations in the history of car safety, and we are continuously improving your safety. The continued strengthening of our brand has had a clear and positive effect on our products and market position as well as our operations and financial development.

Share performance and trading volume

Based on the closing share price on 30 December 2021, SEK 77.02, the Group's market capitalisation was SEK 229,483 m. The share price increased by 18.1 per cent since the first day of listing October 29, while the total index (OMXSPI) increased 6.9 per cent. Compared to listing price of SEK 53 the share price increase was 45.3 per cent. The highest closing price quoted was SEK 82.94 on 16 November and the lowest closing price quoted was SEK 57.18 on 8 November.

A total of 421.8 million Volvo Car AB's shares were traded on all marketplaces with average daily trading volume of 9.6 million shares. Trading on Nasdaq Stockholm accounted for 61.9 per cent of total trading volume. The average turnover rate for Volvo Car Group's shares on Nasdaq Stockholm in 2021 was 0.32 per cent compared with 0.42 per cent for Nasdaq Stockholm.

LISTING ON NASDAQ STOCKHOLM

When: 29 October 2021
Symbol: VOLCAR
Data at year-end 2021
Market cap: SEK 229,5 billion
Free float: 17.9 per cent
Number of shareholders: 189,496
Number of shares: 2,979,524,179
Earnings per share before dilution: SEK 4.72
Equity per share: SEK 30.3
P/E multiple: 16.6

Dividend

Dividend pay-out will be assessed from year to year based on Volvo Car Group's net income, financial position and investments needs. Volvo Car Group will focus on delivering its fastest transformer and growth strategy through aiming for its mid-decade ambitions. As visibility on the transformation increases in the medium-term, the ambition is to increase dividend pay-outs towards historical levels and industry average.

The Board of Directors proposes that the Annual General Meeting resolve no dividend be paid.

The share

The number of Volvo Cars shares amounts to 2,979,524,179. Each share has a quota value of 0.02 SEK and the share capital amounts to SEK 60,947,709. Volvo Cars share capital comprises one series of B-shares, with each share carrying equal voting rights and equal rights to a dividend.

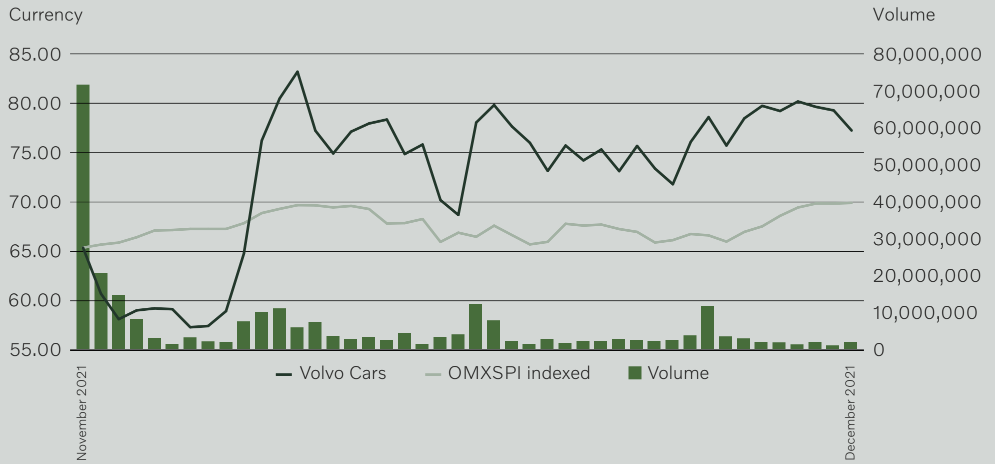
Volvo Cars does not hold any shares in treasury and the most recent occasion when new shares were issued was in conjunction with the IPO in October 2021.

Ownership structure

The number of shareholders was 189,496 at year-end. The principal owner is the Geely Group, with 82.0 per cent of the shares (votes and capital). No other shareholder owns – directly or indirectly – more than 10 per cent of the shares in Volvo Cars Group (votes and capital). Foreign ownership excluding Geely at year-end corresponded to 3.9 per cent of the share capital. The largest foreign ownership excluding Geely is in Canada, Finland and Denmark. Of Swedish ownership, institutions accounted for 86.9 per cent.

READ MORE AT INVESTORS.VOLVOCARS.COM

VOLCAR B – SHAREPRICE DEVELOPMENT



THE SHARE AND OWNERSHIP STRUCTURE

Shareholder information and financial calendar 2022

Information for the capital market and other interested parties is provided on investors.volvocars.com. The website provides current and historical information on Volvo Cars operations and on financial and sustainability performance. Interim reports, year-end reports and annual and sustainability reports are distributed via the website. It is easy to subscribe for financial reports, press releases and news issued by Volvo Cars via email through the subscription service. Printed copies of Annual and Sustainability Reports are distributed to shareholders upon request.

