VOLVO

LEADING THE TRANSFORMATION

Volvo Group
Annual and Sustainability Report
2021

Content

Driving prosperity through transport and infrastructure solutions

The Volvo Group drives prosperity through transport and infrastructure solutions, offering trucks, buses, construction equipment, power solutions for marine and industrial applications, financing and services that increase our customers' uptime and productivity.

Founded in 1927, the Volvo Group is committed to shaping the future landscape of sustainable transport and infrastructure solutions.

The Volvo Group is headquartered in Gothenburg, Sweden, employs 95,000 people and serves customers in more than 190 markets. In 2021, net sales amounted to about SEK 372 billion (EUR 37 billion). Volvo shares are listed on Nasdaq Stockholm.

The Volvo Group's formal financial reports are presented on pages 44–151, 196–198 and 204–206 and have been audited by the company's auditors. For information on which pages constitute the Volvo Group's Statutory Sustainability Report, please see page 44.

Sustainability information can be found integrated in the Group overview on pages 6–44, in the Sustainability Notes on pages 152–179 and in the Corporate Governance Report on pages 183 and 190.

Our ambition is clear. Driving prosperity socially, environmentally and financially means striving for transport and infrastructure solutions that are:

100%

fossil-free
Climate change is the challenge of our generation. Our ambition is to enable our customers to go fossil free and we strive towards net zero emissions from our operations and supply chain.

100%

safe
The health, safety and wellbeing of people is our main priority.

100%

more productive
By drastically increasing productivity and efficiency in logistics systems it is possible to meet a growing need for transports while staying within the boundaries of what our planet can sustain.

This is the Volvo Group

Our customers make societies work

The Volvo Group's products and services contribute to much of what we all expect of a well-functioning and prosperous society, since they are involved in many activities that most of us rely on every day. The majority of the Volvo Group's customers are companies within the transportation or infrastructure industries. The reliability and productivity of our products and services are a key factor in their success and profitability.

On the road
Our products and services help ensure that people have food on the table, can travel to their destination and have roads to drive on. They also deliver industrial goods to keep production plants running.

Off road
Engines, machines and vehicles from the Volvo Group are used to mine iron ore and haul stone and rock. They also power vital irrigation installations all over the world, so that farmers can grow their crops.

In the city
Our buses take people to work or school, trucks collect rubbish and gensets are used as backup power. Our products are also used to build housing as well as industrial and sports facilities.

At sea
People can rely on our products and services, regardless of whether they are at work on a ship, traveling to work on a ferry, on holiday in a pleasure boat or need urgent help from the sea rescue services.

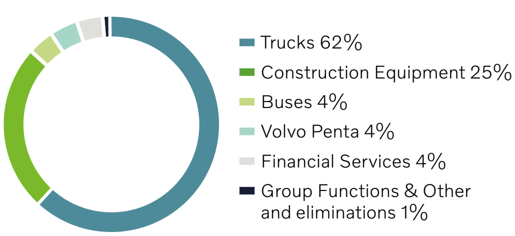
The types of products and services the Volvo Group provides contribute to the functioning of the societies in which many of us live.

The Volvo Group has production in 19 countries and sells its products and services in 190 markets around the world.

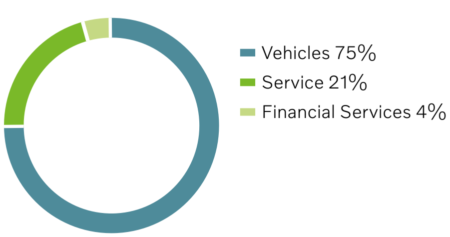
A global group with strong positions

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

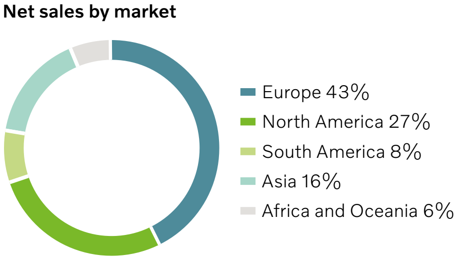
Net sales by segment



Net sales by revenue type



Net sales by market



Strong brands
The Volvo Group's brand portfolio consists of Volvo, Volvo Penta, Rokbak, Renault Trucks, Prevost, Nova Bus, Mack and Arquus. We also partner in alliances and joint ventures with SDLG, Eicher, Dongfeng and cellcentric. By offering products and services under different brands, we address many different customer and market segments in mature as well as growth markets.

Competitive products
The Volvo Group's products have been developed to contribute to efficient transport and infrastructure solutions and to provide our customers with maximum uptime. We drive the development of electrified vehicles and machines as well as automated solutions for the benefit of customers, society and the environment. Sales of vehicles and machines build a population of products that requires spare parts and services.

World-class services
In addition to vehicles and machines, our offering includes various types of services such as financing, insurance, rentals, spare parts, repairs, preventive maintenance, service agreements and assistance services. The range and flexibility of the offering means that solutions can be tailor-made for each customer to maximize uptime and productivity. The service business contributes to balancing the fluctuations in the sales of new products and improving profitability over the business cycle. Growing the service business is an area of priority.

Strong positions globally
Thanks to competitive product programs, strong dealers with extensive service networks and increasingly more complete offerings, the Volvo Group has established leading positions globally. These positions provide for economies of scale in product development, production, purchasing and financial services.

Partnerships and collaborations with leading companies
New technologies are developing at a faster pace than ever before. Staying at the forefront is vital to be successful, and that is why we work in collaborations and partnerships with other leading companies. We have a strategic alliance with Isuzu Motors. We have partnered with Samsung SDI on batteries. We have established cellcentric together with Daimler Truck to commercialize fuel cell systems for heavy-duty vehicles and other use cases. We work together with both NVIDIA and Aurora on autonomous vehicles and machines. And we plan to pioneer a European high-performance charging network for heavy-duty trucks and coaches together with Daimler Truck and Traton Group.

CEO comments

Good execution in a challenging year and ...

SUMMARY OF 2021

- Strong increase in both vehicle and service sales.
- Considerable improvement in profitability despite supply chain challenges.
- Acceleration of the activities and investments into the electric age with a rapid expansion of the offer of electric vehicles and machines.
- Launch of cellcentric, our fuel cell joint venture together with Daimler Truck.
- Agreement to form a joint venture for a high-performance public charging network across Europe.
- Divestment of UD Trucks to Isuzu Motors as part of a formation of a strategic alliance.
- Distribution of SEK 50 billion to our shareholders, including the proceeds from the divestment of UD Trucks.

In 2021, we continued to deliver good profitability and took several important steps in our efforts to lead the transition to a climate-neutral transport system. For the full year, the Volvo Group's net sales increased to SEK 372 billion and the adjusted operating income to SEK 41 billion with an adjusted operating margin of 11.0%. Return on capital employed in the Industrial Operations increased to 25.3%.

With economic activity rebounding after the difficulties of 2020, growing transport volumes and improving construction activity increased our customers' fleet utilization, which was back on pre-covid levels. This was evident in strong demand for both new and used products as well as in our service business, which grew by 9%. Driving the sales of services and solutions is a prioritized area since it both strengthens the relationship with our customers and provides resilience to our earnings over the business cycle.

The situation in the global supply chain for semiconductors and other components continued to be a challenge in 2021. It was unstable, characterized by disruptions, unpredictability and lack of freight capacity. In the difficult circumstances, aggravated by the ongoing covid-19 pandemic, our decentralized organization was crucial. It provided us with the ability to act quickly, dare to make decisions and take responsibility locally and regionally.

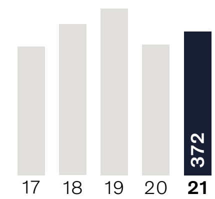
It has been fantastic to see the commitment of my colleagues who have worked hard to build and service trucks, buses, con-

KEY RATIOS	2021	2020
Net sales, SEK M	372,216	338,446
Net sales excluding UD Trucks[1], SEK M	366,778	315,742
Adjusted operating income[2], SEK M	41,015	28,564
Adjusted operating margin, %	11.0	8.4
Operating income, SEK M	43,074	27,484
Operating margin, %	11.6	8.1
Income after financial items, SEK M	43,190	25,917
Income for the period, SEK M	33,243	20,074
Earnings per share, SEK	16.12	9.50
Dividend of the proceeds from the sale of UD Trucks, SEK per share	9.50[3]	–
Dividend, SEK per share	13.00[4]	15.00
Operating cash flow, Industrial Operations, SEK M	29,440	18,545
Net financial position excl. provisions for post-employment benefits and lease liabilities, Industrial Operations, SEK bn	66.2	74.7
Return on capital employed in Industrial Operations, %	25.3	14.7
Return on shareholders' equity, %	23.4	13.8
Total number of employees	95,850	96,194
Share of women, %	21	19
Share of women, presidents and other senior executives, %	27	26
Energy use per net sales, Industrial Operations, MWh/SEK M	6.7	6.3
Total CO_2 emissions per net sales, Industrial Operations, tons/SEK M (scope 1 & 2)	1.0	1.0
Share of direct material purchasing spend from suppliers having made a CSR self-assessment, %	97	95

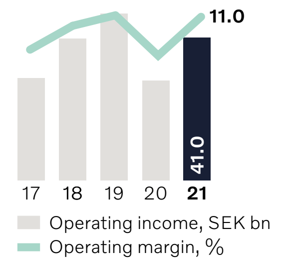
1 UD Trucks was divested on April 1, 2021. For more information, please see Note 31.
2 For more information on adjusted operating income, please see Key Ratios on page 204.
3 Paid out in July, 2021.
4 Proposed by the Board of Directors to the Annual General Meeting 2022. SEK 6.50 per share in ordinary dividend and SEK 6.50 per share in extra dividend.

Unless otherwise stated, all comparisons refer to the same period or the same date of the preceding year.

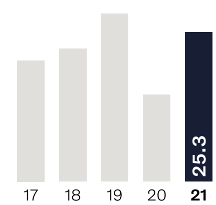
Net sales, SEK bn



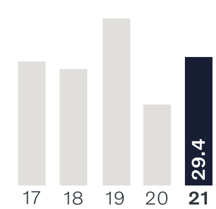
Adjusted operating income[2] and Adjusted operating margin



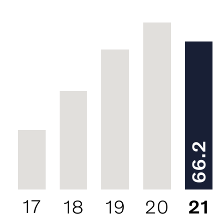
Return on capital employed Industrial Operations, %



Operating cash flow Industrial Operations, SEK bn



Net financial position excl. post-employment benefits and lease liabilities Industrial Operations, SEK bn



... an increased speed in the transformation

struction equipment and engines for our customers. I would like to thank all my Volvo Group colleagues and our business partners around the world for a job well done during a tough year. It is their efforts that make the Volvo Group and our customers successful.

Strong performance in a year with many challenges
Despite the disruptions in the supply chain, our truck business delivered 198,000 vehicles excluding UD Trucks, which was an increase of 31% compared with 2020. The increased transport activity in many countries contributed to good demand for both new and used trucks as well as for spare parts and services. All in all, this meant that net sales in the truck business rose by 21% to SEK 225 billion excluding UD Trucks and the adjusted operating margin improved to 11.1% (8.3).

Construction activity was high in Volvo CE's key markets in Europe and North America, while demand in China weakened during the course of the year. Volvo CE's net sales rose by 13% to SEK 92 billion and the adjusted operating margin improved to 13.3% (12.4). Volvo CE continued the rollout of electric compact machines, positioning itself as a manufacturer with a growing range of commercially available electric machines.

Volvo Buses continued to be impacted by the pandemic, which primarily affected the coach business while demand for city buses was less impacted. On the city bus side of the business, there is a distinct acceleration in the transformation to electric buses. Net sales for 2021 amounted to SEK 14 billion (15) and the adjusted operating margin to 0.4% (–3.1).

Volvo Penta's sales of both engines and services grew strongly, which had a positive effect on profitability. Net sales rose by 21% to SEK 14 billion and the adjusted operating margin to 14.5% (12.2). Electrification projects for both marine and industrial applications are gaining momentum.

The high activity level at many of our customers is reflected in low credit provision expenses in our customer-financing business, Volvo Financial Services. The adjusted operating income increased to SEK 3,279 M (1,606) and return on equity improved to 18.0% (8.3).

In total, the Volvo Group's net sales amounted to SEK 372 billion (338). Adjusted for the divestment of UD Trucks net sales increased by 16% with both vehicle and service sales contributing. The adjusted operating income improved to SEK 41 billion (29) with an adjusted operating margin of 11.0% (8.4). Operating cash flow in the Industrial Operations increased to SEK 29 billion (19). Even after having distributed SEK 50 billion in 2021, including the proceeds from the divestment of UD Trucks, we ended the year with a net cash position of SEK 66 billion in the Industrial Operations, pension and leasing liabilities excluded.

Our strong financial position allows us to both increase our investments in the technologies of the future and continue to provide a good return to our shareholders. The Board of Directors proposes an ordinary dividend of SEK 6.50 per share and an extra dividend of SEK 6.50 per share.

Leading the transformation towards sustainable transport solutions
The increasing demand for transport is a clear, long-term trend driven by population growth, urbanization and increasing e-commerce. It is equally clear that we must meet this demand with transport and infrastructure solutions that are more sustainable than today. Our ambition is to be at the forefront and lead this

> "Together with our customers and partners we are in a strong position to lead the transformation of our industry towards a more sustainable future."

transformation. We have further strengthened our work with the principles of the UN Global Compact regarding business ethics, human rights, labor law and the environment. During the pandemic year of 2021, the health and safety of our colleagues, suppliers and customers has of course been our first priority, but we also took major steps in our sustainability ambitions. We set climate targets that are in line with what the latest climate science deems necessary to keep global warming at a maximum 1.5^{0} C. Our pathway to reach the goals of the Paris Climate Agreement was validated by the Science Based Targets initiative in June. Already today, a large part of our R&D activities are related to low and zero-emission technology and it will continue to grow.

We were early out in the electrification journey and have sold electrified city buses for over ten years. We have built a comprehensive knowledge that we are now capitalizing on. In 2020, we started serial production of medium-duty electric trucks for urban distribution and waste management. In 2021, we took further steps on this journey when we started selling heavy-duty electric trucks in Europe, with planned delivery towards the end of 2022. Today, we have a broad range of electric trucks with a market-leading position in Europe. This has been achieved by building on the great knowledge of our employees, our modular product platform and our global industrial system. We assemble trucks with combustion engines and electric trucks on the same assembly lines. We work with competence development of our colleagues – from engineers to assemblers. And we certify our service workshops to take care of the electric vehicles.

All in all, this means that we are ready to reap the benefits from the transformation. However, we are convinced that it will have different speeds in different parts of the world and take place segment by segment. Fully-electric vehicles and machines currently account for a very small part of our total deliveries, but there is a large and growing interest from our customers and their customers. This applies to cities that want to create a quiet and clean environment, to logistics companies that want to be at the environmental forefront and not least to transport buyers who come directly to us to assist them in decarbonizing their own operations.

The speed of the transformation will depend on several factors such as costs for fossil fuels, battery prices as well as access to charging infrastructure, green electricity and various incentive programs. However, we cannot wait for all the pieces to fall into place. Instead, we work together with partners and decision-makers to create the right conditions. One example is the planned joint venture with Daimler Truck and Traton Group, where we aim to establish at least 1,700 green charging points for trucks and buses in Europe. Other important collaborations are the alliance with the battery manufacturer Samsung SDI, the joint venture with Daimler Truck on fuel cells, cellcentric, and the technology partnerships with NVIDIA and Aurora to develop autonomous vehicles and machines. We also created a strategic alliance with Isuzu Motors in connection with the sale of UD Trucks to them in April.

Electrification is a crucial part on the road to climate-neutrality since the absolute majority of climate-affecting emissions occur when our customers use the vehicles and machines. But we also work to reduce the climate impact from our own operations and other parts of our value chain. We have an important role to play in stimulating demand for climate-neutral materials and components, and we work closely with our suppliers to drive progress in this area. In the autumn we presented the world's first vehicle made of green steel, an autonomous load carrier. We have a clear vision and together with our customers we are taking actions here and now to create the world we want to live in.

With 2021 behind us, we can conclude that our strategy and our decentralized organization are working well. Our ability to manage change and act quickly will become even more important when we are increasing the pace in the transformation to a climate-neutral transport system. We have a wide range of electric trucks, buses and machines on the market, high market shares and great interest from our customers. Together with our customers and partners we are in a strong position to lead the transformation of our industry towards a more sustainable future.

Martin Lundstedt
President and CEO

Strategy

Our commitment to achieving development without exceeding the planetary boundaries includes all 17 of the UN's Sustainable Development Goals.

The future of transportation and infra-structure

The world is changing. In many aspects it is becoming a better place to live in with a global decrease in poverty, increase in life expectancy and declining cost for renewable energy. But there are also challenges. The need to drive sustainable development and to grow within the planetary boundaries is greater than ever.

One global agenda for 2030

In our work, we have established three main areas where our business can contribute to sustainable development:

Climate – reducing emissions from our own operations and value chain as well as from the use of our products.

Resources – utilizing transports and material in the most resource-efficient ways possible.

People – because safety and human rights make up the foundation for prosperity.

The Sustainable Development Goals (SDGs) were set in 2015 by the United Nations General Assembly and signed by all member states and they are therefore referred to as one global agenda for 2030. The Volvo Group's commitment to achieving development without exceeding the planetary boundaries includes all 17 SDGs. Several topics, such as equality and fighting corruption are universal for all enterprises. Beyond these universal responsibilities, we identify closer connections and impacts from our business and operations in a number of goals.

This global agenda for 2030 impacts the technological and regulatory development as well as expectations from customers, investors, employees and other stakeholders where we operate. We highlight some of our activities and their main connections to the SDGs on pages 26–43.

In addition, in the Sustainability Notes on pages 152–179, we further connect detailed disclosures to specific targets in the UN's sustainability agenda.

An increasingly urban and connected planet

The world's population is growing quickly and the world is becoming more urbanized. By 2030, it is expected that two thirds of the global population will be living in cities. Urbanization is a global megatrend – with many different faces and implications for transportation and infrastructure. Projections show that urbanization combined with the overall growth of the world population could add another 2.5 billion people to the urban community by 2050, equivalent to today's combined population of China and India. This development will have both environmental and social implications. Going forward, we believe that sustainability is a prerequisite for doing business. People shop online and more and more people prefer using services rather than owning products. More power will shift from producers to consumers and expectations on user experience are extremely high. Companies use data to provide seamless and individualized services and products.

Factors expected to drive change

In 2030:

- 30% of all European vehicle sales are expected to be electric.
- 8.6 billion people share the planet, with 70% living in cities.
- 4 out of 5 economic superpowers are found in Asia, with China the world's largest economy.
- 90% of all people have access to the internet.
- Effects from climate change are clearly visible.
- Consumer power is increasing and consumers are getting used to seamless and customized solutions in digital channels.

What will this mean for business?

- Increased demand for transport and infrastructure solutions.
- Being sustainable is a must.
- An increasing number of consumers prefer utilizing services as opposed to owning products.
- Companies owning customer interfaces and relevant data thrive as they can provide seamless and individualized services and products.
- More power resides with the buyer. B2B (business-to-business) and B2C (business-to-consumer) have merged into B2P (business-to-people).

Driving prosperity

Creating value and building a new society

Our mission is to drive prosperity through transport and infrastructure solutions. The work we do every day should ultimately contribute to us becoming the most desired and successful transport and infrastructure solution provider in the world.

Bold mission

The world does not stand still, nor does the Volvo Group. The Volvo Group's mission to drive prosperity through transport and infrastructure solutions is our way of shaping the world we want to live in. Our solutions to global challenges have people at its core and build upon a history of innovation. We improve the everyday life of our customers and society at large. The health, safety and wellbeing of people is our main priority. A growing population creates a need for more transports of people and goods. Our ambition is to contribute by offering leading transport and infrastructure solutions enabling societies to prosper in a sustainable way.

Everything starts with the customer

We are in a people business, even though we operate in a business-to-business market. Therefore, trust and relations are as important as the complete offer. By bringing together the best of offers and relations, our vision is to become the most desired and successful transport and infrastructure solution provider in the world. We offer total solutions and easy to integrate products and services, tailored towards specific customer needs, through multiple sales channels.

Our aspirations guide us on our journey, and we lead by example. We are a trusted partner to our customers – their needs drive everything we do. Our culture is built around care for people. We are purpose-driven and build engagement through inclusiveness, diversity and the ability for teams and individuals to grow. Strong performance enables us to invest in the future and thereby owning our own destiny.

Our values support our decision making at all levels every day. Everything we do starts with our customers and their needs and we see change as a positive force to succeed. We create a high performing culture by focusing on results and helping each other to succeed. We have a business mindset, and we lead with passion. We build trust by consistently doing business with integrity and following our Code of Conduct.

Our strategy guides us when shaping the future society through the Volvo Group's transport and infrastructure solutions.

Moving into the golden age of logistics

An increasing global population, booming e-commerce and a growing, connected middle class contribute to rising demand for construction and transportation in the future. Climate change, congested cities, hazardous road and working conditions call for future transportation technology and systems solutions that are safer, cleaner and more efficient. The increased need for transport and new infrastructure combined with the rapid development of new technologies provide great opportunities for our industry, which we believe is moving into a golden age of logistics. Looking ahead, we foresee that a new transport landscape will emerge. New technologies and new business models will result in safer, more sustainable and more efficient ways to move goods, material and people.

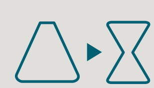
Factors expected to drive change

In 2030:

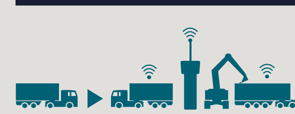
- Electromobility requires total solutions.
- Autonomous solutions give radical efficiency potential.
- Digitalization and connectivity enable optimization.
- Sustainability equals profitability.

What will this mean for our industry?

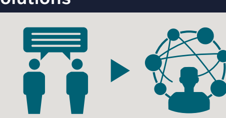
- Electromobility and autonomous solutions will be driven by large customers and their customers.
- First mover advantage will be massive.
- From standardized products to sustainable and tailor-made end-to-end solutions.
- Different eco-systems delivering customer value.



Polarized customer structure



Tailor made end-to-end solutions



Eco-systems delivering customer value

The Volvo Group journey continues

The Volvo Group's strategy is a continuation of a journey the Group has been on for the last two decades. During 1999 to 2011 the Volvo Group's strategy was primarily targeted at growth, not least through acquisitions, while at the same time focusing the business on commercial vehicles.

In 2012 to 2015 the Volvo Group underwent a transformation program aimed at reorganizing the company to take out overlaps, reduce structural costs and increase efficiency and profitability after the period of acquisition-driven growth. During this period, there was one major acquisition – 45% of Dongfeng Commercial Vehicles (DFCV) in China in 2015.

The period between 2016 and 2018 was characterized by reinforcement of the performance culture evidenced by a more decentralized organization and a regionalized value-chain approach. The improved performance, with increased profitability and further customer focus developed into the current focus – Perform and Transform.

Perform and Transform are not sequential events, they need to be run in parallel. To stay relevant and profitable, driving both current business performance and the transformation to meet future demands are our key focus areas going forward.

The continuous streamlining of the Group's business portfolio has also included the divestment of Volvo Cars (1999), Volvo Aero (2012), Volvo Rents (2014), 75.1% of Wireless Car (2019) and UD Trucks (2021).

1999–2011

ACQUISITION-DRIVEN GROWTH
Scale, synergies and geographical expansion.

MAJOR ACQUISITIONS

2001
Renault Trucks and Mack Trucks

2007
Nissan Diesel (UD Trucks)

2007
70% of Lingong (SDLG)

2007
Ingersoll Rand Road Development

2008
VECV (joint venture with Eicher)

Strategic priorities

Setting the direction

In addition to the mission, vision, aspirations, values and Code of Conduct we have decided on seven strategic priorities for the Volvo Group.

The strategic priorities provide us with the direction and result in action but should not be seen as a detailed action plan in itself. By understanding our customer's priorities and challenges, we are able to provide products, services and solutions that grow our customers' revenues, decrease their costs and at the same time benefits society. This is the basis for our strategic direction. The order in which the priorities are presented does not reflect relative importance.

1 **Transform the Volvo Group** to become a leading end-to-end integrator as well as offering easy to integrate products and services through strong brands. An overview of our strong position on a global market is found on page 5. Read more about our business model and how we create value for customers starting on page 18.

2 **Grow the service business** and target selected industry verticals offering a portfolio of tailor-made solutions. Sales of services grew by 9% in 2021 and accounted for 21% of Group revenues. Read more about how we support our customers with different solutions to increase their uptime and profitability and taking into account what type of transport applications they are performing on page 19.

3 **Secure a desirable sustainable product and service portfolio** with the right quality, leveraging new and well-known technologies, CAST, partnerships and digital innovation – accelerating electromobility solutions. Read about our partnerships and our modular CAST system on page 24. More information about the rollout of electric trucks and machines and our journey towards carbon-neutral transport and infrastructure solutions begins on page 27.

4 **Grow in Asia and the US:** In Asia through JVs, alliances and by strengthening the Volvo Group footprint in China. In the US by significantly improving the Group's market position. We have formed a strategic alliance with Isuzu Motors (page 24) and agreed to acquire a heavy-duty truck manufacturing operation in China (page 58). In the US we are rolling out electric trucks and more customers are getting onboard (page 30). Information about the development in North America can also be found on page 56.

5 **Develop robust profitability** throughout the decentralized regional value chains by leveraging global scale, digitalization, a purpose-fit footprint and continuous improvement using Volvo Production System. Read more about how we are driving synergies through having the same truck platform and manufacturing the trucks in the same plant regardless of driveline on page 35.

6 **Selectively capture, accelerate and scale-up new businesses** and develop competencies and capabilities needed. We have created cellcentric, a fuel cell joint venture, with Daimler Truck (page 34), the new business area Volvo Energy to support the Group's electrification journey (page 34) and intend to install and operate a high-performance public charging network for battery electric, heavy-duty long-haul trucks and coaches across Europe in a joint venture with Daimler Truck and Traton Group (page 35).

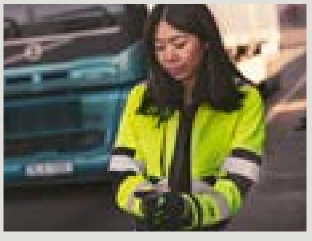
7 **Reinforce value-based leadership and ways of working** where all colleagues are empowered to take action and are accountable for the results. Read more about how we create an inclusive, safe and engaging workplace on page 42 and further about employee development on page 164.

2012–2015

CLOSING THE GAP
Product renewal, restructuring and cost efficiency.

2016–2018

IMPROVED PERFORMANCE
Customer focus, simplicity, speed, continuous improvement and organic growth.



2019–

PERFORM AND TRANSFORM
Customer-centricity, continuous performance improvement, accelerate solutions and partnerships for sustainability.

Perform

Our everyday work secures our future

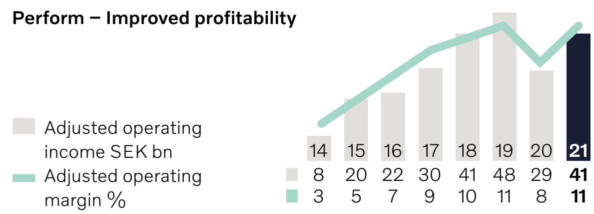
The everyday performance is the foundation for our business, here and now as well as in the future.

We need to be agile and flexible in terms of production volumes, when using our common architecture and shared technology (CAST) wherever possible, and by having continuous introductions instead of major launch projects. Our quality work is crucial to achieve customer satisfaction and the work of regionalizing our value chain is necessary to give our people the right prerequisites to serve our customers and to mitigate potential supply chain disturbances.

The performance of the Volvo Group has improved substantially during the last couple of years. Our focus has been on a gradual and consistent earnings improvement, reduced volatility in earnings and cash flow as well as allocating capital in a disciplined way. We have great assets in our people, products and services as well as production sites and well-established dealer networks. We are in a good position to support our customers. To keep this position and to be able to invest further in new technologies, our focus is on excelling on the basics as well as building resilience.

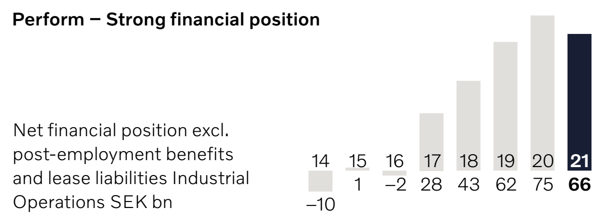
Building resilience is key to our long-term profitability. There are approximately 2.8 million trucks, buses and machines, produced by the Volvo Group, operating on or off-road. Of those, 1.2 million are connected. With this as a base we can extend our service offer and defend or capture market share. Increasing uptime benefits our customers, and a larger service business also improves our resilience throughout the business cycle.

Perform – Improved profitability



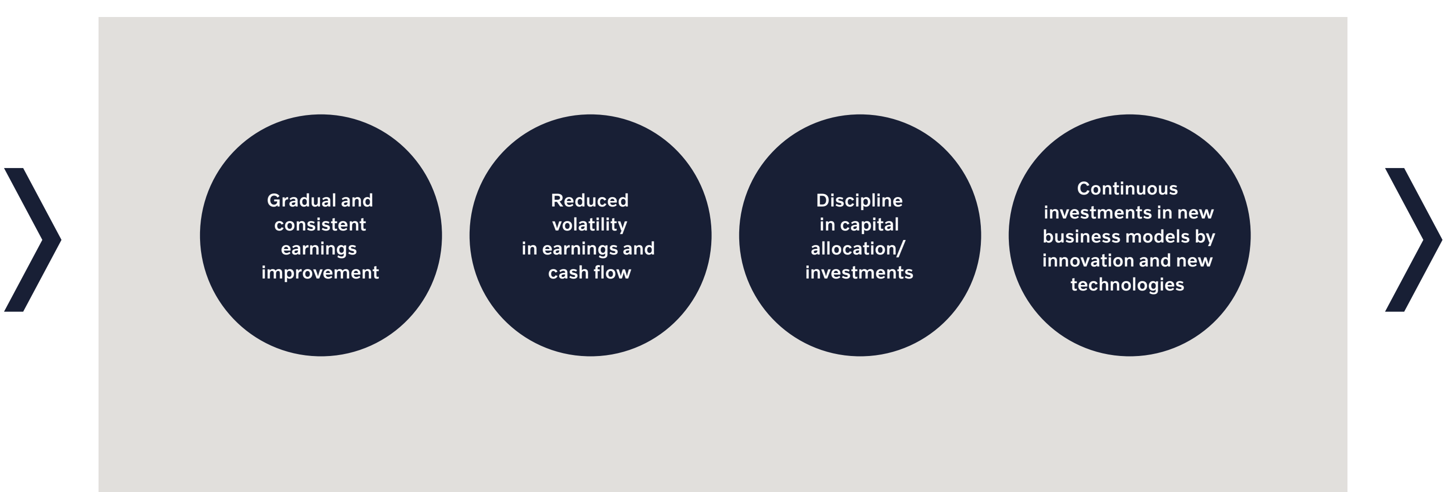
Profitability has improved in recent years. In 2021, the adjusted operating margin amounted to 11.0% (8.4), despite a negative impact from shortages in the supply chain causing stoppages in production. In 2017–2021 the average adjusted operating margin was 9.9%.

Perform – Strong financial position



The Group's financial position is also strong with a net cash position in the Industrial Operations of SEK 66.2 billion excluding post-employment benefits and lease liabilities at year-end 2021.

Improve current performance and invest for the future



Transform

Leading the way to sustainable transport

We are driving the transformation of our industry to shape the world we want to live in. We have made great progress in improving performance in recent years. Going forward, the speed of transformation will increase.

Our ambitions are clear:

- More than 50% of Group revenues should come from services and solutions by 2030
- More than 35% of our vehicle sales should be electric by 2030
- We will lead by example with a world-class, sustainable in-house logistics system by 2025
- We will implement at least 100 transport and infrastructure solutions together with our customers by 2025.

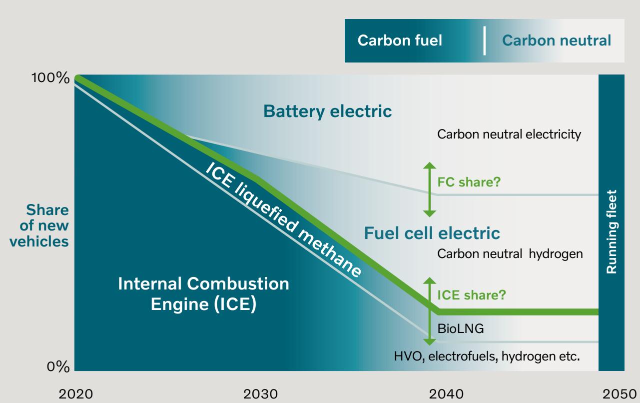
Transform to provide value

The need for transportation is increasing and the drivers of transformation within our industry are clear. We transform our business to provide even greater value to our customers and respond to the need for sustainable transport solutions that are safe, fossil free and more productive. Today's trucks are not used to their full capacity due to congestion, insufficient route planning and low fill rates. A fully loaded truck operating on diesel is one of the most energy-efficient ways of transporting goods on our roads with current infrastructure. It is clear, however, that electromobility and alternative fuels are here to stay and are solutions for the future. These offers will be further developed to meet upcoming stringent CO_2 regulations and to provide our customers with even more sustainable alternatives.

When it comes to safety aspects, it is a fact that people die in traffic and human error is by far the main reason. It is also a fact that people and goods spend a lot of time in congestion. Our daily life pattern and non-optimized infrastructure and logistics models result both in temporary congestions and at other times heavily unutilized road networks. The last couple of years we have continuously invested in new business models and new technologies to be able to offer safer, more sustainable and more productive solutions to our customers. Another advantage is that our industrial footprint is easily adapted to manufacture vehicles with different drivelines on existing assembly lines.

The Volvo Group has a good position in the electric vehicle market and the focus is on accelerating the commercialization of new technologies and business models to get traction and impact. This is when the real change happens.

Transforming towards carbon-neutrality



The expected economic life of the Volvo Group's products is about ten years. To have a rolling fleet that is completely net zero by 2050, our ambition is that all Volvo Group products delivered from 2040 should enable customers to go fossil free. We expect a gradual shift into battery-electric and fuel cell-electric vehicles. Our ambition is that by 2030, electric vehicles should account for at least 35% of our vehicle sales. Even when most of the vehicles are electric, we foresee use cases for internal combustion engines (ICE) running on sustainable biofuels or other fossil-free fuels. On the road towards decarbonized transport, there will be legislative milestones when it comes to CO_2 across the globe. We continue to invest in combustion engines and aftertreatment systems to increase fuel efficiency, meet the legislative milestones and stay competitive. Read more about this scenario and climate-related risks and opportunities on page 154.

Financial targets

Fulfilling our ambitions

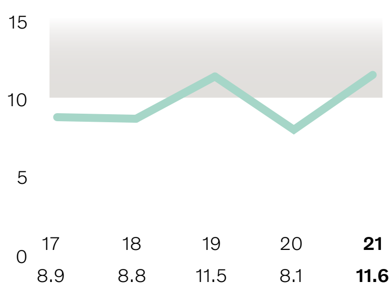
The current financial targets were decided on by the Board of Directors in 2017.

The Volvo Group has in recent years gone through a substantial restructuring process in order to reduce structural costs and increase efficiency and is currently in a phase where focus is on organic growth and improved profitability through continuous improvement and innovation.

A clear and straightforward operating margin target supports the efforts to drive performance across the Group through the business cycle. The target also aligns with the way the Group and its business areas are challenged and measured internally.

A debt-free industrial balance sheet, excluding pension and lease liabilities, enables the Volvo Group to better manage cyclicality in a capital-intensive industry and to secure competitive cost of funds for the Financial Services' operation.

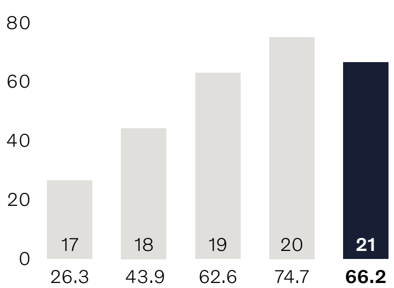
Operating margin for the Volvo Group, %



Target: The Volvo Group's operating margin shall exceed 10% measured over a business cycle.

Outcome: In 2021, the operating margin amounted to 11,6% (8.1). In 2017-2021 the average operating margin was 9.8%. In 2021, the adjusted operating margin amounted to 11.0% (8.4). In 2017-2021 the average adjusted operating margin was 9.9%. For more information on adjusted operating margin, please see Key Ratios on page 204.

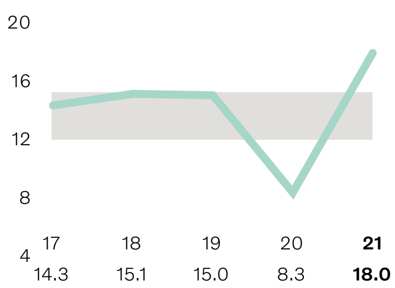
Net financial position excl. post-employment benefits and lease liabilities Industrial Operations, SEK bn



Target: The Industrial Operations shall under normal conditions have no net financial indebtedness excluding provisions for post-employment benefits and lease liabilities.

Outcome: At the end of 2021, the Industrial Operations had a net financial asset position of SEK 66.2 billion.

Return on equity in Financial Services, %



Target: Financial Services' target is a return on equity of 12–15% at an equity ratio above 8%.

Outcome: In 2021, return on equity amounted to 18.0% at an equity ratio of 8.0%.

Business model

The Volvo Group works to create real-life benefits for both our customers and the society in terms of productivity, safety, energy efficiency and fuel efficiency.

Customers

Increased uptime and improved profitability

We strive to be the most desired and successful transport solution provider in the world. Therefore, the customer is integrated in every part of our value chain strategy.

Our customers contribute to prosperity by transporting people and goods as well as providing societies with infrastructure that advance development. We work to support our customers by providing offers that aim to increase their productivity, secure uptime, increase fuel efficiency and allow for even more sustainable choices, which drive their financial performance and reduce their impact on the environment.

Customer focus

Throughout our value chain our customer focus is central. For product development this means developing productive, fuel-efficient and sustainable solutions for our customers. In production we strive to have the highest quality, which also requires a high standard from our suppliers. Our distribution and service network secures availability and uptime for the customers. We use a circular mindset and adopt responsible business behavior to build trust and make sure our products contribute to prosperity.

We analyze the segments and applications our customers operate in to find the best current solutions, capture future opportunities and prepare for market changes. Our research projects, in collaboration with our customers and other partners, are a vital part of product development when we prepare for meeting future demands.

Create value for our customers

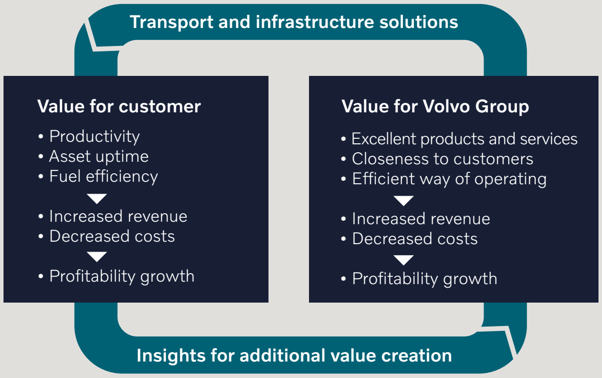
From our day-to-day work with customers and through interviews, customer satisfaction surveys and materiality analysis, we know that our customers put the highest value on productivity, uptime and fuel efficiency. Future technologies provide great potential for increased productivity for our customers. To secure uptime, new vehicles developed within the Volvo Group are equipped with connected devices to be able to download updates, schedule services and prevent unplanned stops. Approximately 1,2 million vehicles and machines are connected, which is important for us to be able to achieve the goals of increasing efficiency and minimizing environmental impact, as well as making our roads safer.

Increased fuel efficiency and adaption to renewable fuels and electrified vehicles and machines are central in our product development since this has a major impact on both the environment and our customers' profitability. For instance, we offer vehicles that can run on liquefied natural gas (LNG) or biogas as well as an increasing range of battery-electric vehicles.

In the spring of 2021, Volvo Trucks began serial production of its new range of heavy-duty trucks Volvo FH, Volvo FH16, Volvo FM and Volvo FMX. All four models have been developed with a strong focus on improving the driver environment, safety and

VALUE CO-CREATION

To be successful the key is to create value for our customers by contributing to improving their profitability. By understanding our customers' priorities and challenges, we are able to provide products and services that grow customers' revenues and decrease customers' cost. Key areas to create value for our customers are offers that increase our customers' productivity, secure uptime and increase fuel efficiency. By delivering customer value efficiently, we will also deliver value for ourselves, our owners and society.



productivity of the vehicles, making them more efficient than their predecessors. In the autumn of 2021, Volvo Trucks introduced several important new updates to its 11- and 13-liter Euro VI engines that will further improve fuel consumption and drivability.

Reinforcing Volvo Trucks' commitment to sustainable transport solutions, the new Volvo FH, FM and FMX trucks have also been developed for electrified drivelines with planned production start towards the end of 2022.

During the year, Renault Trucks launched an updated heavy-duty truck range with focus on improved driver comfort as well as vehicle reliability and efficiency. This evolution was extended with the arrival of new 11- and 13-liter engines which, combined with the integration of new technologies and dedicated services, provide fuel savings of up to 10% compared to the previous generation of engines. Renault Trucks also announced its investment ambitions in electromobility. From 2023, an all-electric offer will be available for each segment – distribution, construction and long haul transports.

With the launch of three new electric compact machines – and the introduction of two existing electric compact machines to the North American market – Volvo Construction Equipment continued its electrification journey with five models in total, positioning itself as a manufacturer with a growing range of commercially available electric machines.

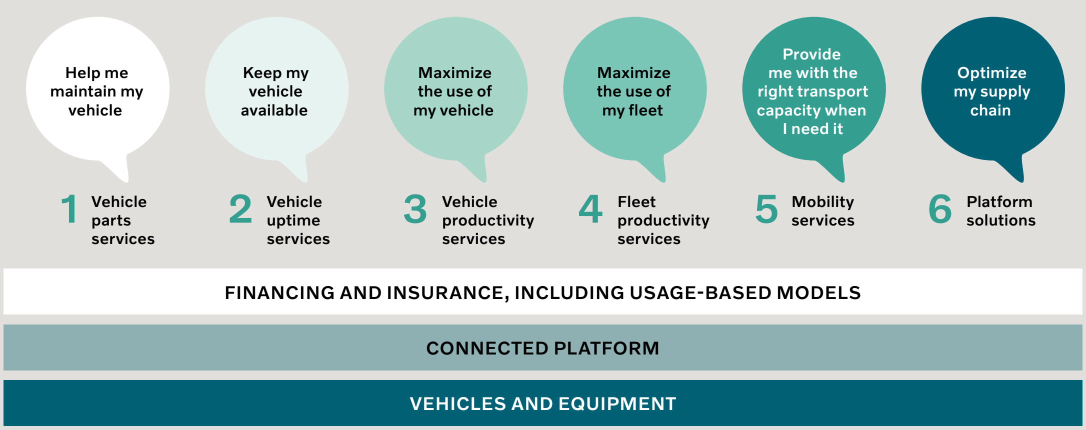
To harness the growing global demand for electrified transport solutions, the Volvo BZL Electric, a completely new bus chassis with an electric driveline, was launched. The Volvo BZL Electric is a global platform for clean, silent, and energy-efficient public transport.

The Group already has fully-electric trucks, buses and construction equipment in serial production. Volumes were small in 2021, but customer interest is high and the Group expects the transition to electric vehicles to go segment by segment, market by market and region by region. With the planned rollout of heavy-duty electric trucks from Volvo Trucks and Renault Trucks in 2022 and 2023, the Volvo Group will offer electric trucks with ranges that today are expected to cover almost half of the truck transports carried out in the EU. Read more about our rollout of electric trucks starting on page 28.

Measure success

Customer satisfaction is the true measure of success. Our aspiration is to have leading customer satisfaction for all brands in their segments. Through surveys, each business area within the Volvo Group tracks customer satisfaction and brand image perception. The data is an important part of understanding our customers' needs and in our own work with continuous improvement. Research and studies are performed by leading market research companies and carried out with decision makers among customers and non-customers.

SUPPORTING CUSTOMERS WITH DIFFERENT NEEDS



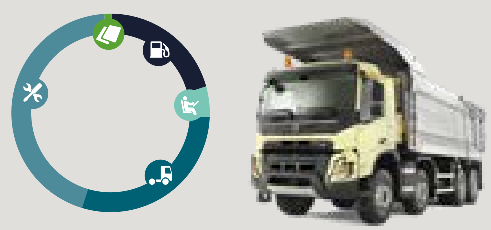
There are different business models for different customers. The range goes from selling a vehicle or machine and get paid by unit, to solving the customer's mission and get paid by result. We will have different offerings along the entire range for different customers depending on preferences, segments and geographies.

Trucks are tailor-made for different applications

Customers have different cost structures and therefore want different offers depending on their location and the type of transport work they carry out. Creating customer value by improving our customers' profitability therefore means offering products developed for each market and application.

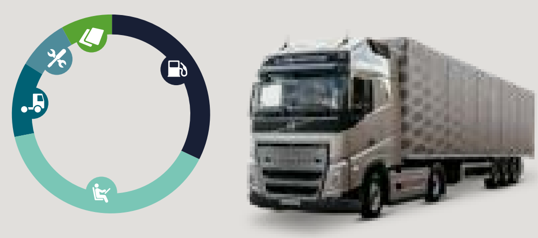
DISTRIBUTION
FRANCE

MINING
INDONESIA



CONSTRUCTION
USA

LONG-HAULAGE
EUROPE



APPROXIMATE BREAKDOWN OF COSTS

Fuel   Driver   Vehicle   Repair & maintenance   Administration

Value chain

Driving performance to create value

The Volvo Group generates long-term competitiveness by promoting value creation in every part of the value chain through increased efficiency, quality and performance and by acting responsibly towards business partners, employees and the world around us.

Customers
The customer is at the center of everything we do, and the customer's voice is present in every part of the value chain. By delivering customer value we deliver value for ourselves and our stakeholders. Our customers contribute to prosperity by transporting people and goods as well as providing societies with infrastructure that advance development. Our aim is to support our customers by providing offers that increase their productivity, secure uptime and increase fuel efficiency, which drive their financial performance and reduce their impact on the environment.

Product development
Fulfilling our customers' needs and improving their profitability and environmental performance forms the basis of our product and service development. Product development is also influenced by legislation, changes in society and new technologies. There are strong trends such as automation, electromobility and connectivity that need to be balanced with investments in the development of current technologies.

Purchasing
Long-term cooperation with suppliers drives efficiency, quality and responsible behavior throughout the value chain. The Volvo Group is aiming for purchasing excellence, placing high demands on ourselves and our supply chain partners. We have both global and local supply chains to deliver components, parts and complete services and systems. When developing a robust supplier base, we look at a wide range of opportunities and risks. In 2021, we strengthened our Supplier Code of Conduct with firmer requirements and targets including more explicit due diligence requirements on our direct suppliers to cover further tiers in the supply chain.

Production and logistics
Our global industrial and logistics system strives for continuous improvement to meet internal targets and deliver on customer expectations. The industrial system consists of capital-intensive component factories as well as labor intensive assembly plants. The component factories supply the Group's needs on a global basis, whereas assembly plants, in most cases, are located close to end-markets to cater for local needs and specifications and short delivery times.

Retail and service
Our global network of dealers and service centers staffed by competent and service-oriented personnel are key factors for customer satisfaction and success. The business areas within the Volvo Group support customers via efficient dealer workshops, and through service and maintenance agreements. With our service contracts and connected solutions, customers know when their vehicle or machine is due for service and what the cost will be for maintenance and repairs. Customers can bundle their vehicle, financing and other service purchases for a total solution. We work together with our retail organization through continuous improvement and dealer development programs with the aim to ensure our customers get the best possible service.

Reuse
We strive to increase material efficiency and reduce energy use. In this work, we incorporate more recycled materials, recover heat and recycle waste. Extending service life and operational uptime of assets is an important element of increased circularity and resource efficiency. Here, the main elements are to service, maintain and repair to increase the utilization rate of all materials in the products. As we increase our service-based business, the main output is uptime and availability of machines and vehicles.

Driving prosperity for many stakeholders

For customers
More than 2 million trucks and almost 100,000 buses, which the Group manufactured in the last ten years, perform transport work worldwide. Construction equipment operate at sites all around the world, and we have delivered more than 700,000 machines the last ten years. For our customers, uptime is everything. Regardless if it is a customer that owns one single truck or a fleet of trucks, if they are a public transport provider or a coach owner, a construction entrepreneur or a quarry owner; their performance depends on reliable products and services that meet the needs of their business. The Volvo Group has a long heritage of developing smart solutions to boost their performance.

UPTIME AND PROFITABILITY

For employees
The Group's 95,850 employees are our most important asset. Employee engagement and a performance culture based on customer success, trust and passion are critical for the Group to fulfill its mission. The Group strives to offer competitive employment terms and benefits as well as a stimulating, safe and healthy work environment. In 2021 we paid SEK 42,589 M in salaries and remuneration.

SEK 42.6 BILLION

For society
Our products and services make societies function. Our customers operate bus lines so that people can get to work, they transport food and industrial goods and they build infrastructure such as roads and hospitals. Furthermore, road transport directly creates millions of jobs around the world. We also contribute to the local economy by being a major employer in many communities, providing both direct and indirect employment. In 2021 the Group paid SEK 9,426 M in social costs, SEK 4,928 M in pension costs and SEK 9,651 M in income taxes, in total SEK 24,005 M. We also pay customs duties as well as property and energy taxes.

SEK 24.0 BILLION

For suppliers
A solid supplier base and professional partnerships are essential for customer success. The Volvo Group provides both income and employment for a large number of companies and in many societies around the world. Purchased goods and services is the Volvo Group's single largest expense and in 2021 we bought goods and services for SEK 253,656 M.

SEK 253.7 BILLION

For creditors
A long-term competitive business requires access to capital to be able to invest. The Volvo Group strives to ensure that the capital is used in the best possible way and to assure debt providers with the financial strength to secure proceeds and repayment. In 2021 the Volvo Group paid its creditors in the Industrial Operations SEK 854 M in interest.

SEK 0.9 BILLION

For shareholders
The Volvo Group strives to generate value for its shareholders. This is achieved through a positive share price development and payout of dividends. From 2016 to 2021 the price for the Volvo B share rose by 97%. Shareholders normally receive a certain portion of the retained earnings in the form of a dividend, after consideration has been given to the Group's need for capital for continued development according to its strategies. In, 2021, shareholers received dividends totaling SEK 49,820 M, inclduing the proceeds from the divestment of UD Trucks. To the Annual General Meeting 2022, the Board of Directors proposes an ordinary dividend of SEK 6.50 per share and an extra dividend of SEK 6.50 per share, in total SEK 26,435 M.

SEK 49.8 BILLION

For the Volvo Group
A significant portion of generated capital is normally transferred back into the business. The capital is used for investments that will strengthen competitiveness and create long-term value for the Group and its stakeholders. In 2021, the Volvo Group invested SEK 18.0 billion in R&D and another SEK 8.8 billion in properties, plants and equipment, in total SEK 26.8 billion.

SEK 26.8 BILLION

Partnerships

Partnerships to create leadership

Technologies develop at a faster pace than ever before. Combined in new ways they offer new and innovative solutions in almost all industries.

Keeping up with the latest development is vital to stay successful and is hard to do on one's own, and that is why the Volvo Group works in collaborations and partnerships.

Based on emerging technologies and the latest findings within connectivity, automation and electrification, we see great opportunities to co-create a more sustainable transport system and to make societies prosper. This is the reason why we are forming a new ecosystem in different types of collaborations and partnerships.

Many alliances and partnerships

We have a strategic alliance with Samsung SDI to develop battery packs for the Volvo Group's electric trucks.

Sharing the Green Deal vision of sustainable transport and a carbon neutral Europe by 2050, we and Daimler Truck have launched a fuel cell joint venture called cellcentric.

Together with Daimler Truck and the Traton Group we have agreed to install and operate a high-performance public charging network for battery-electric heavy-duty long-haul trucks and coaches across Europe. We work together with both NVIDIA and Aurora to develop autonomous trucks.

We collaborate with SSAB on research, development, serial production and commercialization of the world's first vehicles made of fossil-free steel. These are some examples which you can read more about in this report. We also have a strategic alliance with Isuzu Motors.

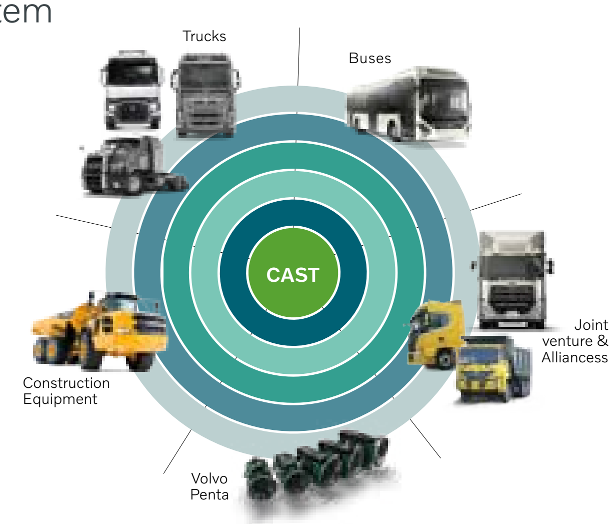
Strategic alliance with Isuzu Motors

On April 1, the Volvo Group and Isuzu Motors completed the transaction whereby Isuzu Motors acquired UD Trucks from the Volvo Group for an enterprise value of SEK 19 billion on a cash and debt free basis as part of a formation of a strategic alliance. The alliance aims to capture opportunities in the ongoing transformation of the commercial vehicle industry and is set to a build long-term and robust relationship.

Alliance work is focused on deriving potential synergies in areas that will encompass i.e. forming a technology partnership, intended to leverage the parties' complementary areas of expertise within both well-known and new technologies and creating a larger volume base to support investments for world-class technology. Creating the best long-term conditions for a stronger heavy-duty truck business for UD Trucks and Isuzu Motors in Japan and across international markets. Exploring further opportunities for even broader and deeper collaboration within the commercial vehicle businesses across geographical areas and product lines for future urban logistics solutions. Exploring cooperation in the areas of purchasing and logistics, leveraging common technology, as well as the geographical footprint complementarity and volume expansion.

CAST – the Volvo Group's modular system

The Volvo Group and its partners can benefit from the Group's modular platform Common Architecture & Shared Technology (CAST). The ambition with CAST is to develop a competitive set of modular products and services that are easy to integrate, meet future legal, market and society needs, as well as exceeding customer expectations. The CAST system is modular, scalable and cost-efficient. We secure an aggregated view on needed common architecture and platform solutions, consolidate and support activities on new enabling technology development and strive for continuous development of standardized interfaces for both hardware and software. Through well-defined performance steps and continuous reduction of complexity, the CAST ecosystem supports our different brand strategies across disruptive technology trends while maximizing synergies for the Volvo Group and its joint ventures and alliances.

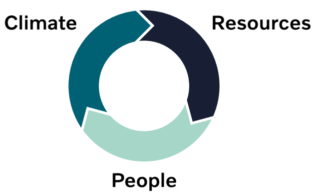


Our sustainability approach

Shared value

Our strategy responds to a range of sustainability-related issues. This means considering the impact on the world around us as part of considering the long-term success of our business.

When executing on our business model, we are exposed to a range of strategic risks and opportunities. Many of these are related to sustainable development. We commonly refer to three main areas of our sustainability approach:



Climate – focusing of reducing greenhouse gas emissions from our business and operation, striving for 100% fossil free.
Resources – using natural resources in the most efficient way and contributing to 100% improvement of our customers' logistics operations.
People – focusing on health, empowerment, business ethics and respect for human rights, striving for 100% safe products and safe operations.

In this annual and sustainability report we present examples that further describe our strategic sustainability topics with events, targets and attainments from 2021.

Sustainability reporting
When it comes to reporting, the statutory sustainability report refers to sustainability as environmental matters, social matters and treatment of employees, respect for human rights, anti-corruption and bribery, as well as diversity on company boards.

In addition, we are exposed to a range of stakeholder requests on our sustainability performance. Therefore we have prepared a detailed account of these matters in the Sustainability Notes on page 152-179. In the notes we present risks and opportunities, management approach, policies, metrics and indicators to trace sustainability performance. The material sustainability topics are reported in accordance with the GRI standards and in line with other reporting frameworks, see page 152.

We also include related topics in the Corporate Governance Report.

Climate and resources

Main connections to UN Sustainable Development Goals

- Double the rate of energy efficiency (7.3)
- Sustainable transport systems (11.3)
- Awareness and capacity on climate change mitigation and impact reduction (13.3)

Towards net-zero

Climate change is the challenge of our generation, and it is the Volvo Group's long-term ambition to lead our industry towards net-zero emissions. Climate change, population growth and increasing urbanization are changing the landscape and expectations on transport and infrastructure.

The Volvo Group has committed to the Science-Based Targets initiative (SBTi) call for action campaign Business Ambition for 1.5°C. The campaign requires greenhouse gas emissions to be net zero across the value chain by 2050 at the very latest, but we have committed to reach this already by 2040. The pace of change is particularly important, and we have set ambitious milestone targets along the way.

The transport and infrastructure industries have started their journey towards net-zero emissions, with buses having been in front of the development. For trucks and construction equipment the transition is in an early stage, but it is expected to accelerate with battery-electric vehicles, lower emission fuels used in combustion engines and, later in this decade, fuel cell-electric vehicles. The Volvo Group is at the forefront of this development and is eager to drive change but also aware of the challenges. In 2021, the Group delivered 942 fully-electric vehicles, mainly in Europe and North America. Order intake for fully-electric vehicles was 1,683 units. In Europe Volvo Trucks had a 42.2% market share in fully-electric heavy-duty trucks and Renault Trucks 19.4% in 2021.

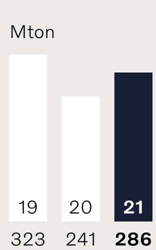
Government incentives, investments in charging infrastructure and other measures are needed to continue the acceleration. The International Energy Agency's scenario for net-zero 2050 estimates a gradual adoption of fully-electric commercial vehicles and that by 2035, 50% of the new trucks sold globally needs to have zero tailpipe emissions. This development also relies on rapidly increased supply of renewable energy. The Volvo Group's approach is to use our modular product development, production and assembly system (CAST) to quickly adapt to customer needs and demands. This enables flexible production and thereby limits investment needs.

Progress total greenhouse gas emissions

The transition towards lower emissions is at an early stage but is expected to accelerate as sales of electric vehicles and fuel efficiency increase. The Volvo Group measures a range of metrics related to greenhouse gas. One metric is total emissions from scope 1, 2 and scope 3 – category 11 use of sold products, where the use of sold products represent approximately 96% of the total emission footprint according to the GHG inventory analysis. In 2021, the total calculated emissions amounted to 286 million tons compared with 323 million tons in 2019.

The Volvo Group has introduced a range of solutions with improved energy and fuel efficiency, but so far, the main reason for the reduction of emissions is related to lower sales volumes of trucks compared with the baseline in 2019. As use phase emissions make up the vast majority of the emission footprint, annual sales volumes will have a significant impact on results from one year to the next. The Volvo Group is operating in cyclical industries, which are linked to economic activity, and consequently sales volumes and utilization of the rolling fleet of products vary over time.

See further details on the result on page 160. Also read more about the method, additional metrics, targets and results in the Sustainability Notes on page 152–162.



SBTi approved targets, from baseline 2019

Scope	Target	Status 2021
SCOPE 3 USE PHASE Trucks	Target 2030 –40% emissions per vehicle km	–2%
SCOPE 3 USE PHASE Buses	Target 2030 –40% emissions per vehicle km	+7%
SCOPE 3 USE PHASE Construction equipment	Target 2030 –30% absolute emissions	+17%
SCOPE 3 USE PHASE Volvo Penta	Target 2034 –37.5% absolute emissions	–5%
SCOPE 1–2 Own operations	Target 2030 –50% absolute emissions	–3%

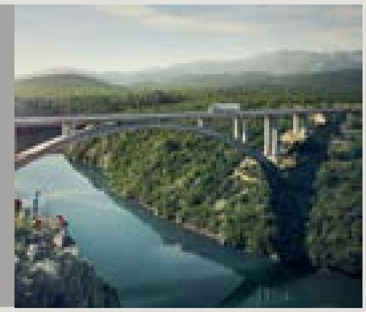
ROLLOUT OF ELECTRIC TRUCKS

Electromobility plays a key role on the road to fossil-free transports. Our electric trucks, based on Volvo Group technology, are already rolling on the streets in real operations. The electrified transport solutions are helping transport operators to significantly reduce emissions and noise. We are determined to continue leading our industry towards a sustainable future.

We believe that the transformation to electric vehicles will happen segment by segment, market by market and region by region. It has already started in public transport, distribution, waste and recycling and certain construction segments in some markets. And in 2021, Volvo Trucks started selling three new heavy-duty all-electric models, believing that the time is right for a rapid upswing in electrification of heavy road transport. Production is planned to begin in the second half of 2022, see next page.

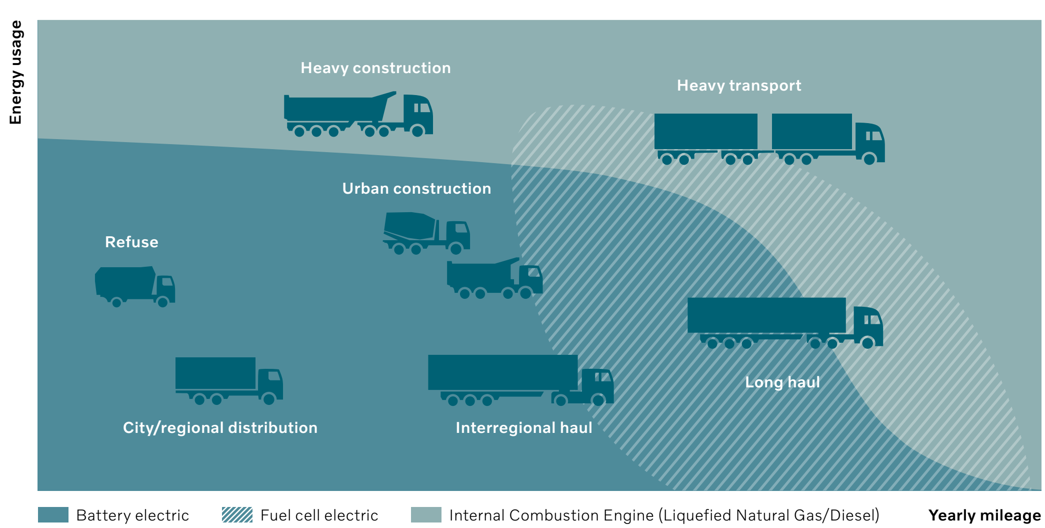
When total cost of ownership is outweighed by the opportunity to provide fossil-free transportation and necessary conditions such as charging infrastructure is in place, we believe that the shift to electric vehicles will be quick. The Volvo Group has deep customer knowledge and application expertise within many segments and this will remain a decisive factor in providing customer value also when it comes to electric vehicles.

Check out our videos on Youtube.



Because of different characteristics and requirements, such as load, energy usage and yearly mileage, there will be a mix of low carbon or zero emission vehicles products in 2030 – battery electric, fuel cell electric and internal combustion engines that can run on liquefied natural gas (LNG), biogas or other sustainable biofuels.

A MIX OF PRODUCTS WILL BE REQUIRED



VOLVO TRUCKS READY TO ELECTRIFY LARGE PART OF TRANSPORTS

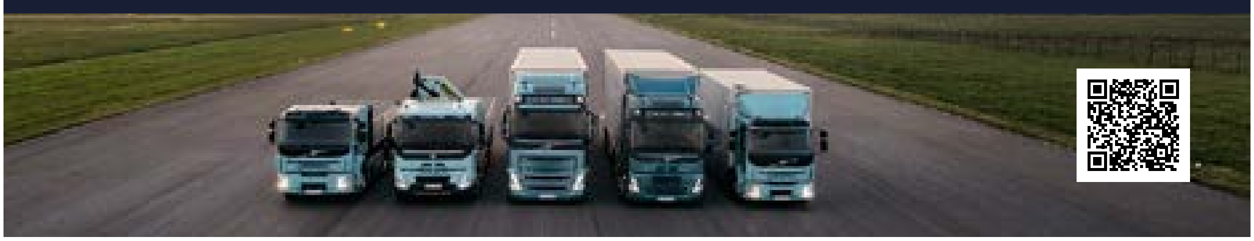
With the sales start in 2021 of three new heavy-duty all-electric models, Volvo Trucks believes the time is right for a rapid upswing in electrification of heavy road transport. This positive outlook is based on the ability of Volvo's electric trucks to meet a broad variety of transport needs. In the EU for example, almost half of all truck transports could be electrified in the near future.

With the sales start of the new electric Volvo FH and Volvo FM models, electrified transport is now possible not only for urban areas but also for regional traffic between cities. In addition, the new electric Volvo FMX model is creating new ways to make construction transport operations both quieter and cleaner. Production of the new electric models for Europe is planned to start in the second half of 2022. They join the Volvo FL Electric and Volvo FE Electric for city distribution and refuse handling that have been in serial production since 2019 for the same market. In North America, sales of the Volvo VNR Electric started in December 2020.

With the sales start of the new truck models, Volvo Trucks now has a lineup of six medium and heavy duty electric trucks, which makes it the most complete commercial electric truck range in the industry.

Can cover nearly half of EU transport needs

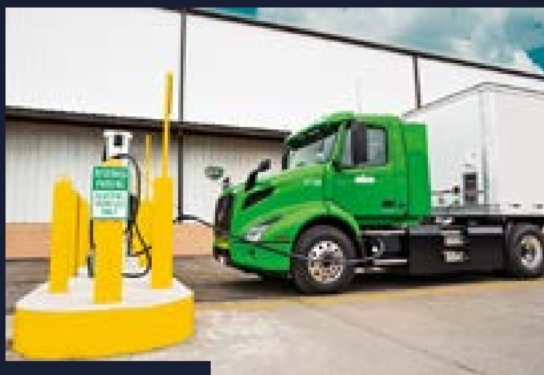
With the addition of the new products with higher load capacities, more powerful drivelines and range of up to 300 km, Volvo Trucks' electric portfolio could cover around 45% of all goods transported in Europe today (According to Eurostat statistics "Road Freight Transport by distance" 2018, 45% of all goods transported on road in Europe travelled less than 300 km). This makes it possible to make an important contribution to lower the climate impact from road freight, which according to official statistics account for about 6% of total CO_2 emissions in the EU.



RENAULT TRUCKS ENHANCES ITS RANGE OF ELECTRIC TRUCKS

Renault Trucks is developing its range of electric trucks to adapt to the wide variety of urban distribution activities and meet the needs of its customers. A 19-ton D Wide Z.E. has been added to the 16- and 26-ton Renault Trucks D Z.E. and D Wide Z.E. models, which have been in production since 2020. Renault Trucks is also offering a wider range of wheelbases and special connectivity for refrigerated bodies.

Equipped with a two-axle chassis for improved maneuverability, the 19-ton Renault Trucks D Wide Z.E. is a great vehicle for temperature-controlled distribution, with an optimized payload. In addition, Renault Trucks has designed a new system to increase the energy efficiency of all-electric trucks equipped with a refrigerated body. Renault Trucks D and D Wide Z.E. 16, 19 and 26 ton trucks are now available with a fridge-connection option, which supplies the energy required for the refrigeration system directly from the vehicle's 600 V traction batteries.



Volvo VNR Electric

Mack LR Electric refuse

Volvo FM Electric

Renault Trucks D Z.E

CUSTOMERS GETTING ONBOARD

The shift towards electrification is taking place across the transportation industry. More and more companies are taking their first steps on this journey together with the Volvo Group. Here are some examples:

During 2021, Volvo Trucks received an order for 100 Volvo FM Electric trucks from DFDS, Northern Europe's largest shipping and logistics company. The deal was the largest commercial order to date for Volvo electric trucks, and one of the largest ever for heavy electric trucks worldwide. In January 2022, DFDS ordered another 25 trucks.

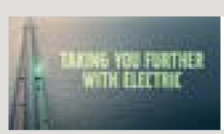
Urby, a subsidiary of La Poste Group and Banque des Territoires specializing in first and last mile logistics, is investing in a zero-emission fleet. It has ordered 20 electric Renault Trucks D Z.E. vehicles, dedicated to urban distribution, which will be deployed in 15 French cities from 2022.

In North America, Volvo Trucks' customer Performance Team, A Maersk Company, placed an order for 16 Volvo VNR Electric models – the largest commercial order of the North American zero-tailpipe emission model to date.

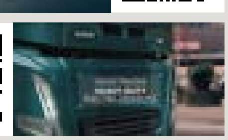
Manhattan Beer Distributors, a major New York City-based beer and beverage distributor, placed an order for five Volvo VNR Electric trucks — the first zero tailpipe emission, battery-electric trucks to be deployed in Manhattan Beer Distributors' fleet of more than 400 delivery trucks.

In June, Mack Trucks announced that the New York City Department of Sanitation (DSNY) planned to purchase seven Mack LR Electric refuse models, which will operate in each of the city's boroughs.

Check out our videos on Youtube.



Next generation of Volvo VNR Electric



Inside the new revolutionary heavy-duty electric driveline

TRANSFORMATIONAL INVESTMENTS

During the year, Volvo Group acquired 60% of Designwerk Technologies AG, an engineering company in Switzerland, that develops and sells electromobility products and engineering services within electromobility eco-systems. Designwerk Technologies offer customized electric trucks under the brand Futuricum, mobile rapid chargers and high voltage battery systems.

Volvo Group Venture Capital made minority investments in FourKites, Driivz and Fortellix. The role of Volvo Group Venture Capital is to make investments that drive transformation by facilitating the creation of new services and solutions and to support collaborations between start-ups and the Volvo Group.

FourKites is one of the leading global real-time transportation visibility platforms having pioneered real-time supply chain visibility in 2014. Since then, they have built the world's largest platform that aim to help leading brands to reduce their operating costs, improve on-time performance and create better customer relationships. The company tracks over one million shipments daily across 176 countries, with over 120% year-over-year growth.

Driivz Ltd. is a leading global electric vehicle charging software company that has developed a platform for managing large charging networks from end-to-end. The Driivz platform functions as an operating system for electric vehicle charging networks and is used by operators of charging points, electric vehicle fleets and other key players in the ecosystem. The platform is scalable and modular, which makes it highly flexible and allows it to be customized to customers' needs. The company has a large and growing number of customers in the utility, oil and gas, and automotive industries and among charging network operators.

Foretellix is a leading company in the field of measurable safety for driver assistance and autonomous vehicles. In addition to the Volvo Group Venture Capital investment, Volvo Autonomous Solutions formed a closer partnership with Foretellix earlier in the year with the aim of jointly creating a coverage-driven verification solution for autonomous driving that operates both on public roads and in restricted areas.

VOLVO CE POWERS A SUSTAINABLE FUTURE WITH GROWING RANGE OF ELECTRIC MACHINES

With three new electric compact machines – one wheel loader and two excavators – Volvo Construction Equipment (Volvo CE) is showcasing its commitment to build the world we want to live in by offering a growing range range of electric machines. In total customers now have five electric models to choose from.

The three new models were available to reserve online in twelve European markets from October 2021 for delivery in 2022. The offer will also expand to other markets. Demonstrating once again that sustainable solutions are not just a promise for tomorrow, but a real innovation for today, Volvo CE's growing range of electric machines are providing customers with a cleaner, more silent and more comfortable work environment – but now with an even wider range of choice to best suit their needs.

These latest innovations are the next step forward in Volvo CE's ambition to reach net zero value chain greenhouse gas emissions by 2040 – alongside development of hydrogen fuel cell solutions and more sustainable internal combustion engine products.

VOLVO BUSES LAUNCHED NEW GLOBAL ELECTROMOBILITY OFFER

Volvo Buses expanded its electromobility offer worldwide. With the launch of a new Volvo BZL Electric chassis, Volvo Buses provides a solid platform for sustainable and efficient public transport in cities around the world, along with reliable and profitable operations for customers.

Global demand for electromobility solutions in the public transport sector is rising and Volvo Buses expects a rapid increase in the coming years. With the new Volvo BZL Electric, Volvo Buses offers a global platform for clean, silent, and energy-efficient public transport to meet the rising demand on important markets that are ready for the shift to electromobility.

Volvo Buses has years of experience of electromobility solutions from working closely together with operators all over the world. The new Volvo BZL Electric is designed for both single and double decker applications with multiple options for bodybuilders.

VOLVO FOUNDING MEMBER OF FIRST MOVERS COALITION TO DRIVE DEMAND FOR LOW CARBON TECH

Roughly half of the emission reductions needed to reach the 2050 climate goals rely on technologies in early development, demonstration or prototype phases. Accelerating innovation in this decade is critical to bring these technologies to market and make them cost-competitive.

To jumpstart this effort, the World Economic Forum, in partnership with US Special Presidential Envoy for Climate John Kerry, announced the First Movers Coalition at the UN Climate Change Conference (COP26) in Glasgow, Scotland. The Coalition is a new platform for companies to make purchasing commitments that create market demand for low carbon technologies. Volvo Group joined the Coalition as founding member.

The commitments aim to be collectively significant enough to commercialize emerging decarbonization technologies. These commitments target new technologies and aim to create a market by 2030 that can be ramped up to achieve decarbonization in 2050.

FUEL SAVINGS WITH NEW GENERATION OF RENAULT TRUCKS ENGINES

Electric trucks is key in reducing the CO_2 footprint from our products, but it is also about improving current engines. Following major updates with improved fuel efficiency on Volvo Trucks the last two years, Renault Trucks in 2021 made major changes to its T, T High, C and K ranges in terms of design, driving comfort and on-board comfort. They continued this evolution with the arrival of new 11- and 13-liter Euro VI Step E engines which, combined with the integration of new technologies and dedicated services, provide fuel savings of up to 10% compared to the previous generation of Renault Trucks engines.

10%

WORLD'S FIRST VEHICLE USING FOSSIL-FREE STEEL

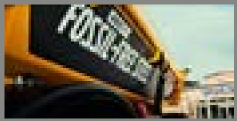
In 2021, Volvo Group proudly revealed the world's first vehicle made of fossil-free steel. The vehicle was made in Volvo Construction Equipment's facility in Braås, Sweden using fossil-free steel from SSAB. More vehicles will follow in 2022 in what will be a series of concept vehicles and components using fossil-free steel.

The machine, a load carrier for use in mining and quarrying, was unveiled at a Green steel collaboration event in October. Volvo CE's ambition is to have fossil-free steel used across all its products, with a step-by-step approach.

A move toward green steel is an important step for Volvo Group, as well as for the transport and infrastructure industries as a whole, particularly considering that around 70% of a truck's weight comes from steel and cast iron, with the figure for Volvo CE's machines even higher. This first concept machine is just the start, with smaller-scale series production planned by 2022 and mass production set to follow.

Further to creating the world's first, fossil-free vehicle with SSAB, the Green steel collaboration is also about making use of surplus fossil-free hydrogen from steel-maker Ovako to power the Volvo Group's fuel-cell vehicles.

Check out our videos on Youtube.



Volvo Group launches world's first vehicle using fossil-free steel

LAUNCH OF FUEL CELL JOINT VENTURE CELLCENTRIC

Volvo Group and Daimler Truck AG have officially outlined the roadmap for the new fuel-cell joint venture cellcentric, as part of an industry-first commitment to accelerate the use of hydrogen-based fuel cells for long-haul trucks and beyond. With the ambition of becoming a leading global manufacturer of fuel-cell systems, cellcentric will build one of Europe's largest planned series production of fuel-cell systems, with operation planned to commence in 2025. The joint venture can draw on decades of expertise and development work from both Volvo Group and Daimler Truck AG.

cellcentric

About cellcentric
On March 1, 2021, Volvo Group and Daimler Truck AG formed cellcentric. To that end, Volvo Group acquired 50% of the partnership interests in the existing Daimler Truck Fuel Cell GmbH & Co. KG for approximately EUR 0.6 billion on a cash and debt-free basis. More than 300 highly specialized experts work for cellcentric in inter-disciplinary teams at locations in Nabern and Stuttgart, Germany and Burnaby, Canada. Around 700 individual patents have been issued so far, underlining the leading role played by the company when it comes to technological development.

The Volvo Group believes that purely battery-electric and hydrogen-based fuel-cell trucks will complement each other depending on the individual customer use case. Battery power will be used for lower cargo weights and for shorter distances, while fuel-cell power will tend to be the preferred option for heavier loads and longer distances. The major truck manufacturers in Europe, also backed by Volvo Group and Daimler Truck AG, are therefore calling for the setup of around 300 high-performance hydrogen refueling stations suitable for heavy-duty vehicles by 2025 and of around 1,000 hydrogen refueling stations no later than 2030 in Europe. This joint initiative, using hydrogen as a carrier of green electricity to power electric trucks in long-haul operations, is one important part of decarbonizing road transport.

Volvo Group's goal is to start with customer tests of fuel-cell trucks in about three years and to be in series production of fuel-cell trucks during the second half of this decade. All vehicle-related activities are carried out independently from each other, as both companies remain competitors in all vehicle and product ranges, and particularly in fuel-cell integration solutions for all products.

VOLVO ENERGY – DEDICATED TO ACCELERATING ELECTRIFICATION

In February 2021, the Volvo Group decided to create a new business area, Volvo Energy. The business area will support the electrification journey of the Group by securing charging infrastructure and other related electromobility services as well as manage the Volvo Group's business flow of batteries over the lifecycle. On the latter, the environmental impact from electric and hybrid electric commercial vehicles and machines will be reduced by giving used batteries a second life in different applications.

Joachim Rosenberg, member of the Volvo Group Executive Board and previously Chairman of UD Trucks, heads the new business area.

"There is a strong and growing interest for electric vehicles and machines among our customers. This is of course very positive as it accelerates the transition towards more sustainable transport solutions. Our ambition is to offer our customers the most competitive solutions when it comes to electrification, including batteries and charging infrastructure. With Volvo Energy, we are taking a holistic view of the entire life cycle, which benefits both our customers' business and society as a whole", says Martin Lundstedt, President and CEO.

JOINT VENTURE FOR A EUROPEAN HIGH-PERFORMANCE CHARGING NETWORK

In December 2021, Volvo Group, Daimler Truck and the Traton Group signed a binding agreement to create a joint venture (JV) to install and operate a high-performance public charging network for battery-electric, heavy-duty long-haul trucks and coaches across Europe. The parties are committed to initiating and accelerating the necessary build-up of charging infrastructure for the increasing number of customers of electric vehicles in Europe and contribute to net-zero transportation in Europe by 2050. The JV creation is subject to regulatory approvals.

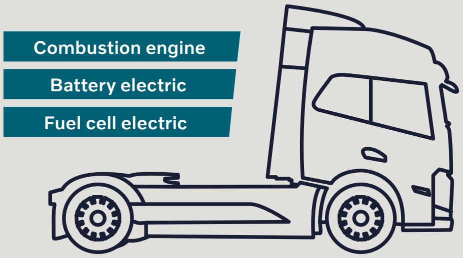
The planned JV, to be equally owned by the three parties, is scheduled to start operations in 2022. The parties are together committing to invest 500 million euros, which is assumed to be by far the largest charging infrastructure investment in the European heavy-duty truck industry to date. The plan is to install and operate at least 1,700 high-performance green energy charging points on and close to highways as well as at logistics and destination points within five years of the establishment of the JV. The number of charging points is with time intended to be increased significantly by seeking additional partners as well as public funding. The forthcoming JV is planned to operate under its own corporate identity and be based in Amsterdam, Netherlands. The JV will be able to build on the broad experience and knowledge of its heavy-duty trucking founding partners.

The JV will offer both high-performance charging and overnight charging. The starting point for the high-performance charging is the current CCS standard of 350 kW. As soon as it is feasible, newer standards with higher output will be adopted wherever possible to enable and prioritize the 45-minute charge use case, which is typically expected to be around 750 kW. Overnight charging will be 50–100 kW.

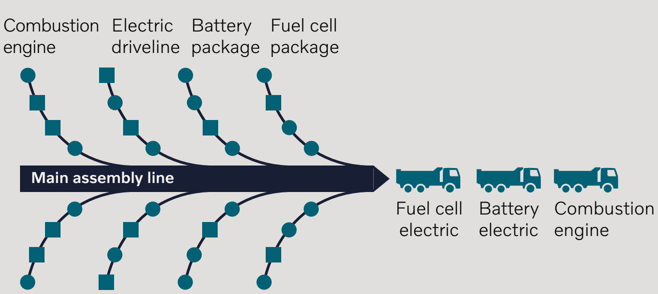
DRIVING SYNERGIES THROUGH SAME PLATFORM AND SAME PLANT

The Volvo Group's modular vehicle architecture creates advantages in both the development and the manufacturing phase. The architecture allows us to put either an internal combustion engine or an electric driveline in the same chassis. In this way, we reduce development time, costs and can bring new offers to the market faster. In addition, we can manufacture the different variants on the same assembly line, which again reduces costs and enables us to scale up volumes quickly when conditions are right.

SAME VEHICLE PLATFORM



SAME PLANT



Towards circularity and resource efficiency

Main connections to UN Sustainable Development Goals

Double the rate of energy efficiency (7.3)
Resource efficiency and reduced CO_2 per value added (9.4)
Efficient use of natural resources (12.2)

The world's natural resources are limited and economic activity is rapidly increasing. This means that there are large incentives for rethinking existing production and transportation patterns.

In order to use resources efficiently, waste and pollution need to be designed out to the extent possible and products and materials kept in the use phase for a longer period of time. At the same time, the transport industry as a whole can make significant improvements in productivity. Today, some estimates show that the average truck in the industry is only using 40–50% of total load capacity. Sharing economy business models, artificial intelligence and machine learning can optimize goods flow and lead to a reduction in transport needs and save valuable natural resources.

The Volvo Group wants to lead by example. We are aiming for our own transport system to be world class. What we learn, we will also offer our customers to contribute to significantly increase efficiency in their transport systems. This means taking advantage of a wide range of opportunities that will result in reduced logistics costs, emissions and wasted resources.

As we focus even more on services, our aim is to increase the sales of total transport solutions. While the traditional transactional sales will remain, we offer different business model setups for different customers depending on their needs. More information on different business models is available on page 20.

RESOURCE-EFFICIENT TECHNOLOGY AND CIRCULAR FUEL OPPORTUNITY

The bio-gas powered Volvo FH and FM with I-See are the most fuel-efficient gas trucks we have ever built. The gas driveline plays an important role to reduce fossil emissions here and now. The technology has been developed for fuel economy as well as the opportunity to reduce emissions on todays' long haul transports, where electric trucks are not yet efficient. With natural gas, the saving is up to 20% tank-to-wheel. With liquified biogas (bio-LNG), the fossil emissions are close to zero.

Bio-LNG brings several benefits. Lower climate impact is critical and in the EU, bio-LNG has the potential to replace around 20% of today's diesel-based transports. The technology is also a key enabler for circularity in organic waste management. In the process of producing bio-LNG from agricultural or other biodegradable waste and using it for combustion, a significant part of the methane emissions from the waste are avoided and what is left can be used as fertilizer.

INCREASE EFFICIENCY IN TRANSPORT SYSTEMS

Increasing transport efficiency offers opportunities to add sustainable value beyond fuel consumption and electrification. According to Volvo Group estimates, trucks, buses and construction equipment are on average used 30% of their life cycles, and the average truck on the road carries 40–50% of its total capacity. Theoretically up to 50% of the transport is available for more cargo. With this in mind, and the fact that 5–10% of the world's total fuel is consumed to move goods and materials the climate and cost efficiency potential for transports is significant, which can lead to a rapid transformation of the business.

Assets used ~30% of their life cycles

Up to 50% of total payload theoretically available for more cargo

5–10% of total fuel consumed is used to move goods and materials

VOLVO AND HOLCIM IN A PROJECT TO USE AUTONOMOUS ELECTRIC HAULERS

Volvo Autonomous Solutions and Holcim Switzerland have entered a collaboration to jointly test and further develop the use of autonomous electric haulers in a limestone quarry. The two companies are dedicated to seeking infrastructure and transport solutions that are safe, efficient, innovative and sustainable.

Holcim’s quarry Gabenchopf in Siggenthal has been chosen as the site for this project. The battery-electric haulers currently being tested mark a groundbreaking step in the industry: not only are they quieter and more sustainable than conventional haulers, they are also safer while being a part of a CE-certified electric, autonomous transport solution for the quarry and cement industries.

“This project showcases a sustainable transport solution that is commercially viable and combines the technology shifts of connectivity, automation and electrification”, says Nils Jaeger, President of Volvo Autonomous Solutions.

The testing and likely deployment of electric haulers in the quarry is part of Holcim’s digitization initiative “Plants of Tomorrow”. As part of the initiative, Holcim is testing automation technologies, robotics and artificial intelligence throughout the entire production process in order to develop innovative solutions for a safer, more efficient and more sustainable cement production.

PROTOTYPE OF LONG-HAUL AUTONOMOUS TRUCK FOR NORTH AMERICA

Volvo Autonomous Solutions and Aurora achieved the next milestone in their partnership to jointly develop on-highway autonomous trucks in the U.S. In September, a prototype of Volvo Trucks’ flagship, long-haul VNL model, integrated with the Aurora Driver technology, was revealed, representing an important step towards launching fully autonomous heavy-duty trucks commercially in North America.

While the transformation to autonomous trucking will not happen overnight, Volvo Autonomous Solutions will continue to further increase the speed of development to support customers’ changing needs across many segments and markets and ultimately bring the benefits of autonomous transport solutions to the public with safer, more efficient and more sustainable commercial transport of goods across the U.S.

REMANUFACTURING RENAULT TRUCKS

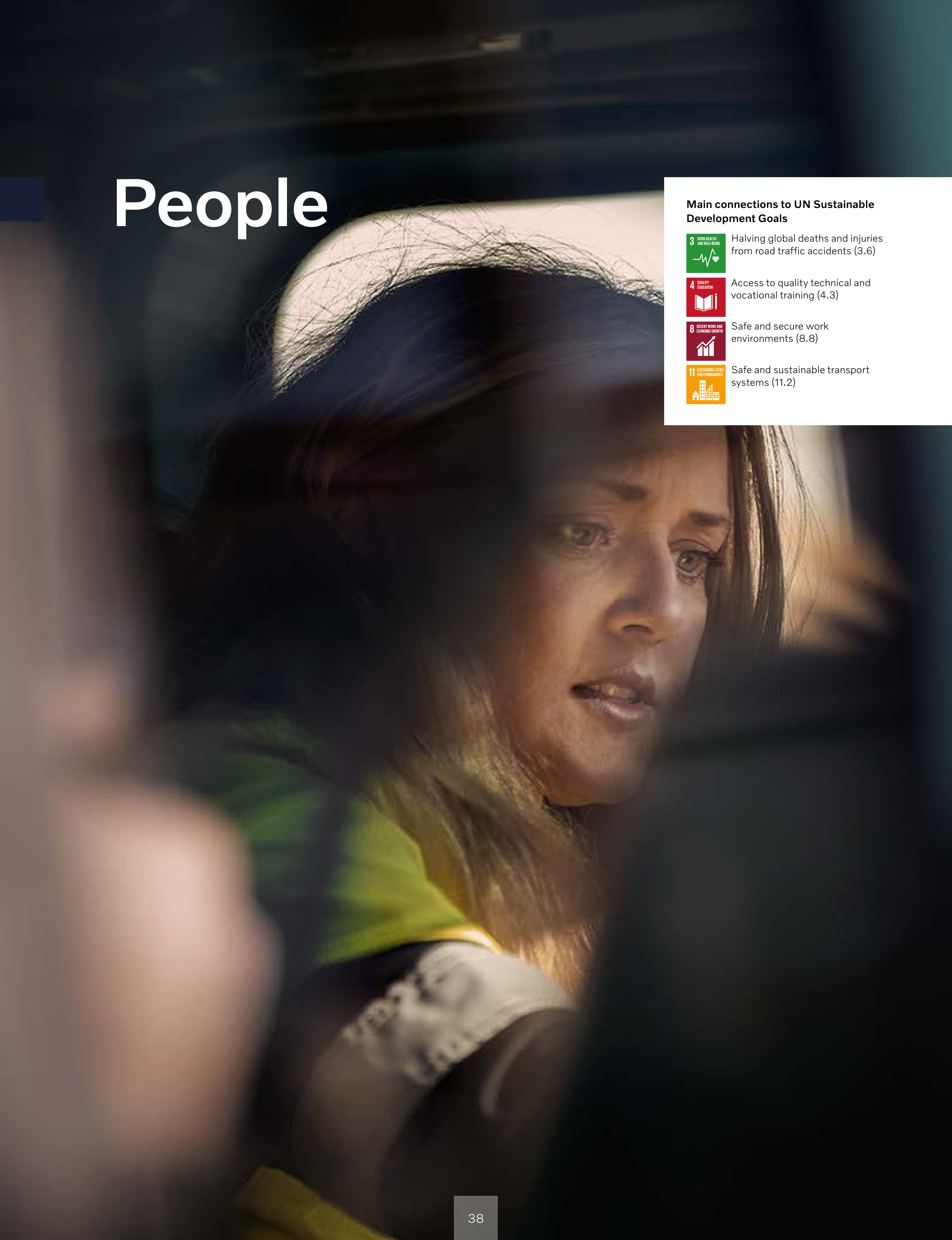
The business case for circularity is developing rapidly to handle resource scarcity. Volvo Group has a strong position within refurbishment and remanufacturing of both components and vehicles. Renault Trucks has during the year scaled up its facility for remanufactured and refurbished trucks. In 2021, around 500 used trucks were converted in Renault Trucks’ used truck centers.

The centers focus on a range of business solutions to increase circularity by extending operating life. Vehicles used up to four years are regenerated and upgraded with hardware and software and returned to their owners for full capacity and operating beyond the one-million-kilometer mark.

Trucks used for a specific application or route are taken back and transformed for a new purpose. For example a long-haulage tractor is turned into a rigid, or a retrofitting of a traditional driveline to a biofuel driveline.

Parts and components are remanufactured to the same or higher quality as a new. Renault Trucks mainly remanufactures engines, gearboxes, injectors and particle filters.

Read more on renault-trucks.com



People

Main connections to UN Sustainable Development Goals

- Halving global deaths and injuries from road traffic accidents (3.6)
- Access to quality technical and vocational training (4.3)
- Safe and secure work environments (8.8)
- Safe and sustainable transport systems (11.2)

Striving for safe roads and workplaces

Safety is a priority in everything we do. We have a vision for zero accidents with Volvo Group products and in our workplaces.

Every year there are more than 1.3 million lives lost and 50 million people injured in road traffic accidents around the world. We work proactively to develop intelligent solutions that not only mitigate the consequences of accidents but strive to avoid them altogether. Our vision is zero fatalities, zero injuries and ultimately zero accidents.

According to the World Health Organization, the cost of road traffic accidents can be up to 3% of global GDP. Therefore, there is a strong focus on safety in the transport and infrastructure industry, as well as from governments around the world. Safety features for vehicles and machine are key, but our work also includes a range of engagements with customers and regulatory bodies, as well as road traffic safety and driver training. Visit volvogroup.com/safety for more information.

With safety, as well as with the environment, we believe in taking a full value chain approach. We work to improve health and safety in our own operations, and we set high standards for our partners in the supply chain. Collaboration, being innovative, life-long learning, challenging the status quo and being curious drive engagement and improvement work. We strive to increase safety in our operations and have targeted to reduce the accident rate on an aggregated level by at least 50% by 2030, compared to 2019.

Safety mindset is also the foundation for health, non-discrimination and other human rights aspects. For more information, see the Sustainability Notes on page 152–179.

SAFETY IN OPERATIONS

We work to improve health and safety in our own operations, and we set high standards for our partners in the supply chain.

SAFETY FOR OUR CUSTOMERS

Our vision is zero accidents with Volvo Group products, and the offering of world-leading products and solutions for sustainable transports is an important part of getting closer to this vision. The approach is to look at the traffic system and see where we can contribute. In this work, we consider the views of drivers and operators, commuters, as well as other traffic system users like cyclists and pedestrians.

SAFETY ZONES FOR BUSES

Driving carefully is the best general safety action. To help bus drivers to follow regulations operators can define zones with a firm maximum speed. Inside the zone, the vehicle simply cannot exceed the preset level. Safety Zones is used in Volvo buses in approximately 20 countries all over the world. The Brazilian city of Curitiba cut accidents by 50% on its busiest bus route after implementing Safety Zones.

Volvo Safety Zones is a refinement of geofencing technology where Volvo Buses adds intelligence and functionality to the vehicle. Operators can simply set the borders of a zone and the maximum speed they want to permit. Areas close to schools and public parks are obvious applications, and so too are hazardous stretches of road. And there is no limit to the number of zones that can be created.

It is 5 pm and rush hour in Curitiba, Brazil. The Volvo bus travelling south on Bus Rapid Transit (BRT) North Corridor is full of people on their way home from work and schools. As the bus approaches the entrance to Praça do Japão, the driver prepares to reduce its speed to 30 km/h. This idyllic public space is in one of the city's safety zones and even if the driver forgets to reduce the speed, the bus will slow down automatically.

This bus is one of the buses in the city that is using Safety Zones. The system is one of many innovations that the city has adopted to develop its public transport system. Curitiba was the first city in the world to adopt special express bus lanes, known as BRT. Today the network includes six express corridors.

In the BRT North Corridor alone, Urbanization of Curitiba (URBS) a local government-owned company that manages public transport in the city, has mapped out eight safety zones, where the maximum speeds range from between 20 km/h and 60 km/h, depending on the risk of accidents.

The laws of physics show that when speed doubles the braking distance is four times longer and the crash violence is four times greater. It is easy to see that keeping speed down is a principal safety factor. And in operators' depots, restricted speed can reduce accidental damage to panels, lights, and rear-view mirrors.

NEW SAFETY FEATURES ON ELECTRIC CITY BUSES

During the year, Volvo Buses presented the most recent additions to its city bus offer to customers. Extended charging possibilities and how Volvo Buses takes the guesswork out of battery capacity requirements along with new safety features were in focus.

In some situations, such as at a bus stop, people may not hear the bus approaching. The solution is AVAS – Acoustic Vehicle Alerting System – which is a speed-dependent synthetic sound designed to notify the immediate surrounding.

The Volvo 7900 Electric can be specified with a side detection system. Sensors on the curb side help the driver monitor the vehicle's nearside, reducing the risk of a collision when cornering, for instance when there are cyclists between the bus and the curb.

Another new feature is that the exterior rear-view mirrors can be replaced by cameras. Drivers get a better view to the rear on interior displays optimally placed in the field of vision. And the forward field of vision is not disturbed by the outside mirror structure.

The Volvo 7900 Electric features a reinforced front impact protection system. It is designed to pass the R29 front impact requirement, a safety standard for heavy-duty trucks. The enhanced structural design adds an extra protection for the driver. This is just one example of how Volvo goes beyond legislation.

SOUNDS FOR SAFETY

VOLVO TRUCKS ADDS UNIQUE SOUNDS TO ITS ELECTRIC TRUCKS

To improve safety, Volvo Trucks has developed an acoustic alert system with unique sounds for its electric truck models. The Volvo designed alert will increase safety by making pedestrians, cyclists and other road users aware of approaching trucks, which would otherwise be nearly silent. At the same time, the sounds are designed to be pleasant and unobtrusive, both for the driver and others close by. The sounds are designed not to penetrate walls, to allow for quiet nighttime deliveries and contribute to better working conditions.

Since July 1, 2021, all new electric vehicles in the EU are required to emit a certain sound level when travelling at speeds below 20 kph. The requirement for the sound level depends on the speed and the sound is amplified as the speed increases. At 20 kph it must be at least 56 decibels.

If the vehicle is too quiet, an external acoustic vehicle alerting system (AVAS) must be added. To meet the new requirements, and at the same time maintain the benefits of lower noise levels that come with electric vehicles, Volvo Trucks has developed a unique set of premium sounds for its electric truck models. The range of sounds are the result of thorough research and testing by the Volvo Group's own acoustics experts.

Volvo's acoustic alert system for electric vehicles is not just one but four different sounds, informing people close by about what the truck is doing: moving forward, idling, reversing, etc. The sounds will vary in intensity, based on truck speed and will shift in frequency during acceleration and deceleration.

ACTIVE CARE – PREDICTED MAINTENANCE IS SAFE MAINTENANCE

Active Care is a telematics service that bundles together monitoring of machine health and the provision of weekly reports that together help reduce downtime. This remote analysis tool delivers multiple benefits, including catching problems before they become failures, which reduces the risk for incidents and unplanned maintenance in the field. Instead, the maintenance can be planned and performed safely.

We are the Volvo Group

Creating an inclusive, safe, and engaging work environment built on care for people is an essential focus area for Volvo Group. We recognize that digitalization, electromobility and automation are making a significant impact on the business and ways of working, and in this shift our people is our most valuable asset. Our approach is to invest in people, to encourage lifelong learning, to grow talent, and to create a people centric culture where everyone is encouraged to contribute. This competence shift will help Volvo Group to realize its People Commitment – to create safe workplaces, to use the full potential of our diversity and to drive engagement, so that our employees recommend Volvo Group as a great place to work.

Here we give a few examples that take us forward. Please find detailed information about people and employment with metrics, KPI's and further disclosures in our Sustainability Notes on page 164–173.

SAFETY AROUND THE CLOCK AT THE VOLVO GROUP IN BRAZIL

At the Volvo Group's operations in Curitiba, Brazil, the employees put the emphasis on safety 24 hours a day, 7 days a week.

"We're very good at looking after ourselves in the factory and the office. We've put in place a whole series of measures to reduce the number of accidents. But as soon as we leave work, we forget to think about our safety. That's why we started the 24/7 Safety program", says Maila Faria, Safety Manager, Volvo Group Latin America.

The 24/7 Safety program targets all 3,000 employees and consultants in the factory and offices in Curitiba. The aim is to make employees aware that safety is not just essential at work. It is equally important to take a preventive approach at home, at your exercise class, on the bus or on a bike ride. By influencing employees' attitudes and encouraging them to put their knowledge into practice also at home with their families, Volvo Group in Brazil takes a holistic approach to safety.

Safety 24/7 is built on four pillars; Be safe at home, Get to Volvo safely, Be safe at work and Come home safely. Despite the pandemic and the difficulties involved in bringing people together, the program has managed to arouse a great deal of interest. The Annual Safety week was partly held digitally, further emphasizing the importance of safety at home, at work, when commuting and when going back to work after restrictions. A broad range of communication methods, such as posters, newsletters, information events, quizzes, games and a digital safety week have been used to engage employees.

STRATEGY COMES TO LIFE – MAKING THE SHIFT

Our industry is in the beginning of its greatest shift – in this shift we need to both perform and transform. What this means in our everyday work differs from one individual and work role to another. Our operations in Gent, Belgium – one of the major production plants in the Group – has accelerated the transformation during 2021. A key to this acceleration is competence. With the right competence, people are empowered to take action and accountability for result.

"The people are the ones making the move of the Volvo Group happen and we need to have them onboard. We must invest in their ownership, create pride but also accountability, explains Koen Leemans, Director, Production in the Gent plant. "We want everyone to understand the big picture and be part of shaping the future".

The main purpose of the competence shift program was to accelerate the production start of new products. During 2021, the Volvo Group has introduced the new high volume product lines – Volvo FH, FM and FMX – all with new architecture and modularization for both electric and traditional drivelines.

"Thanks to great cross functional effort between key operators, specialist from the method lab, team leaders, work leaders and production and logistic engineers we were able to prepare ourselves like never before resulting in a smooth transition to building our new models", says Bram Timmermans, Team Leader Cab Drop Assembly.

Selected key operators were assigned in teams together with operators and staff in the Tuve plant in Gothenburg, Sweden, which has been a pilot plant for the introduction of new vehicles. The cross-functional teams built up documentation and a standardized way of working. All spots with big changes for the upcoming product launch were mapped in the Gent plant and pilot areas for training were built up. The key operators also became internal trainers and invited all teams to dialogue to create awareness and understanding to support the product launch of the new product lines during the spring of 2021.

As a result of the training and inclusion, the productions teams were more involved and engaged in the project launches which has minimized time losses during production, shorter lead times and fewer training trucks.

"When we started this competency shift program, we wanted to take the employees with us on a journey to create a common mindset and build a foundation for the future to meet new challenges laying ahead, describes Koen. "We already now see that we have succeeded to increase the commitment and ownership in the teams and are much better prepared when introducing future products in our plant".

UPSKILLING FOR EMPLOYMENT AT ZAMITA ACADEMY IN ZAMBIA

We believe training and life-long learning is a key to individual empowerment and we take part in a several technical and vocational training programs around the world. This is done in collaboration with universities, technical high schools and international development organizations. One example from outside the Volvo Group is ZAMITA Industrial Academy in Ndola, Zambia.

The Zambian government has set out to create a million new jobs over a five-year period to overcome its challenges with unemployment. At the same time the commercial transport and heavy machinery industry faces shortages of skilled drivers and technicians to their operations. ZAMITA is a multilateral project collaboration between United Nations Industrial Development Organization (UNIDO), the Embassy of Sweden in Zambia, the Volvo Group and the Government of Zambia.

At year-end 2021, the academy had trained over one thousand students with rapid increase in women enrollment since its inception. Read more on this and other training and development initiatives on page 166.

Board of Directors' Report 2021

Ownership and legal form

AB Volvo (publ) with corporate identity no 556012-5790 is a limited company and its shares are listed on Nasdaq Stockholm, Sweden. AB Volvo is the parent company of the Volvo Group and is headquartered in Gothenburg, Sweden. The ultimate parent of the Group is AB Volvo with registered office at SE-405 08 Gothenburg, Sweden.

Business activities

The Volvo Group drives prosperity through transport and infrastructure solutions, offering trucks, buses, construction equipment, power solutions for marine and industrial applications, financing and services that increase our customers' uptime and productivity. Founded in 1927, the Volvo Group is committed to shaping the future landscape of sustainable transport and infrastructure solutions. The Volvo Group has production facilities in 19 countries and sell its products in more than 190 markets. A significant part of the Group's operations is in Sweden. Other significant operations are found in the US, Brazil, India, France and China.

Statutory sustainability report

The Volvo Group has prepared a sustainability report in accordance with the Global Reporting Initiative's guidelines (GRI Standards) and the non-financial disclosure requirements in the Swedish Annual Accounts Act. The Volvo Group's sustainability report consists of the Sustainability Notes on pages 152–179 together with all other relevant sustainability disclosures in this Annual and Sustainability Report, see:

- Strategy and business model, pages 10–43
- Policies, assessments and results, pages 154–179
- Material risks and mitigation, pages 70–75 and 154–179
- Key performance indicators, pages 154–179. Taxonomy regulation disclosures, page 162.