Financial Calendar

28 April 2022: Q1 2022 report
11 May 2022: Annual General Meeting, Gothenburg, Sweden
20 July 2022: Q2 2022 report
27 October 2022: Q3 2022 report
9 February 2023: Q4 and Full Year report 2022

Annual General Meeting 11 May 2022

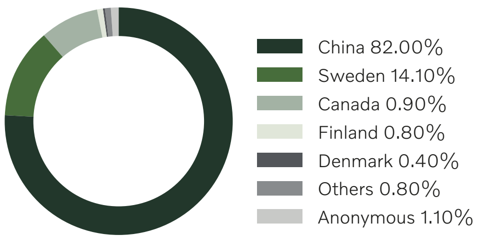
The shareholders of Volvo Car AB (publ), reg. no. 556810-8988, ("Volvo Cars") have been invited to attend the Annual General Meeting (the "AGM") to be held on Wednesday, 11 May 2022, at 13.00 CEST at Eriksbergshallen, Sjöportsgatan 5, 417 64 Gothenburg, Sweden.

More information:
investors.volvocars.com/en/AGM2022

TEN LARGEST SHAREHOLDERS 31 DECEMBER 2021

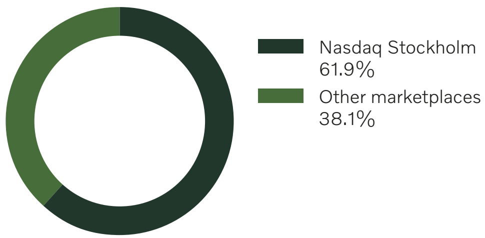
Owners	Number of shares	Capital	Votes
Geely Holding	2,443,396,227	82.0%	82.0%
AMF Pension & Funds	103,556,673	3.5%	3.5%
Folksam	59,174,071	2.0%	2.0%
Swedbank Robur Funds	28,465,387	1.0%	1.0%
Alecta Pension Insurance	28,300,000	0.9%	0.9%
Canada Pension Plan	26,415,094	0.9%	0.9%
Handelsbanken Funds	21,186,972	0.7%	0.7%
Fourth Swedish National	18,867,924	0.6%	0.6%
If Skadeförsäkring AB	18,867,924	0.6%	0.6%
Nordea Funds	18,597,554	0.6%	0.6%
Ten largest owners, total	**2,766,827,826**	**92.9%**	**92.9%**
Others	212,696,353	7.1%	7.1%
Total	**2,979,524,179**	**100.0%**	**100.0%**

OWNERSHIP BY COUNTRY



Source: Modular Finance

SHARE TRADING PER MARKETPLACE



BREAKDOWN BY SIZE 31 DECEMBER 2021

Size class	Number of known shareholders	Share of known shareholders	Number of shares	Capital	Votes
1–500	172,352	91.0%	21,157,702	0.7%	0.7%
501–1,000	10,632	5.6%	7,702,103	0.3%	0.3%
1,001–5,000	5,604	3.0%	11,178,028	0.4%	0.4%
5,001–10,000	483	0.3%	3,494,118	0.1%	0.1%
10,001–20,000	205	0.1%	2,973,707	0.1%	0.1%
20,001–	220	0.1%	2,900,724,498	97.4%	97.4%
Anonymous ownership			32,294,023	1.1%	1.1%
Total	**189,496**	**100.0%**	**2,979,524,179**	**100.0%**	**100.0%**

Our Heritage – An exciting journey and decades of innovations

Volvo Car Group was founded upon the concepts of quality and safety by Assar Gabrielsson and Gustaf Larson in Gothenburg, Sweden, and in 1927 the first Volvo car, was released. Ever since our founding in 1927, we've been designing cars that put people first and we have become a truly global company renown for safety selling approximately 700,000 cars all over the world. On 29 October 2021 we passed another milestone when the Volvo Cars' share was listed on Nasdaq Stockholm.

1927

Assar Gabrielsson and Gustaf Larson launch the first Volvo car in Gothenburg, Sweden.

The car was an open tourer with a four-cylinder engine.

40's–60's

1944 "The little Volvo" (PV444), was a car that turned Volvo into an international car company was unveiled in Stockholm.

1953 The Volvo Duett was launched as "two cars in one" – for both work and leisure.

1955 The first PV 444 was unloaded at a port in Long Beach, California. Two years later Volvo Car had become the second-biggest import brand in California.

1959 Volvo engineer Nils Bohlin invents the three-point safety belt.

1964 Our plant in Gothenburg was inaugurated and is still our largest production facility.

70's

1972 Environment was added to our core values, Safety and Quality.

Volvo invented the rearward-facing child safety seat.

1976 Volvo released the Lambda Sond, the world's-first catalytic exhaust control system that reduces harmful emissions.

Volvo was officially chosen as the safety standard benchmark for all new cars in the USA.

1977–1978 Volvo 240, was awarded the American National Environmental Industry Award and named the cleanest car by the California Air Resources Board.

1978 Volvo Car Group was spun out as a separate entity from AB Volvo.

80's

The sales of Volvo 740 and 760 was a great success

90's

1991 Volvo 850 was launched introducing a transverse five-cylinder engine, the Side Impact Protection System, self-adjusting belt reels for the front seat and Delta-link rear suspension.