Events after the balance sheet date

The Russia/Ukraine conflict might negatively impact the development of the Volvo Group's financial results and financial position. It is however currently not possible to assess its consequences for the Volvo Group.

Financial performance

Increased sales and improved profitability

For the Volvo Group, 2021 was a year with a strong increase in net sales and improved operating income despite the challenges created by shortages in the supply chain. Both vehicle and service volumes grew significantly compared with the preceding year.

INCOME STATEMENTS VOLVO GROUP

SEK M		Industrial Operations 2021	Industrial Operations 2020	Financial Services 2021	Financial Services 2020	Eliminations 2021	Eliminations 2020	Volvo Group 2021	Volvo Group 2020
Net sales	Note 6, 7	**361,062**	**326,472**	**13,437**	**13,960**	**–2,283**	**–1,987**	**372,216**	**338,446**
Cost of sales		–277,048	–252,933	–7,700	–8,375	2,285	1,989	–282,463	–259,319
Gross income		**84,013**	**73,539**	**5,738**	**5,586**	**2**	**2**	**89,753**	**79,127**
Research and development expenses		–18,027	–16,798	–	–	–	–	–18,027	–16,798
Selling expenses		–21,575	–24,284	–2,384	–2,226	–	–	–23,959	–26,510
Administrative expenses		–4,859	–4,611	–11	–9	–	–	–4,870	–4,621
Other operating income and expenses	Note 8	300	–3,673	–54	–1,786	–	–	246	–5,459
Income/loss from investments in joint ventures and associated companies	Note 5, 6	–54	1,749	–	–	–	–	–54	1,749
Income/loss from other investments		–15	–4	0	0	–	–	–15	–3
Operating income		**39,783**	**25,919**	**3,289**	**1,564**	**2**	**2**	**43,074**	**27,484**
Interest income and similar credits		362	372	–	–	–4	–73	358	299
Interest expenses and similar charges		–1,172	–1,422	0	0	4	73	–1,167	–1,349
Other financial income and expenses	Note 9	926	–518	–	–	–	–	926	–518
Income after financial items		**39,899**	**24,351**	**3,289**	**1,564**	**2**	**2**	**43,190**	**25,917**
Income taxes	Note 10	–9,140	–5,439	–807	–404	–0	0	–9,947	–5,843
Income for the period		**30,759**	**18,912**	**2,482**	**1,160**	**1**	**2**	**33,243**	**20,074**
Attributable to:									
Owners of AB Volvo								32,787	19,318
Non-controlling interest								456	755
								33,243	**20,074**
Basic earnings per share, SEK	Note 19							16.12	9.50
Diluted earnings per share, SEK	Note 19							16.12	9.50

OTHER COMPREHENSIVE INCOME

SEK M		2021	2020
Income for the period		**33,243**	**20,074**
Items that will not be reclassified to income statement:			
Remeasurements of defined benefit plans	Note 20	6,091	–1,901
Remeasurements of holding of shares at fair value	Note 19	48	–6
Items that may be reclassified subsequently to income statement:			
Exchange differences on translation of foreign operations		5,775	–9,741
Share of other comprehensive income related to joint ventures and associated companies		1,349	–939
Accumulated translation difference reversed to income		–324	–50
Other comprehensive income for the period, net of income tax		**12,938**	**–12,637**
Total comprehensive income for the period		**46,182**	**7,437**
Attributable to:			
Owners of AB Volvo		45,354	6,895
Non-controlling interest		828	542
		46,182	**7,437**

Net sales

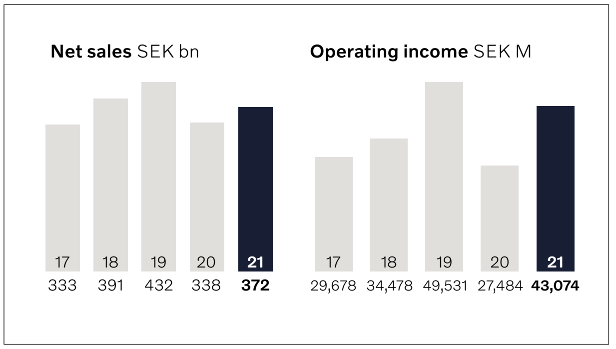
During 2021, net sales increased by 10% to SEK 372 billion (338). Adjusted for currency movements and divestment of UD Trucks on April 1, 2021, the sales increase was 21%. Vehicle sales increased by 25% due to growing transport volumes and improving construction activities. Service sales increased by 11%, as a consequence of high utilization of vehicles and machines which drove demand for spare parts and services.

The truck business' net sales increased by 27% adjusted for currency and divestment of UD Trucks, as a consequence of strong demand for both new and used trucks as well as services. For Construction Equipment currency-adjusted net sales increased by 17%, with growth in all markets expect for China, supported by investments in infrastructure and high demand in the commodity segment. Buses' net sales decreased by 5% adjusted for currency movements, with especially the coach segment being negatively impacted by the covid-19 pandemic. Net sales for Volvo Penta increased by 26% currency-adjusted as both the marine and industrial engine business continued a solid recovery after the weakening in 2020 due to covid-19 pandemic.

The Volvo Group's sales of defense material, as defined in the Swedish Military Equipment Ordinance (1992:1303) section A, amounted in 2021 to 0,63% (0.93) of net sales.

Operating income

In 2021, the Volvo Group's adjusted operating income amounted to SEK 41.0 billion (28.6). The adjusted operating income excludes the capital gain of SEK 1.7 billion from the divestment of UD Trucks, a positive effect of SEK 0.2 billion from ceased depreciation and amortization on assets held for sale and SEK 0.2 billion to release of a previously booked restructuring reserve for the Group's cost-reduction program. In 2020, adjusted operating income excluded SEK –1.1 billion, whereof restructuring charges of SEK –2.2 billion related to headcount reductions and a positive effect from the ceased depreciation and amortization on assets held for sale of SEK 1.1 billion.



Net sales by operating segment, SEK M	**2021**	2020	%
Trucks	230,881	208,262	11
Construction Equipment	92,031	81,453	13
Buses[2]	13,652	14,712	–7
Volvo Penta	14,437	11,891	21
Group Functions & Other[2]	13,459	12,949	4
Eliminations	–3,398	–2,796	–
Industrial Operations	**361,062**	**326,472**	**11**
Financial Services	13,437	13,960	–4
Reclassifications and eliminations	–2,283	–1,987	–
Volvo Group[1]	**372,216**	**338,446**	**10**

1 Adjusted for changes in currency rates and acquired and divested operations, net sales increased by 21%.

2 The operations of Nova Bus have been reclassified form the Buses segment into the segment Group Functions and Other as of October 1, 2021 and financial numbers has been restated in this report. For more information please see Note 31.

Net sales by market area, SEK M	**2021**	2020	%
Europe	154,296	130,457	18
North America	94,356	76,501	23
South America	28,810	20,133	43
Asia	62,310	80,088	–22
Africa and Oceania	21,291	19,293	10
Total Industrial Operations	**361,062**	**326,472**	**11**
Of which:			
Vehicles	282,666	247,397	14
Services	78,396	79,075	–1

Adjusted operating income by operating segment, SEK M	**2021**	2020
Trucks	25,567	17,251
Construction Equipment	12,228	10,071
Buses[2]	59	–452
Volvo Penta	2,092	1,448
Group Functions & Other[2]	–2,265	–1,375
Eliminations	53	12
Industrial Operations	**37,733**	**26,955**
Financial Services	3,279	1,606
Reclassifications and eliminations	2	2
Volvo Group adjusted operating income	**41,015**	**28,564**
Adjustments[1]	2,059	–1,081
Volvo Group operating income	**43,074**	**27,484**

1 For more information on adjusted operating income, please see section for Key ratios

2 The operations of Nova Bus have been reclassified form the Buses segment into the segment Group Functions and Other as of October 1, 2021 and financial numbers has been restated in this report. For more information please see Note 31.

Adjusted operating margin, %	**2021**	2020
Trucks	11.1	8.3
Construction Equipment	13.3	12.4
Buses[1]	0.4	–3.1
Volvo Penta	14.5	12.2
Industrial Operations	**10.5**	**8.3**
Volvo Group adjusted operating margin	**11.0**	**8.4**
Volvo Group operating margin	**11.6**	**8.1**

1 The operations of Nova Bus have been reclassified form the Buses segment into the segment Group Functions and Other as of October 1, 2021 and financial numbers has been restated in this report. For more information please see Note 31.

Change in operating income, Volvo Group SEK bn	Change (excluding currency)	Currency impact	Total
Operating income 2020			**27.5**
Change in gross income Industrial operations	13.7	–3.2	10.5
Change in gross income Financial Services	0.5	–0.3	0.2
Lower credit losses	1.2	0.0	1.2
Gains on divestment of group companies[1]	1.6	0.0	1.6
Higher capitalization of development cost	0.9	0.0	0.9
Higher research and development expenditures	–2.3	0.2	–2.1
Lower selling and administrative expenses	1.3	1.0	2.3
Income from investments in Joint Ventures and associated companies	–1.7	0.0	–1.7
Restructuring costs[2]	2.9	0.0	2.9
Other	–0.1	–0.1	–0.2
Operating income 2021	**18.00**	**–2.5**	**43.1**

1 Including a capital gain of SEK 1.7 bn from the divestment of UD Trucks.
2 In 2020 costs of SEK 2.2 bn related to headcount reductions were included.

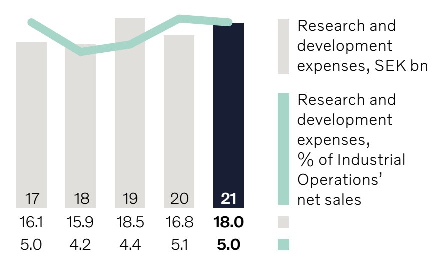
Impact of exchange rates on operating income, Volvo Group, Compared with preceding year, SEK M	
Net sales[1]	–16,063
Cost of sales	12,490
Research and development expenses	161
Selling and administrative expenses	1,009
Other	–66
Total effect of changes in exchange rates on operating income	**–2,469**

1 The Volvo Group sales are reported at monthly average rates.

Key operating ratios, Industrial Operations, %	**2021**	2020
Gross margin	23.3	22.5
Research and development expenses as percentage of net sales	5.0	5.1
Selling expenses as percentage of net sales	6.0	7.4
Administrative expenses as percentage of net sales	1.3	1.4
Operating margin	**11.0**	**7.9**

Expenses by nature, SEK M	**2021**	2020
Material cost (freight, distribution, warranty) and purchased services	232,774	209,444
Personnel	56,944	53,788
Amortization/depreciation	18,720	20,599
Other	20,881	23,417
Total	**329,319**	**307,247**

Research and development expenses



The increased adjusted operating income was primarily an effect of increased vehicle and service sales, lower selling expenses and improved earnings in the used vehicle business. This was partly offset by higher material costs, supply chain disturbances in the industrial system, lower contribution from joint ventures and increased R&D expenses relating to investments in transformational technologies. In 2020, adjusted operating income included various governmental short-terms layoff programs amounting to SEK 2.2 billion and a positive effect of SEK 0.6 billion from a correction of actuarial calculations of the Group's pension liabilities.

Reported operating income amounted to SEK 43.1 billion (27.5).

Impact of exchange rates on operating income

In 2021, changes in exchange rates compared to last year impacted the Volvo Group's operating income negatively by approximately SEK 2.5 billion. The impact was related to translation of operating income in foreign subsidiaries of SEK –2.1 billion and revaluation of receivables and liabilities of SEK –0.3 billion. Net flows in foreign currency had an insignificant impact on operating income. The translation of operating income was negatively impacted mainly by the depreciation of USD, EUR and BRL. The net flows in foreign currency were negatively impacted by a depreciation of USD and CNY, offset by a positive impact from an appreciation of ZAR and a depreciation of KRW were net flows are negative.

» **Read more in Note 4** Goals and policies in financial risk management regarding Industrial Operations transaction exposure from operating net flows, graphs 4:5 4:6, as well as currency impact on sales and operating income.

Net financial items

In 2021, interest income was on par with the previous year and amounted to SEK 0.4 billion (0.3). Interest expenses amounted to SEK 1.2 billion (1.3). Other financial income and expenses amounted to SEK 0.9 billion (–0.5). The change compared with 2020 was primarily due to revaluation effects on financial asets and liabilities.

» **Read more in Note 9** Other financial income and expenses.

Income taxes

The tax expense for the year amounted to SEK 9.9 billion (5.8) corresponding to an effective tax rate of 23% (23).

Income for the period and earnings per share

In 2021 the income for the period amounted to SEK 33,243 M (20,074). Earnings per share amounted to SEK 16.12 (9.50) and diluted earnings per share to SEK 16.12 (9.50). ■

Financial position

Continued strong financial position

In 2021, the Volvo Group continued to invest in future technologies and returned SEK 49.8 billion to its shareholders while maintaining a solid financial position.

BALANCE SHEET VOLVO GROUP – ASSETS

		Industrial Operations		Financial Services		Eliminations		Volvo Group	
SEK M		**Dec 31 2021**	Dec 31 2020	**Dec 31 2021**	Dec 31 2020	**Dec 31 2021**	Dec 31 2020	**Dec 31 2021**	Dec 31 2020
Assets									
Non-current assets									
Intangible assets	Note 12	36,971	34,423	98	154	–	–	37,070	34,577
Tangible assets	Note 13								
Property, plant and equipment		54,299	48,985	48	68	–	–	54,348	49,053
Investment property		57	60	–	–	–	–	57	60
Assets under operating leases		32,150	29,460	19,658	19,155	−11,838	−10,653	39,969	37,962
Financial assets									
Investments in joint ventures and associated companies	Note 5	20,685	13,160	–	–	–	–	20,685	13,160
Other shares and participations	Note 5	524	262	15	15	–	–	539	276
Non-current customer-financing receivables	Note 15	1,669	1,061	83,774	70,773	−2,057	−1,287	83,386	70,547
Net pension assets	Note 20	2,372	1,712	–	–	–	–	2,372	1,712
Non-current interest-bearing receivables	Note 16	1,747	4,603	74	–	−70	−410	1,752	4,193
Other non-current receivables	Note 16	9,211	9,228	187	157	−170	−815	9,227	8,569
Deferred tax assets	Note 10	9,744	9,505	1,203	1,089	0	1	10,947	10,595
Total non-current assets		**169,430**	**152,458**	**105,058**	**91,411**	**−14,135**	**−13,164**	**260,352**	**230,705**
Current assets									
Inventories	Note 17	63,715	47,273	202	352	–	–	63,916	47,625
Current receivables									
Customer-financing receivables	Note 15	868	635	68,352	58,096	−1,102	−746	68,118	57,985
Tax assets		1,336	1,659	373	528	–	–	1,708	2,187
Interest-bearing receivables	Note 16	1,976	1,698	0	4	−26	−15	1,950	1,686
Internal funding[1]		16,672	10,925	–	–	−16,672	−10,925	–	–
Accounts receivables	Note 16	39,321	34,278	1,455	1,383	–	–	40,776	35,660
Other receivables	Note 16	18,103	17,105	1,840	1,361	−3,201	−3,208	16,742	15,258
Marketable securities	Note 18	167	213	–	–	–	–	167	213
Cash and cash equivalents	Note 18	59,435	81,973	3,913	4,680	−1,223	−1,448	62,126	85,206
Assets held for sale	Note 3	–	29,362	–	4,934	–	–	–	34,296
Total current assets		**201,593**	**225,121**	**76,135**	**71,337**	**−22,223**	**−16,342**	**255,504**	**280,116**
Total assets		**371,022**	**377,579**	**181,193**	**162,748**	**−36,359**	**−29,506**	**515,856**	**510,821**

1 Internal funding is internal lending from Industrial Operations to Financial Services.

Balance sheet

In 2021, total assets in the Volvo Group increased by SEK 5.0 billion compared with year-end 2020. Currency movements increased total assets by SEK 23.9 billion and the divestment of UD Trucks decreased total assets by SEK 34.3 billion. Adjusted for currency effects and the divestment of UD Trucks total assets increased by SEK 15.4 billion. The increase was mainly in inventory and customer-financing receivables, which was partly offset by a decrease in cash and cash equivalents.

» **Read more in Note 15** Customer-financing receivables.
» **Read more in Note 17** Inventories.
» **Read more in Note 18** Cash and cash equivalents.

In 2021, the net value of assets and liabilities held for sale decreased by SEK 23.0 billion compared with year-end 2020. The change was mainly due to the divestment of UD Trucks to Isuzu Motors. No assets and liabilities held for sale were recognized as of December 31, 2021.

» **Read more in Note 3** Acquisitions and divestments of operations, regarding assets and liabilities held for sale.

In 2021, investments in joint ventures and associated companies increased by SEK 7.5 billion compared with year-end 2020. The change was mainly driven by the acquisition of shares in the new fuel cell joint venture with Daimler Truck AG, cellcentric GmbH & Co. KG.

» **Read more in Note 5** Investments in joint ventures, associated companies and other shares and participations.

BALANCE SHEET VOLVO GROUP – EQUITY AND LIABILITIES										
		Industrial Operations		Financial Services		Eliminations		Volvo Group	
SEK M		**Dec 31 2021**	Dec 31 2020	**Dec 31 2021**	Dec 31 2020	**Dec 31 2021**	Dec 31 2020	**Dec 31 2021**	Dec 31 2020
Equity and liabilities									
Equity attributable to owners of AB Volvo	Note 19	126,546	132,280	14,500	13,018	–2	–3	141,045	145,295
Non-controlling interest	Note 11	3,073	2,847	–	–	–	–	3,073	2,847
Total equity		**129,619**	**135,127**	**14,500**	**13,018**	**–2**	**–3**	**144,118**	**148,142**
Non-current provisions									
Provisions for post-employment benefits	Note 20	12,095	18,282	82	148	–	–	12,177	18,430
Provisions for deferred taxes	Note 10	2,774	1,166	2,153	2,099	–	–	4,926	3,265
Other provisions	Note 21	10,610	10,217	49	238	557	464	11,216	10,918
Total non-current provisions		**25,478**	**29,664**	**2,284**	**2,484**	**557**	**464**	**28,319**	**32,612**
Non-current liabilities									
Bond loans	Note 22	79,365	66,391	–	–	–	–	79,365	66,391
Other loans	Note 22	16,488	18,053	10,148	11,905	–1,823	–1,182	24,812	28,775
Internal funding[1]		–82,734	–58,839	74,223	59,412	8,512	–573	–	–
Other liabilities	Note 22	42,978	38,094	1,557	1,371	–7,705	–8,041	36,831	31,424
Total non-current liabilities		**56,096**	**63,699**	**85,928**	**72,687**	**–1,016**	**–9,796**	**141,008**	**126,590**
Current provisions	Note 21	**11,535**	**12,411**	**36**	**225**	**383**	**517**	**11,954**	**13,153**
Current liabilities									
Bond loans	Note 22	21,747	30,904	–	–	–	–	21,747	30,904
Other loans	Note 22	21,230	17,055	7,432	10,968	–962	–669	27,700	27,354
Internal funding[1]		–36,176	–38,547	63,141	51,050	–26,964	–12,503	–	–
Trade payables		76,079	59,013	666	598	–	–	76,745	59,611
Tax liabilities		3,720	3,885	567	714	–	–	4,287	4,599
Other liabilities	Note 22	61,693	57,730	6,639	6,354	–8,354	–7,515	59,978	56,569
Liabilities held for sale	Note 3	–	6,638	–	4,649	–	–	–	11,286
Total current liabilities		**148,293**	**136,678**	**78,445**	**74,333**	**–36,281**	**–20,688**	**190,457**	**190,324**
Total equity and liabilities		**371,022**	**377,579**	**181,193**	**162,748**	**–36,359**	**–29,506**	**515,856**	**510,821**

1 Internal funding is internal lending from Industrial Operations to Financial Services.

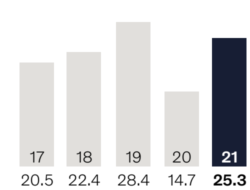
The net value of assets and liabilities related to pensions and similar obligations amounted to a liability of SEK 9.8 billion as of December 31, 2021, a decrease of SEK 6.9 billion compared with year-end 2020.

» **Read more in Note 20** Provisions for post-employment benefits.

On December 31, 2021, total equity for the Volvo Group amounted to SEK 144.1 billion compared with SEK 148.1 billion at year-end 2020. The equity ratio was 27.9% (29.0). Return on total equity was 23.4% (13.8).

On the same date the equity ratio in the Industrial Operations amounted to 34.9% (35.8). Return on capital employed in the Industrial Operations amounted to 25.3% (14.7).

Return on capital employed, Industrial Operations %, SEK bn



Net financial position excl. post-employment benefits and lease liabilities	Industrial Operations		Volvo Group	
SEK M	**Dec 31 2021**	Dec 31 2020	**Dec 31 2021**	Dec 31 2020
Non-current interest-bearing assets				
Non-current customer-financing receivables	–	–	83,386	70,547
Non-current interest-bearing receivables	1,747	4,603	1,752	4,193
Current interest-bearing assets				
Customer-financing receivables	–	–	68,118	57,985
Interest-bearing receivables	1,976	1,698	1,950	1,686
Internal funding	16,672	10,925	–	–
Marketable securities	167	213	167	213
Cash and cash equivalents	59,435	81,973	62,126	85,206
Assets held for sale	–	1	–	4,671
Total interest-bearing financial assets	**79,998**	**99,414**	**217,499**	**224,501**
Non-current interest-bearing liabilities				
Bond loans	–79,365	–66,391	–79,365	–66,391
Other loans	–11,995	–13,575	–20,343	–24,341
Internal funding	82,734	58,839	–	–
Current interest-bearing liabilities				
Bond loans	–21,747	–30,904	–21,747	–30,904
Other loans	–19,575	–15,489	–26,068	–25,802
Internal funding	36,176	38,547	–	–
Liabilities held for sale	–	4,255	–	–45
Total interest-bearing financial liabilities excl. lease liabilities	**–13,772**	**–24,718**	**–147,523**	**–147,483**
Net financial position excl. post-employment benefits and lease liabilities	**66,227**	**74,696**	**69,976**	**77,018**

Provisions for post-employment benefits and lease liabilities, net	Industrial Operations		Volvo Group	
SEK M	**Dec 31 2021**	Dec 31 2020	**Dec 31 2021**	Dec 31 2020
Non-current lease liabilities	–4,492	–4,477	–4,469	–4,434
Current lease liabilities	–1,655	–1,567	–1,632	–1,552
Provisions for post-employment benefits, net	–9,723	–16,570	–9,805	–16,717
Liabilities held for sale	–	–1,123	–	–1,127
Provisions for post-employment benefits and lease liabilities, net	**–15,870**	**–23,737**	**–15,907**	**–23,830**

Net financial position incl. post-employment benefits and lease liabilities	Industrial Operations		Volvo Group	
SEK M	**Dec 31 2021**	Dec 31 2020	**Dec 31 2021**	Dec 31 2020
Net financial position excl. post-employment benefits and lease liabilities	66,227	74,696	69,976	77,018
Provisions for post-employment benefits and lease liabilities, net	–15,870	–23,737	–15,907	–23,830
Net financial position incl. post-employment benefits and lease liabilities	**50,356**	**50,959**	**54,070**	**53,188**

Net financial position

In 2021, net financial assets in the Volvo Group's Industrial Operations excluding provisions for post-employment benefits and lease liabilities decreased by SEK 8.5 billion, resulting in a net financial asset position of SEK 66.2 billion on December 31, 2021. The change was mainly an effect of a positive operating cash flow of SEK 29.4 billion and a positive impact from the divestment of UD Trucks of SEK 18.4 billion, which were offset by the acquisition of shares in the new fuel cell joint venture with Daimler Truck AG, cellcentric GmbH & Co. KG and dividend paid to AB Volvo shareholders of SEK 49.8 billion. Currency movements increased net financial assets by SEK 3.0 billion.

Including provisions for post-employment benefits and lease liabilities, the Industrial Operations net financial assets amounted to SEK 50.4 billion on December 31, 2021. During 2021 provisions for post-employment benefits and lease liabilities decreased by SEK 7.8 billion. This was mainly related to remeasurements of

Changes in net financial position, Industrial Operations

SEK bn	2021	2020
Net financial position excl. post-employment benefits and lease liabilities at the end of previous period	**74.7**	**62.6**
Operating cash flow	29.4	18.5
Investments and divestments of shares, net	–7.4	–0.5
Acquired and divested operations, net[1]	17.9	0.4
Capital injections to/from Financial Services	1.6	0.0
Currency effect	3.0	–2.2
Dividend to owners of AB Volvo	–49.8	–
Dividend to non-controlling interest	–	–0.8
Other changes	–3.2	–3.3
Net financial position excl. post-employment benefits and lease liabilities at the end of period	**66.2**	**74.7**
Provisions for post-employment benefits and lease liabilities at the end of previous period	**–23.7**	**–25.3**
Pension payments, included in operating cash flow	1.8	3.6
Remeasurements of defined post-employment benefits[2]	7.7	–1.8
Service costs and other pension costs[3]	–2.0	–1.6
Investments and amortizations of lease contracts	0.3	0.4
Transfer pensions and lease liabilities to UD Trucks	1.1	–
Currency effect	–0.7	1.3
Other changes	–0.4	–0.2
Provisions for post-employment benefits and lease liabilities at the end of period	**–15.9**	**–23.7**
Net financial position incl. post-employment benefits and lease liabilities at the end of period	**50.4**	**51.0**

1 Includes both the cash flow from the divestment of UD Trucks operations and the intercompany loans that financed the divestment of the customer-financing portfolio in VFS Japan. This was repaid by UD Trucks at the time of divestment. » Read more in Note 3 Acquisitions and divestments of operations.

2 Including corrections of actuarial calculations of negative SEK 1.7 billion in 2020. » Read more in Note 20 Provisions for post-employment benefits.

3 Including corrections of actuarial calculations of positive SEK 0.6 billion in 2020. » Read more in Note 20 Provisions for post-employment benefits.

defined post-employment benefits of SEK 7.7 billion as well as reduced lease and pension liabilities of SEK 1.1 billion related to the divestment of UD Trucks, which were partly offset by negative currency movements of SEK 0.7 billion. The remeasurements were primarily an effect of significantly higher discount rates and high return on assets. The total impact from the divestment of UD Trucks on net financial position including provisions on post-employment benefits and lease liabilities was SEK 19.5 billion.

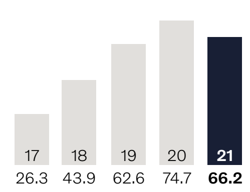
» Read more in Note 20 Provisions for post-employment benefits.

The Volvo Group's cash and cash equivalents amounted to SEK 62.1 billion on December 31, 2021 compared with SEK 85.2 billion on December 31, 2020. In addition to this granted, but unutilized, credit facilities amounted to SEK 42.3 billion (41.6) on December 31, 2021. Cash and cash equivalents include 2.8 (2.5) billion that is not available for use by the Volvo Group and SEK 8.7 billion (11.0) where other limitations exist, mainly liquid funds in countries where exchange controls or other legal restrictions apply.

» Read more in Note 18 Cash and cash equivalents.

» Read more in Note 22 Liabilities, regarding the maturity structure on credit facilities.

Net financial position, excl. provisions for post-employment benefits and lease liabilities, Industrial Operations, SEK bn



Cash flow statement

Improved operating cash flow

In 2021, operating cash flow in the Industrial Operations amounted to SEK 29.4 billion (18.5). The higher operating cash flow compared with 2020 is primarily an effect of a higher operating income of SEK 13.9 billion and a lower increase in working capital of SEK 2.3 billion (11.0). This was partly offset by an increase in income taxes paid of SEK 4.5 billion and higher investments of SEK 3.9 billion compared with 2020.

Operating cash flow in Financial Services was negative in an amount of SEK –12.7 billion (0.8). The change compared to 2020 was mainly due to significantly higher increase of new business volume in the credit portfolio.

» **Read more in Note 10** Income taxes.
» **Read more in Note 21** Other provisions.

Investments and disposals

In 2021, the Industrial Operations' investments in tangible and intangible assets amounted to SEK 12.5 billion (8.7).

Trucks investments in tangible and intangible assets amounted to SEK 9.8 billion (6.8). The major investments were related to industrial efficiency measures and replacements such as the ongoing replacement of casting process equipment in Skövde, Sweden, and upgrades in the plants in the U.S. Investments were also related to product renewals such as the development of battery-electric and fuel-cell electric trucks with both product development activities and required adaptations in the plants. Investments in dealer networks and workshops were mainly made in Europe, primarily for upgrades and replacements.

Investments in Construction Equipment amounted to SEK 1.2 billion (0.9). The major investments in the plants were related to renewals but also to industrial efficiency measures, primarily in Asia. Product-related investments were mainly related to upgrades with both continued investments in adaptations in the plants for electric machines and product development activities.

Investments in Buses were SEK 0.4 billion (0.2) and in Volvo Penta SEK 0.7 billion (0.5).

The investment level for property, plant and equipment increased during 2021 compared to prior year, which was considerably impacted by the covid-19 pandemic. Investments in property, plant and equipment are expected to increase further during 2022. Investments in optimization of the industrial footprint, product-related tooling, replacements as well as dealer investments will continue to be the main areas.

Investments and divestments of shares

In 2021, investments and divestments of shares had a negative impact on cash flow of SEK 7.4 billion (0.5). The negative impact was mainly due to the acquisition of shares in the new fuel cell joint venture with Daimler Truck AG, cellcentric Gmbh & Co KG.

» **Read more in Note 5** Investments in joint ventures, associated companies and other shares and participations.

Acquired and divested operations

In 2021, acquired and divested operations had a positive impact on cash flow of SEK 22.0 billion (0.4). The positive impact was mainly due to the divestment of UD Trucks by SEK 22.8 billion.

» **Read more in Note 3** Acquisitions and divestments of operations.

Financing and dividend

In 2021, net borrowings decreased by SEK 7.0 billion, mainly due to an improved operating cash flow. In 2020, net borrowings increased by SEK 7.3 billion to safeguard liquidity in the Volvo Group. During 2021 dividends of in total SEK 49.8 billion (0) were paid. These consisted of an ordinary dividend of SEK 6.00 per share and two extra dividends totaling 18.50 per share, whereof an extra dividend of 9.50 refers to the distribution of the proceeds from the sale of UD Trucks.

» **Read more in Note 29** Cash flow regarding change in loans during 2021.

Change in cash and cash equivalents

In 2021, Cash and cash equivalents decreased by SEK 23.1 billion and amounted to SEK 62.1 billion on December 31, 2021.

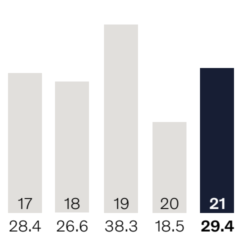
» **Read more in Note 18** Cash and cash equivalents regarding the accounting policy.
» **Read more in Note 29** Cash flow regarding principles for preparing the cash flow statement.

CONSOLIDATED CASH FLOW STATEMENTS

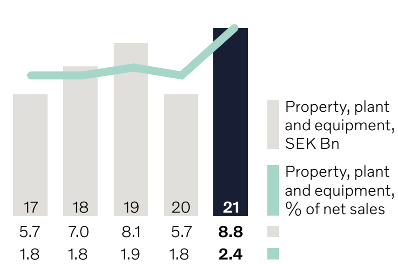
		Industrial Operations		Financial Services		Eliminations		Volvo Group	
SEK M		**2021**	2020	**2021**	2020	**2021**	2020	**2021**	2020
Operating activities									
Operating income		39,783	25,919	3,289	1,564	2	2	43,074	27,484
Amortization intangible assets	Note 12	2,757	3,067	36	76	–	–	2,793	3,143
Depreciation tangible assets	Note 13	7,238	7,569	26	27	–	–	7,264	7,596
Depreciation leasing vehicles	Note 13	4,301	5,292	4,361	4,569	0	0	8,663	9,860
Other non-cash items	Note 29	–1,444	–818	453	2,019	–7	16	–998	1,217
Total change in working capital whereof		–2,270	–10,961	–16,054	–3,051	853	330	–17,471	–13,682
Change in accounts receivables		*–1,999*	*–1,970*	*–64*	*–60*	–	–	*–2,062*	*–2,030*
Change in customer-financing receivables		*–623*	*–332*	*–15,619*	*–4,068*	*871*	*289*	*–15,370*	*–4,112*
Change in inventories		*–12,438*	*2,351*	*151*	*114*	–	–	*–12,287*	*2,465*
Change in trade payables		*13,137*	*–4,397*	*37*	*372*	–	–	*13,174*	*–4,025*
Other changes in working capital		*–347*	*–6,612*	*–559*	*592*	*–19*	*41*	*–925*	*–5,979*
Dividends received from joint ventures and associated companies		769	1,070	–	–	–	–	769	1,070
Interest and similar items received		347	382	0	0	18	–96	365	286
Interest and similar items paid		–854	–1,191	6	0	–6	88	–854	–1,102
Other financial items		–307	–336	–	–	–	–	–307	–336
Income taxes paid		–8,657	–4,132	–994	–796	–	–	–9,651	–4,927
Cash flow from operating activities		**41,664**	**25,862**	**–8,877**	**4,408**	**860**	**340**	**33,647**	**30,610**
Investing activities									
Investments in intangible assets		–3,737	–2,972	15	–51	–	–	–3,722	–3,023
Investments in tangible assets		–8,806	–5,730	–3	–3	–	–	–8,809	–5,733
Investment in leasing vehicles		–37	–23	–9,291	–9,425	21	885	–9,308	–8,564
Disposals of in-/tangible assets and leasing vehicles		356	1,409	5,495	5,833	–15	–895	5,837	6,346
Operating cash flow		**29,440**	**18,545**	**–12,662**	**761**	**866**	**330**	**17,645**	**19,636**
Investments of shares	Note 5							–7,384	–475
Divestments of shares	Note 5							–	13
Acquired operations	Note 3							–789	–10
Divested operations	Note 3							22,773	435
Interest-bearing receivables incl marketable securities								–87	1,070
Cash flow after net investments								**32,158**	**20,669**
Financing activities									
New borrowings [1]	Note 29							89,141	128,453
Repayment of borrowings [1]	Note 29							–96,113	–121,132
Dividend to owners of AB Volvo								–49,820	–
Dividend to non-controlling interest								–631	–778
Other								–132	–99
Change in cash and cash equivalents excl. translation differences								**–25,396**	**27,113**
Translation difference on cash and cash equivalents								2,316	–3,368
Change in cash and cash equivalents								**–23,080**	**23,745**
Cash and cash equivalents, beginning of year	Note 18							**85,206**	**61,461**
Cash and cash equivalents, end of year	Note 18							**62,126**	**85,206**

1 Non-cash items from unrealized currency effects and currency translation are adjusted on new borrowings and repayments of borrowings.

Operating cash flow, Industrial Operations SEK bn



Investments in property, plant and equipment, Industrial Operations



Financial management

Improved credit rating

During 2021, Moody's raised its long-term rating from A3, stable to A2, stable, and S&P raised its rating from A-, stable to A-, positive.

The objectives of the financial management in the Volvo Group is to assure shareholders long-term attractive total return and debt providers the financial strength and flexibility to secure proceeds and repayment. A long-term competitive business requires access to capital to be able to invest. Financial management ensures that the capital is used in the best possible way through well-defined ratios and objectives for the Industrial Operations as well as for the customer finance operations in Financial Services. The objective on Group operating margin and return on equity for Financial Services are intended to secure the return requirements from shareholders. The target on no net financial indebtedness under normal circumstances in the Industrial Operations and the equity ratio for Financial Services are there to secure financial stability.

Steering principles to ensure financial flexibility

To ensure financial stability and flexibility throughout the business cycle the Volvo Group holds a strong liquidity position. Besides cash and marketable securities, the liquidity position is built up of revolving committed credit facilities. Funding and lending in Financial Services are in local currency and the portfolio is matched both from an interest and a liquidity risk perspective, in accordance with the Volvo Group policy. For further information, please see Note 4 to the Consolidated financial statements.

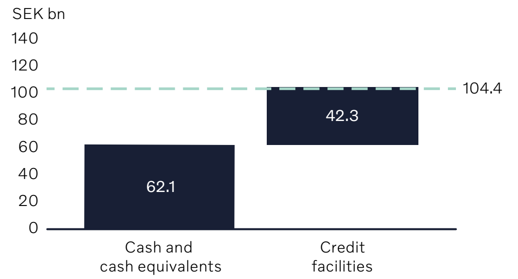
Diversified funding sources

The Volvo Group has centralized the portfolio management of financial assets and liabilities, funding operations and cash management through the internal bank, Volvo Treasury. The liability portfolio is separated into two portfolios, one for Industrial Operations and one for Financial Services, to correspond to the needs of the different operations. Volvo Treasury works to assure the possibility to access capital markets at all times through diversified funding sources. To access capital markets around the world, the Group uses different instruments, such as bilateral bank funding, corporate bonds and certificates, hybrid bonds, agency funding as well as securitization of assets in Financial Services' credit portfolio. An increasingly important part of the treasury work is to manage increased funding needs in new growth markets.

Green Finance Framework

Volvo Group has a Green Finance Framework for the financing of investments and projects in the area of clean transportation. The framework enables the Group to issue green bonds and other green financial instruments and allows it to identify, select, manage and report on eligible projects and assets in line with International Capital Market Association Green Bond Principles. The funds will be earmarked to projects in areas such as R&D and manufacturing of electric vehicles, machines and engines with zero tailpipe emissions. Funds will also be used by Volvo Financial Services to offer green loans to customers who buy the Group's electric products. The Green Finance Framework has been subject to an independent external assessment by CICERO Shades of Green, which has classified it as Dark Green – their highest level.

Volvo Group liquidity position, December 31, 2021



Geographically diversified market programs

Credit rating, February 24, 2022	Short-term	Long-term
Moody's (Corporate Rating)	P-1	A2, stable
S&P (Corporate Rating)	A-2	A–, positive
R&I (Japan)	a-1	A+, stable

A strong and stable credit rating is important

Being a large issuer of bonds, it is critical to have a strong and stable credit rating. The level of the credit rating is not only important for debt investors but also for a number of other stakeholders when it comes to creating long-term relationships. A strong credit rating has a positive effect on the ability to attract and finance customers' purchases of the Group's products and on the trust from suppliers. It also gives access to more funding sources and lower cost of funds.

The Volvo Group has contractual relations with two global Credit Rating Agencies for solicited credit ratings: Moody's Investors Service (Moody's) and Standard & Poors' Rating Services (S&P). During 2021, Moody's raised its long-term rating from A3, stable to A2, stable, and S&P raised its rating from A-, stable to A-, positive. ■

Changes in consolidated equity

		Equity attributable to owners of AB Volvo						
SEK M		Share capital	Other reserves[1]	Translation reserve	Retained earnings	Total	Non-controlling interest	Total equity
Balance as of December 31, 2019		**2,554**	**236**	**6,800**	**129,004**	**138,595**	**3,083**	**141,678**
Income for the period		–	–	–	19,318	19,318	755	20,074
Other comprehensive income								
Remeasurements of defined benefit plans	Note 20	–	–	–	–1,901	–1,901	–	–1,901
Remeasurements of holding of shares at fair value	Note 5, 19	–	–6	–	–	–6	–	–6
Exchange differences on translation of foreign operations		–	–	–9,528	–	–9,528	–213	–9,741
Share of other comprehensive income related to joint ventures and associated companies		–	–	–	–939	–939	–	–939
Accumulated translation differences reversed to income		–	–	–50	–	–50	–	–50
Other comprehensive income for the period		–	–6	–9,578	–2,840	–12,424	–213	–12,637
Total comprehensive income for the period		**–**	**–6**	**–9,578**	**16,478**	**6,895**	**542**	**7,437**
Transactions with shareholders								
Dividends to owners of AB Volvo		–	–	–	–	–	–778	–778
Changes in non-controlling interests		–	–	–	–	–	–	–
Other changes		8	–	–	–201	–193	–	–193
Transactions with shareholders		8	–	–	–201	–193	–778	–972
Balance as of December 31, 2020		**2,562**	**230**	**–2,778**	**145,281**	**145,295**	**2,847**	**148,142**
Income for the period		–	–	–	32,787	32,787	456	33,243
Other comprehensive income								
Remeasurements of defined benefit plans	Note 20	–	–	–	6,091	6,091	–	6,091
Remeasurements of holding of shares at fair value	Note 5, 19	–	48	–	–	48	–	48
Exchange differences on translation of foreign operations		–	–	5,403	–	5,403	372	5,775
Share of other comprehensive income related to joint ventures and associated companies		–	–	–	1,349	1,349	–	1,349
Accumulated translation differences reversed to income		–	–	–324	–	–324	–	–324
Other comprehensive income for the period		–	48	5,079	7,440	12,566	372	12,938
Total comprehensive income for the period		**–**	**48**	**5,079**	**40,227**	**45,354**	**828**	**46,182**
Transactions with shareholders								
Dividends to owners of AB Volvo		–	–	–	–49,820	–49,820	–631	–50,451
Changes in non-controlling interests		–	–	–	–	–	26	26
Other changes		–	–270	–	486	216	4	220
Transactions with shareholders		–	–270	–	–49,334	–49,604	–602	–50,206
Balance as of December 31, 2021		**2,562**	**8**	**2,301**	**136,174**	**141,045**	**3,073**	**144,118**

1 » **Read more in Note 19** Equity and number of shares regarding specification of other reserves.

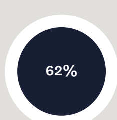
Trucks

Increased sales and improved profitability

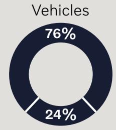
In brief
The truck operation's product offer stretches from heavy-duty trucks for long-haulage and construction work to light-duty trucks for distribution. The offering also includes maintenance and repair services, financing and leasing.

Position on the world market
Volvo Group is one of the world's largest manufacturers of heavy-duty trucks.

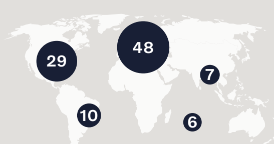
Share of Group net sales



Net sales distribution

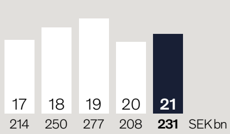


Share of net sales by market, %

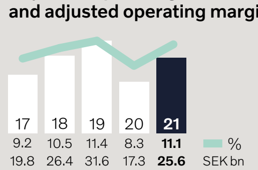


Number of regular employees
50,974 (56,483).

Net sales



Adjusted operating income[1] and adjusted operating margin



Brands

Volvo

Renault Trucks

Mack

Eicher

Dongfeng Trucks

1 For information on adjusted operating income, see Key Ratios on page 204.

Net sales in the truck business increased by 21% to SEK 225 billion, excluding UD Trucks that was divested on April 1, 2021. The increase was as a consequence of strong demand for both trucks and services in most markets around the world. However, shortages of semiconductors, other components and freight capacity made it impossbile to fully meet customer demand. The adjusted operating income amounted to SEK 25,567 M (17,251) corresponding to an adjusted operating margin of 11.1% (8.3).

Good demand in most markets
The gradual improvement seen in many truck markets over the course of 2020 continued in 2021, with good demand across the Volvo Group's key truck regions on the back of high transport volumes, high freight rates and improved customer profitability.

This demand situation was broad across all segments, both in Europe and North America and for both new and used vehicles. Utilization of the installed truck fleet was back on pre-covid-19 levels, which drove high demand for spare parts and workshop services.

Demand in Brazil was strong, driven mainly by the mining and agriculture segments as well as a continued need to renew an aging truck fleet. After some weak years in India with a financial crisis followed by covid-19 lockdowns, the truck market grew in 2021. Governmental stimulus added momentum to the economy. The Chinese truck market slowed down in the second half of 2021 as a consequence of a weakening economy and a strong first half driven by a pre-buy ahead of the CN6 emission legislation, which was implemented on July 1.

Orders and deliveries
In 2021, net order intake to the Group's wholly-owned truck operations increased by 34% to 257,856 (192,421) trucks, excluding UD Trucks which was divested on April 1, 2021. Order intake increased in all regions except in Asia, where it was on the same level as in 2020. Demand was strong as customers in many markets wanted to both replace old trucks and expand their fleets. However, this was not fully reflected in the order intake during the second half of the year, as the Group's truck brands were restrictive in slotting orders into production due to large order books and long delivery times.

During the year, a total of 198,464 trucks were delivered from the Group's wholly-owned operations, an increase of 31% compared with 151,383 trucks in 2020, excluding UD Trucks. However, both the production and the delivery of trucks were hampered by supply chain disturbances relating to semiconductors and other components as well as lack of freight capacity. This caused significant disruptions and stoppages in the Group's production of trucks during the year.

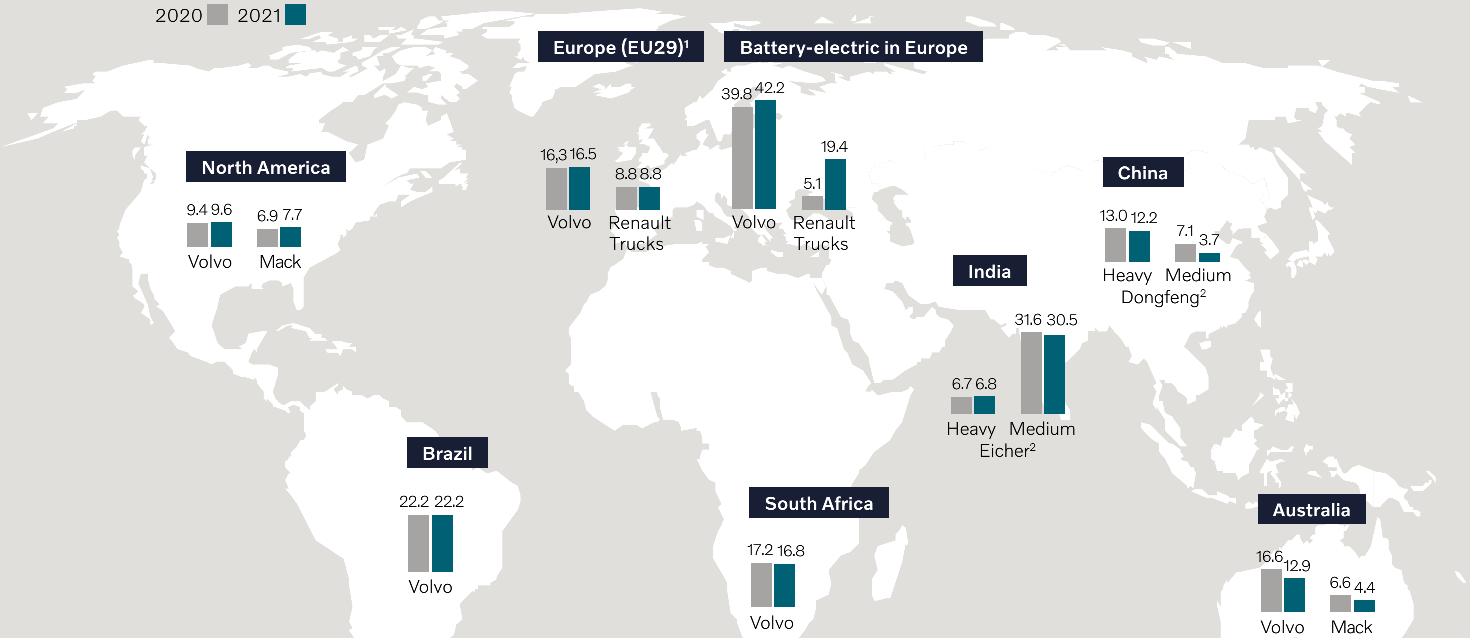
The Volvo Group is rapidly expanding its offer of fully-electric light-, medium- and heavy-duty trucks. Total order intake of fully-electric trucks amounted to 1,062 vehicles and 371 fully-electric trucks were delivered during 2021.

Solid performance
In 2021, net sales in the truck operations increased by 11% to SEK 230,881 M (208,262). Adjusted for currency movements and UD Trucks, which was divested on April 1, 2021, net sales increased by 27%, of which vehicle sales by 32% and service sales by 12%.

Adjusted operating income amounted to SEK 25,567 M (17,251) corresponding to an adjusted operating margin of 11.1% (8.3), excluding adjustments of SEK 1,781 M (–1,486). For information on adjustments, please see Key Ratios on page 204. The increased earnings

STRONG POSITIONS GLOBALLY

Market shares, heavy-duty trucks %,
2020 ■ 2021 ■



1 The EU, Norway and Switzerland.
2 Volvo Group holds 45.6% in VECV, which produces Eicher trucks, and 45% in DFCV, which produces Dongfeng trucks.

Deliveries by market, No. of trucks	2021	2020
Deliveries excluding UD Trucks		
Europe	98,600	79,814
North America	47,613	32,019
South America	28,609	17,440
Asia	14,814	14,585
Africa and Oceania	8,828	7,525
Total deliveries excluding UD Trucks	**198,464**	**151,383**
UD Trucks[1]	3,994	15,458
Total deliveries	**202,458**	**166,841**
Deliveries excluding UD Trucks		
Heavy duty (>16 tons)	167,290	128,471
Medium duty (7–16 tons)	13,136	8,041
Light duty (<7 tons)	18,038	14,871
Total deliveries excluding UD Trucks	**198,464**	**151,383**
UD Trucks[1]	3,994	15,458
Total deliveries	**202,458**	**166,841**
Volvo	122,525	93,846
UD Trucks[1]	3,994	15,458
Renault Trucks	51,460	41,117
Mack	23,631	16,420
Other brands	848	–
Total deliveries	**202,458**	**166,841**
Non-consolidated operations[2]		
VE Commercial Vehicles (Eicher)	51,777	30,192
Dongfeng Commercial Vehicle Company (Dongfeng Trucks)	177,430	221,217

1 UD Trucks was divested on April 1, 2021. For more information, see Note 31.
2 Volvo Group holds 45.6% in VECV, which produces Eicher trucks, and 45% in DFCV, which produces Dongfeng trucks.

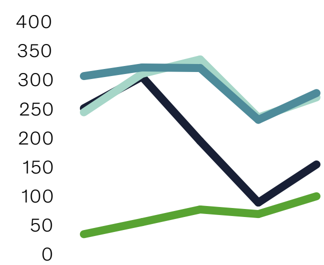
Net sales and operating income SEK M	2021	2020
Net sales excluding UD Trucks		
Europe	107,794	92,113
North America	65,281	51,941
South America	23,527	15,715
Asia	16,609	15,224
Africa and Oceania	12,233	10,567
Total net sales excluding UD Trucks	**225,444**	**185,559**
Of which		
Vehicles	172,163	136,048
Services	53,281	49,512
UD Trucks[2]	5,348	22,703
Total net sales	**230,881**	**208,262**
Adjusted operating income[1]	**25,567**	**17,251**
Adjustments[1]	1,781	–1,486
Operating income	**27,349**	**15,764**
Adjusted operating margin, %	11.1	8.3
Operating margin, %	11.8	7.6

1 For information on adjusted operating income, please see Key Ratios on page 204.
2 UD Trucks was divested on April 1, 2021. For more information, see Note 31.

were mainly an effect of higher vehicle and service volumes, improved earnings in the used truck business and lower selling expenses. Higher material costs, supply chain disturbances in the industrial system, lower contribution from joint ventures and increased R&D expenses had a negative impact. In 2020, adjusted operating income included a positive effect of SEK 322 M from a correction of actuarial calculations of the Group's pension liabilities and SEK 362 M from a favorable tax ruling in Brazil. Before the divestment on April 1, 2021, UD Trucks had a marginally positive impact on adjusted operating income.

Reported operating income amounted to SEK 27,349 M (15,764). Currency movements had a negative impact of SEK 1,178 M compared with 2020.

Market development, heavy-duty trucks
Thousands



	2017	2018	2019	2020	2021	
	307	322	321	231	277	Europe 30
	244	311	336	235	270	North America
	32	53	75	67	98	Brazil
	251	306	194	87	154	India
	1,117	1,148	1,174	1,619	1,395	China

Important events

In March, the Volvo Group signed a partnership agreement with Aurora in the U.S. to accelerate the deployment of autonomous transport solutions. The initial focus is on hub-to-hub highway transport applications in the U.S. In September, a prototype of Volvo Trucks' flagship long-haul VNL model, integrated with the virtual Aurora Driver technology, was revealed.

Also in March, Renault Trucks announced their investment ambitions in electric mobility. From 2023, an all-electric Renault Trucks' offer is planned to be available for each segment: distribution, construction and long-haul.

In April, Volvo Trucks announced the start of sales of heavy-duty all-electric Volvo FH, Volvo FM and Volvo FMX, with volume production planned to begin in late 2022.

Furthermore, Volvo Group and Daimler Truck AG completed the creation of the fuel-cell joint venture, cellcentric. The ambition is to make the new joint venture a leading global manufacturer of fuel cells. Serial production of fuel cell systems in cellcentric is planned to commence in 2025.

On April 1, Volvo Group divested UD Trucks to Isuzu Motors as part of the strategic alliance between the two companies. For more information, see page 24.

Also in April, Renault Trucks launched its upgraded heavy-duty truck range which focuses on improved driver comfort as well as vehicle reliability and efficiency.

In August, Volvo Trucks agreed to acquire JMC Heavy Duty Vehicle Co., Ltd in Taiyuan, China. Read more below.

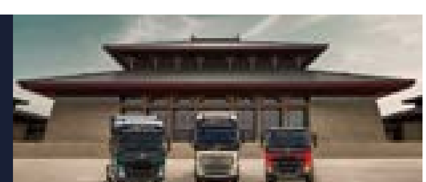
In September, Volvo Trucks received its thus far largest order for electric trucks in North America, when Performance Team, a Maersk Company, in California bought 16 Volvo VNR Electric. Volvo Trucks also received an order for 100 Volvo FM Electric trucks from DFDS, Northern Europe's largest shipping and logistics company.

In December, the Volvo Group, Daimler Truck and Traton Group signed a binding agreement to install and operate a high-performance public charging network for battery electric heavy-duty long-haul trucks and coaches across Europe.Start of the joint venture is pending regulatory approvals.

In Germany, a fully-loaded Volvo FH heavy-duty electric truck was put through an independent energy-efficiency test. The truck exceeded its official range and used 50% less energy than its diesel counterpart.

In January 2022, the electrification journey in North America continued with the launch of an upgraded version of the Volvo VNR heavy-duty electric truck. The new truck features an increased range of up to 440 km (275 miles), faster charging and more configurations than the prior model.

VOLVO TRUCKS ACQUIRES HEAVY-DUTY TRUCK MANUFACTURING OPERATION IN CHINA



In August 2021, Volvo Trucks agreed to acquire JMC Heavy Duty Vehicle Co., Ltd., a subsidiary of Jiangling Motors Co., Ltd., which includes a manufacturing site in Taiyuan, Shanxi province, China, for approximately SEK 1.1 billion. The objective is to start production of the heavy-duty Volvo FH, Volvo FM and Volvo FMX trucks from the end of 2022.

Volvo Trucks has been active in the Chinese market since 1934. During the last couple of years, the strong growth of logistics services, including e-commerce, has led to a surge in the sales of Volvo trucks in the country. In line with the long-term Volvo Group strategy, Volvo Trucks is therefore expanding its business operation in China.

"We are committed to shaping the future of sustainable transport solutions. With our long-standing presence in China, we are growing our sales, and we are expanding our strong network of sales and service points together with our private dealer partners. Over the last couple of years, we have seen a fast development of the logistics markets and an increasing demand for our premium trucks and services. To meet the demand from Chinese transport operators, the time is right for us to establish a regional value chain with our own heavy-duty truck manufacturing in China", says Roger Alm, President of Volvo Trucks.

The operations in Taiyuan will include stamping, welding, manufacturing of cabs, painting and the final assembly of Volvo trucks. After investment, within a few years, the plant will have the capacity to produce 15,000 Volvo trucks per year with the potential to increase the capacity further. The transaction is subject to customary closing conditions, including regulatory approvals.

VOLVO FL ELECTRIC

Volvo Group is in serial production of electric trucks in both Europe and North America.

Fully electric trucks	Net order intake		Deliveries	
	2021	2020	**2021**	2020
Volvo	440	–	121	24
Renault Trucks	613	79	249	43
Heavy- and medium-duty	290	21	64	10
Light-duty	323	58	185	33
Mack	9	–	1	–
Total	**1,062**	**79**	**371**	**67**

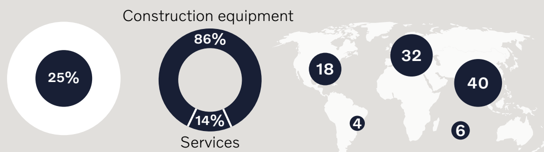
Construction Equipment

Improved profitability

In brief
Volvo CE is one of the leaders in the development of products and services for the construction, extraction, waste processin and materials handling sectors.

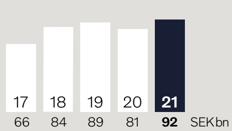
Position on the world market
One of the world’s leading manufacturers of haulers, wheel loaders and excavators. It also produces road construction machines and compact equipment. The offering also includes services such as customer support agreements, machine control systems, attachments, financing and leasing.

Share of Group net sales | **Net sales distribution** | **Share of net sales by market, %**

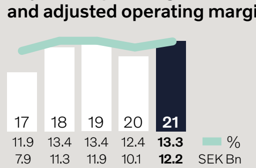


Number of regular employees
13,847 (13,404).

Net sales



Adjusted operating income[1] and adjusted operating margin



Brands

1 For information on adjusted operating income, see Key Ratios on page 204.

Thanks to a strong rebound in most regions, Volvo Construction Equipment's (Volvo CE) net sales rose by 13% 2021 to SEK 92 billion. Deliveries rose by 7% after the slowdown in 2020 with the increase supported by infrastructure investments in many markets. Adjusted operating income amounted to SEK 12,228 M (10,071) corresponding to an adjusted operating margin of 13.3% (12.4).

Global growth offsets decline in China

After years of high demand for construction equipment in China, led by governmental infrastructure investments, demand decreased considerably during the course of the year as reduced government investments led to lower construction activity and decreased utilization of customer fleets.

This was more than offset by a good development in other regions, particularly Europe and North America as demand rebounded from the challenges of 2020.

Increased sales and improved profitability

In 2021, net sales in Construction Equipment increased by 13% to SEK 92,031 M (81,543). Adjusted for currency movements, net sales increased by 17%, of which machine sales increased by 18% and service sales by 16%.

Adjusted operating income amounted to SEK 12,228 M (10,071), corresponding to an adjusted operating margin of 13.3% (12.4). There were no adjustments in 2021 but adjustments of SEK –488 M in 2020. For information on adjustments, please see Key Ratios on page 204. The increased earnings were mainly driven by improved product and market mix as well as increased service sales, which were partly offset by higher material costs, freight costs, supply chain disturbances and increased R&D expenses. In 2020, adjusted operating income included a negative effect of SEK 316 M from a write-down of VAT credits in Brazil and positive effect of SEK 96 M from a correction of actuarial calculations of the Group’s pension liabilities.

Reported operating income amounted to SEK 12,228 M (9,583). Currency movements had a negative impact of SEK 922 M compared with 2020.

Volvo CE's direction to 2030

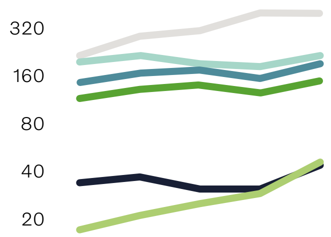
Determined to perform and transform, Volvo CE reconfirmed its seven strategic priorities and introduced more tangible ambitions to place sustainability, electromobility, industry leading profitability, diversity and involvement at the center of the company’s continued focus. It includes a pioneering ambition to have 35% of deliveries consisting of electric machines by 2030.

Sustainable progress remains at the heart of Volvo CE’s vision for today and for the future. As such, Volvo CE revealed game-changing commercial and concept product launches across the fields of electromobility, automation and more sustainable manufacturing.

Important events

With the launch of three new electric compact machines – and the introduction of two existing electric compact machines to the North American market – Volvo CE continued its electrification journey with five models in total, positioning itself as a manufacturer with a growing range of commercially available electric machines.

Market development in Volvo CE's product ranges, construction equipment
Thousands



2017	2018	2019	2020	2021*	
148	167	178	157	195	Europe
117	134	143	127	152	N. America
17	21	25	29	46	S. America
200	219	195	187	220	Asia (excl. China)
220	292	317	411	408	China
34	37	31	31	44	Africa & Oceania

*Rollling 12 months per November

Net sales and operating income SEK M	2021	2020
Europe	29,524	23,191
North America	16,583	13,020
South America	3,951	2,245
Asia	36,427	39,095
Africa and Oceania	5,546	3,902
Total net sales	**92,031**	**81,453**
Of which		
Construction Equipment	79,390	70,146
Services	12,641	11,306
Adjusted operating income[1]	**12,228**	**10,071**
Adjustments[1]	0	–488
Operating income	**12,228**	**9,583**
Adjusted operating margin, %	13.3	12.4
Operating margin, %	13.3	11.8

1 For information on adjusted operating income, please see Key Ratios on page 204.

Volvo CE also took its first steps into the development of hydrogen fuel cell technology with a dedicated Fuel Cell Test Lab in Eskilstuna, Sweden.

During the year, Volvo CE revealed the world's first fossil-free steel prototype machine together with steelmaker SSAB. It also brought to life a concept self-learning autonomous wheel loader, the result of an unconventional partnership with LEGO® Technic, see below.

Volvo CE also continued to roll out products on the commercial side with two new 50-ton excavators for mass excavation, heavy-duty digging and large-scale site preparation.

In India, 16 new machines engineered to meet the new CEV 4 emission norms were launched. In China a new online sales channel proved effective in driving sales for recently launched excavators specifically designed for the Chinese market.

Reflecting Volvo CE's increased focus on services, 2021 saw the introduction of service updates including Efficient Load Out and Volvo Active Control.

In response to market demand for a more holistic sales option, Volvo CE also launched a new Equipment-As-A-Service (EAAS) offering, allowing customers to pay for a package of products and services.

The first shipment of the 20-ton EC230 electric excavator from the factory in South Korea took place, yet another milestone in the company's electric journey.

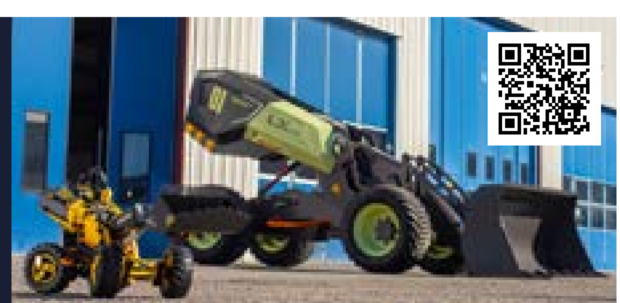
Deliveries by market Number of machines	2021	2020
Europe	20,453	15,762
North America	6,217	5,025
South America	4,263	2,335
Asia	65,635	68,232
Africa and Oceania	3,303	2,406
Total deliveries	**99,871**	**93,760**
Large and medium construction equipment[1]	73,144	65,959
Compact construction equipment[2]	26,727	27,802
Of which		
Fully electric	321	12
Total deliveries	**99,871**	**93,760**
Of which		
Volvo	39,903	38,112
SDLG	59,753	55,504
Of which in China	51,819	50,901

1 Excavators >10 tons, wheel loaders engine power >120 hp, articulated haulers, rigid haulers and road machinery products.

2 Excavators <10 tons, wheel loaders engine power <120 hp, skid steer loaders and backhoe loaders.

SELF-LEARNING CONCEPT WHEEL LOADER

The fully autonomous, battery-electric prototype Volvo LX03 is the first real-world example of a self-learning concept wheel loader with the brains to make decisions, perform tasks, and interact with humans. It is also the first time ever a LEGO® Technic model has been turned into a real machine. While not commercially available, engineers expect that valuable insights from the LX03 will feed into applications for tomorrow.



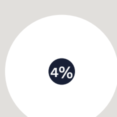
Buses

Earnings improvement despite lower volumes

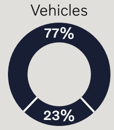
In brief
Volvo Buses is a leader in the development of sustainable people transport solutions. The offering includes city buses, intercity buses, coaches and chassis as well as associated transport systems, financial services and services for increased productivity, uptime and safety. Volvo Buses has sales in 85 countries and a global service network with more than 1,500 dealerships and workshops. Production facilities are found in Europe, North America and South America.

Position on the world market
Volvo Buses is one of the world’s largest manufacturers of premium buses and coaches.

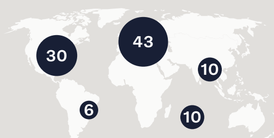
Share of Group net sales



Net sales distribution

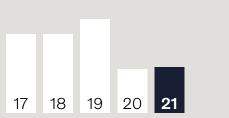


Share of net sales by market, %

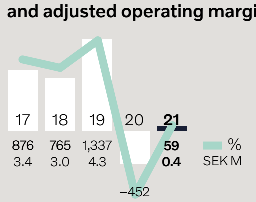


Number of regular employees
5,117 (6,608)

Net sales



Adjusted operating income[1] and adjusted operating margin



As of October 1, 2021, the operations of Nova Bus have been reclassified from the Buses segment into Group Functions and Other. To facilitate comparability, financial numbers for 2020 and 2021 have been restated. For more information, please see Note 31.

Brands

Volvo

Prevost

1 For information on adjusted operating income, see Key Ratios on page 204.

In a year severely affected by the ongoing covid-19 pandemic, Buses' net sales decreased by 7% to SEK 14 billion while the adjusted operating income amounted to SEK 59 M (–452), corresponding to an adjusted operating margin of 0.4% (–3.1).

Covid-19 impacted coach market
The effects of covid-19 continued to have a significant impact on the global bus market in 2021, negatively affecting the coach market and associated service sales. The city bus market showed a better development, with an increased focus on electric vehicles. As vaccination rates rose and restrictions were lifted, there was an increase in the utilization of customers' bus fleets, which led to an improvement in service sales.

During the year, there was high attention on keeping cost levels low, aligning them with market conditions. A strong focus on mitigating the challenging situation in the supply chain limited the negative impact on operations and deliveries.

Demand for electromobility solutions increased, and Volvo Buses continued to focus on offering total system solutions. Orders for electric buses amounted to 408 (461), of which 185 (174) were for hybrids. Major orders included 122 electric buses for Nobina in Sweden, 61 electric buses to Helsinki, Finland and 64 buses of the S-Charge hybrid model to the Belgian operator OTW.

To support coach customers, Volvo Buses offered adapted financing solutions as well as solutions for keeping passengers safe on their journey. Order intake for coaches was low due to the pandemic, but with some recovery noticed primarily in North America. Important orders include 39 buses of the recently introduced Volvo 9700 DD, for regional transport in Stockholm, Sweden.

Deliveries decreased by 17% to 4,552 buses (5,425).

Sales declined but earnings improved
As of October 1, 2021, the operations of Nova Bus were reclassified from the “Buses” segment into “Group Functions and Other“. To facilitate comparability, financial numbers for 2020 and 2021 have been restated. For more information, please see Note 31.

Buses’ net sales decreased by 7% to SEK 13,652 M (14,712). Adjusted for currency movements, net sales decreased by 4%, with vehicle sales decreasing by 8% and service sales increasing by 13%. Adjusted operating income amounted to SEK 59 M (–452), corresponding to an adjusted operating margin of 0.4% (–3.1) excluding adjustments of SEK 20 M (–77). For information on adjustments, please see Key Ratios on page 204. The improved earnings were mainly an effect of increased service sales, improved earnings in the used bus business and cost control, while lower new vehicle volumes and costs related to disturbances in the industrial system had a negative impact. In 2020, adjusted operating income included a positive effect of SEK 52 M from a correction of actuarial calculations of the Group’s pension liabilities.

Reported operating income amounted to SEK 78 M (–529). Currency movements had a positive impact of SEK 65 M compared with 2020.

Changing business landscape
The basis for offering people transport solutions is that it must be sustainable. The demands of society, customers and passengers are intensifying as awareness grows regarding the need to reduce emissions from transport. The trend of increased demand for

electrified public transport solutions strengthened, primarily due to a rise in interest and requests globally.

Requirements regarding connected vehicles and services, digitalization and automated solutions have been stepped up. Connected services and digital solutions are often required to enable operators and customers to operate their traffic as safe and efficient as possible.

New President and strategic direction

Anna Westerberg was appointed President of Volvo Buses as of February 1, 2021 when she joined from the position as head of Volvo Group Connected Solutions. A review of Volvo Buses' strategic direction was initiated and launched during the year. A new vision, "To be the most desired and successful provider of sustainable people transport solutions, driving value creation through innovation, partnerships and people", and new strategic priorities to support the vision were launched. The new strategic direction focuses on profitable growth, develop people and culture, accelerate electromobility, grow services and solution sales and leverage partnerships.

Product and service launches

To harness the growing global demand for electrified transport solutions, the Volvo BZL Electric, a completely new chassis with an electric driveline, was launched. The Volvo BZL Electric is a global platform for clean, silent, and energy-efficient public transport to meet the rising demand on important markets that are ready for the shift to electromobility. It is based on proven technologies already implemented in Europe.

During the year, a useable energy commitment was launched. It is a new business solution for customers who either already have or plan to introduce electric bus fleets. In this solution, Volvo Buses guarantees capacity for the amount of energy required to secure operation throughout the contract period, taking into consideration climate, speed, range, temperature and charging patterns.

The new customer portal, Volvo Connect, was introduced. Volvo Connect provide customers with a digital interface to services and information to run their business effectively.

A new variant of the Volvo 9700 DD double decker was launched for tourist coach customers. The new double decker is 4 meters high, designed for European operations and supplements the previous version designed for the Nordic market. As a result, Volvo Buses has a complete range of premium coach models for the tourist segment, and is well prepared for when the coach market recovers.

Net sales and operating income[1] SEK M	2021	2020
Europe	5,886	5,765
North America	4,089	3,223
South America	882	1,793
Asia	1,371	2,397
Africa and Oceania	1,423	1,535
Total net sales	**13,652**	**14,712**
Of which		
Vehicles	10,459	11,794
Services	3,192	2,919
Adjusted operating income[2]	**59**	**–452**
Adjustments[2]	20	–77
Operating income	**78**	**–529**
Adjusted operating margin, %	0.4	–3.1
Operating margin, %	0.6	–3.6

1 The operations of Nova Bus have been reclassified from the Buses segment into the segment Group Functions and Other as of October 1, 2021. To facilitate comparability, financial numbers for 2020 and 2021 have been restated. For more information, please see Note 31.

2 For information on adjusted operating income, please see Key Ratios on page 204.

Deliveries by market[1] Number of buses	2021	2020
Europe	1,388	1,565
North America	1118	854
South America	726	1,152
Asia	585	1,097
Africa and Oceania	705	757
Total deliveries	**4,522**	**5,425**
Of which		
Fully electric	211	223
Hybrids	232	83

1 The operations of Nova Bus have been reclassified from the Buses segment into the segment Group Functions and Other as of October 1, 2021. To facilitate comparability, financial numbers for 2020 and 2021 have been restated. For more information, please see Note 31.

ELECTRIC BUSES REDUCING EMISSIONS AND NOISE

In December 2020, 145 new Volvo 7900 Electric Articulated buses were put into traffic in central Gothenburg, Sweden. One year later, it is clear that they havve contributed to decreasing both emissions and noise in city traffic.

"It has exceeded expectations! I am very happy that with electrification we are contributing to a quieter and cleaner city", says Hanna Björk, Sustainability Manager at Västtrafik, the region's public transport authority.

Calculations show that CO_2 emissions in city traffic have been reduced by 10% compared to the replaced vehicles, which were already running on renewable fuels. Emissions of nitrogen oxides have almost halved and particles have decreased by almost 20%. In addition, passengers think that the electric buses are comfortable and that they have provided a quieter urban environment.

"Västtrafik have ambitious goals to reduce emissions by 90% by 2035 compared with 2006. By 2030 all 700 buses operating in city and urban traffic will be electric", says Hanna Björk.

Volvo Penta

Increased sales and good profitability

In 2021, Volvo Penta's net sales increased by 21% to SEK 14 billion driven by a strong market recovery and increased utilization of Volvo Penta products. Adjusted operating income amounted to SEK 2,092 M (1,448), corresponding to an adjusted operating margin of 14.5% (12.2).

Strategy focused on customer success

Volvo Penta's strategy is focused on delivering customer success, sustainable power solutions and business growth. The company also strives to have the highest employee engagement in the business to support its vision of becoming the world leader in sustainable power solutions.

To be a world leader, Volvo Penta will leverage its innovativeness and Volvo Group assets, lead the development and create industrialized and high-quality products and services that create true value for its customers to secure a long-term profitable business. Volvo Penta aims to accelerate transformation within uptime services, digital experiences, electric drivelines and automation.

Positive market development

The marine leisure market had record levels in 2021 driven by stay-at-home trends in the wake of the covid-19 pandemic as well as high economic activity. In combination with the strained supply chains, this led to longer lead times. In the marine commercial market postponed projects in sub segments like passenger vessels for tourism were restarted. Demand for vessels serving the offshore wind industry continued to show a positive development.

The market for industrial off-road engines recovered with a positive development in all sub segments. This was driven by high customer demand due to rising trade and a boost in construction and mining. The strong demand in combination with supply constraints in the value chain affected lead times also for this segment. The industrial power generation market had good momentum throughout the year.

Increased volumes had a positive impact on earnings

Volvo Penta's net sales increased by 21% to SEK 14,437 M (11,891). Adjusted for currency movements, net sales increased by 26%, of which engine sales increased by 27% and service sales by 23%.

Adjusted operating income amounted to SEK 2,092 (1,448), corresponding to an adjusted operating margin of 14.5% (12.2). There were no adjustments in 2021 but adjustments of SEK –46 M in 2020. For information on adjustments, please see Key Ratios on page 204. The increased earnings were mainly driven by higher sales of both engines and services as well as positive price realization, which were partly offset by lower industrial productivity due to supply chain disruptions as well as higher operating and R&D expenses. In 2020, adjusted operating income included a positive effect of SEK 48 M from a correction of actuarial calculations of the Group's pension liabilities and a negative effect of SEK 177 M from restructuring cost related to the decision to discontinue the outboard business.

Reported operating income amounted to SEK 2,092 M (1,402). Currency movements had a negative impact of SEK 293 M compared with 2020.

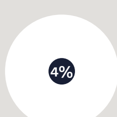
In brief

Volvo Penta aims to be the most forward thinking and customer focused supplier of sustainable power solutions. Volvo Penta provides engines and power solutions for leisure and commercial vessels, as well as for power generation and industrial off-road applications.

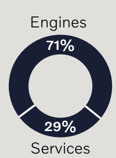
Position on the world market

Volvo Penta is one of the world's largest producer of power systems for leisure boats and a leading provider of power systems for industrial off-road and power generation segments.

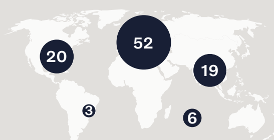
Share of Group net sales



Net sales distribution



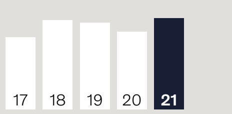
Share of net sales by market, %



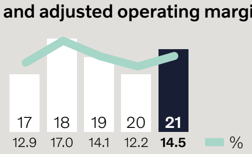
Number of regular employees

1,832 (1,798)

Net sales



Adjusted operating income[1] and adjusted operating margin



Brand

Volvo Penta

Marine engines

Industrial engines

1 For information on adjusted operating income, see Key Ratios on page 204.

Important milestones on the journey towards net zero
Volvo Penta progressed on its journey towards electrified power solutions for both industrial and marine segments. The production of the 600V electric driveline for Rosenbauer's 'Revolutionary Technology' fire truck was started.

Volvo Penta also entered into a collaboration with the American terminal tractor manufacturer TICO with the aim of introducing emission-free, electric terminal tractors. The first prototypes were developed and delivered for testing.

The previously announced collaboration with Danfoss Editron on powering two hybrid crew transfer vessels was successfully finalized. Volvo Penta and Danfoss Editron also announced a partnership to further drive the transformation towards sustainable power solutions within the marine industry.

During 2021, Volvo Penta also announced the acquisition of a majority stake in Norwegian marine battery and electric driveline solutions supplier ZEM as a step to expand and accelerate its range and capabilities in marine electromobility.

Awarded innovations to reduce emissions, increase uptime and enhance user experience
Several product launches were made during 2021 with the aim to reduce emissions and enhance the user experience.

Production was started of the new off-road 16-liter Stage V/ Tier 4F engine which delivers a range of industry-leading benefits. In tests, the engine has showed a reduction of up to 10% in fuel consumption compared to the previous model. It also has improved low to high-end torque as well as high-altitude performance. The new engine is designed for the demanding environments of mining, agriculture, construction and forestry. The 16-liter engine was named Engine of the Year in the category over 175 hp at the Diesel Progress Summit, a conference for the engine and powertrain technology industry. Further, Volvo Penta started the production of both the D13 Stage V genset engine as well as the new addition to the range, the D8.

On the marine leisure side, Volvo Penta presented the Assisted Docking system digitally at the Consumer Electronics Show (CES) in January, where it earned two "Best of CES" award nominations. At the Fort Lauderdale International Boat Show, the system was presented together with the Garmin Surround View which makes docking easier and more car-like than ever before.

Net sales and operating income SEK M	**2021**	2020
Europe	7,464	6,064
North America	2,949	2,562
South America	474	345
Asia	2,698	2,228
Africa and Oceania	851	691
Total net sales	**14,437**	**11,891**
Of which		
Engines	10,282	8,365
Services	4,155	3,526
Adjusted operating income[1]	**2,092**	**1,448**
Adjustments[1]	0	–46
Operating income	**2,092**	**1,402**
Adjusted operating margin, %	14.5	12.2
Operating margin, %	14.5	11.8

1 For information on adjusted operating income, please see Key Ratios on page 204.

Deliveries by segment Number of units	**2021**	2020
Marine engines	17,149	14,842
Industrial engines	24,839	20,444
Total deliveries	**41,988**	**35,286**
Of which		
Fully electric	39	–

From January 2021, the International Maritime Organization's regulations also include marine leisure vessels above 24 meters in load line length that navigate US waters as well as the North and Baltic Seas. Volvo Penta presented a new compact and optimized after-treatment system which complies with the regulation and reduces emissions and increases fuel efficiency for its yacht customers.

DAME DESIGN AWARDS

Volvo Penta is a leader in technology that makes boating easier, safer, and more accessible than ever before. This commitment was recognized at the 2021 Metstrade Show in Amsterdam, The Netherlands, where the Assisted Docking System received both a category award and the overall award.

Financial Services

Good financial performance

In brief

VFS simplifies the purchase and ownership experience of Volvo Group trucks, equipment and more by offering innovative financial services to dealers and customers that help drive their business success. Providing flexible financing, insurance and other services tailored to a customer's needs today and tomorrow, VFS builds long-term relationships, increasing loyalty to the Volvo Group brands.

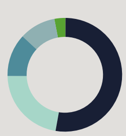
Position on world market

VFS' footprint covers more than 90% of Volvo Group sales, with customer financing available in 49 countries worldwide. VFS manages a credit portfolio of SEK 172 billion with 275,000 vehicles and equipment.

Number of regular employees

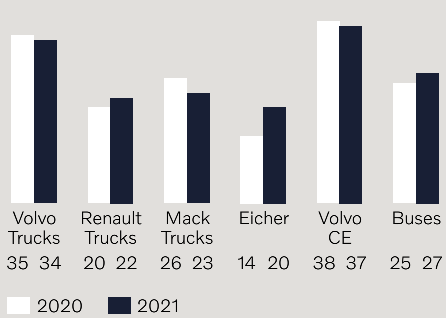
1,546 (1,511)

Distribution of credit portfolio %



In 2020, UD Trucks, which was divested on April 1, 2021, accounted for 3% of the credit portfolio.

Penetration rate[1] %



1 Share of unit sales financed by Volvo Financial Services in relation to total number of units sold by the Volvo Group in markets where financial services are offered.

For 2021, Volvo Financial Services (VFS) delivered good performance with new business volume of SEK 85.1 billion (74.1) and solid penetration of 30% (30). Adjusted operating income increased to SEK 3,279 M (1,606), while return on equity improved to 18.0% (8.3).

Working collaboratively with its Volvo Group brand partners, VFS provides innovative, responsive financial services and solutions, including financing and leasing, insurance, and repair and maintenance contracts, that fit the way businesses work today, while continually adapting to meet the needs of our changing world.

Performing to transform

VFS is committed to delivering a best-in-class customer experience leveraging the power of working as one Volvo Group. Having a strong captive finance company to support sales and customers creates value, especially during downturns like the pandemic.

During the year, VFS continued its recovery from the critical stages of the pandemic. Business activity was strong in the trucking and construction industries around the world, and almost all customers who were granted payment relief are back to making full payments. Exceptions remain in certain industries and markets, such as bus operators, but the overall trends were positive.

With the majority of contract modifications concluded, it is clear that helping customers survive through difficult business conditions created by the pandemic was the right decision. This in turn will have lasting impacts on customers as they choose VFS for financing, insurance and other solutions. A solid commercial foundation, supported by clear alignment with each Volvo Group brand, will allow VFS to continue to drive higher penetration.

Good growth in both portfolio and profits

New financing volumes for 2021 totaled SEK 85.1 billion (74.1), an increase of 20% adjusted for currency. The number of Volvo Group vehicles and machines financed reached 69,556 (61,047) for 2021. The net credit portfolio of SEK 171,784 M (152,335) increased by 10% adjusted for currency and the divestment of UD Trucks. The funding of the credit portfolio is matched in terms of maturity, interest rates and currencies in accordance with Group policy. For further information, see Note 4.

Adjusted operating income amounted to SEK 3,279 M (1,606), excluding adjustments of SEK 9 M (–43). For information on adjustments, please see Key Ratios on page 204. Reported operating income amounted to SEK 3,289 M (1,564). The return on shareholders' equity was 18.0% (8.3), as provisions for the additional expected credit losses resulting from the pandemic effects in 2020 have been made and portfolio performance has been good. The equity ratio at the end of the year was 8.0% (8.0).

For 2021, credit provision expenses amounted to SEK 299 M (1,892) while write-offs of SEK 413 M (821) were recorded. The write-off ratio for 2021 was 0.25% (0.49). On December 31, 2021, credit reserves were 1.82% (2.07) of the credit portfolio.

Accelerating the transformation

To bolster the strong execution, VFS completed an organization-wide realignment, reducing the number of management layers to move closer to customers and focus on services development and transformation activities.

VFS also unveiled a new strategy that provides a blueprint for continued success through 2025. The new strategy closely aligns and integrates with the Volvo Group brands in order to deliver on the Group strategy. Closer cooperation, further digitalization, integrated offerings, new services, new business models and customer solutions are at the core of the transformation, supporting the Group's product and service sales.

Thanks to the reorganization and roll out of the new strategy, VFS is accelerating its transformation into being the key enabler for services growth for customers while enhancing the financial performance for the Group.

VFS worked closely with each of the Volvo Group Business Areas to create a strategy that is fully aligned and integrated to support the delivery of the Volvo Group strategy, while meeting the needs of customers on this transformation journey.

VFS is leveraging its strengths in employee engagement, customer relationships and digital and information technology solutions to focus efforts on six key priorities: finance penetration & loyalty, sustainable growth, expanding parts & service financing, growing the insurance business, accelerating equipment as a service (EaaS) and electromobility solutions, and scaling digital payments programs.

This balanced focus on performance and transformation activities will enable VFS to adjust and adapt business practices to new products and services, ultimately accelerating the transformation.

Key ratios, Financial Services	2021	2020
Number of financed units	69,556	61,047
Total penetration rate[1], %	30	30
New financing volume, SEK billion	85.1	74.1
Credit portfolio net, SEK billion	172	152
Credit provision expenses, SEK M	299	1,892
Adjusted operating income[2]	3,279	1,606
Adjustments[2]	9	–43
Operating income, SEK M	3,289	1,564
Credit reserves, % of credit portfolio	1.82	2.07
Return on shareholders' equity, %	18.0	8.3

1 Share of unit sales financed by Volvo Financial Services in relation to the total number of units sold by the Volvo Group in markets where financial services are offered.
2 For information on adjusted operating income, please see Key Ratios on page 204.

Income statement Financial Services SEK M	2021	2020
Finance and lease income	13,437	13,960
Finance and lease expenses[1]	–7,700	–8,375
Gross income	**5,738**	**5,586**
Selling and administrative expenses	–2,395	–2,236
Credit provision expenses[1]	–266	–1,892
Other operating income and expenses	213	106
Operating income	**3,289**	**1,564**
Income taxes	–807	–404
Income for the period	**2,481**	**1,160**

1 Credit provisions for operating leases of SEK 33 M is included in finance and lease expenses within gross income.

TRANSFORMING TOGETHER: FINANCING ELECTRIC TRUCKS AND MACHINES

Accelerating sales of electromobility solutions is a core component of the new VFS strategy. To support this goal, VFS established a dedicated commercial team to develop financial services and solutions in support of the Volvo Group's current and future electric products.

By integrating unique financing and leasing programs with maintenance and service options across Volvo Group brands and products, VFS presents customers with a single-payment solution that helps reduce barriers to entry into the world of electromobility.

Penetration for electric solutions is growing, with VFS financing 38% of the Volvo Group's electric truck sales and 32% of electric construction equipment sales.

The share

Share price increase in 2021

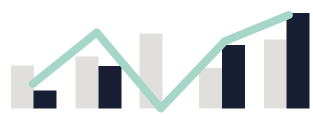
Most of the world's leading stock markets had a positive development during 2021. The price of the Volvo B share increased by 8% after having increased by 24% in 2020.

The Volvo share is listed on the stock exchange Nasdaq Stockholm, Sweden. One A share carries one vote at General Meetings and one B share carries one tenth of a vote. Dividends are the same for both classes of shares. The Volvo share is included in many indices compiled by Dow Jones, FTSE, S&P and Nasdaq Nordic.

Why invest in the Volvo share?

- Competitive products and services
- Ambition to lead the transformation of our industry to more sustainable solutions
- Strong market positions globally
- Good return on capital employed
- Strong financial position
- Good cash returns to shareholders

Earnings and dividend per share, dividend yield



	17	18	19	20	21
Diluted earnings per share, SEK	10.07	12.24	17.64	9.50	16.12
Dividend per share, SEK	4.25	10.00[1]	0	15.00[1]	22.50[2]
Dividend yield, %	2.8	8.7	0	7.7	10.7

1 Ordinary dividend of SEK 6.00 and extra dividend of SEK 9.00.

2 SEK 9.50 relating to the proceeds from the sale of UD Trucks in 2021 and an ordinary dividend of SEK 6.50 and an extra dividend of SEK 6.50 proposed by the Board of Directors to the AGM 2022.

The Volvo share development

In general, the leading stock exchanges rose during 2021. On Nasdaq Stockholm the broad OMXSPI index rose by 35% after having risen by 11% in 2020. On Nasdaq Stockholm the share price for the Volvo A share rose by 9%, and at year-end the price was SEK 212.60 (195.40). The lowest closing price was SEK 185.30 on September 21 and the highest was SEK 240.00 on March 18. The share price for the Volvo B share rose by 8% and at year-end the price was SEK 209.65 (193.80). The lowest closing price was SEK 183.12 on September 21 and the highest was SEK 238.80 on March 18. In 2021, a total of 1.2 billion (1.5) Volvo shares at a value of SEK 242 billion (224) were traded on Nasdaq Stockholm, with a daily average of 4.5 million shares (5.9). In terms of value, the Volvo shares were the second most traded on Nasdaq Stockholm in 2021. At year-end, Volvo's market capitalization was SEK 428 billion (395).

Share conversion option

In accordance with a resolution at the Annual General Meeting 2011, the Articles of Association includes a conversion clause, stipulating that series A shares may be converted into series B shares, on the request of the shareholder. During 2021, a total of 3,125,400 A shares were converted to B shares, representing 0.7% of the A shares that were outstanding at the end of 2020. Further information on the conversion procedure is available on the Volvo Group's web site: www.volvogroup.com

Dividend

The Board proposes an ordinary dividend of SEK 6.50 per share for the financial year 2021 and an extra dividend of SEK 6.50 per share, which would mean that a total of SEK 26,435 M would be transferred to AB Volvo's shareholders. For the preceding year a dividend of SEK 6.00 per share and an extra dividend of SEK 9.00 per share were distributed, in total SEK 30,502 M. Furthermore, the Board proposed that the proceeds from the sale of UD Trucks should be distributed to the shareholders, and an extraordinary AGM in June 2021 resolved that SEK 9.50 per share, SEK 19,318 M in total, were to be distributed to the shareholders.

Policy for remuneration to senior executives

See Note 27 on page 127 for the current policy for remuneration to senior executives, and page 196 for the Board of Directors' proposal to the AGM for an updated remuneration policy.

Communication with shareholders

Dialogue with the shareholders is important for Volvo. In addition to the Annual General Meeting and a number of larger activities aimed at professional investors, private shareholders and stock market analysts, the relationship between Volvo and the stock market is maintained through such events as press and telephone conferences in conjunction with the publication of interim reports, meetings with retail shareholders' associations, investor meetings and visits, as well as roadshows in Europe and North America. On volvogroup.com it is possible to access financial reports and search for information concerning the share and statistics for truck deliveries. It is also possible to access information concerning the Group's governance, including information about the Annual General Meeting, the Board of Directors, Group Management and other areas that are regulated in the "Swedish Code of Corporate Governance." The website also offers the possibility to subscribe to information from the company.

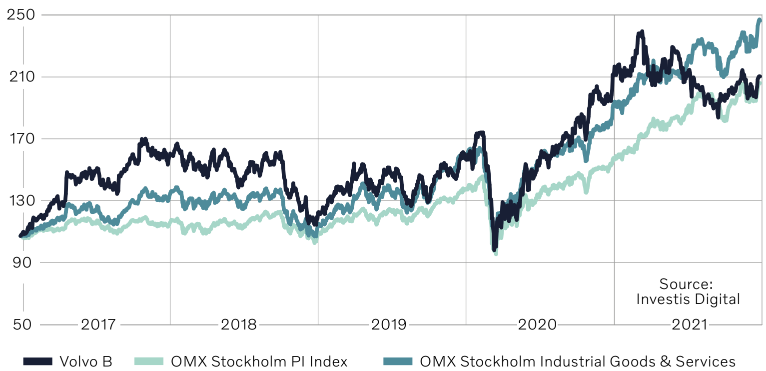
Volvo has decided to present its Corporate Governance Report as a separate document to the Annual Report in accordance with Chapter 6 § 8 of the Swedish Annual Accounts Act and it is available on page 180–195 of this Annual and Sustainability Report.

Contractual conditions related to takeover bids

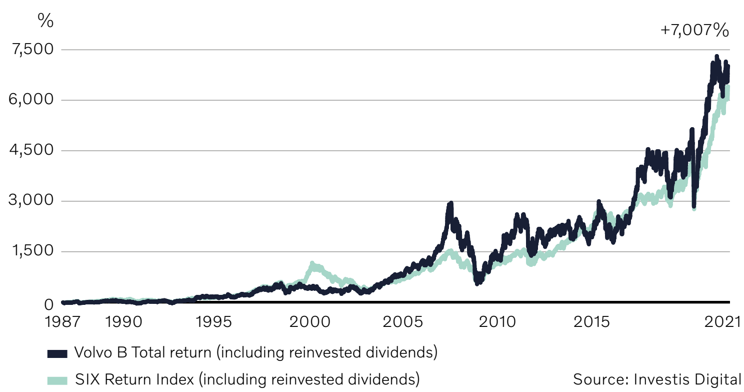
Provisions stipulating that an agreement can be changed or terminated if the control of the company is changed, so called change of control clauses, are included in some of the agreements whereby Renault Trucks has been given the right to sell Renault s.a.s. and Nissan Motor Co. Ltd's light-duty trucks as well as in some of the Group's purchasing agreements.

Some of Volvo Group's long-term loan agreements contain conditions stipulating the right for a creditor to request repayment in advance under certain conditions following a change of the control of the company. These clauses are not unusual in loan agreements. In AB Volvo's opinion it has been necessary to accept those conditions in order to receive financing on otherwise acceptable terms. ■

Price trend, Volvo B share, 2017–2021 SEK



Accumulated total return of the Volvo B share



The graph shows that SEK 1,000 invested in the Volvo B share on January 2, 1987 had grown to SEK 71,070 at the end of 2021, under the condition that all dividends have been reinvested in Volvo B shares.

The shareholders with the largest voting rights in AB Volvo, December 31, 2021

	Voting rights, %	Capital, %
Industrivärden	27.7	8.6
Geely Holding	16.0	8.2
AMF Insurance & Funds	5.4	3.4
Alecta	4.2	3.3
AFA Insurance	2.3	0.7
BlackRock	2.1	3.4
AP4 Fund	1.7	0.8
Norges Bank Investment Management	1.6	2.3
Vanguard	1.5	2.5
Swedbank Robur Funds	1.4	3.3

Share capital, December 31, 2021

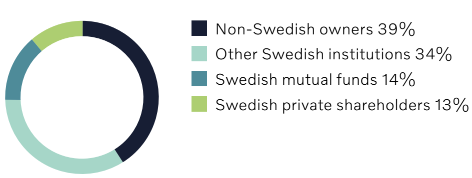
Number of shares	2,033,452,084
of which, Series A shares[1]	444,987,946
of which, Series B shares[2]	1,588,464,138
Share capital, SEK M	2,562
Quota value, SEK	1.26
Number of shareholders	362,144
Private persons	343,978
Legal entities	18.166

For further details on the Volvo share, see Note 19.

1 Series A shares carry one vote each.

2 Series B shares carry one tenth of a vote each.

Ownership by categories[1]



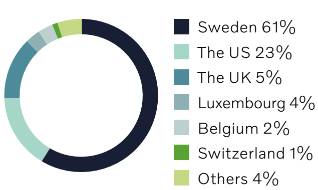
More details on the Volvo shares are provided in Note 19 to the financial statements and in the Eleven-year summary.

Employees' ownership of shares in Volvo through pension foundations is insignificant.

Source: Euroclear

1 Share of capital

Ownership by country[1]



Source: Euroclear

1 Share of capital

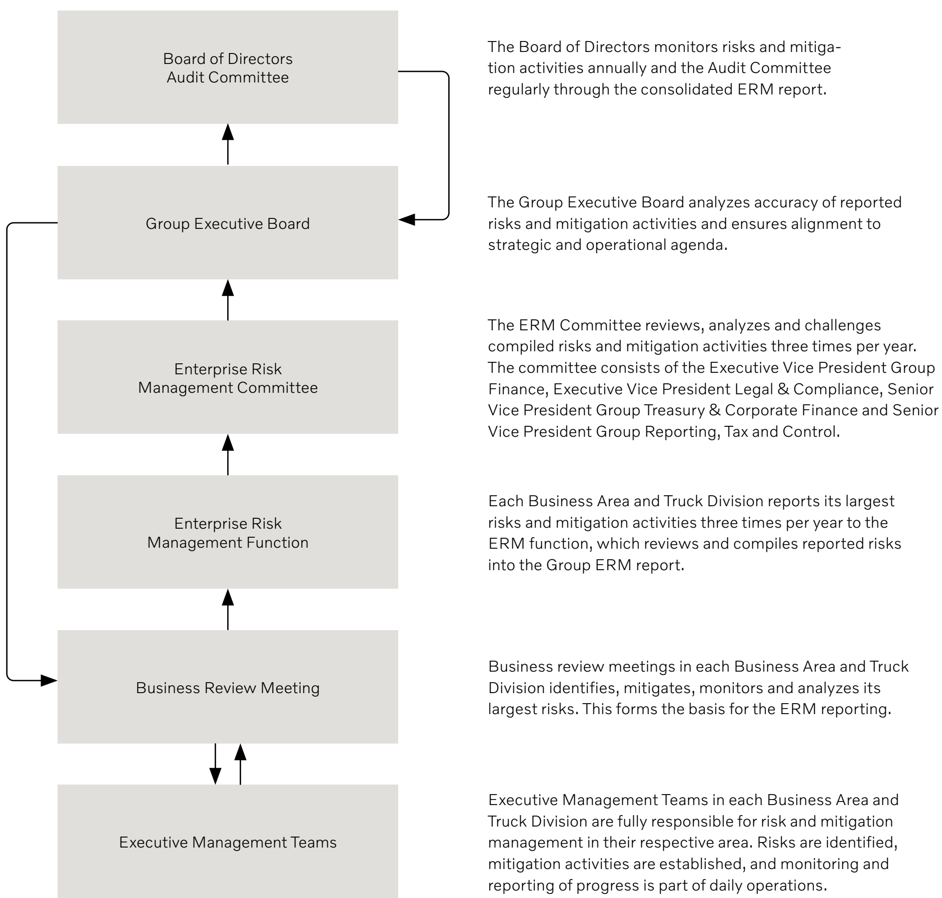
Risks and uncertainties

Managed risk-taking

Each of the Volvo Group's Business Areas and Truck Divisions monitors and manages risks in its operations. In addition, the Volvo Group utilizes a centralized Enterprise Risk Management (ERM) reporting process, which is a systematic and structured framework for reporting and reviewing risk assessments and mitigations as well as for following up on identified risks.

Enterprise Risk Management Governance

For the governance model of the Volvo Group, please see page 181.



Risk categories

The ERM process classifies Volvo Group risks into five categories:

- Macro and market related risks
- Operational risks
- Climate and people risks
- Compliance risks
- Financial risks.

Principal risks

The following pages present principal risks and uncertainties the Volvo Group are facing within each risk category. These risks can, separately or in combination, have a material adverse effect on the Group's business, strategy, financial performance, cash flow, shareholder value or reputation.

MACRO AND MARKET RELATED RISKS

Cyclical commercial vehicles industry

The Volvo Group's customers operate all over the world, some within a single country and others across borders. A multitude of global and regional economic, regulatory, digital, technological, climate and energy resource efficiency factors contribute to a considerable volatility in demand and risks in different markets.

Like many capital goods industries, the commercial vehicle industry generally has been cyclical, impacted by e.g. developments of GDP and corresponding changes in transport demand, the need to replace aging vehicles and machines and changing laws and regulations. Although there is a continued shift in focus in the commercial vehicle industry from product to service, the cyclicality in the industry remains. Fluctuating demand for the Group's products and services makes the financial result of the operations dependent on the Group's ability to react quickly to market changes.

Inability to adapt to changes in demand could lead to capacity constraints or underutilization of resources, which could have a negative effect on earnings and financial position.

Competition

The Volvo Group operates in markets which are highly competitive, and thus faces intense competition from global and local industry peers. The Volvo Group also encounters competition from new market entrants, seeking to offer e.g. sustainable transportation, increased logistics efficiency, new technologies and/or new business models. In this market environment, there can be no assurance that current or new competitors cannot be more successful than the Group in bringing new products and service solutions to the market, in implementing new technologies or collaboration models or in offering more attractively priced products, services or solutions.

Regulations

The Volvo Group is subject to environmental, occupational health and safety laws and regulations that affect the operations, facilities, products and services in each of the jurisdictions in which the Volvo Group operates. In particular, regulations regarding exhaust emissions, noise, safety and pollutants from production plants and products are extensive and evolving. These laws and regulations result in an often complex, uncertain and changing legal and regulatory environment for Volvo Group's global businesses and operations.

The Volvo Group works actively to ensure compliance with applicable laws and regulations and endeavors to collaborate and be transparent with all governing bodies in certification and compliance processes, during development and throughout the lifecycle of Group products as well as in investments in production plants, but can provide no assurance that it will at all times be fully compliant. If the Volvo Group has failed or fails to comply with these laws, regulations and requirements it could be subject to costs of recalls and other remediation, significant penalties and other sanctions and liability as well as reputational damage. A failure to meet applicable laws and regulations in this area could also imply a failure to assure an updated and compliant product and service range in time to meet regulations which could have a material adverse effect on the Volvo Group's business, operating results, financial conditions and brand.

In addition, safety regulations are also becoming increasingly important with autonomous vehicles in commercial applications. If regulations are not set, or not clear enough, there is a risk of not being able to scale up the autonomous offer, or not complying with regulations. A safety incident could have a detrimental effect on the Group's brand image and possible earnings. An incident in the industry could also lead to quickly adjusted or additional regulations.

Political instability and security

The Volvo Group is active in more than 190 countries across the world. Political instability, armed conflicts or civil unrest can impact the Group's ability to trade in affected areas. Acts of terrorism, sabotage, and other criminal or malicious activities directed towards the Volvo Group's people, information systems, products, production systems, or facilities, or those of its business partners, suppliers or customers, could cause harm to people and severely damage the Group's operations and brand reputation.

The changing geopolitical situation and potential trade sanctions may also give rise to further tariffs and other trade restrictions and barriers being imposed, which can negatively impact the Group's production system and ability to conduct its operations.

OPERATIONAL RISKS

Transformation and technology risk

The ongoing and accelerating transformation of the transport and vehicle industry towards climate-neutral and sustainable transportation and infrastructure solutions entails various transitional risks for the Volvo Group. The Volvo Group's future business success depends on its ability to develop new, attractive, competitive and energy-efficient products as well as to successfully position itself in this industry shift. Failure to develop products in line with demand and regulations, especially in view of digitalization, electromobility and autonomous solutions could adversely impact the Group's operations.

The driving factors of the transformation come from different sources that may not always correlate. Extensive and continuously evolving regulations and government actions set the legal framework. Social attitudes and customer preferences relating to climate change and the transition to a lower carbon economy are additional factors that the Volvo Group is impacted by. In addition, investor preferences and sentiment are more and more influenced by environmental, social and corporate governance (ESG) considerations. Changes in these factors, including the pace of change to any of these factors, as well as the pace of the transition itself, could have an adverse impact on the result of strategic business decisions and, in the end, on the overall business of the Volvo Group. Changes in investor preferences and sentiment could significantly affect the Volvo Group's business plans and financial performance.

Compliance with CO_2, fuel efficiency and emission control requirements might lead to a need to accelerate introduction of significant volumes of electric vehicles as well as implementing additional new technologies for conventional diesel engines. There can be no assurance that such new technologies and solutions can be produced and sold profitably or that customers will purchase those in the quantities needed to meet the regulatory requirements. Even if challenges in these areas are resolved and handled, they could have a negative impact on the Group's reputation, usage of resources, cost of production or cost of product recalls, and may result in adverse effects on earnings and financial position.

Many of the new products and technologies are still in early stages of development which – together with the lack of broadly accepted standards – poses significant risks for the Volvo Group as it is required to choose relevant technologies, quality of products and time their introduction wisely, while respecting the wide spread in readiness level among markets and segments across the globe. If the Volvo Group miscalculates, delays recognition of, or fails to adapt its products and services to trends, legal and customer requirements in individual markets or other changes in demand, it could have a material adverse impact on the Group's results of operations, financial condition and cash flows.