1994 The side impact airbag was invented.

1998 The Inflatable Curtain was invented and the Whiplash Injury Protection system was launched.

1999 Ford acquired Volvo Car from AB Volvo.

00's

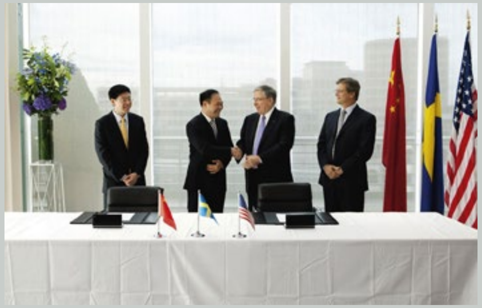
2001 A new generation of environmentally adapted diesel engines was launched.

2002 Volvo XC90 was launched and became an instant success all over the world.

2007 Volvo ReCharge Concept Car, a plug-in hybrid was first displayed.

2008 The City Safety, a low-speed auto brake solution that automatically is braking the car in the event of imminent risk of collision was introduced. The popular DRIVe series encompassed seven models classed as green cars.

10's



2010 Geely Holding acquired Volvo Car from Ford.

2011 Volvo Cars appointed top car maker in Sustainable Brands.

2013 The four-cylinder powertrains featuring a lightweight base powertrain replaced its fourteen-engine powertrain family predecessor.

We established a manufacturing joint venture with Geely Holding and built two manufacturing plants in Chengdu and Daqing, China.

Volvo C30 awarded “Green Car of the Year” in China.

2014–2015 The in-house development of the Scalable Product Architecture (SPA) was completed and the new generation XC90, the first car model built on the SPA, started a new chapter in our history.

2017 We announced our electrification strategy.

2017

The Volvo XC40, the first model based on our compact modular vehicle architecture (CMA) was introduced. It set our new standard in design, connectivity and safety.

2018

Engine production facility in Skövde, Sweden becomes a climate neutral (in terms of CO_2 emissions) production facility. A solar energy installation was unveiled at the Ghent factory.

The production facility in Charleston, South Carolina, was opened establishing a global manufacturing footprint.

Subscriptionbased Care by Volvo and Volvo Car Mobility was announced.

We partnered with NVIDIA for the development of a highly capable, AI-based, central computer for the next generation of Volvo cars.

2019

Our long-term sustainability ambitions to become a climate neutral company and circular business by 2040 was announced.

We launched XC40 Recharge P8, our first fully electric SUV. Our first model equipped with an infotainment system powered by Android.

2020

Production of XC40 Recharge starts in Ghent.

We successfully conclude our largest restructuring programme ever.

2021

We announced that Volvo Car will be fully electric by 2030.

Started production of second fully electric model C40 recharge.

Volvo Cars and Northvolt entered a partnership in battery development and production. A joint venture research centre and manufacturing plant to be placed in Gothenburg.

Online sales represented 9 per cent of sales in active markets in Q4.

We announced an internal price of CO_2 emission of 1,000 SEK per tonne CO_2 to be applied in all future investment decisions.

Our Torslanda factory became climate neutral.

We announced that LiDAR will become a standard equipment in our next generation of cars.

On 29 October Volvo Cars became a listed company on the Nasdaq Stockholm stock exchange.

DEFINITIONS

Volvo Car Group / Volvo Cars
Both expressions refer to Volvo Car AB (publ.), Volvo Car Corporation including all its subsidiaries.

Geely ecosystem
Legal entities that are directly or indirectly owned by, or affiliates to, Geely Holding or otherwise ultimately owned or controlled as to 20 per cent or more by the Chairperson of the Board.

Associated companies
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.

Joint venture companies (JVs)
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.

Retail sales
Retail sales refer 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.

Wholesales
Wholesales refer to new car sales to dealers and other customers including rentals.

Europe
Europe is defined as EU+EFTA+UK.

Passenger cars
Passenger cars are vehicles with at least four wheels, used for the transport of passengers, and comprising no more than eight seats in addition to the driver's seat.

Rechargeable vehicles
Rechargeable vehicles are electrified vehicles and are defined as plug-in hybrids and fully electric vehicles.

Agency personnel
Agency personnel is referred to as specific competence that is sourced externally and assigned to meet fluctuating business resource needs.

ABBREVIATIONS

HEV — Hybrid electric vehicle
BEV — Battery Electric Vehicle
ICE — Internal combustion engines
JV — Joint venture
MHEV(s) — Mild hybrid electric vehicle
NEV — New energy vehicle
OEM — Original equipment manufacturer
OTA — Over-the-air
PHEV — Plug-in hybrid electric vehicle
RDE — Real driving emissions

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Language
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Totals and roundings
Totals quoted in tables and statements may not always be the exact sum of the individual items because of rounding differences. The aim is that each line item should correspond to its source, and rounding differences may therefore arise.