New business models

The transport and vehicle industry is facing new technologies, business models, competitors and global trends such as digitalization which combined create a highly disruptive environment. These factors are shifting the Volvo Group from a heavy commercial vehicle manufacturer to more of a provider of transport and logistics solutions. The Volvo Group has, during the last couple of years, continuously invested in new business models and new technologies to be able to offer safer, more sustainable and more productive solutions to its customers. Going forward, a new transport landscape will continue to emerge and will impact large parts of the Volvo Group's operations and way of working, entailing risks related to the ability to respond to specific customer needs with tailored services and the availability of technological innovations that respond to the major trends of the industry (i.e. digitalization, electromobility and autonomous solutions). If the Volvo Group miscalculates, delays recognition of, or fails to adapt its services to trends, legal and customer requirements or other changes in demand, it could have a material adverse impact on the Group's results of operations, financial condition and cash flows.

An additional level of risk relates to the need to evolve from a vehicle/product focus towards an ecosystem-driven approach, where vehicles and infrastructures are to be developed and implemented simultaneously. The transition to electrification also depends upon external factors such as the existence of a functioning charging infrastructure and access to renewable energy sources to power battery electric and fuel cell electric products. If the Volvo Group positions itself unsuccessfully in this technology shift, earnings capacity and financial standing could be severely affected.

Industrial operations

Our ability to deliver in accordance with market demand and product quality expectations depends significantly on obtaining a timely and adequate supply of materials, components and other vital services, as well as on our ability to properly utilize the capacity in the Group's different production and service facilities. In 2021, our supply chain and industrial systems were strained in many areas due to e.g. shortages of semiconductors and other materials and components, shortages of transport services and developments of the covid-19 pandemic and response measures taken. Further disturbances in the supply chain and industrial system can arise from a variety of factors, including continued or additional shortages of material, labor and components, strikes, pandemics or extreme weather, which each or in combination could result in stoppages and other interferences in production and deliveries, which may impair our ability to meet our customers' orders, and thus negatively affect the Volvo Group's business, reputation and results from operations.

Reliance on suppliers and scarce materials

The ongoing technology shift into electrification and other new customer offerings, combined with required investments in traditional technologies, may move the industry and the Volvo Group towards reliance on new suppliers, new materials and on materials being used in new applications and in different quantities compared to traditional technologies. Some of these materials may pose a risk of supply due to scarcity or geopolitical, conflict or human rights concerns. At the same time the suppliers providing more traditional products might lose business and risk closing, which could leave the Volvo Group with a shortage of suppliers in a particular area and thereby a need to make investments.

Cost inflation and price increases

Inflationary trends could occur for commodities and other materials which the Group purchase on the world market as well as on salaries and services. The ability to pass on such higher costs into price increases for products and services may be limited by competitive pressure or already committed prices to customers in order books and other agreements. Rising prices on commodities and other costs may therefore have a negative impact on the profit margin and negatively affect Group earnings.

Cybersecurity and IT infrastructure

The operation of many of the Volvo Group's business processes depends on reliable information technology (IT) systems and infrastructure. This applies to e.g. production, logistics and sales, as well as products using connectivity and automation features. Disruptions, cyberattacks and other security threats against our products or business could harm the Volvo Group's operations, reputation and have a significant adverse effect on earnings and financial position. Timely detection of cybersecurity and other security incidents is becoming increasingly complex, and the Volvo Group seeks to investigate and manage incidents with a view to prevent their recurrence.

The Volvo Group relies on third parties where significant parts of maintenance and operations of the IT systems has been outsourced. The Volvo Group has taken precautions in the selection and ongoing management of these third parties, but events or incidents caused by vulnerabilities in their operations or products could cause disruption of operations, loss or leakage of data, reputational risk and financial losses.

Mergers and acquisitions, partnerships and divestments
In addition to the Volvo Group's in-house work and focus on organic growth, the Volvo Group engages in acquisitions and divestments, as well as in JVs, partnerships and other forms of cooperation. These are essential parts in executing on our strategy. However, there can be no assurance that these transactions and cooperations become or remain successful, nor that they will deliver expected benefits. Acquisitions could e.g. result in incurrence of contingent liabilities and an increase in amortization expenses and impairments related to goodwill and other intangible assets, as well as unanticipated difficulties in integration of an acquired entity. Divestments could present risks in e.g. the operational separation or through contractual undertakings or legal liabilities with respect to the business divested.

JVs and partnerships may fail to perform as expected for various reasons, including our or our partner's incorrect assessment of needs and potential synergies, a failure to invest sufficient resources in the cooperation or a change of strategic direction that the cooperation fails to accommodate. Further, JVs and partnerships may restrict e.g. our ability to run independent operations within the scope of cooperation, and limitations in our or our partner's operational and financial resources may restrain the capabilities of the cooperation.

Residual value commitments
The Volvo Group sometimes offers customers to acquire Group products with a residual value commitment, meaning that the customer can return the asset at an agreed date and to an agreed price. The committed prices are established within each Business Area, which assumes the responsibility for maintaining a residual value matrix aiming to reflect fair future market values. Volvo Group will have a residual value risk if vehicles subject to residual value commitments and/or rebought vehicles can be sold only for a price below the vehicle's committed residual value. A residual value commitment can also become a future used vehicle inventory risk if vehicles are not sold, affecting the cash flow negatively. For further information on residual value commitments, see Note 13 Tangible assets.

CLIMATE AND PEOPLE RISKS

Pandemics
The outbreak of pandemics throughout the world, such as the ongoing covid-19 pandemic, may lead to major disruptions in the economies of many countries, including the Group's key markets, and may impact global economic activity as well as Group performance negatively going forward. The duration and expected development of the covid-19 pandemic is unknown, and no predictions can be made in relation to future impacts. Any prolongation or worsening of the virus outbreak would, however, be expected to negatively affect the Group's financial performance, and could have a material adverse effect on the Group's business and financial development.

Climate risk
The scientific consensus indicates that emissions of greenhouse gases continue to alter the composition of the earth's atmosphere in ways that are affecting, and are expected to continue to affect, the global climate. The potential impacts of climate change on the Volvo Group's customers, product offerings, operations, facilities and suppliers are accelerating and uncertain, as they will be particular to local and customer-specific circumstances. As stated on page 154 in the Sustainability Notes, the Volvo Group has identified a number of climate-related transitional risks, which are incorporated into the Volvo Group Enterprise Risk Management process. These risks, including their potential financial impact, are described in more detail in under the risk categories "Regulations" , "Transformation and technology risk" , "New business models" and "Reliance on suppliers and scarce materials".

People and culture
The Volvo Group strongly believes that there is a high correlation between the Group's future success and its capability to recruit, retain and develop qualified personnel. The Volvo Group counts on leveraging the full diversity of its workforce to fulfil customer demands. Managing the needed competence shift in the transformation in specialized areas is key to succeed. To meet expectations from employees and other stakeholders, a strong focus is required on areas such as leadership, empowerment, employee engagement, human rights, Group culture and values, sharing of knowledge, and building diverse teams. Failure to do the right things in these areas can cause a negative impact on the Volvo Group's reputation, as well as on the image as an employer and on the ability to recruit, retain and develop the knowledge and skills of the employees necessary to ensure customer success and the transition to new technologies.

Human rights

The Volvo Group is committed to respecting internationally recognized human rights and avoiding causing or contributing to adverse human rights impacts in line with applicable legislation throughout the world, relevant global frameworks such as the UN Guiding Principles on Business and Human Rights (UNGP) and the UN Global Compact as well as its own standards.

Adverse human rights impacts may potentially materialize not only within the Group's own organization, but also through the Group's business relationships and in the value chain. The Group seeks to address adverse human rights impacts with which it may be involved. The consequences of human rights risks for the Volvo Group could range from liability to reputational and brand damage, depending also on the severity of the nature of harm done. This depends on whether the Group is seen in breach of applicable laws or is seen as causing, contributing to or being directly linked to the harm done, as defined in the United Nations Guiding Principles on Business and Human Rights.

The Group is aware that conducting business in certain parts of the world constitutes higher risks for potential human rights violations and therefore has identified certain countries where the Volvo Group has a substantial number of employees and/or close business partners that are considered to have elevated risk in this respect. The Group is also aware that certain purchasing and customer segments constitutes higher risks for negative human rights impacts.

COMPLIANCE RISKS

Non-compliance with data protection laws

Focus on Data Protection is increasing from authorities around the globe resulting in Data Protection laws entering into force. The EU General Data Protection Regulation ("GDPR") introduced increased monetary penalties for breaches of the regulation and sets a standard applied in several other data protection laws throughout the jurisdictions in which Volvo Group operates. Non-compliance with data protection laws could expose the Group to fines and penalties and severe infringements may potentially cause authorities to issue instructions to stop processing of personal data, which could disrupt operations. The Group could also face litigations with persons allegedly affected by data protection violations. Data protection law infringements may hence involve severe negative impact for the business operations, including reputational damage and adverse effect on the Group's earnings and financial standing.

Intangible assets

The Volvo Group owns or otherwise has rights to patents, trademarks, designs and copyrights that relate to the products and services that the Group manufactures and markets. These rights have been developed or acquired over a number of years and are valuable to the operations of the Volvo Group. Further, in order to safeguard investments in R&D, the Volvo Group has an intellectual property plan defining the creation and use of its intellectual property rights.

The share of trade in counterfeit goods as a proportion of global trade has grown significantly. Products infringing on Volvo Group's intellectual property rights are often of substandard quality and poses risks to the Group regarding safety of customers, vehicle performance, quality and emission levels that will affect public health and the climate, as well as the brand reputation.

AB Volvo and Volvo Car Corporation jointly own the Volvo brand and trademarks through Volvo Trademark Holding AB. AB Volvo has the exclusive right to use the Volvo name and trademark for its products and services and according to a license agreement. Similarly, Volvo Car Corporation has the exclusive right to use the Volvo name and trademark for its products and services. The Volvo Group's rights to use the Renault brand and trademarks are related to the truck operations only and are regulated by a license from Renault s.a.s., which owns the Renault brand and trademarks. In addition, the Volvo Group owns several other trademarks relating to its business.

Use in possible conflict with third-party intellectual property rights, or third-parties' unauthorized use of the Volvo Group's proprietary rights, may have significant business impact on the Group.

Legal proceedings

In the normal course of business, the Volvo Group is involved in legal proceedings. These proceedings may relate to a number of topics, including vehicle safety and other product related claims, warranty claims, commercial disputes, intellectual property claims, allegations concerning health, environmental or safety issues, antitrust, tax or labor disputes and regulatory inquiries and investigations. Further, AB Volvo and other companies in the Group, as well as their officers, may be subject to claims alleging failures to comply with stock market regulations, securities law and other applicable rules and regulations. Legal proceedings can be expensive, lengthy, take up resources that could be used for other purposes and are often difficult to predict. There can be no assurance that provisions, where recognized, for a particular legal proceeding will cover the costs of an adverse outcome, nor that unprovisioned proceedings will not give rise to any significant additional expenditure. Information about certain legal proceedings involving entities within the Volvo Group, see Note 21 Other Provisions and in Note 24 Contingent Liabilities.

Corruption and non-compliance with competition law

Corruption risks are primarily linked to the Volvo Group's sales and supply chain activities but may also relate to administrative procedures, such as licensing and permitting. This includes activities of Volvo Group employees but may further extend to the activities of the Volvo Group's business partners and intermediaries. The overall risk level therefore is affected by sales volumes, the way of distribution and the fact that Volvo Group pursues business operations also in markets that are considered high risk from a corruption perspective.

Potential risks for non-compliance with competition law (e.g. price fixing, market sharing, unlawful information exchange, abuse of market power) are primarily linked to behavior of employees when interacting with competitors and other external stakeholders in various situations.

Corruption as well as competition law infringements may involve severe negative impacts for the business operations, including reputational damage, legal proceedings, fines and imprisonment of employees. The Group could also be affected by claims raised by persons or entities affected by allegedly non-compliant practices.

FINANCIAL RISKS

Insurance

The Volvo Group generally takes out insurance coverage where it is legally or contractually obligated to do so and otherwise against such risks, in such amounts and on terms that it considers commercially motivated from time to time. Where insurance coverage cannot be procured on such terms, the Group can be exposed to material uninsured losses, which could have a materially adverse effect on Group operations and financial standing. For example, the Group is not fully insured against effects from flooding, earthquakes and other natural disasters.

Credit risk

The Volvo Group is exposed to credit risk mainly through its sales to customers in the Industrial Operations, and its long-term credit receivables in its Financial Services operations. Total exposure as of December 31, 2021 can be found in Note 15 Customer-financing receivables and Note 16 Receivables. The Group is also exposed to financial credit risk due to short-term deposits with the Group's core banks and unrealized results from derivatives used for hedging purposes. For further information, please see Note 4 Goals and policies in financial risk management and Note 15 Customer-financing receivables. If several larger customers, dealers, or a core bank, fails to meet its undertakings the Group could suffer significant losses.

Pension commitments

The Volvo Group has substantial pension commitments, some of which are owed under defined benefit plans. Changes in assumptions of interest and inflation rates, mortality, retirement age and pensionable remunerations could result in significant changes to the present value of already accrued benefit obligations as well as the cost of new benefit accruals, affecting funding level of such plans. The investment performance of pension assets may also substantially affect funding levels. Defined benefit plan assets are managed independently from the Group, with a significant portion of plan assets held in shares and other similar instruments that are exposed to market risks. Please see Note 20 Provisions for post-employment benefits for further information.

If there is a shortfall in benefit plans, the Volvo Group could be required to make substantial unexpected cash contributions, which would adversely affect cash flow and the Group's financial position.

Interest rate risk

Volvo Group's net financial debt structure is exposed to fluctuations in market interest rates. Movements in interest-rate levels may impact the Group's net income and cash flow or the value of financial assets and liabilities.

Currency risk

The Volvo Group's global presence means that business is conducted in several different currency regions. More than 95% of the Group's net sales are generated in countries other than Sweden. The Volvo Group's cash flow, profitability, and balance sheet are impacted by fluctuations in foreign exchange rates.

Liquidity risk

It is of critical importance for the Volvo Group to assure a sufficient payment capability over time, to continuously manage demands and expectations from external stakeholders.

Sudden changes in the business cycle, unforeseen events within the financial markets, changes in the Volvo Group's access to financial markets, and changes in customers' appetite for financing from the Group, may stress the Group's liquidity preparedness.

Failure to properly manage the Group's liquidity risks, may cause material adverse impact on earnings capability and financial standing.

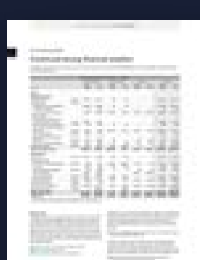
Impairment

The Volvo Group has substantial values in goodwill and other intangible assets on its balance sheet. Goodwill and other intangible assets not yet in use are not depreciated, hence there is a risk for impairment if the calculated recoverable amount is lower than the carrying amount. The calculated recoverable amounts differ between the operating segments and they are, to a varying degree, sensitive to changes in the business environment. Instability in the business performance and volatility in interest and currency rates may indicate a need for impairment. Please see Note 12 Intangible assets.

Notes to the financial statements

Financial Statements

Financial performance
» Page 45



Financial position
» Page 48

Cash flow statement
» Page 52

Changes in consolidated equity
» Page 55

1 Accounting policies

The consolidated financial statements for AB Volvo and its subsidiaries are prepared in accordance with International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board (IASB), as adopted by the European Union (EU). This Annual Report is prepared in accordance with IAS 1 Presentation of Financial Statements and the Swedish Annual Accounts Act. In addition, RFR 1 Supplementary Rules for Groups has been applied, which is issued by the Swedish Financial Reporting Board. Amounts in SEK M unless otherwise specified. The amounts within parentheses refer to amounts for year 2020.

Accounting policies	Note	IFRS standard
Acquisitions and divestments	3, Acquisitions and divestments of operations	IFRS 3, IFRS 10
Assets and liabilities held for sale and discontinued operations	3, Acquisitions and divestments of operations	IFRS 5, IFRS 13
Joint ventures	5, Investments in joint ventures, associated companies and other shares and participations	IFRS 11, IFRS 12, IAS 28
Associated companies	5, Investments in joint ventures, associated companies and other shares and participations	IFRS 12, IAS 28
Other shares and participations	5, Investments in joint ventures, associated companies and other shares and participations	IFRS 7, IFRS 9, IFRS 13, IAS 28, IAS 32
Operating segments	6, Segment reporting	IFRS 8
Revenue	7, Revenue	IFRS 9, IFRS 15, IFRS 16
Financial income and expenses	9, Other financial income and expenses	IFRS 9
Income taxes	10, Income taxes	IAS 12
Non-controlling interest	11, Non-controlling interest	IFRS 10, IFRS 12
Research and development	12, Intangible assets	IAS 36, IAS 38
Goodwill	12, Intangible assets	IFRS 3, IAS 36, IAS 38
Tangible assets	13, Tangible assets	IFRS 13, IFRS 16, IAS 16, IAS 36, IAS 40
Leasing	14, Leasing	IFRS 16
Inventories	17, Inventories	IAS 2
Earnings per share	19, Equity and number of shares	IAS 33
Pensions and similar obligations	20, Provisions for post-employment benefits	IFRS 2, IAS 19
Residual value risks	21, Other provisions	IFRS 15, IAS 37
Product warranty	21, Other provisions	IAS 37
Technical goodwill	21, Other provisions	IAS 37
Restructuring costs	21, Other provisions	IAS 19, IAS 37
Extended coverage and service contracts	21, Other provisions	IFRS 15, IAS 37
Insurance operations	21, Other provisions	IFRS 4
Contingent liabilities and contingent assets	24, Contingent liabilities and contingent assets	IAS 37
Transactions with related parties	25, Transactions with related parties	IAS 24
Government grants	26, Government grants	IAS 20
Incentive programs	27, Personnel	IAS 19
Cash flow statement	29, Cash flow	IAS 7
Financial instruments	4, Goals and policies in financial risk management	IFRS 7, IFRS 9
	15, Customer-financing receivables	IFRS 7, IFRS 9, IFRS 13, IFRS 16, IAS 32
	16, Receivables	IFRS 7, IFRS 9, IFRS 13, IAS 32
	18, Cash and cash equivalents	IFRS 7, IFRS 9, IFRS 13, IAS 32
	22, Liabilities	IFRS 7, IFRS 9, IFRS 13, IAS 32
	30, Financial instruments	IFRS 7, IFRS 9, IFRS 13, IAS 32

1:1

VOLVO GROUP'S ACCOUNTING POLICIES

The Volvo Group describes the most significant accounting policies in conjunction with each note with the aim of providing enhanced understanding of each accounting area. The Volvo Group focuses on describing the accounting choices made within the framework of the prevailing IFRS standard and avoids repeating the actual text of the standard, unless the Volvo Group considers it particularly important to the understanding of the note's content. The following symbols I/S and B/S show if amounts in the notes can be found in the income statement or balance sheet. The total amount in tables and statements might not always summarize as there are rounding differences. The aim is to have each line item corresponding to the source and it might therefore be rounding differences in the total. Refer to table 1:1 to see in which note each accounting policy can be found and the applicable IFRS standard with material impact.

Consolidated financial statements

Principles for consolidation

The consolidated financial statements comprise the parent company and subsidiaries over which the parent company exercises control. Control over a subsidiary exists when the Volvo Group is exposed, or has rights, to variable returns from its involvement with the subsidiary and has the ability to affect those returns through its power over the company. Joint ventures and associated companies are recognized by applying the equity method accounting, when the Volvo Group has joint control or exercise significant influence. Intragroup transactions as well as gains on transactions with joint ventures and associated companies are eliminated in the consolidated financial statements.

» **Read more in Note 3** Acquisitions and divestment of operations.

» **Read more in Note 5** Investments in joint ventures, associated companies and other shares and participations.

» **Read more in Note 11** Non-controlling interest.

Translation to Swedish kronor when consolidating companies that have other functional currencies

The functional currency of each Volvo Group company is determined based on the primary economic environment in which the company operates. The primary economic environment is normally in which the company primarily generates and expends cash. The functional currency is in most cases, the currency in the country where the company is located. AB Volvo's and the Volvo Group's presentation currency is SEK. In 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 differences are recognized in other comprehensive income and accumulated in equity.

The accumulated translation differences related to a certain subsidiary, joint venture or associated company are reversed to the income statement as a part of the gain or loss arising from disposal of the company or repayment of capital contribution from the company.

Receivables and liabilities in foreign currency

Receivables and liabilities in currencies other than the functional currency of the reporting entity (foreign currencies) are translated to the functional currency using the closing rate. Exchange rate gains and losses arising from operating assets and liabilities impact operating income while exchange rate gains and losses arising from financial assets and liabilities impact other financial income and expenses. Interest-bearing financial assets and liabilities are defined as items included in the net financial position of the Volvo Group (see section Key ratios).

Exchange rate differences on loans and other financial instruments in foreign currency, which are used to hedge net assets in foreign subsidiaries, joint ventures and associated companies, are offset against translation differences in equity of the respective companies.

» **Read more in Note 4** Goals and policies in financial risk management, about currency exposure and currency risk management.

The most important exchange rates used in the consolidated financial statements are shown in table 1:2.

Exchange rates		Average rate		Closing rate as of Dec 31	
Country	Currency	**2021**	2020	**2021**	2020
Australia	AUD	6.4415	6.3380	6.5625	6.2646
Brazil	BRL	1.5925	1.8068	1.5856	1.5715
Canada	CAD	6.8453	6.8603	7.0636	6.3996
China	CNY	1.3307	1.3329	1.4186	1.2537
Euro Zone	EUR	10.1449	10.4867	10.2269	10.0375
Great Britain	GBP	11.8022	11.7981	12.1790	11.0873
Norway	NOK	0.9980	0.9786	1.0254	0.9546
South Africa	ZAR	0.5809	0.5614	0.5660	0.5590
South Korea	KRW	0.0075	0.0078	0.0076	0.0075
United States	USD	8.5815	9.2037	9.0437	8.1886

1:2

New accounting policies 2021

Amendments to IFRS 7, IFRS 9 and IFRS 16

The amendments to IFRS 7, IFRS 9 and IFRS 16 are effective from January 1, 2021 and relates to the interest rate benchmark reform – phase 2 which provides guidance on how to account for the effects of the reform. The reform refers to the transition from current interest reference rate to new benchmark interest rates. The transition implies that contract terms for certain financial instruments will change and shall be accounted for as an adjustment of variable interest. The Volvo Group closely follows the transition which will take place at different points in time for different interest rates during the coming years. Hence, the amendments to IFRS 7, IFRS 9 and IFRS 16 will be applied when new interest rate benchmarks are incorporated in the underlying contracts. Meanwhile, the Volvo Group performs system- and process updates to ensure new benchmark interest rates can be managed. During 2021, the GBP LIBOR has been replaced by SONIA. The Volvo Group had a limited number of interest derivative contracts linked to GBP LIBOR which have been cancelled with an insignificant effect in the income statement.

No other new or revised accounting standards or interpretations effective from January 1, 2021 have significantly affected the Volvo Group's financial statements.

On October 1, 2021, the Volvo Group reorganized its bus operation whereby Nova Bus has been moved from the segment Buses to Group Functions & Other, hence the financial statements of the segments Buses and Group Functions & Other have been restated. The reorganization has not affected the total amounts for Industrial Operations and the Volvo Group. Restated segment reporting for the full year 2020 is disclosed in note 31.

New accounting policies 2022 and later

A number of new and revised accounting standards and interpretations have been published and is effective from 2022 and later. Among these are IFRS 17 Insurance Contracts which will replace IFRS 4, the current standard for insurance contracts. The new and revised accounting standards or interpretations are not expected to have a material impact on the Volvo Group's financial statements.

2 Key sources of estimation uncertainty and critical judgments

The preparation of the Volvo Group's financial statements requires the use of estimates and assumptions that may affect the recognized amounts of assets and liabilities at the date of the financial statements. In addition, the recognized amounts of net sales and expenses during the periods presented are affected. In preparing the financial statements, management has made its best judgments of certain amounts included in the financial statements, materiality taken into account. Actual results may differ from previously made estimates. In accordance with IAS 1, the company is required to disclose the assumptions and other major sources of estimation uncertainties that, if actual results differ, may have a material impact on the financial statements.

! SOURCES OF ESTIMATION UNCERTAINTY AND CRITICAL JUDGMENTS

The sources of estimation uncertainty and critical judgments identified by the Volvo Group and which are considered to fulfill these criteria are presented in connection to the items considered to be affected. Table 2:1 discloses where to find these descriptions.

Source of estimation uncertainty and critical judgments	Note	
Sales with residual value commitments and variable sales price	7,	Revenue
Deferred taxes and uncertainty over income tax treatments and claims	10,	Income taxes
Impairment of goodwill and other intangible assets	12,	Intangible assets
Impairment of tangible assets and residual value risks	13,	Tangible assets
Measurement of lease liabilities and right-of-use assets	14,	Leasing
Allowance for expected credit losses	15, 16,	Customer-financing receivables Receivables
Write down of inventories	17,	Inventories
Assumptions when calculating post-employment benefits	20,	Provisions for post-employment benefits
Provisions for product warranty, other provisions and provisions for legal proceedings	21,	Other provisions

2:1

3 Acquisitions and divestments of operations

ACCOUNTING POLICY

Acquisitions
Companies are consolidated as of the date of acquisition, when the Volvo Group obtains control over the operations. Business combinations are recognized in accordance with the acquisition method. The identifiable assets acquired, and the liabilities assumed are measured at their fair values. Any surplus amount from the purchase price paid, possible non-controlling interest, and fair value of previously held equity interests at the acquisition date compared to the acquired net assets is recognized as goodwill. All acquisition-related costs are expensed. Any deficit amount, known as gain from a bargain purchase, is recognized in the income statement.

For acquisitions done in stages, a business combination occurs on the date when control is achieved. As part of obtaining control, the acquired identifiable net assets are measured at their fair values and goodwill is recognized. The previously held equity interest is remeasured to its fair value and any resulting gain or loss compared to the carrying amount is recognized in the income statement. For each business combination, the Volvo Group decides whether the non-controlling interest shall be valued at fair value or at the non-controlling interest's proportionate share of the net assets of the acquiree. Transactions between the Volvo Group and owners with non-controlling interest are recognized in equity if control of the subsidiary is retained.

Divestments
Subsidiaries that have been divested are included in the consolidated financial statements until the date of the divestment, when the Volvo Group loses control over the subsidiary. A decrease in ownership interest of a subsidiary without losing control is accounted for as an equity transaction. Divestment of operations with the main purpose to dispose intangible and tangible assets is treated as disposal of intangible and tangible assets.

Assets and liabilities held for sale and discontinued operations
In a global group like the Volvo Group, activities are continuously ongoing regarding the sale of assets or groups of assets at minor values. When the criteria for being classified as an assets and liabilities held for sale are fulfilled and the asset or group of assets are of significant value, the asset or group of assets, both current and non-current, and the related liabilities are recognized on separate lines in the balance sheet. The asset or group of assets are measured at the lower of its' carrying amount and fair value after deductions for selling expenses. The balance sheet items and the potential income statement effect resulting from the revaluation to fair value less selling expenses are, if related to Industrial Operations, normally recognized in the segment Group functions & Other, otherwise in the Financial Services segment. When the sale is completed the result is distributed to the relevant segments.

» **Read more in Note 5** Investments in joint ventures, associated companies and other shares and participations.

» **Read more in Note 11** Non-controlling interest.

» **Read more in Note 13** Investments in shares and participations in the parent company about AB Volvo's holding of shares in subsidiaries as of December 31, 2021.

Acquisitions during the period
In 2021, the Volvo Group completed acquisitions which mainly pertains to Designwerk Technologies AG and SOPROVI Algérie SPA. In April, the Volvo Group acquired 60 percent of the shares in Designwerk Technologies AG, a Swiss company that develops and sells electromobility products and engineering services within electromobility eco-systems. In August, the Volvo Group acquired the remaining 70 percent of shares in the former joint venture SOPROVI Algérie SPA (acquisitions done in stages), hence the company is now a subsidiary within the Volvo Group. During 2020, the Volvo Group has not made any acquisitions which solely or jointly have had a significant impact on the financial statements. The impact on the Volvo Group's balance sheet and cash flow statement in connection with acquisitions of operations are specified in table 3:1.

Acquisitions	2021	2020
Other non-current assets	337	–
Cash and cash equivalents	2	–
Other current assets	274	–
Non-current liabilities	–523	–
Current liabilities	–245	–
Acquired net assets	**–155**	**–**
Purchase price paid	474	–
Non-controlling interest	26	–
Goodwill	654	–
Effect on Volvo Group cash and cash equivalents	**–472**	**–**

3:1

Divestments during the period
In 2021, the Volvo Group completed divestments which mainly pertains to the divestment of UD Trucks to Isuzu Motors. The divestment was completed on April 1 and resulted in a net gain of SEK 1.7 billion, which had a positive effect on the Volvo Group's operating income. In respect of Isuzu Motors' acquisition of UD Trucks, an additional amount up to JPY 15 billion (approx. SEK 1.2 billion) is to be paid to Volvo Group as an earnout subject to the performance of UD Trucks during the years 2021–2023. The earnout will be revaluated continuously throughout the period specified. At the time of the sale, the fair value of the additional amount was estimated to JPY 6.3 billion (approx. SEK 0.5 billion). It is recognized as a financial asset at fair value through profit or loss and has impacted the net gain recognized in the period by the same amount.

In 2020, the Volvo Group completed divestments which resulted in a net gain affecting operating income. The divestments included the sale of majority of Volvo Buses' business in India to the Volvo Group's joint venture VECV and sale of Volvo Construction Equipment's Blaw-Knox paver range in North America.

The impact on the Volvo Group's balance sheet, income statement and cash flow statement in connection with divestments of shares and operations are specified in table 3:2.

Divestments	2021	2020
Goodwill	–890	–20
Other intangible assets	–2,650	–
Tangible assets	–11,482	–144
Other shares and participations	–854	–
Deferred tax assets	–2,306	–
Inventories	–4,763	–293
Accounts receivable	–5,523	–2
Other receivables	–3,364	–2
Cash and cash equivalents	–2,344	–3
Provisions	1,883	36
Loans	20,614	–
Other non-current liabilities	1,631	13
Trade payables	4,200	4
Other current liabilities	2,599	–
Divested net assets	**–3,250**	**–411**
Net gain/loss on divestments affecting operating income	**1,643**	**25**

Cash flow and net financial position	2021	2020
Cash and cash equivalents, received	4,502	435
Loan repayment	20,614	–
Cash and cash equivalents, divested operations	–2,344	–3
Effect on Volvo Group cash and cash equivalents	**22,773**	**432**
Effect on Volvo Group net financial position	**19,064**	**407**

Details on divestment of UD Trucks	2021
Consideration received or receivable:	
Cash	4,506
Fair value of contingent consideration	482
Total disposal consideration	**4,988**
Carrying amount of divested net assets	–3,246
Transaction costs	–151
Translation differences in foreign currency reversed to income	62
Net gain	**1,653**

3:2

Assets and liabilities held for sale

As of December 31, 2021, the Volvo Group recognized assets and liabilities held for sale amounting to SEK 0 M (34,296) and SEK 0 M (11,286) respectively. For the comparative year 2020, the amounts related to the divestment of UD Trucks business globally from the Volvo Group to Isuzu Motors, which was completed on April 1, 2021. Assets and liabilities held for sale in Industrial Operations have been reclassified within the segment Group Functions & Other. Assets and liabilities held for sale in Financial Services have been reclassified within the segment Financial Services.

Assets and liabilities held for sale	Dec 31, 2021	Dec 31, 2020
Intangible assets	–	3,592
Tangible assets	–	11,782
Financial assets	–	6,446
Inventories	–	5,755
Accounts receivable	–	4,196
Other current receivables	–	2,524
B/S **Total assets**	–	**34,296**
Provisions	–	1,910
Other non-current liabilities	–	1,642
Trade payables	–	4,796
Other current liabilities	–	2,938
B/S **Total liabilities**	–	**11,286**

3:3

Acquisitions and divestments after the end of the period

The Volvo Group has not made any acquisitions or divestments after the end of the period that have had a significant impact on the financial statements.

4 Goals and policies in financial risk management

The Volvo Group's global operations expose the Group to financial risks in the form of interest rate risks, currency risks, credit risks, liquidity risks and other price risks. The board of AB Volvo has adopted a financial risk policy that regulates how these risks should be controlled and governed and defines roles and responsibilities within the Volvo Group. The financial risk policy also establishes principles for how financial activities shall be carried out, sets mandates and steering principles for the management of financial risks as well as defines the financial instruments to be used for mitigating these risks. Key mandates and steering principles are described in the respective risk section.

The board and audit committee of AB Volvo are informed regularly during the year about the development of the Volvo Group's financial risks and other matters covered within the financial risk policy. The financial risk policy is reviewed on an annual basis. The Volvo Group manages financial risk as an integrated element of the business operations where parts of the responsibility for the finance operation and financial risk management are centralized to Volvo Group Treasury, the internal bank of the Volvo Group. Their responsibilities include financing of Industrial Operations as well as financing of the credit portfolio in Financial Services. The Volvo Group balance sheet is presented per segment where Volvo Group Treasury is part of the Industrial Operations and the internal lending from Industrial Operations to Financial Services is presented in the balance sheet as internal funding.

In 2021 volatility in the financial markets have returned to more normalized levels compared to last year and under these conditions the Volvo Group has performed financial activities and managed risk in accordance with the financial risk policy. Information on the remaining impact from the covid-19 pandemic related to financial risks is included in the respective notes.

» **Read more in Note 30** Financial instruments about accounting policies for financial instruments.

» **Read more** in section Financial Management, page 54 and section Risks and uncertainties, page 70 about financial risk management.

INTEREST RATE RISKS

Interest rate risk refers to the risk that changed interest rates will affect the Volvo Group's net income and cash flow (cash flow risk) or the fair value of financial assets and liabilities (price risk). During 2021 the first step in the interest rate benchmark reform (IBOR) has taken place where GBP LIBOR has been replaced by SONIA. The Volvo Group had a limited number of interest derivative contracts linked to GBP LIBOR which have been cancelled with an insignificant effect in the income statement.

» **Read more in Note 1** Accounting principles about the interest rate benchmark reform.

POLICY

Matching the interest fixing terms of financial assets and liabilities reduces the exposure. Interest rate swaps are used to change/influence the interest fixing term for the Volvo Group's financial assets and liabilities. Currency interest rate swaps enable borrowing in foreign currencies from different markets without introducing currency risk. The Volvo Group may from time to time use other types of forward contracts (futures) and forward rate agreements (FRAs). Most of these contracts are used to hedge interest rate levels for current borrowing or investments.

Cash flow risks

The effect of changed interest rate levels on future currency and interest flows primarily pertains to Financial Services and Industrial Operations' net financial items. The interest rate risk in Financial Services is managed with the objective to achieve a match of interest rate fixings on borrowing and lending, in order to eliminate interest rate risk. The matching degree is measured excluding equity, which amounted to 8% in Financial Services. At year-end 2021, the degree of such matching ratio was 99% (98) in Financial Services which is in accordance with the Group policy.

In addition to the financial assets in Financial Services, the Volvo Group's interest-bearing assets consisted primarily of cash and cash equivalents. On December 31, 2021 the average interest on Industrial Operations financial assets was 0.4% (0.2). The Industrial Operations' results and profitability are closely aligned to the business cycle. Therefore, in order to minimize the interest rate risk, outstanding loans had interest terms corresponding to an interest rate fixing of between one to three months. The average interest on Industrial Operations financial liabilities at year end amounted to 3.6% (2.7), including the Volvo Group's credit costs. The increase primarily relates to the fact that while the volume of Industrial operations financial liabilities has decreased during the year, the second tranche of the relatively expensive hybrid bond issued in 2014 remains and has a higher impact on the average rate.

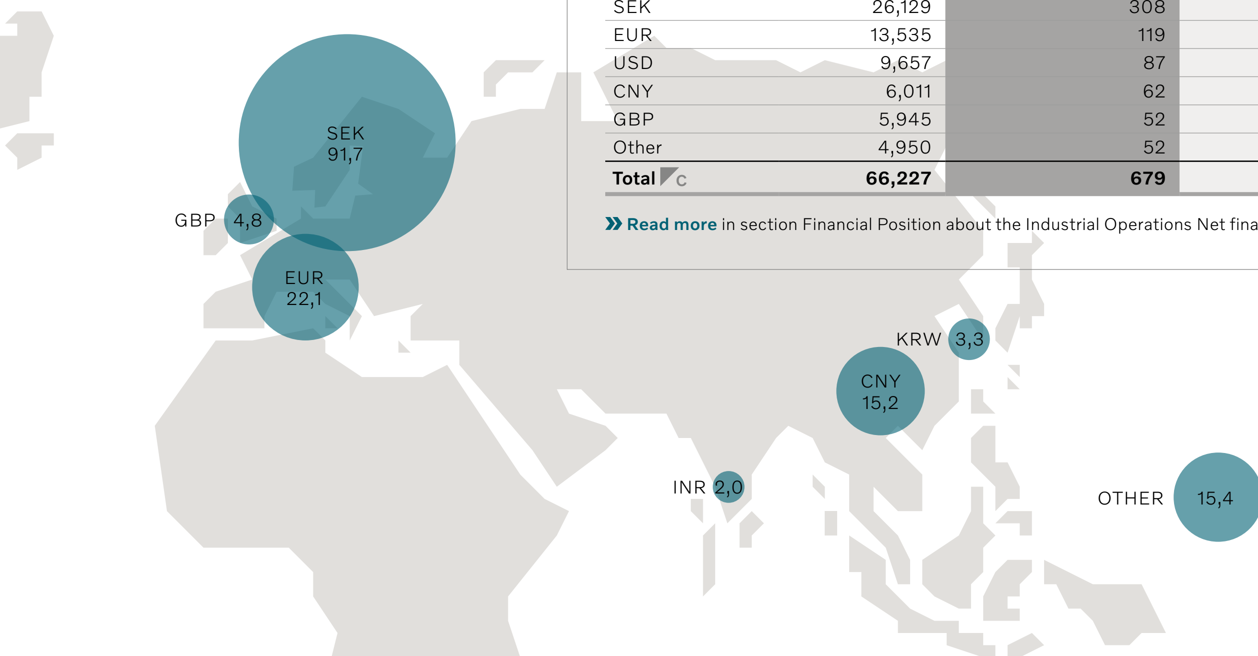
Table 4:1 shows the impact on income after financial items in Industrial Operations' net financial position, excluding lease liabilities and post-employment benefits, if interest rates were to increase by 1 percentage point, assuming an average interest rate fixed term of three months on the liability side.[1] The impact on equity is earnings after tax.

1 The sensitivity analysis on interest rate risk is based on simplified assumptions. It is not unlikely for market interest rates to change by one percentage point on an annual basis. However, in reality, these rates often rise or decline at different points in time. The sensitivity analysis also assumes a parallel deferment of the return curve, and that the interest on assets and liabilities will be equally impacted by changes in market interest rates. Accordingly, the impact of real interest rate changes may differ from the analysis presented in table 4:1.

» **Read more in Note 20** Provisions for post-employment benefits regarding sensitivity analysis on the defined benefit obligations when changes in the applied assumptions for discount rate and inflations are made.

The Volvo Group's net assets in different currencies (SEK bn) =

» **Read more** in section Currency exposure of equity in this note.



Risk net financial position Dec 31, 2021 SEK M	Net financial position excl. post-employment benefits and lease liabilities	Impact on income after financial items if interest rate rises 1% A (Interest rate risks)	Impact on net financial position if SEK appreciates against other currencies 10% B (Currency risks)
SEK	26,129	308	–
EUR	13,535	119	–1,353
USD	9,657	87	–966
CNY	6,011	62	–601
GBP	5,945	52	–594
Other	4,950	52	–495
Total C	**66,227**	**679**	**–4,010**

» **Read more** in section Financial Position about the Industrial Operations Net financial position.

4:1

Price risks C

Exposure to price risk as a result of changed interest rate refers to financial assets and liabilities with a longer interest rate fixing term (fixed interest). All outstanding loans in Industrial Operations are signed with short interest rate fixings, therefore the price risk is immaterial.

For Financial Services, financial assets and liabilities are matched in order to limit risk. Volvo Group Treasury is allowed to take limited active currency and interest rate positions in relation to the Financial Services portfolio. This responsibility is subject to, and shall be within, applicable market risk limitations. There are several measurements which can be used to define market risk. Volvo Group Treasury is using Value-at-Risk (VaR) as the main tool for mandating market risk (including interest rate risk, currency risk and liquidity risk). Volvo Group Treasury measures VaR over a one day holding period, using a 97.7% confidence level and historical volatility and correlation. The total VaR mandate for Volvo Group Treasury is SEK 150 M, and the usage is measured daily. As of December 31, 2021, the VaR usage was SEK 11.8 M (13.1).

CURRENCY RISKS

CURRENCY RISKS B

The balance sheet may be affected by changes in different exchange rates. Currency risks in the Volvo Group's operations are related to changes in the value of contracted and expected future payment flows (commercial currency exposure), changes in the value of loans and investments (financial currency exposure) and changes in the value of assets and liabilities in foreign subsidiaries (currency exposure of equity).

POLICY

The aim of the Volvo Group's currency risk management is to secure cash flow from firm flows through currency hedges pursuant to the established Financial risk policy, and to minimize the exposure of financial items in the Volvo Group's balance sheet. Below is a presentation on how this work is conducted for commercial and financial currency exposure, and for currency exposure of equity.

Sensitivity analysis[1]

Risk currency exposure 2021 SEK bn	Transaction exposure from operating net flows	Impact on operating income if currency rate appreciates against all other currencies by 10% B (Currency risks)
SEK	–43	–4.3
KRW	–7	–0.7
EUR	5	0.5
GBP	9	0.9
USD	10	1.0

The deficit in transaction exposure in SEK is mainly generated from flows in USD, GBP, EUR, NOK and CAD against SEK.

4:2

Commercial currency exposure

Transaction exposure from commercial flows

The Volvo Group conducts manufacturing in 19 countries around the globe and more than 95% of net sales are generated in countries other than Sweden. Transaction exposure from commercial flows in foreign currency is generated from internal purchases and sales between manufacturing entities and market companies and external sales and purchases in foreign currency around the globe. As the predominant parts of the operations in the Volvo Group are situated outside Sweden, the fluctuations in currency rates affecting the transaction flows in foreign currency are in many cases not against SEK. Industrial Operations' transaction exposure from commercial flows for key currencies is presented in graph 4:4. The graph represents the transaction exposure from commercial operating cash flows in foreign currency, expressed as net surpluses or deficits in key currencies. Commercial net flows increased compared to previous year as an effect of improved demand for the Volvo Group's products and services. The deficit in SEK and KRW is mainly an effect of manufacturing costs in the plants in Sweden and South Korea, but limited external revenues in those currencies. The surplus in EUR on the other hand, is the net of significant volumes of sales and purchases made between many entities around the globe in EUR. The surplus in USD is mainly generated from external sales to entities in the USA and emerging markets around the globe. The surplus in GBP is generated from external sales to Great Britian.

The hedging of the Volvo Group's commercial currency exposure is executed centrally. The Volvo Group's consolidated currency portfolio exposure is the value of forecasted flows in foreign currency. The Volvo Group may hedge the part of the forecasted portfolio that is considered highly probable to occur, however during 2021 only future cash flows for specific orders, decided on case by case basis, has been hedged. The Volvo Group uses forward contracts and currency options to hedge the future payment flows in foreign currency. The hedged amount of firm flows for all periods fall within the framework of the Volvo Group's financial risk policy. The Volvo group has no outstanding forward and option contracts for hedging commercial risks as of December 31, 2021.

Translation exposure from the consolidation of operating income in foreign subsidiaries

In conjunction with the translation of operating income in foreign subsidiaries, the Volvo Group's income is impacted if currency rates change. The Volvo Group does not hedge this risk. Graph 4:6 shows the translation effect in key currencies when consolidating operating income for 2021 in foreign subsidiaries in the Volvo Group.

» **Read more** in section Currency exposure of equity.

Sensitivity analysis for transaction exposure[1]

The table 4:2 illustrates the impact on operating income if key currencies for Volvo Group appreciate by 10% against all other currencies. Hedge accounting is not applied on derivatives hedging cash flows in foreign currency. As a consequence, the impact on equity equals the impact on operating income before tax.

Volvo Group currency review

The table and graphs 4:3 to 4:7 show the currency impact on operating income and illustrate the transaction exposure and currency impact on operating income from commercial net flows in foreign currency , translation effect when consolidating operating income in foreign subsidiaries and currency impact on sales in key currencies.

» **Read more** about Volvo Group transaction exposure in section Commercial currency exposure above.

Financial currency exposure

Loans and investments in the Volvo Group's subsidiaries are performed mainly in local currencies through Volvo Group Treasury, which minimizes individual companies' financial currency exposure. Volvo Group Treasury uses various derivatives to facilitate lending and borrowing in different currencies without increasing the risk for the Volvo Group. The net financial position of the Volvo Group is affected by currency fluctuations since financial assets and liabilities are distributed among the Volvo Group companies that conduct their operations using different currencies.

Table 4:1 discloses the impact on income after financial items on Industrial Operations net financial position, excluding pensions and similar net obligations, if SEK were to strengthen by 10%.

Currency exposure of equity

The carrying amount of assets and liabilities in foreign subsidiaries are affected by current exchange rates in conjunction with the translation of assets and liabilities to SEK. To minimize currency exposure of equity, the size of equity in foreign subsidiaries is continuously optimized with respect to commercial and legal conditions and in connection with this activity, payments of major internal dividends in foreign currency can be subject for hedging. Currency hedging of equity may occur in cases where a foreign subsidiary is considered overcapitalized. Net assets in foreign subsidiaries, associated companies and joint ventures amounted at year end 2021 to SEK 88 billion (84). The need to undertake currency hedging relating to investments in associated companies, joint ventures and other companies is assessed on a case-by-case basis.

On the map on the previous pages the Volvo Group's net assets in different currencies (SEK bn) are displayed.

» **Read more in Note 30** Financial instruments about Volvo Group's policy choice on hedge accounting.

1 The sensitivity analysis on currency rate risks is based on simplified assumptions. It is not unlikely for a currency to appreciate by 10% in relation to other currencies. In reality however, all currencies usually do not change in the same direction at any given time, so the actual effect of exchange rate changes may differ from the sensitivity analysis. Please refer to tables 4:1 4:2

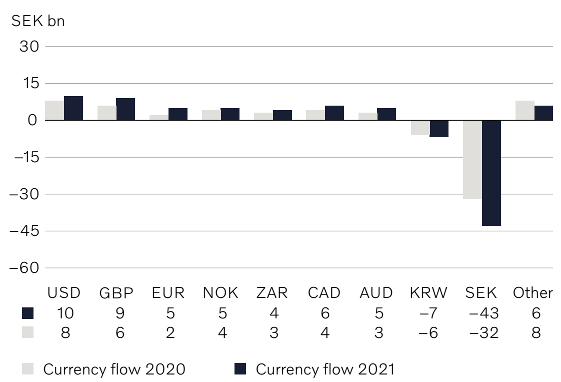
The Volvo Group's currency review
When the Volvo Group communicates the currency impact on operating income, the following factors are included:

Currency impact on operating income, Volvo Group, SEK billion	**2021**	2020	Change
Net flows in foreign currency			–0.0
Realized and unrealized gains and losses on hedging contracts	–0.0	–0.0	0.0
Unrealized gains and losses on receivables and liabilities in foreign currency	–0.2	0.2	–0.4
Translation effect on operating income in foreign subsidiaries			–2.1
Total currency impact on operating income, Volvo Group			**–2.5**

Currency impact on net flows in foreign currency is detailed in graph 4:5 and translation effect on operating income in foreign subsidiaries is detailed in graph 4:6 in key currencies.

4:3

Transaction exposure from commercial net flows in 2021 and 2020

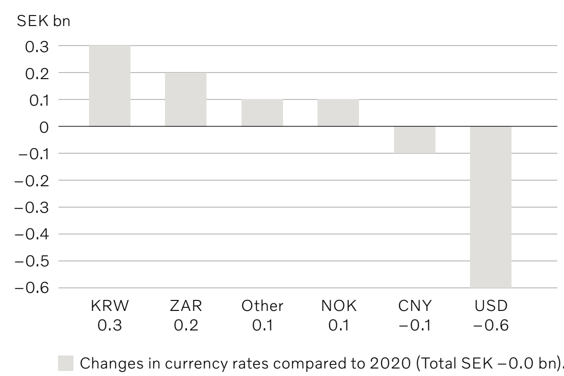


The graph above represents the transaction exposure from commercial operating net cash flows in foreign currency, expressed as net surpluses or deficits in key currencies.

» **Read more** in section Commercial currency exposure.

4:4

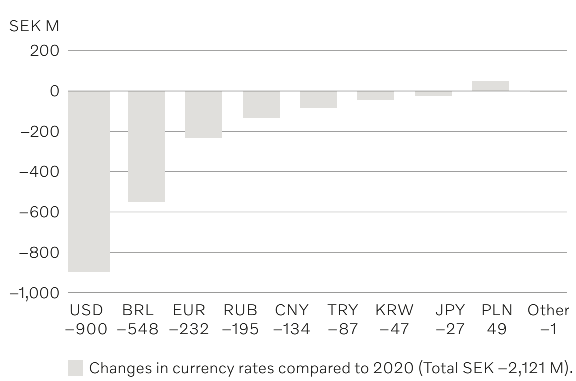
Currency impact on operating income from net flows in foreign currency 2021 versus 2020



Currency effect on operating income from net flows in foreign currency in Volvo Group is presented in the graph above.

4:5

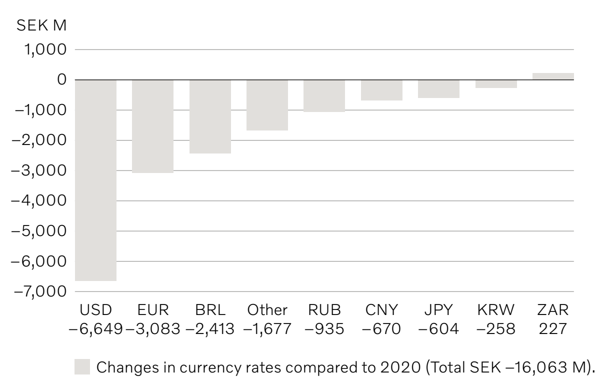
Translation effect on operating income in 2021 versus 2020



Translation effect when consolidating operating income in foreign subsidiaries for Volvo Group is presented in the graph above.

4:6

Currency impact on net sales in 2021 versus 2020



Currency effect on net sales from inflows in foreign currency and translation effect when consolidating net sales in foreign subsidiaries for Volvo Group is presented in the graph above.

4:7

CREDIT RISKS

Credit risk is defined as the risk that the Volvo Group does not receive payment for recognized accounts receivables and customer-financing receivables (commercial credit risk), that the Volvo Group's investments are unrealizable (financial credit risk) and that potential profit is not realized due to the counterparty not fulfilling its part of the contract when using derivative instruments (financial counterparty risk).

POLICY

The objective of the Volvo Group's credit risk management is to define, measure and monitor the credit exposure in order to minimize the risk of losses deriving from credit to customers and suppliers, financial credit risk, counterparty risk and customer finance activities within Financial Services.

Commercial credit risk

The Volvo Group's credit granting is steered by group policies and customer-classification rules. The credit portfolio should contain a distribution among different customer categories and industries. The credit risk is managed through active credit monitoring, follow-up routines and, where applicable, product repossession. Moreover, regular monitoring ensures that necessary allowances are made for expected credit losses on financial assets. Risk management practices and the impact on estimation uncertainty and critical judgement due to the covid-19 pandemic for Financial Services are presented in note 15 Customer-financing receivables and for Industrial Operations in note 16 Receivables. Moreover, note 15 includes information on gross exposure for customer-financing receivables by past due status and in note 16 accounts receivables, a gross exposure for accounts receivables by past due status is presented in relation to allowance for expected credit losses.

The customer-financing receivables in the Volvo Group amounted to net SEK 152 billion (129) on December 31, 2021. The credit risk of this portfolio is distributed over a large number of retail customers and dealers. Collateral is provided in the form of the financed products. In the credit granting the Volvo Group strives for a balance between risk exposure and expected return. Syndication of customer-financing receivables is infrequently made in order to reduce concentration risk.

The Volvo Group's accounts receivables as of December 31, 2021 amounted to net SEK 41 billion (36).

» Read more in Note 15 Customer-financing receivables about Volvo Group's concentration of credit risk in Financial Services.

» Read more in Note 16 Receivables.

Financial credit risk

The Volvo Group's financial assets are to a large extent managed by Volvo Group Treasury. All investments must meet the requirements of high liquidity and low credit risk. According to the Volvo Group's financial risk policy, this includes using counterparties for investments and derivative transactions with a credit rating better or equivalent to A– from one of the well-established credit rating institutions or similar.

Cash and cash equivalents including marketable securities as of December 31, 2021 amounted to SEK 62 billion (85) and consists primarily of bank account positions.

» Read more in Note 18 Cash and cash equivalents.

Financial counterparty risk

The use of derivatives involves a counterparty risk, in that a potential loss may not be possible to offset (in full or in part) against a potential gain if the counterparty fails to fulfill its part of the contract. The Volvo Group is actively working with limits per counterpart in order to reduce the risk for high net amounts towards individual counterparts. To reduce the exposure further the Volvo Group enters into master netting agreements, so called ISDA agreements, with all counterparts eligible for derivative transactions. The netting agreements provide the possibility for assets and liabilities to be offset under certain circumstances, such as in the case of the counterpart's insolvency. A Credit Support Annex (CSA) often accompanies the ISDA agreement. The CSA stipulates the terms and conditions under which the two parties are required to make cash transfers to each other in order to further reduce the exposure from the net open positions. The netting agreements have no effect on the financial performance or the financial position of the Volvo Group, since derivative transactions are accounted for on a gross basis. Table 4:8 shows the effect of netting agreements and cash transfers on the Volvo Group's gross exposure from outstanding interest and currency risk derivatives as of December 31, 2021.

» Read more in Note 30 Financial instruments about the Volvo Group's gross exposure from positive derivatives per type of instrument.

The impact from netting agreements and cash transfers on the Volvo Group's gross exposure from derivatives as of Dec 31, 2021

SEK M	Gross amount	Netting agreements	Cash transfers	Net position	Change
Interest and currency risk derivatives reported as assets	2,930	–1,102	–1,240	588	80%
Interest and currency risk derivatives reported as liabilities	2,379	–1,102	–1,128	148	94%

4:8

LIQUIDITY RISKS

LIQUIDITY RISKS

Liquidity risk is defined as the risk that the Volvo Group would be unable to finance or refinance its assets or fulfill its payment obligations.

POLICY

The Volvo Group ensures sound financial preparedness by always keeping a certain percentage of its sales in liquid assets, mainly as bank account positions in banks rated at least A- from one of the well-established credit rating institutions or similar. A sound balance between current and non-current debt maturities, as well as non-current committed credit facilities, is intended to secure liquidity preparedness, and thus the Volvo Group's payment capability.

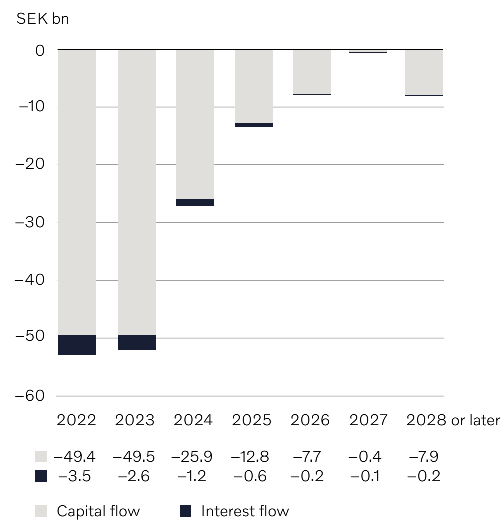
The Volvo Group's cash and cash equivalents amounted to SEK 62 billion (85) on December 31, 2021. In addition to this, granted but unutilized credit facilities amounted to SEK 42 billion (42). Graph 4:9 discloses expected future cash flows related to financial liabilities. Capital flow refers to expected payments of loans, lease liabilities and derivatives, see note 22 Liabilities. Expected interest flow refers to the future interest payments on loans, lease liabilities and derivatives based on interest rates anticipated by the market. The interest flow is recognized within cash flow from operating activities. The maturity structure of the unutilized credit facilities is disclosed in note 22, in table 22:3. The predominant part of expected future cash flows that will occur in 2023 and 2024 is an effect of the Volvo Group's normal business cycle, with shorter duration in the portfolio within Financial Services compared to Industrial Operations.

Financial Services measure the degree to which the duration of borrowing and lending matches. The calculation of the matching degree excludes equity, which amounted to 8% in Financial Services. At year-end 2021, the degree of such matching was 99% (98) for the segment Financial Services, which was in line with the Volvo Group's policy. Volvo Group Treasury has, for practical as well as business reasons, the mandate to mismatch their portfolio for Financial Services between a matching ratio of 80–120%. At year-end 2021, the matching ratio was 94% (99). Any gains or losses from the mismatch impact the segment Group functions & other within industrial Operations.

A hybrid bond amounting to EUR 1.5 billion was issued in the Volvo Group in 2014 in order to further strengthen the Volvo Group's financial position and prolong the maturity structure of the debt portfolio. The first tranche of this bond (EUR 0.9 billion) was repaid in 2020. The remaining tranche (EUR 0.6 billion) has a first call in 2023 and is classified as a loan with an original duration of 61.6 years, subordinated to all other financial liabilities currently outstanding.

» Read more in Note 14 Leasing about the maturity for non-current lease liabilities in table 14:4.

Future cash flow including lease liabilities and derivatives related to non-current and current financial liabilities[1, 2]



4:9

1 In addition to derivatives included in graph 4:9 there are also derivatives in the Volvo Group related to financial liabilities with a positive fair value recognized as assets, which are expected to give a future capital flow of SEK 2.0 billion (5.5) and a future interest flow of SEK –0.0 billion (–0.1).

2 The interest payments related to the hybrid bond are included with an amount of SEK 0.6 billion (0.9), which pertains to the period through the first call date for the remaining tranche, in 2023. The interest payments that follow in the event that the call option is not exercised have as yet not been established.

OTHER PRICE RISKS

OTHER PRICE RISKS

Commodity risks

Commodity risk refers to the risk that changed commodity prices will affect the consolidated earnings within the Volvo Group. Procurement of commodities such as steel, precious metals and electricity are made in the Volvo Group on a regular basis where prices are set in the global markets.

POLICY

Changes in commodity prices are included in the product cost calculation. Increased commodity prices are therefore reflected in the sales price of the Volvo Group's final products. Purchasing agreements with commodity suppliers may also be long-term in nature or structured in a way to decrease the volatility in commodity prices.

5 Investments in joint ventures, associated companies and other shares and participations

ACCOUNTING POLICY

Joint ventures

Joint ventures are companies in which the Volvo Group has joint control together with one or more external parties. Investments in joint ventures are recognized by applying equity method accounting. The Volvo Group's most significant holdings in joint ventures are VE Commercial Vehicles, Ltd., (VECV) and cellcentric GmbH & Co. KG (cellcentric). Both investments are joint ventures since common agreement is needed for important matters related to the governance in the joint ventures. The investment in VECV aims at strengthening the Volvo Group's position in the market in India. As of March 1, 2021, the Volvo Group acquired 50 percent of the shares in the existing Daimler Truck Fuel Cell GmbH & Co. KG and formed a joint venture with Daimler Truck AG. The parties agreed to rename the company to cellcentric GmbH & Co. KG (cellcentric). The joint venture will develop, produce, and commercialize fuel-cell systems for use in heavy-duty trucks as the primary focus. Both VECV and cellcentric are included in the Trucks segment.

Associated companies

Associated companies are companies in which the Volvo Group has a significant influence. A strong indication of such influence is when the Group's holding is more than 20% but less than 50% of the voting rights. Investments in associated companies are recognized by applying equity method accounting. The ownership in the Chinese automotive manufacturer Dongfeng Commercial Vehicles Co., Ltd (DFCV) is classified as an associated company and is included in the Trucks segment.

Equity method

The Volvo Group's share of the companies' income/loss recognized according to the equity method is included in the Volvo Group's income statement as income/loss from investments in joint ventures and associated companies. Where appropriate, the income has been reduced by depreciation of surplus values and the effect of applying different accounting policies has been considered. Income from companies recognized in accordance with the equity method is included in operating income since the Volvo Group's investments are business related in nature. For practical reasons, some of the associated companies are included in the consolidated financial statements with a certain time lag, normally up to one quarter. Dividends from joint ventures and associated companies are not included in the consolidated income. The carrying amount of investments in joint ventures and associated companies are affected by the Volvo Group's share of the companies' net income, less depreciation of surplus values and dividends received. Investments in joint ventures and associated companies are also affected by the Volvo Group's share of the companies' other comprehensive income and by the translation difference from translating the companies' equity in the consolidation of the Volvo Group.

When applying the equity method, losses recognized by joint ventures or associates could indicate impairment and additional impairment losses might be recognized. For instance, a significant or prolonged decline in the fair value of the shares is an indication of impairment. However, investments accounted for in accordance with the equity method cannot amount to a negative carrying value and losses are therefore not adjusted for if the holding is of a negative amount. Additional losses are provided for to the extent that the Volvo Group has incurred legal or constructive obligations to make payments on behalf of the joint venture or the associated company.

Other shares and participations

Other shares and participations recognizes holding of shares in which the Volvo Group does not hold a significant influence. This generally means the Volvo Group's holding of shares corresponds to less than 20% of the voting rights. Listed shares are recognized at fair value through other comprehensive income since the shares are not held for trading. For unlisted shares and participations, a fair value cannot be reasonably measured, hence these are measured at amortized cost. Earned or paid interest attributable to these assets is recognized in the income statement as part of net financial items, in accordance with the effective interest method. Dividends received attributable to these assets are recognized as income from other investments within operating income.

» **Read more in Note 30** Financial instruments, regarding classification and valuation of financial instruments.

Joint ventures
The Volvo Group's investments in joint ventures are listed below.

Investments in joint ventures	**Dec 31, 2021 Percentage holding**	**Dec 31, 2021 Carrying value**	Dec 31, 2020 Percentage holding	Dec 31, 2020 Carrying value
VE Commercial Vehicles, Ltd., (VECV)	45.6	2,618	45.6	2,359
cellcentric	50.0	6,678	–	–
Other holdings in joint ventures[1]		122		108
Investments in joint ventures		**9,418**		**2,467**

5:1

1 Other holdings in joint ventures include investments in World of Volvo AB and Force Réseau. During 2021, the Volvo Group acquired the remaining 70 percent of shares in the former joint venture SOPROVI Algérie SPA, hence the company is now a subsidiary within the Volvo Group.

» **Read more in Note 3** Acquisitions and divestments of operations.

The following tables present summarized financial information for the Volvo Group's joint ventures:

Summarized income statements	**2021**				2020		
	VECV	cellcentric (10 months)	Other joint ventures	Total	VECV	Other joint ventures	Total
Net sales	13,912	88	616	14,615	8,847	304	9,151
Operating income[1]	248	–1,053	7	–798	–219	–40	–259
Interest income and similar credits	57	–	0	57	53	1	54
Interest expense and similar charges	–51	–	0	–51	–43	0	–43
Other financial income and expenses	0	–4	–2	–6	–1	–	–1
Income taxes	–85	–	–2	–87	83	8	91
Income for the period[2]	**169**	**–1,057**	**4**	**–884**	**–128**	**–31**	**–159**
Other comprehensive income[3]	**–13**	**3**	**1**	**–9**	**–1**	**–5**	**–6**
Total comprehensive income	**156**	**–1,054**	**5**	**–893**	**–129**	**–36**	**–165**

5:2

1 Depreciation and amortization of SEK 678 M (500) are included within operating income.

2 Income for the period in joint ventures includes depreciation of surplus values.

3 Including the Volvo Group's share of other comprehensive income related to joint ventures. Translation differences from translating joint ventures' equity in the Volvo Group are excluded.

Summarized balance sheets	**Dec 31, 2021**				Dec 31, 2020		
	VECV	cellcentric	Other joint ventures	Total	VECV	Other joint ventures	Total
Non-current assets	5,522	13,057	491	19,070	5,368	90	5,457
Marketable securities, cash and cash equivalents	1,629	380	50	2,059	1,813	63	1,876
Other current assets	6,007	390	200	6,597	4,150	216	4,366
Total assets	**13,158**	**13,827**	**741**	**27,726**	**11,331**	**368**	**11,699**
Equity[1]	5,741	13,312	320	19,374	5,173	286	5,459
Non-current financial liabilities	527	–	–	529	667	–	667
Other non-current liabilities	209	159	302	669	240	2	242
Current financial liabilities	4,666	–	20	4,686	3,426	21	3,447
Other current liabilities	2,014	355	100	2,469	1,826	59	1,885
Total equity and liabilities	**13,158**	**13,827**	**741**	**27,726**	**11,331**	**368**	**11,699**

5:3

1 Including translation differences from translating joint ventures' equity in the Volvo Group.

Net financial position for the joint ventures (excluding post-employment benefits) amounted to SEK 1,575 M (1,624) as of December 31, 2021. As of December 31, 2021, the Volvo Group's share of contingent liabilities in its joint ventures amounted to SEK 106 M (93). Dividends received during 2021 from VECV amounted to SEK 26 M (–).

Associated companies
The Volvo Group's investments in associated companies are listed below.

Investments in associated companies	Dec 31, 2021 Percentage holding	Dec 31, 2021 Carrying value	Dec 31, 2020 Percentage holding	Dec 31, 2020 Carrying value
Dongfeng Commercial Vehicles Co., Ltd (DFCV)	45.0	10,324	45.0	9,574
Other holdings in associated companies[1]		944		1,118
Investments in associated companies		**11,268**		**10,693**

5:4

1 Other holdings in associated companies include the investment in Blue Chip Jet II HB and WirelessCar Sweden AB.

The following tables present summarized financial information for the Volvo Group's associated companies:

Summarized income statements	2021			2020		
	DFCV	Other associated companies	Total	DFCV	Other associated companies	Total
Net sales	57,045	3,818	60,863	68,546	4,730	73,276
Operating income	880	141	1,022	3,492	17	3,509
Income for the period[1]	**731**	**39**	**769**	**3,679**	**–32**	**3,647**
Other comprehensive income[2]	**–5**	**–**	**–5**	**2**	**–**	**2**
Total comprehensive income	**726**	**39**	**764**	**3,681**	**–32**	**3,649**

5:5

1 Income for the period in associated companies includes depreciation/amortization of surplus values and internal transactions.

2 Including the Volvo Group's share of other comprehensive income related to associated companies. Translation differences from translating the associated companies' equity in the Volvo Group are excluded.

Summarized balance sheets	Dec 31, 2021			Dec 31, 2020		
	DFCV	Other associated companies	Total	DFCV	Other associated companies	Total
Non-current assets	20,647	1,207	21,854	19,590	1,605	21,195
Current assets	43,733	1,432	45,164	55,160	2,181	57,341
Total assets	**64,380**	**2,639**	**67,019**	**74,750**	**3,786**	**78,537**
Equity[1]	21,684	1,229	22,913	20,303	1,770	22,073
Non-current liabilities	5,090	483	5,573	4,544	432	4,976
Current liabilities	37,606	927	38,533	49,904	1,584	51,488
Total equity and liabilities	**64,380**	**2,639**	**67,019**	**74,750**	**3,786**	**78,537**

5:6

1 Including the translation differences from translating associated companies' equity in the Volvo Group.

Dividend received during 2021 from DFCV amounted to SEK 767 M (1,058).

Income/loss from investments in joint ventures and associated companies	2021	2020
Income/loss joint ventures		
VECV	80	–55
cellcentric	–522	–
Other companies	2	–15
Subtotal	**–440**	**–70**
Income/loss associated companies		
DFCV[1]	362	1,776
Other companies	11	45
Subtotal	**373**	**1,821**
Revaluation, write-down and gain on divestment of shares		
Other companies	13	–2
Subtotal	**13**	**–2**
I/S **Income/loss from investments in joint ventures and associated companies[2]**	**–54**	**1,749**

5:7

1 Income/loss includes an internal profit elimination of net SEK 37 M (39) and an adjustment to Volvo Group Accounting policies of SEK 71 M (130).

2 Income/loss from investments in joint ventures include the Volvo Group's share of depreciation of surplus values of SEK – M (–) and associated companies include depreciation of surplus values of SEK 37 M (39)

Other shares and participations

The carrying amount of the Volvo Group's holding of shares and participations in other companies as of December 31, 2021, is disclosed in the table below.

» Read more in Note 30 Financial Instruments, regarding classification and valuation of financial instruments.

Holding of shares in listed and non-listed companies	Dec 31, 2021 Carrying value	Dec 31, 2020 Carrying value
Holdings in listed companies[1]	51	0
Holdings in non-listed companies	488	276
B/S **Other shares and participations**	**539**	**276**

5:8

1 Changes in fair value is measured through other comprehensive income and amounts to SEK 48 M (–8).

6 Segment reporting

ACCOUNTING POLICY

Operating segments are reported in a manner consistent with the internal reporting provided to the chief operating decision maker. The chief operating decision maker, identified as the Group Executive Board, makes strategic decisions and is responsible for allocating resources and assessing financial performance of the operating segments.

The Volvo Group comprises ten business areas: Volvo Trucks, Mack Trucks, Renault Trucks, Volvo Autonomous Solution, Volvo Construction Equipment, Volvo Buses, Volvo Penta, Arquus, Volvo Financial Services, and Volvo Energy.

Each business area, except for the truck brands, Arquus, Volvo Autonomous Solution and Volvo Energy is seen as a separate segment. Arquus is part of the segment Group functions & Other. The truck brands, Volvo Autonomous Solution and Volvo Energy are seen as one segment since the operations are highly integrated, strategic allocation of resources are done to the total segment and the independence for each truck brand, Volvo Autonomous Solution and Volvo Energy are lower compared to other segments. The business area UD Trucks was sold on April 1, 2021.

On October 1, 2021 the Volvo Group reorganized its bus operation whereby Nova Bus has been moved from the segment Buses to Group Functions & Other.

The Volvo Group has shared operations in both the Trucks segment and in the segment Group functions & Other. Shared operations for production, development and logistics for powertrain and parts are included in the Trucks segment. Volvo Group IT and Volvo Group Real Estate are seen as business support functions and are part of Group functions & Other. The cost of these operations is shared between the different business areas based on utilization according to principles set by the Volvo Group.

2021	Trucks	Construction Equipment	Buses[1]	Volvo Penta	Group functions & Other incl. elim.[1]	Industrial Operations	Financial Services	Eliminations	Volvo Group
Net sales, external customers	228,573	91,722	12,884	13,710	12,186	359,075	13,140	–	372,216
Net sales, internal	2,309	309	767	727	–2,125	1,986	297	–2,283	0
I/S Net sales	**230,881**	**92,031**	**13,652**	**14,437**	**10,061**	**361,062**	**13,437**	**–2,283**	**372,216**
Expenses	–203,496	–79,803	–13,577	–12,348	–12,001	–321,225	–10,149	2,285	–329,088
I/S Income from investments in joint ventures and associated companies	–36	0	4	3	–24	–54	–	–	–54
I/S Operating income	**27,349**	**12,228**	**78**	**2,092**	**–1,964**	**39,783**	**3,289**	**2**	**43,074**
I/S Interest income and similar credits						362	–	–4	358
I/S Interest expense and similar charges						–1,172	0	4	–1,167
I/S Other financial income and expense						926	–	–	926
I/S Income after financial items						**39,899**	**3,289**	**2**	**43,190**
Other segment information									
Depreciation, amortization and impairment	–13,317	–2,097	–716	–504	2,337	–14,297	–4,423	–	–18,720
Restructuring costs	143	–3	18	0	0	159	–1	–	157
Gains/losses from divestments	1,649	–5	–	–	0	1,643	–	–	1,643
Investments in in-/tangible assets	10,708	1,338	347	750	590	13,732	9,302	–21	23,014
B/S Investments in joint ventures and associated companies	19,746	0	92	42	806	20,685	–	–	20,685
B/S Assets held for sale						–	–	–	–
B/S Liabilities held for sale						–	–	–	–

6:1

1 The operations of Nova Bus have been reclassified from the Buses segment into the segement of Group Functions & Other as of October 1, 2021. To facilitate comparability, financial numbers for 2021 have been restated in this report.

2020	Trucks	Con-struction Equipment	Buses[1]	Volvo Penta	Group functions & Other incl. elim.[1]	Industrial Operations	Financial Services	Elimina-tions	Volvo Group
Net sales, external customers	206,198	81,230	14,066	11,400	11,872	324,766	13,679	–	338,446
Net sales, internal	2,064	223	646	491	–1,719	1,706	281	–1,987	0
I/S **Net sales**	**208,262**	**81,453**	**14,712**	**11,891**	**10,154**	**326,472**	**13,960**	**–1,987**	**338,446**
Expenses	–194,236	–71,870	–15,247	–10,493	–10,458	–302,303	–12,396	1,989	–312,710
I/S Income from investments in joint ventures and associated companies	1,738	–	6	4	1	1,749	–	–	1,749
I/S **Operating income**	**15,764**	**9,583**	**–529**	**1,402**	**–303**	**25,919**	**1,564**	**2**	**27,484**
I/S Interest income and similar credits						372	–	–73	299
I/S Interest expense and similar charges						–1,422	0	73	–1,349
I/S Other financial income and expense						–518	–	–	–518
I/S **Income after financial items**						**24,351**	**1,564**	**2**	**25,917**
Other segment information									
Depreciation, amortization and impairment	–15,117	–2,304	–764	–580	2,837	–15,928	–4,671	–	–20,599
Restructuring costs	–1,649	–574	–140	–223	–72	–2,659	–44	–	–2,703
Gains/losses from divestments	43	8	–31	–	4	25	–	–	25
Investments in in-/tangible assets	7,848	1,104	350	583	415	10,300	8,632	–	18,933
B/S Investments in joint ventures and associated companies	12,280	0	77	38	765	13,160	–	–	13,160
B/S Assets held for sale					29,362	29,362	4,934	–	34,296
B/S Liabilities held for sale					–6,638	–6,638	–4,649	–	–11,286

6:2

1 The operations of Nova Bus have been reclassified from the Buses segment into the segement of Group Functions & Other as of October 1, 2021. To facilitate comparability, financial numbers for 2020 have been restated in this report. » Read more in Note 31 Changes in Volvo Group financial reporting 2021.

Reporting by market	Net sales[1] 2021	Net sales[1] 2020	Non-current assets[2] 2021	Non-current assets[2] 2020
Europe	158,070	134,708	74,941	71,509
of which Sweden	*10,160*	*10,283*	*26,435*	*26,063*
of which France	*30,806*	*28,349*	*12,274*	*10,910*
of which the UK	*17,511*	*13,915*	*8,398*	*7,692*
North America	98,771	81,372	22,459	17,972
of which USA	*81,324*	*65,872*	*20,522*	*16,342*
South America	30,424	21,499	2,064	1,939
of which Brazil	*21,794*	*13,934*	*1,582*	*1,464*
Asia	63,154	81,111	5,394	5,451
of which China	*29,675*	*36,294*	*2,311*	*2,118*
of which Japan	*5,933*	*19,636*	*–*	*236*
Other markets	21,797	19,755	2,662	2,553
I/S B/S **Total**	**372,216**	**338,446**	**107,520**	**99,424**

6:3

1 The reporting of net sales by market is based on where the delivery of the goods or services took place.

2 Non-current assets include tangible and intangible assets excluding goodwill.

7 Revenue

ACCOUNTING POLICY

The recognized net sales in Industrial Operations pertain to revenues from sales of vehicles and services. Revenue from vehicles and services are recognized when control has been transferred from Volvo Group to the customer. Control refers to the customers' ability to use vehicles or services in its operations and to obtain the associated cash flow related to the use. Vehicles and services are sold separately or as a combined offer. In combined offers where the vehicle and services are separable from each other and the customer can benefit from the vehicle and the service independently, the transaction price is allocated between vehicles and services based on stand-alone selling price according to price lists.

The recognized net sales in Financial Services pertain to interest income related to finance leases and installment credits as well as income from operating lease contracts. Interest income is recognized during the underlying contract period and income from operating leasing is recognized over the leasing period.

Vehicles

Vehicles include sales of new vehicles, machines and engines as well as sales of used vehicles, machines, trailers, superstructures and special vehicles. A standard contractual warranty is included as part of the sales, read more in note 21 Other provisions about product warranty. The customer can pay for the vehicle at the point of sale or defer the payment by entering into agreements such as installment credits and finance lease.

Revenue is recognized at a specific point in time, when control of the vehicle has been transferred to the customer, normally when the vehicle has been delivered to the customer. The value of rebates, returns and variable sales price have been considered as part of the revenue recognition.

If the sale of the vehicle is combined with a residual value commitment (buybacks and tradebacks) the criterion of transferring control is based on if the customer has a significant economic incentive to exercise the option to return the vehicle or not. A significant economic incentive exists if the repurchase price is higher than the assessed fair market value i.e. net realizable value at the end of the residual value commitment period, or if the historical returns indicate that it is probable that the customer will return the vehicle at the end of the commitment period. Thus, the control has not been transferred and the sales transaction is recognized as an operating lease transaction. The revenue and expense are recognized over the residual value commitment period in the income statement. Assets under operating leases, a residual value liability, and a deferred lease income are recognized in the balance sheet. The asset is depreciated over the commitment period and the deferred lease income is recognized as revenue over the same period. The residual value liability amount remains unchanged until the end of the commitment period. If the vehicle is returned at the end of the commitment period, the residual value liability is paid to the customer and the vehicle is reclassified from assets under operating lease to inventory.

» **Read more in Note 14** Leasing about lease income on assets under operating lease.

» **Read more in Sustainability notes** and section EU Taxonomy regulation disclosures about taxonomy eligible turnover.

If the customer is not considered to have a significant economic incentive to return the vehicle, the sales transaction is recognized in accordance with the right of return model. Revenue corresponding to the sales amount less the buyback amount is recognized at the initial sale, as well as a proportionate share of cost of goods sold. The remaining revenue is recognized as a refund liability and the remaining cost of goods sold as a right of return asset during the commitment period. If the vehicle is not returned the refund liability is recognized as revenue and the right of return asset is recognized as cost of goods sold at the end of the commitment period.

Services

Services include sale of spare parts, maintenance services, repairs, extended coverage, connectivity solutions and other aftermarket products. The control of the service has been transferred to the customer when the Volvo Group incurs the associated cost to deliver the service and the customer can benefit from the use of the delivered services. For spare parts, revenue is normally recognized at one point time, which is when it is delivered to the customer. For maintenance services, connectivity solutions and other aftermarket products, revenue is recognized over time, i.e. normally during the contract period. When payment for maintenance contracts is received in advance, the payment is recognized as a contract liability.

Services also includes sales in Financial Services related to finance lease, installment credits and operating leases. During 2021, revenue from Financial Services operations amounted to SEK 13,437 M (13,960).

» **Read more in Note 6** Segment reporting regarding net sales by segment and market.

» **Read more in Note 14** Leasing about lease income on assets under operating lease and finance income om customer-financing receivables.

SOURCE OF ESTIMATION UNCERTAINTY AND CRITICAL JUDGMENTS

Sales with residual value commitments

When the Volvo Group enters into sales transactions of vehicles with residual value commitments (buybacks and tradebacks) the judgment whether control has been transferred from Volvo Group to the customer and at what point in time revenue shall be recognized is critical. The judgment made is when a significant economic incentive exists or not for the customer to return the vehicle at the end of the commitment period. The assessment of significant economic incentive is performed at the inception of the contract and the outcome at the end of the commitment period can differ from the initial assessment. Factors that are considered and requires judgment is the assessed fair market value i.e. net realizable value at the end of the residual value commitment period and historical returns. The future mix of vehicles and services is driven by customer demand for products and solutions with lower environmental impact. Supply chain and production disturbances due to covid-19 and the gradual introduction of battery electric and fuel cell electric products imply to some extent uncertainties in the assessment of fair market value.

» **Read more in Note 13** Tangible assets for a description of residual value risks and the assessment of fair market value.

Variable sales price

In some sales transactions, the sales price is variable such as residual value guarantees. In assessing the variable sales price, the expected value method is used and revenue is recognized when it is highly probable that a reversal will not occur. Both the expected value method and the assessment of highly probable requires judgments to be able to make estimates. The estimates are made at the contract start with continuous assessment at each reporting period.

Disaggregation of revenue 2021	Trucks	Construction Equipment	Buses[1]	Volvo Penta	Group functions & Other incl. elim.[1]	Industrial Operations	Financial Services	Elimina-tions	Volvo Group
Net sales per product group									
Vehicles	175,509	79,390	10,459	10,282	7,026	282,666	–	–2,279	280,387
Services	55,373	12,641	3,192	4,155	3,035	78,396	13,437	–4	91,829
Net sales	**230,881**	**92,031**	**13,652**	**14,437**	**10,061**	**361,062**	**13,437**	**–2,283**	**372,216**
Net sales per geographical region									
Europe	107,798	29,524	5,886	7,464	3,623	154,296	5,929	–2,155	158,070
North America	65,308	16,583	4,089	2,949	5,427	94,356	4,519	–105	98,771
South America	23,569	3,951	882	474	–67	28,810	1,618	–4	30,424
Asia	21,360	36,427	1,371	2,698	455	62,310	843	–	63,154
Africa and Oceania	12,846	5,546	1,423	851	624	21,291	528	–20	21,797
Net sales	**230,881**	**92,031**	**13,652**	**14,437**	**10,061**	**361,062**	**13,437**	**–2,283**	**372,216**
Timing of revenue recognition									
Revenue of vehicles and services recognized at the point of delivery	213,656	89,780	13,073	14,437	7,628	338,575	–	–223	338,352
Revenue of vehicles and services recognized over contract period	17,225	2,251	578	0	2,432	22,486	13,437	–2,061	33,863
Net sales	**230,881**	**92,031**	**13,652**	**14,437**	**10,061**	**361,062**	**13,437**	**–2,283**	**372,216**

7:1

1 The operations of Nova Bus have been reclassified from the Buses segment into the segement of Group Functions & Other as of October 1, 2021. To facilitate comparability, financial numbers for 2021 have been restated in this report.

Disaggregation of revenue 2020	Trucks	Construction Equipment	Buses[1]	Volvo Penta	Group functions & Other incl. elim.[1]	Industrial Operations	Financial Services	Elimina-tions	Volvo Group
Net sales per product group									
Vehicles	149,902	70,146	11,794	8,365	7,190	247,397	–	–1,946	245,451
Services	58,360	11,306	2,919	3,526	2,964	79,075	13,960	–41	92,995
Net sales	**208,262**	**81,453**	**14,712**	**11,891**	**10,154**	**326,472**	**13,960**	**–1,987**	**338,446**
Net sales per geographical region									
Europe	92,127	23,191	5,765	6,064	3,309	130,457	6,116	–1,865	134,708
North America	52,038	13,020	3,223	2,562	5,659	76,501	4,907	–36	81,372
South America	15,830	2,245	1,793	345	–79	20,133	1,380	–14	21,499
Asia	35,441	39,095	2,397	2,228	927	80,088	1,022	1	81,111
Africa and Oceania	12,826	3,902	1,535	691	338	19,293	535	–73	19,755
Net sales	**208,262**	**81,453**	**14,712**	**11,891**	**10,154**	**326,472**	**13,960**	**–1,987**	**338,446**
Timing of revenue recognition									
Revenue of vehicles and services recognized at the point of delivery	189,798	79,605	14,150	11,891	7,442	302,887	–	–484	302,403
Revenue of vehicles and services recognized over contract period	18,464	1,848	563	0	2,711	23,585	13,960	–1,503	36,043
Net sales	**208,262**	**81,453**	**14,712**	**11,891**	**10,154**	**326,472**	**13,960**	**–1,987**	**338,446**

7:2

1 The operations of Nova Bus have been reclassified from the Buses segment into the segement of Group Functions & Other as of October 1, 2021. To facilitate comparability, financial numbers for 2020 have been restated in this report. » Read more in Note 31 Changes in Volvo Group financial reporting 2021.

Contract and right of return assets	Dec 31, 2021	Of which due within 12 months	Of which due after 12 months	Dec 31, 2020	Dec 31, 2019
Contract assets	3,779	1,199	2,581	5,945	6,423
Right of return assets	1,889	315	1,574	1,152	1,280
Parts return assets	167	127	40	138	165
Total	**5,835**	**1,641**	**4,195**	**7,235**	**7,868**

7:3

Contract assets are recognized within other receivables and include revenue that has been recognized but not yet invoiced for work performed.

Right of return assets and parts return assets represents the product cost for the assets that might be returned to the Volvo Group.

Contract and refund liabilities	Dec 31, 2021	Of which due within 12 months	Of which due after 12 months	Dec 31, 2020	Dec 31, 2019
Contract liabilities					
Deferred service revenue	18,155	3,715	14,440	15,826	16,419
Advances from customers	7,435	4,511	2,923	8,010	7,707
Other deferred income	1,928	1,599	329	1,570	1,427
Accrued expenses for dealer bonuses and rebates	5,009	4,998	11	5,255	6,659
Refund liabilities	2,435	737	1,698	1,543	1,726
Total	**34,962**	**15,560**	**19,401**	**32,204**	**33,938**

7:4

Contract liabilities are recognized within other liabilities and include advance payments received from customers, e.g. advance payments for service contracts and extended coverage, for which revenue is recognized when the service is provided. Refund liabilities related to the right to return products and residual value guarantees are included with an amount that is expected to be paid to the customer if the vehicle or spare part is returned. In service contracts, the revenue expected to be recognized over the remaining term of the contract for services not yet delivered amounted to SEK 23,732 M (18,715) as of December 31, 2021. Approximately 34% are expected to be recognized as revenue during 2022 and the remaining 66% as revenue during 2023–2025. The change in contract and refund liabilities are mainly due to increased deferred service revenue. During 2021, revenue has been recognized with SEK 16,692 M (14,396) that was included in the contract liabilities at the beginning of the period.

8 Other operating income and expenses

Other operating income and expenses	2021	2020
Gains/losses on divestment of Group companies[1]	1,643	25
Change in allowances and write-offs for doubtful customer-financing receivables[2]	–266	–1,892
Change in allowances and write-offs for other doubtful receivables[3]	–263	176
Damages and litigations[4]	–775	–715
Restructuring costs[5]	157	–2,703
Volvo profit sharing program	0	–138
Other income and expenses	–250	–212
I/S **Total**	**246**	**–5,459**

8:1

1 Including a capital gain of SEK 1,653 M from the divestment of UD Trucks.
» Read more in Note 3 Acquisitions and divestments of operations, about gains/losses on divestment.

2 » Read more in Note 15 Customer-financing receivables.

3 » Read more in Note 16 Receivables.

4 Including costs for legal advisors for claims related to the EU antitrust investigation (2016).

5 In 2020 costs of SEK 2,210 M related to headcount reductions were included.

» Read more in Note 4 Goals and policies in financial risk management regarding the Volvo Group's management of credit risk and credit reserves.

9 Other financial income and expenses

ACCOUNTING POLICY

In other financial income and expenses unrealized revaluation on derivatives used to hedge interest rate exposure as well as realized result and unrealized revaluation on derivatives used to hedge future cash flow exposure in foreign currency are recognized. The derivatives are recognized at fair value through the income statement and no hedge accounting is applied. The unrealized revaluation on derivatives used to hedge interest rate exposure was mainly related to the debt portfolio within Industrial Operations and customer-financing portfolio within Financial Services.

» **Read more in Note 1** Accounting policies about receivables and liabilities in foreign currency.

» **Read more in Note 30** Financial instruments regarding the accounting policy and effects on net income and cash flow for financial assets at fair value through the income statement.

Other financial income and expenses	2021	2020
Unrealized revaluation of derivatives used to hedge interest rate exposure	924	–379
Realized result and unrealized revaluation on derivatives used to hedge future cash flow exposure in foreign currency	32	–22
Financial instruments at fair value through income statement	**956**	**–401**
Exchange rate gains and losses on financial assets and liabilities	–56	–205
Financial income and expenses related to taxes	281	334
Costs for Treasury function, credit facilities, etc.	–256	–245
I/S **Total**[1]	**926**	**–518**

9:1

1 Other financial income and expenses attributable to financial instruments amounted to SEK 900 M (–606). The amount is specified in note 30 Financial instruments in table 30:3.

10 Income taxes

ACCOUNTING POLICY

Income tax for the period includes current and deferred taxes. Current taxes are calculated on the basis of the tax regulations prevailing in the countries where the group companies have operations.

Deferred taxes are recognized on differences that arise between the taxable value and carrying value of assets and liabilities as well as on tax-loss carryforwards. Deferred tax assets are recognized to the extent it is probable that they will be utilized against future taxable profits.

Deferred tax liabilities related to temporary differences on investments in subsidiaries, joint ventures and associated companies are recognized in the balance sheet except when the Volvo Group controls the timing of the reversal of the temporary difference related to accumulated undistributed earnings and it is probable that a reversal will not be done in the foreseeable future.

Tax laws in Sweden and certain other countries allow companies to defer payment of taxes through allocations to untaxed reserves. In the Volvo Group financial statements, untaxed reserves give rise to temporary differences which are recognized as deferred tax liabilities.

Tax liabilities are recognized for income tax charges that are probable as a result of identified risks. Hence, when it is probable that the taxation authority or court will not accept an uncertain income tax treatment under tax law, adjustments of the tax liability are made for the estimated outcome. Tax claims for which no adjustment of the tax liability is considered required are generally reported as contingent liabilities.

» **Read more in Note 24** Contingent liabilities and contingent assets.

! SOURCE OF ESTIMATION UNCERTAINTY AND CRITICAL JUDGMENTS

Deferred taxes

The Volvo Group recognizes deferred tax assets related to tax-loss carryforwards. The deferred tax assets are recognized based on a thorough assessment in order to ensure that it is probable that sufficient taxable profits will be generated in the coming years that will enable the tax-loss carryforwards to be utilized. The assessment is based on an evaluation of business plans. In addition, the possibility to offset tax assets and tax liabilities and the fact that the major part of the tax-loss carryforwards is related to countries with long or indefinite periods of utilization is considered.

If deferred tax assets related to tax-loss carryforwards are not expected to be realized based on current business plans, valuation allowances are recognized. If actual results differ from the business plans, or if business plans for future periods are adjusted, changes in the valuation allowance may be required. Such recognitions and adjustments could have a significant impact on the financial position and the income for the period.

Uncertainty over income tax treatments and claims

The Volvo Group regularly evaluates income tax positions to determine if a tax liability or a contingent liability shall be recognized. The judgment is based on several factors, such as changes in facts and circumstances, the progress of the case and experience in similar cases. The actual outcome of income tax positions may deviate from the expected outcome and materially affect future financial statements.

Distribution of Income taxes	2021	2020
Current taxes relating to the period	–9,132	–6,853
Adjustment of current taxes for prior periods	393	278
Deferred taxes originated or reversed during the period	–960	926
Remeasurements of deferred tax assets	–248	–194
I/S **Total income taxes**	**–9,947**	**–5,843**

10:1

The Swedish corporate income tax rate amounted to 21% (21) in 2021. The table below explains the major reasons for the difference between the Swedish corporate income tax rate and the Volvo Group's effective tax rate, based on income after financial items.

Reconciliation of effective tax rate %	2021	2020
Swedish corporate income tax rate	**21**	**21**
Difference between corporate tax rate in Sweden and other countries	3	3
Non-taxable income	–2	–3
Non-deductible expenses	0	1
Current taxes related to prior years	–1	–1
Remeasurement of deferred taxes	2	1
Other differences	1	1
Effective tax rate for the Volvo Group	**23**	**23**

10:2

The effective tax rate for the Volvo Group, as of December 31, 2021, was mainly impacted by the country mix in the Volvo Group's earnings.

Specification of deferred tax assets and liabilities	Dec 31, 2021	Dec 31, 2020
Deferred tax assets:		
Unused tax-loss carryforwards	1,066	2,186
Other unused tax credits	479	755
Intercompany profit in inventories	994	1,270
Write down of inventories	494	499
Valuation allowance for doubtful receivables	1,251	1,068
Provisions for warranties	3,241	2,861
Provisions for residual value risks	341	274
Lease liabilities	1,146	1,252
Provisions for post-employment benefits	3,186	4,477
Provisions for restructuring measures	50	126
Other deductible temporary differences	6,563	5,714
Deferred tax assets before deduction for valuation allowance	**18,810**	**20,481**
Valuation allowance	–527	–828
Deferred tax assets after deduction for valuation allowance	**18,283**	**19,653**
Netting of deferred tax assets and liabilities	–7,336	–9,058
B/S **Deferred tax assets, net**	**10,947**	**10,595**
Deferred tax liabilities:		
Accelerated depreciation on property, plant and equipment	1,832	1,552
Accelerated depreciation on leasing assets	2,138	2,225
Right-of-use assets, leased	1,104	1,207
LIFO valuation of inventories	418	352
Capitalized product and software development	2,177	2,271
Untaxed reserves	2,239	2,239
Other taxable temporary differences	2,348	2,472
Deferred tax liabilities	**12,255**	**12,318**
Netting of deferred tax assets and liabilities	–7,329	–9,053
B/S **Deferred tax liabilities, net**	**4,926**	**3,265**
Deferred tax assets and liabilities, net[1]	**6,021**	**7,330**

10:3

1 The deferred tax assets and liabilities are recognized in the balance sheet partially on a net basis, after taking into account offsetting possibilities. Deferred tax assets and liabilities have been measured at the tax rates that are expected to be applied during the period when the asset is realized or the liability is settled, according to the tax rates and tax regulations that have been resolved or enacted at the balance sheet date.

The total valuation allowance for deferred tax assets amounted to SEK 527 M (828) as of December 31, 2021, whereof SEK 405 M (690), consisted of an allowance for a tax credit in Brazil.

As of December 31, 2021, the Volvo Group's gross unused tax-loss carryforwards amounted to SEK 4,096 M (9,350) pertaining to deferred tax assets of SEK 1,066 M (2,186) recognized in the balance sheet. Out of the total deferred tax asset attributable to unused tax-loss carryforwards, SEK 685 M (884) pertained to France and SEK 0 M (929) to Sweden.

The gross unused tax-loss carryforwards will expire according to the following table.

Due date, unused tax-loss carryforwards, gross	Dec 31, 2021	Dec 31, 2020
after 1 year	7	0
after 2 years	25	5
after 3 years	14	47
after 4 years	11	164
after 5 years	10	23
after 6 years or more[1]	4,029	9,110
Total	**4,096**	**9,350**

10:4

1 Tax-loss carryforwards with long or indefinite periods of utilization were mainly related to France. Tax-loss carryforwards with indefinite periods of utilization amounted to SEK 3,524 M (8,839) which corresponded to 86% (95) of the total unused tax-losses carryforward.

Changes in deferred tax assets and liabilities, net	2021	2020
Deferred tax assets and liabilities, net, opening balance	**7,330**	**8,899**
Recognized in income statement	–1,208	732
Recognized in other comprehensive income, whereof:		
Remeasurements of defined-benefit pension plans	–1,699	406
Reclassification to assets and liabilities held for sale	–	–1,446
Translation differences and other changes	1,598	–1,261
Deferred tax assets and liabilities, net, as of December 31	**6,021**	**7,330**

10:5

The cumulative amount of undistributed earnings in foreign subsidiaries, which the Volvo Group currently intends to indefinitely reinvest outside of Sweden and which no deferred income tax have been accounted for, amounted to SEK 28 billion (28) at year end. Undistributed earnings pertaining to countries where the dividends are not taxable are excluded.

» **Read more in Note 4** Goals and policies in financial risk management about how the Volvo Group handles currency exposure of equity.

11 Non-controlling interest

ACCOUNTING POLICY

Owners with a non-controlling interest have a limited ownership of shares and voting rights in a subsidiary, thereby also limited rights to the subsidiary's equity. Non-controlling interest equity is presented separately from equity attributable to owners of AB Volvo. In acquisitions, non-controlling interests are valued either at fair value or to a proportionate share of the acquired company's net assets. Ownership changes in non-controlling interests, not resulting in change of control, are recognized within equity.

The Volvo Group has a few non-wholly owned subsidiaries, of which Shandong Lingong Construction Machinery Co. (Lingong), in China, is the largest company with non-controlling interest. Owners with non-controlling interests hold a 30% shareholding in the company. During 2021, the profit allocated to the non-controlling interest in Lingong amounted to SEK 430 M (742). The accumulated amount allocated to the non-controlling interest within equity of Lingong amounts to SEK 3,000 M (2,806).

The following table presents summarized financial information for Shandong Lingong Construction Machinery Co.

Summarized income statement	2021	2020
Net sales	24,319	24,814
Operating income	1,515	2,734
Income for the period	**1,435**	**2,474**
Other comprehensive income[1]	1,231	–704
Total comprehensive income for the period[1]	**2,666**	**1,770**
Dividends paid to non-controlling interest	606	768

11:1

Summarized balance sheet	Dec 31, 2021	Dec 31, 2020
Non-current assets	3,166	3,589
Marketable securities, cash and cash equivalents	4,831	5,564
Other current assets	17,918	14,809
Total assets	**25,915**	**23,962**
Non-current liabilities	86	702
Current liabilities	15,829	13,906
Total liabilities	**15,915**	**14,608**
Equity attributable to:		
Owners of AB Volvo[1]	7,000	6,548
Non-controlling interest[1]	3,000	2,806

11:2

1 Includes exchange differences from translating equity in foreign subsidiaries in the Volvo Group.

12 Intangible assets

ACCOUNTING POLICY

Volvo Group applies the cost method for recognition of intangible assets, consisting of goodwill, capitalized product and software development and other intangible assets.

» **Read more in Sustainability notes** and section EU Taxonomy regulation disclosures about taxonomy eligible capital expenditure.

Goodwill
Goodwill is recognized as an intangible asset with indefinite useful life. For non-depreciable assets such as goodwill, impairment tests are performed annually, as well as if there are indications of impairments during the year. Goodwill is allocated and tested at the level of cash-generating units which are identified as the Volvo Group's operating segments. However, in the segment Group Functions & Other two new cash-generating units, Nova Bus and Designwerk are included. If the carrying amount of the tested cash-generating unit exceeds the calculated recoverable amount, an impairment loss is recognized for the difference. The recoverable amount for a cash-generating unit is determined by the value in use, which is based on a discounted cash flow model with a forecast period of five years. The valuation is based on a business plan which is an integral part of the Volvo Group's financial planning process and represents management's best estimate of the development of the operations. Assumption of 2% (2) long-term market growth beyond the forecast period and the expected development of the operations in relation to this environment is a basis for the valuation. In the model, the Volvo Group is expected to maintain stable capital efficiency over time. Other parameters considered in the calculation are operating income, mix of products and services, expenses and level of capital expenditures. The Volvo Group uses a discount rate at 10% (10) before tax for 2021.

In 2021, the recoverable amount of Volvo Group's operations exceeded the carrying amount for all cash-generating units, thus no impairment was recognized. The Volvo Group has also analyzed whether a negative adjustment of several percentage points on the used assumptions for discount rate and operating income would result in impairment for goodwill, however none of the cash-generating units would be impaired as a result of this analysis. The operating parameters applied in the valuation are based on management's strategy and could indicate higher value than historical performance for each cash-generating unit. Furthermore, the Volvo Group is operating in a cyclical industry why performance could vary over time.

Headroom differs between the cash-generating units and they are sensitive to changes in the assumptions described above to a varying degree. Therefore, the Volvo Group continuously follows the performance of the cash-generating units whose headroom is dependent on the fulfillment of the Volvo Group's assessments. Instability in the recovery of the market and volatility in interest and currency rates may lead to indications of a need for impairment. The most important factors for the future operations of the Volvo Group are described in the Volvo Group's operating segments, as well as in the Risk management section.

Research and development
Expenditures for the development of new products and software are recognized as intangible assets if such expenditures, with a high degree of certainty, will result in future financial benefits for the company. Intangible assets are amortized over its estimated useful life.

The rules require stringent criteria to be met for these development expenditures to be recognized as assets. For example, it must be possible to prove the technical functionality of a new product or software prior to its development expenditure being recognized as an asset. In normal cases, this means that expenditures are capitalized only during the industrialization phase of a product development project. Other research and development costs are recognized in the income statement as incurred.

The Volvo Group has developed a process for conducting product development projects, which has six phases focused on separate parts of the project. Every phase starts and ends with a reconciliation point, known as a gate, for which the criteria must be met for the project's decision making committee to allow the project to progress to the next phase. During the industrialization phase, the industrial system is prepared for serial production and the product is launched. A corresponding process is developed for software development.

Other intangible assets
Other intangible assets include trademarks, distribution networks, licenses and other rights. When participating in industrial projects in partnership with other companies the Volvo Group in certain cases pays an entrance fee to participate, which is capitalized as an intangible asset.

Amortization and impairment with finite useful life
Intangible assets with finite useful life are amortized on a straight line basis over their estimated useful life. Amortization is based on the cost of the assets, adjusted by impairments when applicable and estimated useful lives. Amortization is recognized in the respective function to which it belongs, meaning that amortization of product development is part of the research and development expenses in the income statement. Impairment tests for amortizable assets are performed if there are indications of impairment. In addition, impairment tests are performed annually for capitalized development cost for products and software not yet in use by calculating the recoverable amount. The recoverable amount is the higher of the fair value less costs of disposal and the value in use. The value in use is measured as the discounted future cash flows, which the asset is expected to generate either by itself or from the lowest cash-generating unit to which the asset belongs. If the recoverable amount is less than the carrying amount, an impairment is recognized and the carrying amount of the asset is reduced to the recoverable amount.

Estimated useful life	
Trademarks	Max 5 years
Distribution networks	10 years
Product and software development	3–8 years
Other intangible assets	3–5 years

12:1

SOURCE OF ESTIMATION UNCERTAINTY AND CRITICAL JUDGMENTS

Impairment of goodwill and other intangible assets
When conducting impairment tests of goodwill and other intangible assets, estimates have to be made to determine the recoverable amounts of cash-generating units. The recoverable amount is based upon management's projections of future cash flows. Headroom differs between the cash-generating units and are to a varying degree sensitive to changes in assumptions and the business environment. The broadening of the customer offer with focus to switch to more sustainable solutions accelerates investments in research and development. The magnitude of investments and the assessment of future useful life is uncertain due to technology and infrastructure development, emission regulations, government incentives and customer demand. While management believes that estimates of future cash flows and other assumptions made are reasonable, there are uncertainties which could materially affect the valuations.

Intangible assets, acquisition costs	Goodwill	Capitalized product and software development	Other intangible assets	Total intangible assets
Opening balance 2020	**22,981**	**48,431**	**5,956**	**77,369**
Investments[1]	–	2,263	759	**3,023**
Sales/scrapping	–	–3,829	–326	**–4,155**
Acquired and divested operations[1]	–13	–	0	**–13**
Translation differences	–1,229	–714	–354	**–2,297**
Reclassification at divestment[1]	499	796	841	**2,136**
Reclassifications and other	–10	–287	–31	**–328**
Acquisition cost as of Dec 31, 2020	**22,228**	**46,661**	**6,846**	**75,735**
Investments[1]	–	3,078	644	**3,722**
Sales/scrapping	–	–137	–8	**–144**
Acquired and divested operations[1]	–236	–4,120	–2,627	**–6,983**
Translation differences	692	85	129	**906**
Reclassification at divestment[1]	1,229	4,147	1,960	**7,336**
Reclassifications and other	11	9	–110	**–91**
Acquisition cost as of Dec 31, 2021	**23,924**	**49,723**	**6,833**	**80,480**

12:2

Intangible assets, accumulated amortization and impairment	Goodwill	Capitalized product and software development	Other intangible assets	Total intangible assets
Opening balance 2020	–	**35,533**	**5,168**	**40,700**
Amortization	–	2,818	175	**2,993**
Impairment	–	0	150	**150**
Sales/scrapping	–	–3 824	–326	**–4,150**
Acquired and divested operations[1]	–	–	0	**0**
Translation differences	–	–634	–230	**–864**
Reclassification at divestment[1]	–	2,134	499	**2,632**
Reclassifications and other	–	–302	–4	**–305**
Accumulated amortization and impairment as of Dec 31, 2020	**–**	**35,725**	**5,432**	**41,157**
Amortization	–	2,659	135	**2,793**
Impairment	–	–	–	**–**
Sales/scrapping	–	–126	–7	**–133**
Acquired and divested operations[1]	–	–2,828	–1,837	**–4,664**
Translation differences	–	67	101	**168**
Reclassification at divestment[1]	–	2,827	1,365	**4,192**
Reclassifications and other	–	2	–104	**–102**
Accumulated amortization and impairment as of Dec 31, 2021	**–**	**38,325**	**5,086**	**43,411**
B/S **Net value in balance sheet as of December 31, 2020[2]**	**22,228**	**10,936**	**1,414**	**34,577**
B/S **Net value in balance sheet as of December 31, 2021[2]**	**23,924**	**11,399**	**1,748**	**37,070**

12:3

1 Read more in Note 3 Acquisitions and divestments of operations, for a description of acquired and divested operations as well as assets and liabilities held for sale.
2 Acquisition costs less accumulated amortization and impairments.

Goodwill per cash-generating unit	Dec 31, 2021	Dec 31, 2020
Trucks	12,620	11,993
Construction Equipment	8,923	8,568
Buses[1]	826	794
Penta	356	298
Other cash-generating units[1]	1,198	575
Total goodwill value	**23,924**	**22,228**

12:4

1 As of October 1, 2021, the Volvo Group reorganized its bus operation whereby goodwill related to Nova Bus has been reallocated from Buses to Other cash-generating units.

13 Tangible assets

ACCOUNTING POLICY

The Volvo Group applies the cost method for measurement of tangible assets, consisting of property, plant, equipment and investment property as well as assets under operating leases.

Buildings include owner-occupied properties and investment properties. Investment properties are properties owned for the purpose of obtaining rental income and appreciation in value. Investment properties are recognized at cost. For disclosure purposes, information regarding the estimated fair value of investment properties is based on an internal discounted cash flow projection as relevant observable market inputs for the assets are not available. The required return is based on current property market conditions for comparable properties in comparable locations. Hence, the applied valuation method to measure fair value is classified as level 3 of the fair value hierarchy and there have not been any changes in valuation method during the year. Land contains land and land improvements. Machinery and equipment consists of production related assets such as machinery, type-bound tools and other equipment. Construction in progress are assets under construction and advanced payments. Right-of-use assets relates to lease contracts with the Volvo Group as a lessee.

Assets under operating leases are mainly owned by the Volvo Group. These transactions are accounted for as operating lease transactions and consists of contractual operating lease agreements with customers within Financial Services and rental fleet which are assets used in a fleet for rental business within Industrial Operations. Some rental fleet assets are leased by the Volvo Group and later sub-leased to customers as operating leases. Sales with residual value commitments within Industrial Operations are also recognized within assets under operating leases.

» **Read more in Note 7** Revenue about sales with residual value commitments.

» **Read more in Note 14** Leasing about right-of-use assets and assets under operating leases.

» **Read more in Sustainability notes** and section EU Taxonomy regulation disclosures about taxonomy eligible capital expenditure.

Depreciation and impairment

Property, plant, equipment and investment property are depreciated over their estimated useful lives. Land is not depreciated. Depreciation is recognized on a straight-line basis based on the cost of the assets, adjusted by residual value when applicable, and estimated useful lives. Right-of-use assets are generally depreciated over the lease term on a straight-line basis. Assets under operating leases are depreciated on a straight-line basis over the contract period. During the contract period, the depreciable amount is adjusted by accelerated depreciation and/or write-downs. The adjustment is recognized through the income statement to correspond to estimated future net realizable value to continuously reflect potential residual value risks at the end of the contract period. Depreciation is recognized in the respective function to which it belongs. Impairment tests are performed if there are indications of impairment by calculating a recoverable amount which is the higher of the asset's fair value less cost of disposal and its value in use.

Estimated useful life	
Type-bound tools	3 to 8 years
Operating leases, rental fleet	3 to 5 years
Sales with residual value commitments	3 to 5 years
Machinery and equipment	5 to 20 years
Buildings and investment properties	20 to 50 years
Land improvements	20 years

13:1

SOURCE OF ESTIMATION UNCERTAINTY AND CRITICAL JUDGMENTS

Impairment of tangible assets

Impairment tests are performed if there is any indication that a tangible asset has been impaired. The impairment tests are based on estimation of the recoverable amount of the asset, or the cash-generating unit to which the asset belongs. To determine the recoverable amount, projections of future cash flows are used, which are based upon internal business plans and forecasts. The ongoing transition of the transport sector towards new technologies with battery electric and fuel cell vehicles bring uncertainties regarding current and future investments in production facilities as well as estimated useful life. However, many assembly lines can produce both electric trucks and trucks with combustion engines which limits investment needs and risk for impairment. While management believes that estimates of future cash flows and other assumptions made are reasonable, there are uncertainties which could materially affect the valuations.

Residual value risks

Volvo Group is exposed to residual value risks related to assets under operating leases which are the risks that the Volvo Group in the future would have to dispose used vehicles at a loss if the price development of these products is worse than what was expected when the contracts were entered. The assessment of residual value risks is based upon an estimation of the used vehicle's future net realizable value (fair market value). The estimated future net realizable value of the vehicles at the end of the contract period is monitored individually on a continuing basis. Thus, a decline in prices for used vehicles may negatively affect the Volvo Group's operating income. High inventories in the truck industry and the construction equipment industry and low demand may have a negative impact on the prices of new and used vehicles. In monitoring estimated net realizable value of each vehicle included as assets under operating leases, management considers current price level of the used product model. The price level is impacted by value of optional equipment, mileage, current condition, expected future price development, change of market conditions including the shift towards battery electric and fuel cells vehicles, alternative distribution channels, inventory lead-time, repair and reconditioning costs, handling costs, indirect costs associated with the sale of used vehicles and legislative demands.

Reclassifications

Reclassifications and other presented in the tables 13:2 and 13:3 mainly consist of construction in progress, rental fleet and assets related to sales with residual value commitments (buyback and tradebacks).

For construction in progress, reclassification occurs when the asset is available for use by transferring the assets to the respective category within property, plant and equipment.

For rental fleet and sales with residual value commitments, reclassifications occur when the vehicle is sold or rented out to customers by transferring the vehicle from inventory to assets under operating leases. If the vehicle is returned by the end of the residual value commitment period or the leasing period, the vehicle is reclassified back to inventory.

Investment properties

The acquisition value of investment properties at year-end amounted to SEK 95 M (93). Reclassifications amounted to SEK 1 M (0). Accumulated depreciation amounted to SEK 38 M (33) at year-end, of which SEK 4 M (4) refers to 2021. The net carrying value amounted to SEK 57 M (60). The estimated fair value of investment properties amounted to SEK 102 M (91) at year-end and 97% (97) of the area available for lease was leased out during the year. Operating income was affected by rental income from investment properties that amounted to SEK 10 M (11) and direct costs that amounted to SEK 6 M (7).

Tangible assets, acquisition cost	Property, plant, equipment and investment property					Assets under operating leases[1]			
	Buildings	Land	Machinery and equipment	Construction in progress	Right-of-use assets[1]	Operating leases	Rental fleet	Sales w. residual value commitments[2]	**Total tangible assets**
Opening balance 2020	**32,847**	**6,962**	**78,460**	**6,887**	**8,706**	**32,402**	**5,343**	**25,301**	**196,908**
Investments	480	45	1,523	3,686	1,612	8,564	–	–	**15,910**
Sales/scrapping	–502	–150	–2,758	–2	–580	–10,669	–	–	**–14,661**
Acquired and divested operations[3]	–94	–3	–172	–	–	–	–	–	**–270**
Translation differences	–2,246	–453	–5,242	–370	–663	–2,288	–454	–1,475	**–13,191**
Reclassified at divestment[3]	–129	–72	2,150	–96	–72	–	–	–206	**1,576**
Reclassifications and other	1,298	216	2,002	–3,489	449	–275	–188	–288	**–275**
Acquisition costs as of Dec 31, 2020	**31,655**	**6,544**	**75,964**	**6,617**	**9,452**	**27,734**	**4,701**	**23,332**	**185,998**
Investments	371	110	2,031	6,297	1,211	9,271	–	–	**19,292**
Sales/scrapping	–271	–63	–1,363	–	–707	–10,063	–	–	**–12,468**
Acquired and divested operations[3]	–8,160	–5,809	–6,964	–102	–648	–	2	–379	**–22,060**
Translation differences	1,301	189	2,234	334	414	1,585	204	807	**7,068**
Reclassified at divestment[3]	8,460	5,862	7,389	168	831	–	–	363	**23,074**
Reclassifications and other	1,350	275	2,919	–4,522	411	242	–247	973	**1,400**
Acquisition costs as of Dec 31, 2021	**34,705**	**7,107**	**82,209**	**8,792**	**10,965**	**28,770**	**4,660**	**25,095**	**202,304**

13:2

1 **Read more in Note 14** Leasing about right-of-use assets and assets under operating leases.

2 **Read more in Note 7** Revenue about sales with residual value commitments.

3 **Read more in Note 3** Acquisitions and divestments of operations, for a description of acquired and divested operations as well as assets and liabilities held for sale.

Tangible assets, accumulated depreciation and impairments	Property, plant, equipment and investment property					Assets under operating leases[1]			
	Buildings	Land	Machinery and equipment	Construction in progress	Right-of-use assets[1]	Operating leases	Rental fleet	Sales w. residual value commitments[2]	**Total tangible assets**
Opening balance 2020	**17,068**	**1,299**	**60,016**	**15**	**1,968**	**9,800**	**1,529**	**8,391**	**100,084**
Depreciation	1,226	75	4,271	–	2,021	4,574	729	3,059	**15,954**
Impairment	–6	9	1	–	0	0	–11	1,510	**1,502**
Sales/scrapping	–424	–10	–2,618	–	–355	–4,805	–	–	**–8,211**
Acquired and divested operations[3]	–38	–1	–152	–	0	0	–	–	**–191**
Translation differences	–1,119	–79	–3,159	–	–218	–682	–131	–401	**–5,790**
Reclassified at divestment[3]	–34	–13	1,375	–	167	–	–	33	**1,527**
Reclassifications and other	15	–4	–79	–15	–84	–375	–483	–4,929	**–5,955**
Accumulated depreciation and impairments as of Dec 31, 2020	**16,688**	**1,276**	**59,656**	**0**	**3,498**	**8,511**	**1,632**	**7,662**	**98,923**
Depreciation	1,182	92	4,061	–	1,931	4,320	704	2,995	**15,286**
Impairment	–	–	–1	–	–1	35	–5	613	**640**
Sales/scrapping	–182	–7	–1,267	–	–536	–4,601	–	–	**–6,593**
Acquired and divested operations[3]	–5,161	–194	–5,954	–	–316	–	2	–57	**–11,680**
Translation differences	714	39	1,717	–	154	491	64	254	**3,433**
Reclassified at divestment[3]	5,285	199	6,251	–	376	–	–	57	**12,168**
Reclassifications and other	–10	1	–16	–	–100	375	–828	–3,668	**–4,247**
Accumulated depreciation and impairments as of Dec 31, 2021	**18,516**	**1,406**	**64,446**	**–**	**5,006**	**9,131**	**1,568**	**7,856**	**107,930**
B/S **Net value in balance sheet as of Dec 31, 2020[4]**	**14,967**	**5,268**	**16,308**	**6,617**	**5,953**	**19,223**	**3,069**	**15,670**	**87,075**
B/S **Net value in balance sheet as of Dec 31, 2021[4]**	**16,189**	**5,701**	**17,763**	**8,792**	**5,959**	**19,638**	**3,092**	**17,239**	**94,374**

13:3

1 **Read more in Note 14** Leasing about right-of-use assets and assets under operating leases.

2 **Read more in Note 7** Revenue about sales with residual value commitments.

3 **Read more in Note 3** Acquisitions and divestments of operations, for a description of acquired and divested operations as well as assets and liabilities held for sale.

4 Acquisition costs less accumulated depreciation and impairments.

14 Leasing

ACCOUNTING POLICY

Volvo Group as the lessor
Leasing contracts are defined in two categories, operating and finance leases, depending on the contracts' financial implications.

Operating leases are offered from Financial Services (contractual operating leases) and from Industrial Operations (rental fleet agreements). Sales with residual value commitments (buybacks and tradebacks) are also accounted for as operating lease transactions when the customer has a significant economic incentive to exercise the option to return the vehicle and the control therefore has not been transferred to the customer. Operating lease agreements are recognized as tangible assets in assets under operating leases and are valued at cost less accumulated depreciation and impairment, if needed. The cost of an asset comprises the acquisition value and any initial direct costs related to the contract. Depreciation of the asset is recognized on a straight-line basis over the contract period. During the period the depreciable amount is adjusted through the income statement by depreciations or write-downs to correspond to the estimated future realizable value to reflect residual value risks at the end of the contract period. Lease income is equally distributed over the contract period and recognized within net sales.

» **Read more in Note 7** Revenue, about sales with residual value commitments.

» **Read more in Note 13** Tangible assets, about residual value risks related to assets under operating lease.

Finance leases are offered from Financial Services. As Industrial Operations manufacture the vehicles which are leased from Financial Services to the customers, the Volvo Group is acting as a manufacturer lessor. Hence, a finance lease asset gives rise to a selling profit which is recognized within Industrial Operations. Finance lease contracts are recognized as non-current and current customer-financing receivables within Financial Services. The asset is measured at an amount equal to the net investment in the finance lease contract corresponding to the gross investment (future minimum lease payments and unguaranteed residual value) discounted with the rate in the finance lease contract and reduced by unearned finance income and allowance for expected credit losses. Assessment of allowance for expected credit losses is reflected in the valuation of customer-financing receivables and recorded at initial recognition and reassessed during the contract period. Lease income is recognized as interest income within net sales in Financial Services. Variable lease payments not dependent on an index or rate are recognized as income as they occur. Payments received from finance lease contracts are distributed between interest income and amortization of the receivable.

» **Read more in Note 15** Customer-financing receivables, about finance leases.

Volvo Group as the lessee
Lease contracts are recognized as right-of-use (RoU) assets as well as interest-bearing lease liabilities in the balance sheet. Lease liabilities are recognized within other loans and are measured by the present value of future lease payments. The lease payments are discounted by using a rate reflecting what the Volvo Group would have to pay to borrow funds to acquire a similar asset, with similar collateral and similar term. RoU assets are presented as tangible assets and are valued at cost less accumulated depreciation and impairment, if needed. The cost of an RoU asset contains the initial amount of the lease liability adjusted for any lease payments made before the commencement date, less any lease incentives received. Moreover, any initial direct costs are included, as well as an estimate of costs to be incurred in dismantling, removing or restoring the underlying asset. The leased asset is depreciated on a straight-line basis over the lease term, or over the useful life of the underlying asset if the ownership is transferred to the Volvo Group at the end of the lease term. The lease expense is recognized as depreciation of the asset within operating income and interest expense within the finance net. Payments made are distributed between interest paid and amortization of the lease liability.

Lease contracts with the Volvo Group as the lessee are primarily contracts for real estate (such as office buildings, warehouses and dealer premises), company cars and production related assets. For real estate and company car leases, service components are normally a considerable portion of the contracts and are therefore separated. The service components are recognized as operating expenses and not included in the RoU asset and the lease liability. For other lease contracts, both the leased asset and services are included in the RoU asset and the lease liability.

If a lease contract includes variable lease payments not dependent on an index or rate, or include a low value asset or has a lease term that is twelve months or less, the lease payments are recognized as operating expenses as they occur.

SOURCE OF ESTIMATION UNCERTAINTY AND CRITICAL JUDGMENTS

Measurement of lease liabilities and right-of-use assets
When entering a lease contract, judgments related to contract scope, lease term and interest rate to be used when discounting future lease payments are made which affect the measurement of the lease liability and the RoU asset.

Assessment of contract scope includes judgments whether a leased asset and/or a service component is identified in the contract. In combined contracts, the total contract amount is allocated between the leased asset and the service by using a market stand-alone price.

When determining the lease term of a contract, judgments are also required. The lease term includes the non-cancellable period. If the Volvo Group is reasonably certain to use an option to extend the lease, or not to use an option to terminate the lease in advance, this is also considered. The contracts contain a range of different conditions. Extension and termination options are mainly related to real estate leases. Thus, all relevant facts and circumstances that create an economic incentive to include optional periods are evaluated. The importance of the underlying asset in the operations and its location, availability of suitable alternatives, significant leasehold improvements, level of rentals in optional periods compared to market rates as well as past practice are examples of factors included in the assessment. Lease terms are negotiated on an individual basis and are reassessed if an option is exercised.

Judgments are also required to determine the interest rate when discounting future lease payments and whether the interest rate implicit in the lease can be readily determined and thereby used, or if the Volvo Group's incremental borrowing rate should be used.

Volvo Group as the lessor

Lease income	**Dec 31, 2021**	Dec 31, 2020
Finance leases		
Finance income on customer-financing receivables	2,516	2,625
Total	**2,516**	**2,625**
Operating leases		
Lease income on assets under operating lease	10,937	11,532
Total	**10,937**	**11,532**

14:1

During 2021, the profit from sale of vehicles subject to finance leases amounted to SEK 3,624 M (2,863) and was recognized within Industrial Operations.

As of December 31, 2021, future lease income from non-cancellable finance and operating leases (minimum lease fees excluding sales with residual value commitments) amounted to SEK 77,181 M (70,293).

» **Read more in Note 15** Customer-financing receivables about finance leases.

Maturity analysis of lease payments receivable	Finance leases	Operating leases
2022	22,222	8,041
2023	15,854	5,652
2024	10,364	3,663
2025	5,738	1,493
2026	2,574	670
2027 or later	708	202
Total undiscounted lease payments	**57,460**	**19,721**
Unguaranteed residual value	1,123	
Unearned finance income	–4,052	
Allowance for expected credit losses	–1,429	
Customer-financing receivables (current and non-current)	**53,102**	

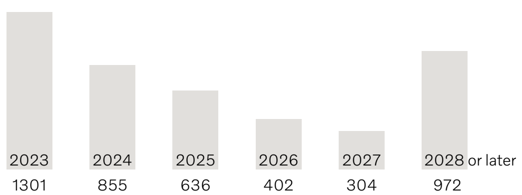
14:2

Volvo Group as the lessee

Lease liabilities	**Dec 31, 2021**	Dec 31, 2020
Non-current lease liabilities	4,469	4,434
Current lease liabilities	1,632	1,552
Total lease liabilities	**6,101**	**5,986**

14:3

Non-current lease liabilities maturities, SEK M



14:4

During 2021, total cash outflow related to leases amounted to SEK 2,922 M (3,231), with a distribution of SEK 834 M (975) within operating cash flow and SEK 2,088 M (2,256) within financing activities.

Carrying amount of right-of-use assets as of Dec 31, 2021	Buildings	Land	Machinery and equipment	Company cars	Asset under operating lease and rental fleet[1]	Total
Acquisition cost						
Opening balance 2021	6,841	579	801	1,231	439	**9,891**
Additions to right-of-use assets[2]	1,207	95	166	45	–16	**1,497**
Acquisition cost as of Dec 31, 2021	**8,048**	**674**	**967**	**1,276**	**423**	**11,388**
Accumulated depreciation						
Opening balance 2021	–2,341	–99	–366	–693	–141	**–3,640**
Depreciation	–1,313	–29	–190	–399	–64	**–1,995**
Other changes	104	3	46	271	48	**472**
Accumulated depreciation as of Dec 31, 2021	**–3,550**	**–125**	**–510**	**–821**	**–157**	**–5,163**
Carrying amount in balance sheet as of Dec 31, 2021	**4,498**	**549**	**457**	**455**	**266**	**6,225**

Carrying amount of right-of-use assets as of Dec 31, 2020	Buildings	Land	Machinery and equipment	Company cars	Asset under operating lease and rental fleet[1]	Total
Acquisition cost						
Opening balance 2020	6,548	512	639	1,007	418	**9,124**
Additions to right-of-use assets[2]	293	67	162	224	21	**767**
Acquisition cost as of Dec 31, 2020	**6,841**	**579**	**801**	**1,231**	**439**	**9,891**
Accumulated depreciation						
Opening balance 2020	–1,331	–68	–207	–362	–131	**–2,099**
Depreciation	–1,358	–40	–187	–436	–64	**–2,085**
Other changes	348	9	28	105	54	**544**
Accumulated depreciation as of Dec 31, 2020	**–2,341**	**–99**	**–366**	**–693**	**–141**	**–3,640**
Carrying amount in balance sheet as of Dec 31, 2020	**4,500**	**480**	**435**	**538**	**298**	**6,251**

14:5

1 Refers to assets leased by the Volvo Group which are later sub-leased to customers as operating lease.
2 Additions to RoU assets mainly relate to new lease contracts signed.

Recognized in the income statement	2021	2020
Interest expense on lease liabilities within Financial Services	–1	–2
Depreciation of right-of-use assets	–1,995	–2,085
Short term lease expense	–462	–530
Low value asset expense	–91	–114
Variable lease expense	–39	–47
Income from sub-leasing right-of-use assets	155	140
Gains or losses arising from sale and leaseback transactions	13	–
Gains or losses on right-of-use assets	5	2
Recognized in operating income	**–2,415**	**–2,636**
Interest expense on lease liabilities within Industrial Operations	–237	–282
Recognized in net financial items	**–237**	**–282**

14:6

15 Customer-financing receivables

ACCOUNTING POLICY

Installment credits, dealer financing and other receivables within customer-financing receivables are held as part of a business model whose objective is of collecting contractual cash flows. The contractual cash flows are solely payments of principal and interest and are measured at amortized cost in accordance with the effective interest method. Finance lease contracts are valued at amortized cost, for further information on recognition and classification see note 14 Leasing.

The Volvo Group is applying the simplified expected credit loss model for customer-financing receivables, under which the loss allowance is measured at an amount equal to lifetime expected credit losses. The allowance is recorded at initial recognition and is reassessed during the contract period.

Interest income on customer-financing receivables is recognized within net sales, mainly within Financial Services. Changes to the allowance for expected credit losses are recognized in other operating income and expense.

SOURCE OF ESTIMATION UNCERTAINTY AND CRITICAL JUDGMENTS

Allowance for expected credit losses

The assessment of allowances for expected credit losses on customer-financing receivables is dependent on estimates including assumptions regarding past dues, repossession rates and quality level of repossessed collateral.

A collective assessment is made for customer-financing receivables that are not credit impaired. The assets are grouped based on shared risk characteristics such as type of customer, geographical area, initial credit risk rating, collateral type and date of initial recognition to evaluate the credit losses collectively. Historical information regarding credit loss experience is used to forecast future losses, adjusted for current and forecasted conditions in the different regions based on management's evaluation of macro-level and portfolio-level factors, such as GDP, oil prices, unemployment rates etc.

Since the covid-19 pandemic started, the assessment process has been intensified. The collective assessment for customer-financing receivables that are not credit impaired is reviewed and adjusted on a more detailed level, in order to identify individual segments in each market that are significantly impacted by the pandemic, to forecast future losses on those specific markets. As a critical part in the collective assessment, the largest customers in each market are reviewed individually based on the financial condition of each customer and the value of the underlying collateral. The impact from government support programs linked to the pandemic and modifications through extended payment terms and their discontinuance is taken into consideration, and is monitored closely for on-going payment performance and signs of impairment. The recent impacts from rising interest rates and supply shortages is also taken into consideration. Worst case scenarios from historical information regarding credit loss experience is also used in order to estimate the potential impact of the pandemic.

Overall, in the collective assessment the historical information regarding credit loss experience is still used as a base and is adjusted based on information from the detailed assessment from the largest customers. This provides a basic understanding of how the assessment process has evolved since the pandemic, and how it impacts customers in various segments in each market to estimate expected credit losses on the rest of the customer-financing receivables portfolio.

An individual assessment is made for credit impaired customer-financing receivables based on the financial condition of the customers and the value of the underlying collateral and guarantees. The Volvo Group considers a financial asset credit impaired if it meets one or more of the following criteria; when there are indications that the customer is unlikely to pay, such as bankruptcy filing, unauthorized transfer of collateral, at surrender of collateral etc. or, at the latest, when the customer fails to make contractual payment within 90 days of when the receivable falls due.

Risk management practices

Other than the dealer financing, customer-financing receivables extend over several years, but normally the customers make monthly payments throughout the term to reduce the outstanding exposure. The customer-financing receivables are secured by the financed commercial vehicles and equipment. However, in the case of customer default, the value of the repossessed commercial vehicles and equipment may not necessarily cover the outstanding financed amount. In order to mitigate this risk, Financial Services has strong portfolio management processes based on prudent credit approval, active monitoring of individual loan performance, utilization of in-house and external collections, portfolio segmentation analysis, and on-going monitoring of the economic, political and industry conditions in each market. In addition, other credit enhancements such as down payments, personal guarantees, credit insurance, liens on other property owned by the borrower etc. may be required at the time of origination or when there are signs of impairment. When customer-financing receivables exceed 90 days of overdue collateral repossession is initiated, although there may be circumstances where repossession is initiated earlier. When the collateral is repossessed, the net realizable value is established and the vehicle is transferred to inventory and becomes part of the Volvo Group's normal business activity of selling used vehicles and equipment and the expected loss on the customer-financing receivable is written off. If repossession has not occurred on customer-financing receivables exceeding 180 days of overdue the expected loss on the receivable is written off. Financial Services continues to engage in enforcement activity on all customer financing-receivables written off during the year to attempt to recover the contractual amount not previously received from the customer.

» **Read more in Note 4** Goals and policies in financial risk management, for a description of credit risks, interest risks and currency risks.

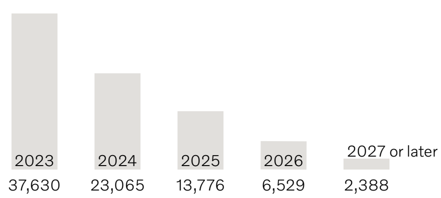
As of December 31, 2021, the total allowances for impairment in Financial Services amounted to 1.82% (2.07) of the total credit portfolio in the segment. This reserve ratio is used as an important measure for Financial Services and includes operating leases and inventory. Allowances for expected credit losses for customer-financing receivables has increased since the beginning of the year from SEK 2,900 M to SEK 3,308 M primarily due to fluctuations in exchange rates. The increase in expected credit losses due to a higher volume in the credit portfolio were partly offset by a decrease in expected credit losses, due to improved financial performance of the customers within Financial Services, leading to a lower reserve ratio. Part of the increase in allowance for expected credit losses due to the pandemic recognized last year, is still recognized in customer-financing receivables not credit impaired as not all specific customers have been identified as credit impaired. Once a customer is identified as impaired a reclassification is made from the not credit impaired towards the credit impaired.

Non-current customer-financing receivables	Dec 31, 2021	Dec 31, 2020
Installment credits	49,081	40,732
Finance leases	32,279	28,576
Other receivables	2,026	1,239
B/S Non-current customer-financing receivables	**83,386**	**70,547**

15:1

The effective interest rate for non-current customer-financing receivables amounted to 4.92% (4.87) as of December 31, 2021.

Non-current customer-financing receivables maturities, SEK M



15:2

Current customer-financing receivables	Dec 31, 2021	Dec 31, 2020
Installment credits	26,183	21,427
Finance leases	20,823	18,571
Dealer financing	18,952	16,485
Other receivables	2,160	1,502
B/S Current customer-financing receivables	**68,118**	**57,985**

15:3

The effective interest rate for current customer-financing receivables amounted to 4.77% (4.71) as of December 31, 2021.

Credit risk in customer-financing receivables	Dec 31, 2021	Dec 31, 2020
Customer-financing receivables gross	154,812	131,431
Allowance for expected credit losses for customer-financing receivables	–3,308	–2,900
Whereof allowance for credit impaired	*–617*	*–611*
Whereof allowance for not credit impaired	*–2,691*	*–2,289*
Customer-financing receivables, net of allowance	**151,504**	**128,531**

15:4

Change of allowance for expected credit losses for customer-financing receivables	2021		2020	
	Not credit impaired	Credit impaired	Not credit impaired	Credit impaired
Opening balance	**2,289**	**611**	**1,982**	**361**
New valuation allowance charged to income	519	238	1,461	269
Reversal of valuation allowance charged to income	–65	–76	–3	–52
Utilization of valuation allowance related to actual losses	–0	–386	–0	–702
Movements between not credit impaired/credit impaired[1]	–188	188	–802	802
Translation differences	129	43	–297	–68
Reclassification[2]	111	–	–	–
Syndication transactions and other	–104	–	–52	0
Allowance for expected credit losses for customer-financing receivables as of December 31	**2,691**	**617**	**2,289**	**611**

15:5

1 When a receivable becomes credit impaired a transfer of allowance is made to allowance for credit impaired receivables.

2 Change in accounting treatment for operating leases within Financial services.

Customer-financing receivables, gross exposure	Dec 31, 2021					Dec 31, 2020				
	Not due	1–30	31–90	>90	**Total**	Not due	1–30	31–90	>90	**Total**
Customer-financing receivables total	141,281	7,915	4,803	813	**154,812**	118,974	8,248	2,657	1,551	**131,431**
Whereof not credit impaired	*140,441*	*7,415*	*4,390*	*113*	*152,359*	*118,250*	*8,021*	*2,237*	*102*	*128,610*
Whereof credit impaired	*840*	*500*	*413*	*700*	*2,454*	*725*	*227*	*420*	*1,449*	*2,821*

15:6

During 2021, the majority of the customers have come to an end of their modification periods and have resumed their original payment levels. So far, the customers are generally able to meet their payment obligations as a result of the increased government support programs and the financial relief for companies during the modification periods provided by Financial Services and other obligors. An improved macroeconomic enviroment such as increased transport and construction activity have also been beneficial for their financial situation, in conjunction with the additional liquidity provided by the Central Banks towards the credit markets. The allowance for expected credit losses on customer financing-receivables is expected to decrease as the global economy recovers and grows from current levels. However, there are still concerns as to how the portfolio will perform as government moratoriums and support programs wind down.

» Read more in Note 30 Financial instruments, for information on the gain or loss recognized in the operating income arising from derecognition of customer-financing receivables in table 30:3.

Table 15:6 represents the gross credit exposure on customer-financing receivables within the Volvo Group per age interval. The lifetime expected credit loss allowance for customer-financing receivables not credit impaired amounted to SEK 2,691 M (2,289) and allowance for customer-financing receivables credit impaired amounted to SEK 617 M (611), included in tables 15:4 and 15:5. The remaining exposure was secured by liens on the financed commercial vehicles and equipment and, in certain circumstances, other credit enhancements such as personal guarantees, credit insurance, liens on other property owned by the borrower etc. Collaterals taken in possession that meet the criteria for recognition in the balance sheet amounted to SEK 104 M (155) as of December 31, 2021.

Concentration of credit risk

Customer concentration

The ten largest customers within Financial Services account for 5.7% (5.6) of the total asset portfolio. The rest of the portfolio is attributable to a large number of customers and the credit risk is therefore spread across many customers. During 2021 SEK 9.8 billion (6.8) of customer financing receivables were syndicated in order to reduce concentration risks.

Concentration by geographical market

Graph 15:7 discloses the concentration of Financial Services portfolio divided into geographical markets.

» Read more in Note 4 Goals and policies in financial risk management about credit risks.

» Read more in the Board of Directors' report about Financial Services' development during the year.

Geographic market, percentage of customer-financing portfolio (%)

15:7

16 Receivables

ACCOUNTING POLICY

Receivables are measured at amortized cost. The Volvo Group is applying the simplified expected credit loss model for accounts receivables, under which the loss allowance is measured at an amount equal to lifetime expected credit losses. The allowance is recorded at initial recognition and is reassessed during the contract period. Changes to the allowance for expected credit losses for accounts receivables are recognized in other operating income and expense.

» Read more in Note 30 Financial instruments in section derecognition of financial assets, about receivables subject to discounting activities.

SOURCE OF ESTIMATION UNCERTAINTY AND CRITICAL JUDGMENTS

Allowance for expected credit losses

Accounts receivables are short term by nature and consequently the risk assessment horizon is short. Due to the prevailing business model in the construction equipment industry in China there is also a minor part of accounts receivables with long payment terms to customers. A collective assessment is made on accounts receivables not credit impaired. Historical information regarding credit loss experience is used to forecast future losses, adjusted for current and forecasted conditions. An individual assessment is made on credit impaired accounts receivables based on the financial condition of the customer.

The covid-19 pandemic is in a new phase where many countries have eased their restrictions and made changes to the government support programs implemented last year. However, the duration and future development of the pandemic is still unknown. As a consequence, the assessment of valuation allowances for expected credit losses for accounts receivables continues to be in focus in order to ensure allowances are in alignment with the new phase of the economic environment.

Risk management practices

Credit risks are managed through active credit monitoring and follow-up routines in accordance with the Volvo Group Credit management directive. This directive includes different steps to perform when an invoice is not paid at due date. When an increased credit risk is verified, for example through a bankruptcy, or when an allowance has been unchanged for two years and it can be demonstrated that all required steps have been performed the allowance is reversed and the accounts receivables are written off. Apart from certain exceptions the Volvo Group continues to engage in enforcement activity even after a write-off in order to recover the contractual amount not previously received.

A significant part of accounts receivables is related to the construction equipment industry in China. Due to the prevailing business model in China there is also a minor part of accounts receivables with long payment terms to customers. Should construction and mining activity in China decline rapidly and substantially, this may negatively impact customers' and dealers' ability to honor their obligations to the Group and consequently have an adverse effect on the Group's financial result.

Renegotiated receivables are on the same level as last year, with the majority of the exposure related to renegotiated receivables within Construction Equipment in China. Renegotiated receivables continue to be closely monitored for on-going payment performance and signs of impairment.

As of December 31, 2021, the total allowance for expected credit losses for accounts receivables amounted to 2.03% (2.12) of total accounts receivables.

» **Read more in Note 4** Goals and policies in financial risk management, regarding credit risk.

Non-current receivables	**Dec 31, 2021**	Dec 31, 2020
Other interest-bearing receivables[1]	436	203
Interest and currency risk derivatives[2]	2,090	4,437
Contract and right of return assets[3]	4,195	3,390
Other receivables	4,257	4,733
Non-current receivables	**10,978**	**12,763**

16:1

1 The amount is the non-current part of other interest-bearing receivables in note 30 Financial instruments, table 30:1.

2 The amount is the non-current part of Interest and currency risk derivatives in note 30 Financial instruments, table 30:1.

3 » **Read more in Note 7** Revenue, about contract and right of return assets.

Current receivables	**Dec 31, 2021**	Dec 31, 2020
Other interest-bearing receivables[1]	1,255	199
Accounts receivables	40,776	35,660
Prepaid expenses and accrued income	3,225	2,700
VAT receivables	4,205	2,638
Interest and currency risk derivatives[2]	840	1,612
Contract and right of return assets[3]	1,641	3,845
Other receivables	7,526	5,950
Current receivables, after deduction of allowance for expected credit losses on accounts receivables	**59,468**	**52,605**

16:2

1 The amount is the current part of other interest-bearing receivables in note 30 Financial instruments, table 30:1.

2 The amount is the current part of Interest and currency risk derivatives in note 30 Financial instruments, table 30:1.

3 » **Read more in Note 7** Revenue, about contract and right of return assets.

Change of allowance for expected credit losses on accounts receivables	**2021**	2020
Opening balance	**771**	**1,021**
New allowance charged to income	433	378
Reversal of allowance charged to income	–177	–418
Utilization of allowance related to actual losses	–144	–196
Translation differences	61	–71
Reclassifications, etc[1]	–99	57
Allowance for expected credit losses on accounts receivables as of December 31	**846**	**771**

16:3

1 Whereof reclassification to other non-current receivables of SEK –104 M (55).

» **Read more in Note 30** Financial instruments.

Age analysis of accounts receivables	**Dec 31, 2021**					Dec 31, 2020				
	Not Due	1–30	31–90	>90	**Total**	Not Due	1–30	31–90	>90	**Total**
Accounts receivables gross	37,173	1,813	1,258	1,377	**41,622**	32,788	1,692	557	1,394	**36,431**
Allowance for expected credit losses on accounts receivables	–241	–59	–53	–493	**–846**	–183	–11	–28	–549	**–771**
B/S **Accounts receivables net**	**36,932**	**1,753**	**1,205**	**885**	**40,776**	**32,605**	**1,680**	**529**	**846**	**35,660**

16:4

17 Inventories

ACCOUNTING POLICY

Inventories are measured at the lower of cost and net realizable value.

The cost is established by using the first-in, first-out principle (FIFO) and is based on a standard cost method, including costs for all direct manufacturing expenses and the attributable share of capacity and other manufacturing-related costs. The standard costs are reviewed regularly and adjustments are made based on current conditions. Manufacturing costs are based on normal capacity utilization which are allocated to inventory while unabsorbed cost due to changes in production volume are recognized in the income statement as incurred. Costs for research and development, selling, administration and financial expenses are not included.

Net realizable value is calculated as the selling price less costs attributable to the sale.

SOURCE OF ESTIMATION UNCERTAINTY AND CRITICAL JUDGMENTS

Write-down of inventories

The calculation of net realizable value involves estimation of a future sales price, which is dependent on several parameters, such as market demand, model changes and development of used products prices. If the estimated net realizable value is lower than cost, a write down of inventories is made.

Inventories	**Dec 31, 2021**	Dec 31, 2020
Finished products	32,297	26,589
Production materials etc.	31,619	21,036
B/S **Inventories**	**63,916**	**47,625**

17:1

The total value of inventories, net after write-downs, was SEK 63,916 M (47,625) as of December 31, 2021. Inventories recognized as cost of sold products during the period amounted to SEK 273,872 M (244,512).

Change in write-down of inventories	**2021**	2020
Opening balance	**3,452**	**4,303**
Change in write-down of inventories charged to income	334	554
Scrapping	–373	–510
Translation differences	171	–259
Reclassifications etc.	–3	–637
Write-down of inventories as of December 31	**3,581**	**3,452**

17:2

18 Cash and cash equivalents

ACCOUNTING POLICY

Cash and cash equivalents include highly liquid interest-bearing securities that are considered easily convertible to cash. These include marketable securities and reverse repurchase agreements, with a date of maturity within three months at the time of investment. Interest-bearing securities with a date of maturity exceeding three months at the time of investment are recognized as marketable securities.

» **Read more in Note 30** Financial instruments, about accounting policies for financial instruments.

Cash and cash equivalents	Dec 31, 2021	Dec 31, 2020
Cash in banks	46,286	60,571
Marketable securities with original duration less than 3 months[1]	1,803	2,327
Time deposits in banks	14,038	14,495
Reverse repurchase agreements[2]	–	7,812
B/S **Cash and cash equivalents**	**62,126**	**85,206**

18:1

1 Additionally the Volvo Group recognized outstanding marketable securities with original duration exceeding 3 months of SEK 167 M (213) in government securities as of December 31, 2021.

2 A reverse repurchase agreement is a financial transaction where one party commits to buy securities from a counterpart with the agreement to sell back the securities at an agreed price at a set future date.

Cash and cash equivalents as of December 31, 2021, include SEK 2.8 billion (2.5) that is not available for use by the Volvo Group and SEK 8.7 billion (11.0) where other limitations exist, mainly cash and cash equivalents in countries where exchange controls or other legal restrictions apply. Therefore, it is not possible to immediately use these cash and cash equivalents in other parts of the Volvo Group, however there is normally no limitation to use them for the Volvo Group's operation in the respective country.

19 Equity and number of shares

ACCOUNTING POLICY

Earnings per share before dilution is calculated as income for the period, attributable to the owners of AB Volvo, divided by AB Volvo's average number of outstanding shares for the fiscal year. Diluted earnings per share is calculated as income for the period attributable to the owners of AB Volvo, divided by AB Volvo's average number of outstanding shares after dilution for the fiscal year. If during the year there were potential shares redeemed or expired, they are included in the average number of shares used to calculate the earnings per share after dilution.

The Annual General Meeting, held on March 31, 2021, resolved that an ordinary dividend of SEK 6.00 (–) per share and an extraordinary dividend amounted to SEK 9.00 (–) should be paid to shareholders.

On April 1, 2021, the Volvo Group divested UD Trucks. An Extraordinary General Meeting was held on June 29, 2021 and the meeting resolved that the proceeds from the divestment should be paid to the shareholders through an extra distribution of SEK 9.50 per share.

The share capital of the Parent company amounted to SEK 2,562 M (2,562) on December 31, 2021 and is divided into two series of shares, A and B. Both series carry the same rights, except that each Series A share carries the right to one vote and each Series B share carries the right to one tenth of a vote. The shares' quota value is SEK 1.26 (1.26). During 2021 AB Volvo converted a total of 3,125,400 Series A shares to Series B shares. Unrestricted equity in the Parent company as of December 31, 2021 amounted to SEK 61,311 M (54,801).

» **Read more in** Changes in equity in the Parent company about AB Volvo's share capital.

Change in other reserves	Holding of shares at fair value
Opening balance 2021	**230**
Remeasurements of holdings of shares at fair value	48
Disposal	–270
Balance as of December 31, 2021	**8**

19:1

Information regarding number of shares	**Dec 31, 2021**	Dec 31, 2020
Own Series A shares	–	–
Own Series B shares	–	–
Total own shares	**–**	**–**
Own shares in % of total registered shares	–	–
Outstanding Series A shares	444,987,946	448,113,346
Outstanding Series B shares	1,588,464,138	1,585,338,738
Total outstanding shares	**2,033,452,084**	**2,033,452,084**
Total registered Series A shares	444,987,946	448,113,346
Total registered Series B shares	1,588,464,138	1,585,338,738
Total registered shares	**2,033,452,084**	**2,033,452,084**
Average number of outstanding shares	2,033,452,084	2,033,452,084

19:2

	Series A shares		Series B shares		Total	
Outstanding shares	**2021**	2020	**2021**	2020	**2021**	2020
Outstanding shares opening balance	448,113,346	456,184,336	1,585,338,738	1,577,267,748	2,033,452,084	2,033,452,084
Converting Series A shares to Series B shares	–3,125,400	–8,070,990	3,125,400	8,070,990	–	–
Outstanding shares as of December 31	**444,987,946**	**448,113,346**	**1,588,464,138**	**1,585,338,738**	**2,033,452,084**	**2,033,452,084**

19:3

Information regarding shares	**2021**	2020
Number of outstanding shares, December 31, in millions	2,033	2,033
Average number of shares before dilution in millions	2,033	2,033
Average number of shares after dilution in millions	2,033	2,033
Average share price, SEK	208.80	158.23
Net income attributable to owners of AB Volvo	32,787	19,318
Basic earnings per share, SEK	16.12	9.50
Diluted earnings per share, SEK	16.12	9.50

19:4

20 Provisions for post-employment benefits

ACCOUNTING POLICY

The Volvo Group's post-employment benefits, such as pensions, healthcare and other benefits are mainly settled by means of regular payments to independent authorities or bodies that assume pension obligations and administer pensions through defined contribution plans.

The remaining post-employment benefits are defined benefit plans where the obligations remain within the Volvo Group and are secured by proprietary pension foundations. The Volvo Group's defined benefit plans relate mainly to subsidiaries in the USA and comprise both pensions and other benefits, such as healthcare. Other large-scale defined benefit plans apply to white collar employees in Sweden (mainly through the ITP pension plan) and employees in France, Great Britain and Belgium.

Actuarial calculations are made for all defined benefit plans in order to determine the present value of the obligation for benefits vested by its current and former employees. The actuarial calculations are prepared annually and are based upon actuarial assumptions that are determined at the end of the reporting period. Changes in the present value of obligations due to revised actuarial assumptions and experience adjustments constitute remeasurements.

Provisions for post-employment benefits in the Volvo Group's balance sheet correspond to the present value of obligations at year-end, less fair value of plan assets. All changes in the net defined liability (asset) are recognized when they occur. Service cost and net interest expense (income) are recognized in the income statement, while remeasurements such as actuarial gains and losses are recognized in other comprehensive income. Special payroll tax is included in the pension liability in pension plans in Sweden and Belgium.

For defined contribution plans, expenses for premiums are recognized in the income statement as incurred.

SOURCE OF ESTIMATION UNCERTAINTY AND CRITICAL JUDGMENTS

Assumptions when calculating post-employment benefits

Provisions and costs for post-employment benefits, mainly pensions and health care benefits, are dependent on actuarial assumptions. The actuarial assumptions and calculations are made separately for each defined benefit plan. The most significant assumptions are discount rate and inflation. Inflation assumptions are based on an evaluation of external market indicators. A sensitivity analysis is included in graph 20:6 and shows the effect on the defined benefit obligations if significant assumptions are changed. There are also other assumptions made such as salary increases, retirement rates, mortality rates, health care cost trends rates and other factors. The salary increase assumptions reflect the historical trend, the near-term and long-term outlook and assumed inflation. Retirement and mortality rates are based primarily on officially available mortality statistics. Healthcare cost trend assumptions are based on historical data as well as the near-term outlook and an assessment of likely long-term trends. The Volvo Group has engaged a global actuary in order to ensure that a professional assessment is made and that assumptions are consistently developed across jurisdictions. The actuarial assumptions are reviewed annually by the Volvo Group and modified when deemed appropriate.

Even tough the covid-19 pandemic still was present around the globe, the movements on the financial markets during 2021 led to significant improvments in funding status of the group's pension plans.

The following tables disclose information about defined benefit plans. The Volvo Group recognizes the difference between the obligations and the plan assets in the balance sheet. The disclosures refer to assumptions applied for actuarial calculations, recognized costs during the financial year and the value of obligations and plan assets at year-end. The tables also include a reconciliation of obligations and plan assets during the year.

Assumptions applied for actuarial calculations	Dec 31, 2021	Dec 31, 2020
Sweden		
Discount rate, %[1]	2.00	1.45
Inflation, %	1.75	1.75
Expected salary increase, %	2.40	2.40
Assumed life expectancy on retirement at age 65 (Male/Female)		
Retiring today (member age 65), year	20.9/23.5	20.9/23.5
Retiring in 25 years (member age 40 today), year	22.7/24.6	22.7/24.6
USA		
Discount rate, %[1, 2]	1.15–2.81	0.53–2.42
Inflation, %	2.20	2.20
Expected salary increase, %	3.50	3.00–3.50
Assumed life expectancy on retirement at age 65 (Male/Female)		
Retiring today (member age 65), year	20.5/22.3	20.5/22.2
Retiring in 25 years (member age 40 today), year	22.4/24.1	22.3/24.0
France		
Discount rate, %[1]	1.19	0.87
Inflation, %	1.50	1.50
Expected salary increase, %	2.50	2.50
Great Britain		
Discount rate, %[1]	1.80	1.40
Inflation, %	3.30	2.90
Expected salary increase, %	0.00	0.00
Assumed life expectancy on retirement at age 65 (Male/Female)		
Retiring today (member age 65), year	22.1/23.8	22.0/23.7
Retiring in 25 years (member age 40 today), year	23.9/26.4	23.8/26.3
Belgium		
Discount rate, %[1]	1.21	0.81
Inflation, %	1.50	1.50
Expected salary increase, %	2.51	2.52

20:1

1 The discount rate for each country is determined by reference to market yields on high quality corporate bonds. In countries where there is no functioning market in such bonds, the market yields on government bonds are used. The discount rate for the Swedish pension obligation is determined by extrapolating current market rates along the yield curve of mortgage bonds.

2 For all plans except three the discount rate used is within the range 2.47–2.81% (1.97–2.42).

Summary of provisions for post-employment benefits	Dec 31, 2021	Dec 31, 2020
Obligations	–65,122	–67,920
Fair value of plan assets	55,317	51,203
Net provisions for post-employment benefits	**–9,805**	**–16,718**

20:2

Pension costs	2021	2020
Current year service costs	1,943	1,558
Interest costs	1,062	1,314
Interest income	–917	–1,128
Past service costs[1]	–67	–710
Gain/loss on settlements	–51	–
Pension costs for the period, defined benefit plans	**1,971**	**1,034**
Pension costs for defined contribution plans	2,958	2,597
Total pension costs for the period	**4,928**	**3,631**

20:3

1 Past service costs in 2020 includes a positive effect of SEK 721 M from the announced freeze of two defined benefit plans in the USA, a change of inflation index from RPI to CPI for two defined benefit plans in Great Britian, a freeze of current defined benefit plan in the Netherlands and a curtailment impact in France.

Costs for the period, post-employment benefits other than pensions	2021	2020
Current year service costs	110	86
Interest costs	104	142
Interest income	–28	–28
Past service costs	4	–15
Gain/loss on settlements	–	–
Remeasurements	148	79
Total costs for the period	**338**	**265**

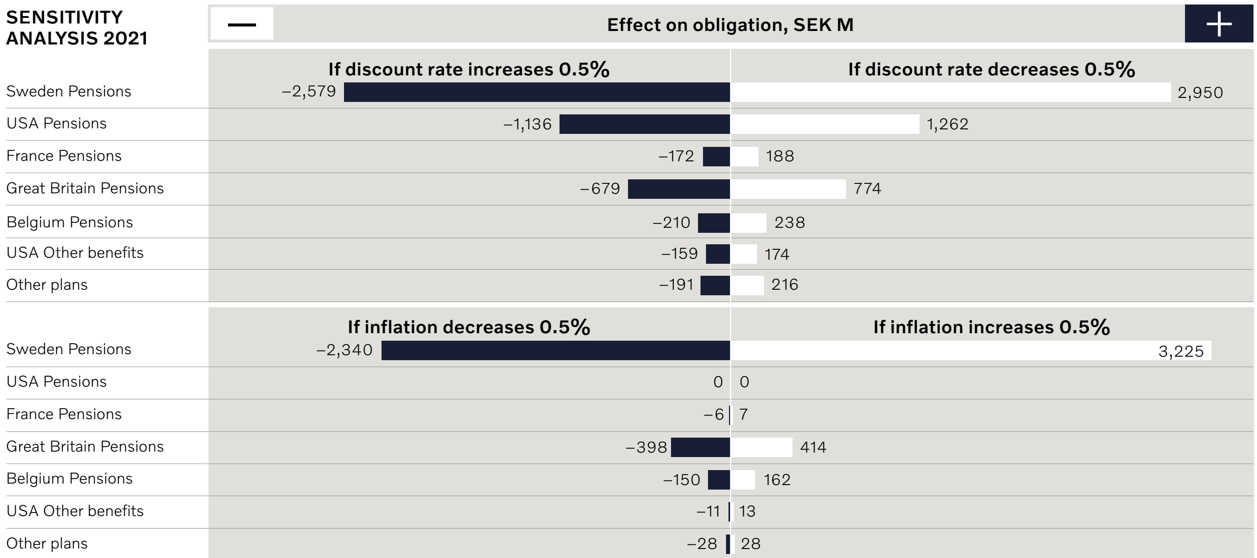
20:4

	Sweden Pensions	USA Pensions	France Pensions	Great Britain Pensions	Belgium Pensions	USA Other benefits
Average duration of the obligations, years	23.0	11.9	13.1	18.3	12.3	10.5

20:5

The analysis in graph 20:6 presents the sensitivity of the defined benefit obligations when changes in the applied assumptions for discount rate and inflation are made. The sensitivity analysis is based on a change in an assumption while holding all other assumptions constant. In practice, this is not probable, and changes in some of the assumptions may be correlated. Depending on specific plan and benefit design, the sensitivity effect on the obligation differs for the respective assumptions.

SENSITIVITY ANALYSIS 2021



20:6

Obligations in defined benefit plans	Sweden Pensions	USA Pensions	France Pensions	Great Britain Pensions	Belgium Pensions	USA Other benefits	Other plans	Total
Obligations opening balance 2020	**23,964**	**21,675**	**2,733**	**8,068**	**3,562**	**3,620**	**4,713**	**68,335**
Acquisitions, divestments and other changes	0	56	0	–4	0	38	–898	**–807**
Current year service costs[1]	431	502	178	1	265	19	248	**1,644**
Interest costs	405	636	32	157	39	103	85	**1,456**
Past service costs	99	–357	–89	–182	–	0	–63	**–592**
Settlements	–	–	–	–	–	0	–3	**–3**
Employee contributions	–	–	–	–	0	30	40	**70**
Remeasurements[2]:								
– Effect of changes in demographic assumptions	–	–135	17	–163	–	–39	3	**–316**
– Effect of changes in financial assumptions	1,524	2,070	4	910	132	306	9	**4,956**
– Effect of experience adjustments	749	–51	–30	–231	17	65	41	**560**
Exchange rate translation	0	–2,711	–109	–752	–148	–436	–241	**–4,396**
Benefits paid	–494	–1,413	–57	–272	–118	–342	–291	**–2,987**
Obligations as of December 31, 2020[3]	**26,677**	**20,273**	**2,680**	**7,533**	**3,750**	**3,363**	**3,644**	**67,920**
of which								
Funded defined benefit plans	–26,073	–19,560	–18	–7,534	–3,749	0	–2,405	**–59,339**
Acquisitions, divestments and other changes	0	–6	–	–	–3	0	66	**56**
Current year service costs	861	547	170	0	213	51	211	**2,053**
Interest costs	385	459	24	123	31	70	74	**1,165**
Past service costs	69	55	–	–	–106	–0	–19	**–1**
Settlements	–	–1,140	–	–	–	–	–2	**–1,142**
Employee contributions	–	–	–	–	–	29	53	**82**
Remeasurements[4]:								
– Effect of changes in demographic assumptions	–	59	0	–	–	–23	–37	**–1**
– Effect of changes in financial assumptions	–3,255	–1,155	–109	–179	–186	–172	–130	**–5,185**
– Effect of experience adjustments	–238	–37	–111	–	–59	152	27	**–267**
Exchange rate translation	–	2,154	52	742	73	348	135	**3,505**
Benefits paid	–551	–1,389	–106	–286	–106	–338	–288	**–3,064**
Obligations as of December 31, 2021	**23,948**	**19,819**	**2,600**	**7,934**	**3,607**	**3,480**	**3,735**	**65,122**
of which								
Funded defined benefit plans	–23,517	–19,088	–15	–7,934	–3,579	–	–2,567	**–56,699**

20:7

1 In 2020, current year service cost for Sweden includes a positive effect of SEK 604 M from a correction of actuarial calculations.
2 In 2020, remeasurements for Sweden includes a negative effect of SEK 1,663 M for corrections of actuarial calculations.
3 Obligation as of December 31, 2020 for Sweden includes an increase of SEK 1,059 M related to a correction of actuarial calculations.
4 Out of the total remeasurement of the defined benefit obligation, SEK 5,601 M (– 5,121) has been recognized in Other Comprehensive Income, and –148 M (–79) in the Income Statement.

Fair value of plan assets in funded plans	Sweden Pensions	USA Pensions	France Pensions	Great Britain Pensions	Belgium Pensions	USA Other benefits	Other plans	Total
Plan assets opening balance 2020	**14,680**	**22,301**	**15**	**8,040**	**2,685**	**–12**	**2,301**	**50,010**
Acquisitions, divestments and other changes	0	45	–	–4	0	49	–169	**–79**
Interest income	250	656	0	162	30	0	58	**1,156**
Settlements	–	–	–	–	–	–	0	**0**
Remeasurements	964	2,062	0	908	104	0	27	**4,065**
Asset ceiling	–	–	–	–749	–	–	–1	**–750**
Employer contributions	1,998	0	0	147	209	39	152	**2,545**
Employee contributions	–	28	–	–	0	263	40	**331**
Exchange rate translation	0	–2,771	–1	–752	–110	–4	–170	**–3,808**
Benefits paid	1	–1,404	–	–272	–114	–302	–175	**–2,266**
Plan assets as of December 31, 2020	**17,892**	**20,917**	**15**	**7,480**	**2,804**	**33**	**2,063**	**51,203**
Acquisitions, divestments and other changes	0	–3	–1	–	0	–	51	**47**
Interest income	264	478	0	123	23	–	56	**944**
Settlements	–	–1,090	–	–	–	–	–	**–1,090**
Remeasurements[1]	2,368	–119	0	–561	171	–	–46	**1,813**
Asset ceiling	–	–	–	464	–	–	16	**479**
Employer contributions	322	–	–	65	163	–	215	**766**
Employee contributions	–	30	–	–	–	–	54	**84**
Exchange rate translation	–	2,188	0	740	54	3	85	**3,070**
Benefits paid	–1	–1,387	0	–286	–102	0	–223	**–2,000**
Plan assets as of December 31, 2021	**20,845**	**21,013**	**14**	**8,024**	**3,113**	**37**	**2,271**	**55,317**

20:8

1 Out of the total remeasurement of the plan assets, SEK 2,292 M (3,314) has been recognized in Other Comprehensive Income.

Net provisions for post-employment benefits	Sweden Pensions	USA Pensions	France Pensions	Great Britain Pensions	Belgium Pensions	USA Other benefits	Other plans	Total
Net provisions for post-employment benefits as of December 31, 2020	**–8,784**	**643**	**–2,665**	**–53**	**–947**	**–3,330**	**–1,581**	**–16,718**
of which reported as:								
B/S Net pension assets	–	1,512	–	81	–	120	0	**1,712**
B/S Provisions for post-employment benefits	–8,784	–869	–2,665	–134	–947	–3,449	–1,581	**–18,430**
Net provisions for post-employment benefits as of December 31, 2021	**–3,102**	**1,194**	**–2,586**	**91**	**–494**	**–3,443**	**–1,464**	**–9,805**
of which reported as:								
B/S Net pension assets	–	2,234	–	104	–	34	–	**2,372**
B/S Provisions for post-employment benefits	–3,102	–1,040	–2,586	–13	–494	–3477	–1,464	**–12,177**

20:9

Sweden

The main defined benefit plan in Sweden is the ITP2 plan which is based on final salary. The plan is semi-closed, meaning that only new employees born before 1979 enters the ITP2 solution. The Volvo Group's pension foundation in Sweden was formed in 1996 to secure obligations relating to retirement pensions for white collar workers in Sweden in accordance with the ITP plan. Plan assets amounting to SEK 2,456 M were contributed to the foundation at its formation, corresponding to the value of the pension obligations at that time. Since its formation, net contributions of SEK 6,654 M, whereof SEK 322 M (1,998) during 2021, have been made to the foundation. The plan assets in the Volvo Group's Swedish pension foundation are invested in Swedish and foreign stocks and mutual funds, and in interest-bearing securities and alternative assets, in accordance with a strategic allocation that is determined by the foundation's Board of Directors. As of December 31, 2021, the fair value of the foundation's plan assets amounted to SEK 20,822 M (17,871), of which 35% (45) was invested in equity instruments. At the same point in time, retirement pension obligations attributable to the ITP plan amounted to SEK 23,496 M (26,048).

Swedish companies can secure new pension obligations through balance sheet provisions or pension fund contributions. Furthermore, a credit insurance policy must be taken out for the value of the obligations. In addition to benefits relating to retirement pensions, the ITP plan also includes, for example, a collective family pension, which the Volvo Group finances through an insurance policy with the Alecta insurance company. According to an interpretation from the Swedish Financial Reporting Board, this is a multi-employer defined benefit plan. For the fiscal year 2021, the Volvo Group did not have access to information from Alecta that would have enabled this plan to be recognized as a defined benefit plan. Accordingly, the plan has been recognized as a defined contribution plan. The Volvo Group estimates it will pay premiums of about SEK 243 M to Alecta in 2022. The collective consolidation level measures the apportionable assets in relation to the insurance commitment. According to Alecta's consolidation policy for defined benefit pension insurance, the collective consolidation level is normally allowed to vary between 125% and 175%. Alecta's preliminary consolidation ratio amounts to 172% (148). If the consolidation level falls short or exceeds the normal interval, one measure may be to increase the contract price for new subscription or to introduce premium reductions.

The Volvo Group's share of the total saving premiums for ITP2 in Alecta as of December 31, 2021 amounted to 0.24% (0.18) and the share of the total number of active policy holders amounted to 1.72% (1.78).

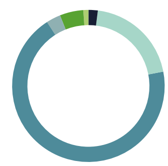
All employees in Sweden benefit from a jubilee awards plan according to which they receive a certain number of shares after they have rendered 25, 35 and 45 years of services. This plan is accounted for as a share-based payment program, where the fair value of the equity-settled payments is determined at the grant date. The plan is recognized as other liabilities. Due to the postponement of share allotment in 2020 as a consequence of covid-19, share allotment for both 2020 and 2021 have been made in the current year.

USA

In the USA, the Volvo Group has tax qualified pension plans, post-retirement medical plans and non-qualified pension plans. The tax qualified pension plans are funded while the other plans are generally unfunded. There are five funded defined benefit plans, whereof all are closed to new entrants. Three out of five plans are open for future accruals. The Volvo Group's subsidiaries in the USA mainly secure their pension obligations through transfer of funds to pension plans. The US Retirement Trust manages the assets related to the five funded plans. The strategic allocation of plan assets must comply with the investment policy as decided by the Board of Directors of the Trust. All members of the board are nominated by the company although each member is subject to strict regulatory requirements on fiduciary responsibility. As of December 31, 2021, the total value of pension obligations secured by pension plans of this type amounted to SEK 19,088 M (19,560). At the same point in time, the total value of the plan assets in these plans amounted to SEK 21,013 M (20,917), of which 13% (11) was invested in equity instruments. The regulations for securing pension obligations stipulate certain minimum levels concerning the ratio between the value of the plan assets and the value of the obligations. During 2021 and 2020 no contributions were made by the Volvo Group to the USA pension plans.

Plan assets by category as of December 31, 2020

Plan assets by category as of December 31, 2021[1]



20:10

Fair value of plan assets	Dec 31, 2021	Dec 31, 2020
Cash and cash equivalents	869	1,357
With a quoted market price		
Equity instruments	8,476	9,400
Debt instruments	38,413	35,358
Real estate	20	167
Derivatives	–15	–3
Other	1,001	500
With an unquoted market price		
Other	7,074	5,397
Total[1]	**55,838**	**52,176**

20:11

1 Excluding asset ceiling of SEK 521 M (973).

France

In France, the Volvo Group has two types of defined benefit plans, Indemnité de Fin de Carrière (IFC) and jubilee awards plan. The plans are unfunded. The IFC is compulsory in France. The benefits are based on the Collective Bargaining Agreement applicable in the company, on the employee's seniority at retirement date and on the final pay. The benefit payment is due only if employees are working for the company when they retire. The jubilee award plan is an internal agreement and the benefit is based on the employee's seniority career at 20, 30, 35 and 40 years. As of December 31, 2021, the total value of pension obligations amounted to SEK 2,600 M (2,680).

Great Britain

In Great Britain, the Volvo Group has five defined benefit pension plans, which are all funded. The pension funds are set up as separate legal entities, which are governed by a professional trustee. All plans are closed to new entrants and closed for future accruals to existing members. The allocation of plan assets must comply with the investment strategy agreed between the company and the professional trustee. For three of the plans, if a net surplus is recognized in the balance sheet when the pension scheme runs-off, the Volvo Group has an unconditional right to the surplus of that plan or plans. For two plans this is not strictly legally the case and therefore an asset ceiling is applied. As of December 31, 2021, the total value of pension obligations amounted to SEK 7,934 M (7,533). At the same point in time, the total value of the plan assets in these plans amounted to SEK 8,024 M (7,480), of which 5% (6) was invested in equity instruments. During 2021, the Volvo Group contributed SEK 65 M (147) to the Great Britain pension plans.

Belgium

In Belgium, the Volvo Group has four traditional defined benefit pension plans based on final salary, whereof all are closed to new entrants. All plans are open for future accruals. Two are funded via an external pension fund with a legally ringfenced Volvo section and two are funded via the group insurance product referred to in Belgium as Branch 21. Benefits are paid as a lump sum at retirement. There is also an open defined contribution pension plan as well as a local profit sharing program whereby any pay-outs are contributed to a defined contribution pension plan managed by the own pension fund or through a group insurance. All defined contribution pension plans in Belgium have a statutory minimum return guarantee and are therefore accounted for as defined benefit plans. The strategic asset allocation of plan assets must comply with the investment policy as proposed by the Volvo Group and formally adopted by the Board of Directors of the pension fund. As of December 31, 2021, the total value of pension obligations amounted to SEK 3,607 M (3,750). At the same point in time, the plan assets of these plans amounted to SEK 3,113 M (2,804), of which 27% (27) was invested in equity instruments. During 2021, the Volvo Group contributed SEK 163 M (209) to the Belgium pension plans.

Investment strategy and risk management

The Volvo Group manages the allocation and investment of pension plan assets with the purpose of meeting the long term objectives. The main objectives are to meet present and future benefit obligations, provide sufficient liquidity to meet such payment requirements and to provide a total return that maximizes the ratio of the plan assets in relation to the plan liabilities by maximizing return on the assets at an appropriate level of risk. The final investment decision often resides with the local trustee, but the investment policy for all plans ensures that the risks in the investment portfolios are well diversified. The primary risk mitigating activity in the long run is to close defined benefit plans to new entrants or to future accruals for existing members and replace these plans with defined contribution plans when and where possible. The risks related to already accrued pension obligations, e.g. longevity and inflation, as well as buy out premiums and matching strategies are monitored on an ongoing basis in order to further limit the Volvo Group's exposure where and when possible.

In the last couple of years, some of the defined benefit plans have been closed to new entrants and replaced by defined contribution plans in order to reduce risk for the Volvo Group.

In Sweden, the minimum funding target is decided by PRI Pensionsgaranti. This is mandatory in order to stay in the system and get insurance for the pension liability. The contributions usually represent one year's new accrued benefits plus any shortfall towards the minimum funding target unless there is a surplus according to local scheme valuation principles.

In the USA, the minimum funding target is decided by the company in order to avoid penalties, keep flexibility and avoid extensive filing with the Internal Revenue Service and participants in the pension plan. The minimum contributions usually represent one year's accrued benefits plus a seventh of any deficit unless a scheme is showing a surplus according to local scheme valuation principles.

In Great Britain, there is no minimum funding ratio. There is a regulatory requirement for each scheme to perform triennial valuations whereby any scheme showing a deficit must develop a recovery plan that returns the scheme to a fully funded basis within a reasonable timeframe. The recovery plan shall be agreed with the company and submitted to the regulator for approval.

In Belgium, the minimum funding level is regulated by law and monitored by the financial supervisory authority, FSMA. The framework for the minimum funding requirement is based on a discount rate, which is based on the expected return of the plan assets. The pension fund must be fully funded on this basis at all times. The contribution policy of the pension fund is designed to provide stability in contributions over the duration of the plan.

In 2022, the Volvo Group estimates to transfer an amount of SEK 0.5–1.0 billion to pension plans.

21 Other provisions

ACCOUNTING POLICY

Provisions are recognized in the balance sheet when a legal or constructive obligation exists as a result from a past event, it is probable that an outflow of resources will be required to settle the obligation and the amount can be reliably estimated. When these criteria are not met, a contingent liability may be recognized.

Provisions for product warranty
Provisions for product warranty are recognized as cost of sales and include contractual warranty and campaign warranty. Provisions for contractual warranty are recognized when the products are sold. Provision for campaigns in connection with specific quality problems are recognized when the campaign is decided.

Provisions for technical goodwill
Technical goodwill is coverage in excess of contractual warranty or campaigns in order to maintain a good business relation with the customer. The provisions for technical goodwill are determined based on historical statistics for customers where an element of constructive obligation exists.

Provisions for extended coverage
An extended coverage is a product insurance sold to a customer to cover a product according to specific conditions for an agreed period as an additional insurance to the factory contractual warranty. The provision is intended to cover the risk that the expected cost of providing services under the extended coverage contract exceed the expected revenue.

Provisions in insurance operations
Volvo Group has a captive insurance company and the provisions in insurance operations are related to third party claims addressed to companies within the Volvo Group. The claims reserve also includes a provision for unreported losses based on past experience. The unearned premium reserve is reported as an accrued expense within other current liabilities.

Provisions for restructuring costs
A provision for decided restructuring measures is recognized when a detailed plan for the implementation of the measures is complete and when this plan is communicated to those who are affected. A provision and costs for termination benefits as a result of a voluntary termination program is recognized when the employee accepts the offer. Normally restructuring costs are included in other operating income and expenses.

Provisions for residual value risks
Residual value risks are the risks that the Volvo Group in the future would have to dispose used vehicles at a loss if the price development of these products is worse than expected when the contracts were entered. The residual value risks pertain to operating lease contracts and sales transactions with residual value commitments (buybacks and tradebacks) where the Volvo Group has a residual value commitment. The majority of these contracts are recognized as assets under operating leases or as right of return asset in the balance sheet. During the period, the depreciable amount is adjusted through the income statement to correspond to estimated future net realizable value to continuously reflect potential residual value risks at the end of the contract period.

» **Read more in Note 13** Tangible assets about residual value risks.

Residual value commitments that are independent from the sales transaction are not recognized as assets under operating leases or as right of return in the balance sheet, hence the potential residual value risks related to these contracts are recognized as provisions. To the extent the residual value exposure does not meet the definition of a provision, the gross exposure is reported as a contingent liability.

» **Read more in Note 24** Contingent liabilities and contingent assets.

Provisions for service contracts
Service contracts offer the customer preventive maintenance according to an agreed service plan. The provision is intended to cover the risk that the expected cost of providing services and repairs under the service contract exceeds the expected revenue.

Other provisions
Other provisions mainly includes provisions for legal disputes, provisions for externally issued credit guarantees and other provisions, unless separately specified.

Long-term provisions as above are expected to be settled within 2 to 3 years.

SOURCE OF ESTIMATION UNCERTAINTY AND CRITICAL JUDGMENTS

The uncertainties about the amount or timing of outflows vary for different kind of provisions. Regarding provisions for product warranty, technical goodwill, extended coverage, residual value risks and service contracts, the provisions are based on historical statistics and estimated future costs, which is why the provided amount has a high correlation with the outflow of resources. Regarding provisions for disputes, like tax and legal disputes, the uncertainty is higher.

Provisions for product warranty
Warranty provisions are estimated with consideration of historical statistics with regard to known changes in warranty claims, warranty periods, the average time-lag between faults occurring until claims are received by the company and anticipated changes in quality indexes. The actual outcome of product warranties may deviate from the expected outcome and materially affect the warranty costs and provisions in future periods. Refunds from suppliers, that decrease the Volvo Group's warranty costs, are recognized to the extent these are considered to be certain.

Other provisions
The Volvo Group works actively to ensure compliance with applicable environmental laws and regulations, which are often complex and uncertain. If the Volvo Group fails to meet climate related targets or regulatory requirements it could be subject to significant penalties and other sanctions which could materially affect the financial statements.

Provisions for legal proceedings
The Volvo Group regularly reviews the development of significant outstanding legal disputes in which the Volvo Group companies are parties, both regarding civil law and tax disputes, in order to assess the need for provisions and contingent liabilities in the financial statements. Among the factors that the Volvo Group considers in making decisions on provisions and contingent liabilities are the nature of the dispute, the amount claimed, the progress of the case, the opinions of legal and other advisers, experience in similar cases, and any decision of the Volvo Group's management as to how the Volvo Group intends to handle the dispute. The actual outcome of a legal dispute may deviate from the expected outcome of the dispute. The difference between actual and expected outcome of a dispute might materially affect future financial statements, with an adverse impact upon the Volvo Group's operating income, financial position and liquidity.

Provisions for legal disputes are included within other provisions in table 21:1.

» **Read more in Note 24** Contingent liabilities and contingent assets.

	Carrying value as of Dec 31, 2020	Provisions	Reversals	Utilizations	Acquired and divested operations[2]	Translation differences	Other reclassi-fications[2]	**Carrying value as of Dec 31, 2021**	Of which due within 12 months	Of which due after 12 months
Provisions for product warranty[1]	14,389	7,618	–1,228	–6,504	–467	644	718	15,170	7,746	7,424
Provisions for technical goodwill	1,051	210	–461	–213	–102	57	118	660	330	330
Provisions for extended coverage	517	276	–55	–231	–	46	–48	505	282	223
Provisions in insurance operations	623	173	–91	–19	–	54	0	740	–	740
Provisions for restructuring costs	1,786	22	–181	–1,043	–	26	–5	605	517	88
Provisions for residual value risks	494	978	–423	–721	–4	18	–8	334	145	189
Provisions for service contracts	403	667	–179	–386	–36	26	–89	406	248	158
Other provisions	4,808	2,669	–1,001	–1,789	–66	205	–76	4,750	2,686	2,064
B/S **Total**	**24,071**	**12,613**	**–3,619**	**–10,906**	**–675**	**1,076**	**610**	**23,170**	**11,954**	**11,216**

21:1

1 Including a provision for emission control component. For more information see below.

2 » **Read more in Note 3** Acquisitions and divestments of operations, for a description of acquired and divested operations as well as assets and liabilities held for sale.

The Volvo Group has detected that an emissions control component used in certain markets and models, may degrade more quickly than expected, affecting the vehicles emission performance negatively. The Volvo Group made a provision of SEK 7 billion impacting the operating income in 2018, relating to the estimated costs to address the issue. Negative cash flow effects started in 2019 and will continue in the coming years. The Volvo Group will continuously assess the size of the provision as the matter develops.

To adjust its operations to lower demand due to the covid-19 pandemic, the Volvo Group reduced the white-collar workforce globally during 2020. A provision for restructuring charges of SEK 3,200 M was recognized in the second quarter of 2020 whereof SEK 992 M was released in the fourth quarter of 2020. Additionally SEK 159 M was released in the fourth quarter of 2021.

22 Liabilities

ACCOUNTING POLICY

Loans are measured at amortized cost using the effective interest rate method. A hybrid bond issued by the Volvo Group is classified as debt in the Volvo Group's financial reporting as it constitutes a contractual obligation to make interest payments and repay the nominal amount of the debt to the holder of the instrument.

» Read more in Note 30 Financial instruments for accounting policies related to financial instruments.

Non-current liabilities

The tables below disclose the Volvo Group's non-current liabilities with the largest loans listed by currency. Loans in the Volvo Group's subsidiaries are mainly denominated in local currencies through Volvo Group Treasury which minimizes the currency exposure in the individual companies. Volvo Group Treasury uses various derivatives to facilitate lending and borrowing in different currencies without increasing the risk for the Volvo Group.

» Read more in Note 4 Goals and policies in financial risk management on how the funding for Industrial operations and Financial Services respectively is managed and presented in the Volvo Group's balance sheet.

Non-current bond loans and other loans Currency/start year/maturity	**Actual interest rate Dec 31, 2021, %**	**Effective interest rate Dec 31, 2021, %**	**Dec 31, 2021**	Dec 31, 2020
Bond loans				
EUR 2012–2021/2023–2078[1]	0.00–4.79	0.00–4.79	50,052	34,969
SEK 2018–2021/2023–2025	0.39–2.31	0.39–2.31	24,282	25,741
NOK 2019–2020/2023–2024	1.79–2.62	1.80–2.65	2,820	3,580
HKD 2019/2024	2.31	2.31	840	765
USD 2019/2029	2.96	2.96	452	409
JPY 2020/2023	0.70	0.70	919	927
B/S **Total bond loans[2, 3]**			**79,365**	**66,391**
Other loans				
USD 2014–2020/2023–2024	0.49–3.00	0.71–3.00	2,875	6,522
EUR 2012–2018/2023–2026	0.00–2.34	0.00–2.34	4,031	6,760
MXN 2020–2021/2024–2026	6.00–7.14	6.16–7.37	1,449	742
JPY 2019–2020/2023–2024	0.37–1.24	0.37–1.24	1,570	1,585
BRL 2013–2021/2023–2028	3.00–9.82	3.00–9.82	5,258	3,500
AUD 2019–2020/2023–2024	0.97–1.51	0.97–1.52	119	315
CNY 2019–2021/2023–2024	3.40–4.99	3.40–4.99	1,222	2,409
Loans in other currencies			1,901	2,091
Lease liabilities			4,469	4,434
Revaluation of outstanding derivatives to SEK[4]			1,917	416
B/S **Total other loans[2, 3]**			**24,812**	**28,775**

22:1

Other non-current liabilities	**Dec 31, 2021**	Dec 31, 2020
Deferred leasing income[5]	5,129	4,647
Residual value liabilities[5]	9,049	8,540
Deferred service revenue[5]	14,440	12,268
Refund liabilities[5]	1,698	1,042
Advances from customers[5]	2,923	1,583
Outstanding interest and currency risk derivatives[4]	80	643
Other liabilities	3,512	2,701
B/S **Total other liabilities**	**36,831**	**31,424**

22:2

1 Including the remaining tranche of the hybrid bond of EUR 0.6 billion with a first call date in 2023 and final maturity in 2078.

2 Loans to finance the credit portfolio in Financial Services amounted to SEK 73,180 M (50,332) in bond loans and SEK 18,141 M (23,149) in other loans.

3 Non-current loans of SEK 3,030 M (6,638) were secured by assets pledged. » Read more in Note 23 Assets pledged.

4 » Read more in Note 30 Financial instruments, table 30:1 regarding non-current part of outstanding interest and currency risk derivatives.

5 » Read more in Note 7 Revenue regarding contract and refund liabilities, and sales with residual value commitments.

Maturity Year	Bond loans and other loans	Not utilized non-current credit facilities
2023	49,461	5,511
2024	25,867	16,340
2025	12,765	–
2026	7,720	20,454
2027	455	–
2028 or later	7,909	–
Total	**104,177**	**42,305**

22:3

» **Read more in Note 14** Leasing, table 14:4 for maturities of non-current lease liabilities.

The Volvo Group issued a hybrid bond in 2014 of EUR 1.5 billion. After repayment of the first tranche in 2020, EUR 0.6 billion with a first call date in 2023 remains. The predominant part of loans that mature in 2023 is an effect of the Volvo Group's normal business cycle, with shorter duration in the Financial Services portfolio compared to Industrial Operations.

Granted but not utilized credit facilities consist of stand-by facilities for loans. A fee is charged for granted credit facilities and recognized in the income statement within other financial income and expenses.

» **Read more in Note 9** Other financial income and expenses.

Current liabilities

Current bond loans and other loans	**Dec 31, 2021**	Dec 31, 2020
Bond loans	21,747	30,904
B/S **Total bond loans[1,2]**	**21,747**	**30,904**
Other loans	25,812	25,572
Lease liabilities	1,632	1,552
Revaluation of outstanding derivatives to SEK[3]	255	230
B/S **Total other loans[1,2]**	**27,700**	**27,354**

22:4

1 Loans to finance the credit portfolio in Financial Services amounted to SEK 21,747 M (30,904) in bond loans and SEK 21,819 M (19,945) in other loans.

2 Current loans of SEK 3,138 M (7,645) were secured by assets pledged. » **Read more in Note 23** Assets pledged.

3 » **Read more in Note 30** Financial instruments, table 30:1 regarding current part of outstanding interest and currency risk derivatives.

Other current loans include current maturities of non-current loans of SEK 12,112 M (16,943).

Other current liabilities	**Dec 31, 2021**	Dec 31, 2020
Advances from customers[1]	4,511	6,427
Wages, salaries and withholding taxes	13,287	11,697
VAT liabilities	4,447	4,295
Accrued expenses for dealer bonuses and rebates[1]	4,998	5,247
Other accrued expenses	11,744	10,138
Deferred leasing income[1]	3,250	3,116
Deferred service revenue[1]	3,715	3,558
Other deferred income[1]	1,599	1,266
Residual value liabilities[1]	4,882	4,705
Refund liabilities[1]	737	501
Other financial liabilities	237	279
Interest and currency risk derivatives[2]	127	66
Other liabilities	6,444	5,274
B/S **Total other liabilities**	**59,978**	**56,569**

22:5

1 » **Read more in Note 7** Revenue, regarding contract and refund liabilities, and sales with residual value commitments.

2 » **Read more in Note 30** Financial instruments, table 30:1 regarding current part of outstanding interest and currency risk derivatives.

Table 22:5 presents the Volvo Group's other current liabilities. Non-interest-bearing current liabilities also include trade payables of SEK 76,745 M (59,611) and current tax liabilities of SEK 4,287 M (4,599). Non-interest-bearing current liabilities amounted to SEK 141,010 M (130,890), or 74% (69) of the Volvo Group's total current liabilities.

23 Assets pledged

Assets pledged	**Dec 31, 2021**	Dec 31, 2020
Property, plant and equipment mortgages	48	48
Assets under operating leases	246	181
Customer-financing receivables	6,449	14,731
Total assets pledged	**6,742**	**14,960**

23:1

Non-current and current loans of SEK 6,168 M (14,283) were secured by assets pledged to an amount of SEK 6,742 M (14,960).

Under the terms of asset-backed securitizations, SEK 5,977 M (14,135) of securities have been issued tied to US-based loans, secured by customer-financing receivables, SEK 6,449 M (14,731), with trucks and construction equipments as collaterals. In 2021 no securities were signed (4,991).

» **Read more in Note 22** Liabilities.

24 Contingent liabilities and contingent assets

ACCOUNTING POLICY

A contingent liability is recognized for a possible obligation, for which it is not yet confirmed that a present obligation exists that could lead to an outflow of resources. Alternatively, there is a present obligation that does not meet the definitions of a provision or a liability as it is not probable that an outflow of resources will be required to settle the obligation or a sufficiently reliable estimate of the amount of the obligation cannot be made.

A contingent asset is a possible asset that arises from past events that will be confirmed by uncertain future events not wholly within the control of the Volvo Group. A contingent asset is disclosed where an inflow of economic benefits is probable.

Contingent liabilities	Dec 31, 2021	Dec 31, 2020
Credit guarantees issued for customers and others	7,421	4,419
Tax claims	4,926	4,008
Residual value commitments	402	795
Other contingent liabilities	5,222	4,610
Total contingent liabilities	**17,971**	**13,832**

24:1

Total contingent liabilities at December 31, 2021, amounted to SEK 17,971 M (13,832).

Credit guarantees issued amounted to SEK 7,421 M (4,419). The recognized amount for credit guarantees corresponds to the gross exposure and has not been reduced by the value of counter guarantees received or other collaterals such as the right to repossess products. The value of counter guarantees and other collaterals reducing the exposure is dependent on the development of used products prices and on the possibility to repossess products.

A major part of the credit guarantees pertains to the credit guarantees related to Chinese dealers and retail customers within Construction Equipment.

Tax claims amounted to SEK 4,926 M (4,008) and pertain to charges against the Volvo Group for which the criteria for recognizing a tax liability or a provision were not met. Global companies such as the Volvo Group are occasionally involved in tax processes of varying scope and in various stages. Volvo Group regularly assesses these tax processes. When it is probable that additional taxes must be paid and the outcome can be reasonably estimated, the required provision is made. Out of total tax claims, SEK 1.3 billion (1.2) is related to a transfer price audit in Brazil and SEK 2.2 billion (1.7) are related to two custom duties audits in India.

Residual value commitments amounted to SEK 402 M (795) and were attributable to sales transactions with residual value commitments (buybacks and tradebacks) that are independent from the sales transaction and therefore not recognized as assets in the balance sheet. The amount corresponds to the gross exposure and has not been reduced by the estimated net selling price of used products taken as collaterals. To the extent the used products pertaining to those transactions are expected to be disposed at a loss, a provision for residual value risk is recognized.

» **Read more in Note 21** Other provisions about provisions for residual value risks.

Other contingent liabilities amounted to SEK 5,222 M (4,610) and include for example bid and performance clauses and legal proceedings.

Legal proceedings

Starting in January 2011, the Volvo Group, together with a number of other truck manufacturers, was investigated by the European Commission in relation to a possible violation of EU antitrust rules. In July 2016 the European Commission issued a settlement decision against the Volvo Group and other truck manufacturers finding that they were involved in an antitrust infringement which, in the case of the Volvo Group, covered a 14-year period from 1997 to 2011. The Volvo Group paid a monetary fine of EUR 670 million.

Following the adoption of the European Commission's settlement decision, the Volvo Group has received and is defending itself against a significant number of private damages claims brought by customers and other third parties alleging that they suffered loss, directly or indirectly, by reason of the conduct covered in the decision. The claims are being brought in various countries (including EU Member States, the United Kingdom and Israel) by large numbers of claimants either acting individually or as part of a wider group or class of claimants. Further claims are likely to be commenced.

At this stage it is not possible to make a reliable estimate of any liability that could arise from any such proceedings. However, the litigation is substantial in scale and an adverse outcome or outcomes of some or all of the litigation, depending on the nature and extent of such outcomes, may have a material negative impact on the Volvo Group's financial results, cash flows and financial position.

The Volvo Group is also involved in a number of legal proceedings other than those described above. The Volvo Group's assessment is that such other legal proceedings in aggregate are not likely to entail any risk of having a material effect on the Volvo Group's financial position.

Detected premature degradation of emissions control component

The Volvo Group has detected that an emissions control component used in certain markets and models, may degrade more quickly than expected, affecting the vehicles emission performance negatively. The Volvo Group has made a provision that will be continuously assessed as the matter develops.

» **Read more in Note 21** Other provisions.

Total contingent assets at December 31, 2021 amounted to SEK – M (1,252).

25 Transactions with related parties

ACCOUNTING POLICY

The Volvo Group engages in transactions with some of its related parties, such as associated companies and joint ventures. The transactions arise in the ordinary course of business and are conducted on commercial terms and market prices. They mainly consist of sales of vehicles, parts, equipment and services as well as purchases of parts, engines and vehicles for resale. Transactions between AB Volvo and its subsidiaries have been eliminated in the consolidated financial statements and transactions with the Board of Directors and the Group Executive Board consist of remunerations, which are not disclosed in this note.

» **Read more in Note 5** Investments in joint ventures, associated companies and other shares and participations.

» **Read more in Note 27** Personnel about remunerations to the Board of Directors and the Group Executive Board.

» **Read more in Corporate Governance Report** about Board of Directors and Group Executive Board.

The Volvo Group's transactions with related parties are presented in table 25:1 and 25:2.

	Sales of goods, services and other income		Purchases of goods, services and other expense	
	2021	2020	**2021**	2020
Associated companies	899	1,547	60	53
Joint ventures	1,575	1,837	935	726

25:1

	Receivables		Payables	
	Dec 31, 2021	Dec 31, 2020	**Dec 31, 2021**	Dec 31, 2020
Associated companies	48	242	30	24
Joint ventures	353	330	69	71

25:2

26 Government grants

ACCOUNTING POLICY

Government grants are financial grants from governmental or supranational bodies that are received in exchange for fulfillment of certain conditions by the Volvo Group. The financial grants are recognized in the financial statement when there is a reasonable assurance that the conditions will be complied with and that the grants will be received.

Government grants related to assets are presented in the balance sheet either as deferred income or as a deduction of the carrying amount of the related assets. Government grants related to income are reported as a deferred income in the balance sheet and recognized in the income statement to match the related costs. If the costs incurred before the grants have been received, but there is an agreement that grants will be received, grants are recognized in the income statement to match the related costs.

In 2021, government grants of SEK 895 M (3,473) were received, and SEK 936 M (3,107) were recognized in the income statement.

During the covid-19 pandemic, grants related to various governmental short-term layoff programs were received by the Volvo Group. Out of the total amount of grants received, SEK 189 M (2,672) were received in relation to the short-term layoff programs. SEK 268 M (2,248) were recognized in the income statement as a deduction of the related costs for personnel. The grants were mainly received from the authorities in Canada and the United States.

» **Read more in note 27** Personnel, table 27:4 and 27:5.

Government grants also includes tax credits of SEK 309 M (351) related to product development, which were primarily received in France and in the United States. Other grants were mainly received from Swedish, Chinese and US governmental organizations and from the European Commission.

27 Personnel

ACCOUNTING POLICY

Incentive programs
The Volvo Group has a long-term and a short-term incentive program that is accounted for in accordance with IAS 19 Employee benefits. During the vesting period, the incentive program is recognized as an expense and as a short-term liability.

Policy for remuneration to seni or executives, approved by the Annual General Meeting on 31 March 2021
The Annual General Meeting 2021 decided upon the following policy on remuneration and other terms of employment for the members of the Volvo Group Executive Board.

These guidelines are forward-looking, i.e. they are applicable to remuneration agreed, and amendments to remuneration already agreed, after the proposed adoption of these guidelines by the 2021 annual general meeting. These guidelines do not apply to any remuneration decided or approved by the general meeting. Any new share-based incentive plans will, where applicable, be resolved by the general meeting, but no such plan is currently proposed.

The guidelines' promotion of the Volvo Group's business strategy, long-term interests and sustainability
It is a prerequisite for the successful implementation of the Volvo Group's business strategy and safeguarding of its long-term interests, including its sustainability, that the Group can recruit, retain and develop top executives. These guidelines enable AB Volvo to offer Executives a competitive total remuneration. More information regarding the Volvo Group's business strategy is available in the Volvo Group Annual and Sustainability Report.

Types of remuneration
Volvo Group remuneration to Executives shall consist of the following components: base salary, short-term and long-term variable incentives, pension benefits and other benefits.

Short-term incentives may, for the President and CEO, amount to a maximum of 100 per cent of the base salary and, for other Executives, a maximum of 80 per cent of the base salary.

Long-term incentives may, for the President and CEO, amount to a maximum of 100 per cent of the base salary and, for other Executives, a maximum of 80 per cent of the base salary. The current long-term incentive plan for the Group's senior management, including the Executives, was introduced in connection with the 2016 annual general meeting. The objective of the program is to align the interests of the senior management with those of the shareholders. To achieve this, the program operates on a four-year cycle; with a performance based annual award, which is invested in Volvo shares with a mandatory lock-in period of three years. There will be no payout under the long-term incentive program if the Annual General Meeting that is held in the year following the performance year, decides not to distribute any dividends to the shareholders. The program is funded on an annual basis by an award, measured against performance criteria established by the Board of Directors. The after tax portion of this payment must be immediately invested in AB Volvo shares which must be held for a minimum of three years. In this way, the Executives will build up a shareholding in the company and have a vested interest over the longer term development in the value of the shares. At the end of the three year period, the Executives may sell their shares, if they meet the requirement for owning shares valued at two years of the pre-tax base salary for the President and CEO and one year of the pre-tax base salary for the other Executives. The holding requirements for the Executives shall cease upon termination of an Executive's employment, and the Board of Directors may grant such other exceptions to the requirements as the Board deems appropriate.

Further cash remuneration may be awarded in extraordinary circumstances, provided that such extraordinary arrangements are limited in time and only made on an individual basis, either for the purpose of recruiting or retaining Executives, or as remuneration for extraordinary performance beyond the individual's ordinary tasks. Such remuneration may not exceed an amount corresponding to 100 per cent of the annual base salary. Any resolution on such remuneration shall be made by the Board of Directors based on a proposal from the Remuneration Committee.

For the President and CEO, pension benefits shall be granted on the basis of a defined contribution plan. The pensionable salary shall include base salary only. The pension contributions for the President and CEO attributable to the annual base salary shall amount to not more than 35 per cent of the base salary.

Other benefits may include, for example, life insurance, medical and health insurance, and company cars. Premiums and other costs relating to such benefits may amount to not more than 3 per cent of the annual base salary for the President and CEO.

For other Executives, pension benefits shall be granted on the basis of a defined contribution plan except where law or collective agreement require a defined benefit pension. The pensionable salary shall include base salary and, where required by law or collective agreement, short-term incentives. The total pension contributions for other Executives shall amount to not more than 35 per cent of base salary, unless a higher percentage results from the application of law or collective agreement.

Other benefits may include, for example, life insurance, medical and health insurance, and company cars. Premiums and other costs relating to such benefits may amount to not more than 10 per cent of the annual base salary for other Executives.

Remuneration for Executives that reside outside Sweden or reside in Sweden but having a material connection to or having been residing in a country other than Sweden may be duly adjusted to comply with mandatory rules or local practice, taking into account, to the extent possible, the overall purpose of these guidelines.

In addition to remuneration set out above, Executives who relocate for the purposes of the position or who work in other multiple countries may also receive such remuneration and benefits as are reasonable to reflect the special circumstances associated with such arrangements, taking into account the overall purpose of these guidelines and alignment with the general policies and practices within the Volvo Group applicable to cross border work.

Termination of employment
Upon termination of an Executive's employment, the notice period may not exceed twelve months. Base salary during the notice period and severance pay may not together exceed an amount corresponding to the base salary for two years.

Executives that reside outside Sweden or reside in Sweden but having a material connection to or having been residing in a country other than Sweden may be offered notice periods for termination and severance payment as are reasonable to reflect the special circumstances, taking into account the overall purpose of these guidelines and alignment with the general policies and practices within the Volvo Group.

Criteria for awarding variable cash remuneration, etc.
Short-term and long-term incentives shall be linked to predetermined and measurable criteria. The criteria – which for example may relate to EBIT, cash flow, return on capital employed or similar ratios, or sustainability targets

– shall be devised to promote the Volvo Group's strategy and long-term value creation and strengthen the link between achieved performance targets and reward. The criteria for short-term and long-term incentives shall be determined by the Board of Directors annually. The satisfaction of the criteria shall be measured over periods of one year each.

To which extent the criteria for awarding variable remuneration has been satisfied shall be determined when the relevant measurement period has ended. The Board of Directors is responsible for the determination of variable remuneration to all Executives.

Claw-back and adjustments

Executives participating in the Volvo Group's current short-term and long-term incentive plans are obliged, in certain circumstances and for specified periods of time, to repay, partially or in its entirety, variable incentive awards already paid if payments have been made by mistake or been based on intentionally falsified data or in the event of material restatement of the Volvo Group's financial results. Furthermore, the Board of Directors may decide on adjustments of pay-out under the incentive plans (before payment has been made) in case of extraordinary circumstances or to adjust for unforeseen one-timers.

Salary and employment conditions for employees

In the preparation of the Board of Directors' proposal for these remuneration guidelines, the Board has considered that the various benefits offered to the Executives need to be aligned with the general structures applicable for employees of AB Volvo at levels that are competitive in the market. Thus, salary and employment conditions for other AB Volvo employees have been taken into account by including information thereon in the Remuneration Committee's and the Board of Directors' basis of decision when evaluating whether the guidelines and the limitations set out herein are appropriate.

The decision-making process to determine, review and implement the guidelines

The Board of Directors has established a Remuneration Committee. The Committee's tasks include preparing the Board of Directors' decision to propose guidelines for executive 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 Remuneration Committee shall also monitor and evaluate plans for variable remuneration for Executives, the application of the guidelines for executive remuneration as well as the current remuneration structures and compensation levels in the Group. The members of the Remuneration Committee are independent of AB Volvo and its executive management. The President and CEO and other members of the executive management do not participate in the Board of Directors' processing of and resolutions regarding remuneration-related matters in so far as they are affected by such matters.

Derogation from the guidelines

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

Description of material changes to the guidelines and how the views of shareholders' have been taken into consideration

During 2020, the Remuneration Committee and the Board of Directors have consulted with shareholders individually and collectively and have followed up on comments and questions received from shareholders in connection with the annual general meeting in June 2020 and otherwise during the year. For further information, please refer to the section Consideration of shareholder views in the Remuneration Report 2020. The Remuneration Committee and the Board have for 2021 and onwards decided to change the company's pension commitments to its President and CEO, Deputy CEO and other Executives employed in Sweden, aiming to simplify the pension commitments and bring them more in line with the prevailing pension schemes for similar individuals in the Swedish market, without materially altering the remuneration from an economical perspective. Due to the forward-looking nature of the remuneration policy, the amendments apply to new employment contracts entered into after approval of the amended policy by the annual general meeting 2021 and for existing employment contracts if changes are agreed to by the Executives in scope.

Fees paid to the Board of Directors

According to a resolution adopted at the Annual General Meeting 2021, fees to the Board of Directors appointed at the Annual General Meeting for the period until the close of the Annual General Meeting 2022 shall be paid as follows: The Chairman of the Board should be awarded SEK 3,700,000 (3,600,000) and each of the other members SEK 1,100,000 (1,060,000) with exception of the President and CEO of AB Volvo, who does not receive a director's fee. In addition, SEK 390,000 (380,000) should be awarded to the Chairman of the Audit Committee and SEK 180,000 (175,000) to each of the other members of the Audit Committee, and SEK

Remuneration to the Group Executive Board SEK	Fixed remuneration		Variable remuneration			
	Fixed salary	Other benefits[1]	Short-term incentives	Long-term incentives	Other remunerations[2]	Pension premiums
President and CEO	16,308,335	299,575	14,157,306	10,608,905	745,091	7,218,565
Deputy CEO	8,843,217	151,640	6,132,094	4,595,140	343,792	3,624,790
Other members of the Group Executive Board[3]	86,395,346	18,247,173	57,600,553	45,229,106	653,353	27,201,038
Total 2021	**111,546,898**	**18,698,388**	**77,889,953**	**60,433,152**	**1,742,236**	**38,044,393**
Total 2020	**100,732,038**	**20,477,118**	**58,792,001**	**58,792,001**	**3,000,000**	**41,485,746**

27:1

1 Other benefits mainly pertain to company cars and, various insurances and expatriate support costs.

2 Other remunerations include payments to Swedish individuals in connection to a change in their pension benefits (2020; compensation in connection with employment in the Group).

3 The Group Executive Board comprised, excluding the President and CEO and Deputy CEO, of 13 (13) members at the end of the year.

165,000 (160,000) to the Chairman of the Remuneration Committee and SEK 118,000 (115,000) to each of the other members of the Remuneration Committee. During 2020 the Board members decided to voluntarily abstain from 20 per cent of their Board and Committee remuneration during the period from the Annual General Meeting 2020 to the Annual General Meeting 2021. For more information, please refer to the Corporate Governance Report.

Terms of employment and remuneration to the President and CEO

Fixed salary, short-term and long-term incentives

The President and CEO is entitled to a remuneration consisting of a fixed annual salary and short-term and long-term incentives. During the financial year 2021, the short-term incentives are based on operating income and cash flow for the Volvo Group; the long-term incentives are based on operating income and return on capital employed. The short-term and long-term incentives, each, amounts to a maximum of 100% of the annual base salary.

For the financial year 2021, the President and CEO received a fixed salary including vacation payment of SEK 16,308,335 (14,517,854) and a short-term incentive of SEK 14,157,306 (10,720,811). The salary in 2020 was lower than the President and CEO's contractual salary due to a reduction in connection with the extraordinary situation caused by the covid-19 pandemic. The short-term incentive was 88.1% (70.3) of the annual base salary.

As part of the agreement to change the pension set-up as per July 1, 2021, (as further described below under *Pensions* to the President and CEO) a base salary increase of 4.46% was granted as per the same date and a lump sum cash payment of SEK 745,091 was paid out later during the year. Other benefits, mainly pertaining to a company car, amounted to SEK 299,575 (251,546).

The President and CEO was also participating in the long-term incentive program decided by the Board of Directors in 2021. During the financial year the outcome of the long-term incentive program amounted to SEK 10,608,905 (10,720,811), which was 66.1% (70.3) of the base salary. The full net amount shall be invested in Volvo B shares. There is to be no pay-out of the amount if the Annual Meeting held in 2022 decides not to distribute any dividends to the shareholders for 2021.

Pensions

During the period from January 1 to June 30, 2021, the President and CEO was covered both by pension benefits provided under collective bargain agreements and by the Volvo Management Pension (VMP) and Volvo Executive Pension (VEP) plans. Both VMP and VEP were defined contribution plans. The pensionable salary consisted of the annual salary, vacation pay and a calculated short-term variable pay. The premium for the VMP plan was SEK 30,000 per year plus 20% of pensionable salary over 30 income base amounts and the premium for the VEP plan was 10% of pensionable salary. There were no commitments other than the payment of the premiums.

During this period, the President and CEO was also covered by Volvo Företagspension, a defined contribution plan for additional retirement benefits. For 2021, the cost amounts to SEK 4,764 (8,568).

As of July 1, 2021, all previous pension commitments were replaced. Hence, during the period from July 1 to December 31, 2021, the President and CEO was covered by a pension benefit in the form of a defined contribution (DC) plan with a contribution amounting to 35% of the annual base salary. There were no commitments other than the payment of the contributions.

Total pension premiums for the President and CEO amounted to SEK 7,218,565 (7,714,902) in 2021.

Severance payments

The President and CEO has a 12 months' notice period upon termination by AB Volvo and a 6 months' notice period upon termination on his own initiative. If terminated by the company, the President and CEO is entitled to a severance payment equivalent to 12 months' salary. In the event of new employment during the severance period, the severance pay is reduced with an amount equal to 100% of the income from the new employment.

Terms of employment and remuneration to the Deputy CEO

Fixed salary, short-term and long-term incentives

The Deputy CEO receives short-term and long-term incentives in addition to a fixed salary. During the financial year 2021, the short-term incentives are based on operating income and cash flow for the Volvo Group; the long-term incentives are based on operating income and return on capital employed. In 2021, short-term and long-term incentives, for the Deputy CEO, could each amount to a maximum of 80% of the annual base salary.

For the financial year 2021, the Deputy CEO received a fixed salary including vacation payment of SEK 8,843,217 (7,871,465) and a short-term incentive of SEK 6,132,094 (4,647,870). The salary in 2020 was lower than the Deputy CEO's contractual salary due to a reduction in connection with the extraordinary situation caused by the covid-19 pandemic. The short-term incentive was 70.5% (56.3) of the annual base salary.

As part of the agreement to change the pension set-up as per July 1, 2021, (as further described below under *Pensions* to the Deputy CEO) a base salary increase of 5.39% was granted as per the same date and a lump sum cash payment of SEK 343,792 was paid out later during the year. Other benefits, mainly pertaining to car and insured benefits, amounted to SEK 151,640 (91,810).

The Deputy CEO also participated in the long-term incentive program decided by the Board of Directors in 2021. The long-term incentive amounted to SEK 4,595,140 (4,647,870), which was 52.8% (56.3) of the annual base salary and the full net amount shall be invested in Volvo B shares. There is to be no pay-out of the amount if the Annual Meeting held in 2022 decides not to distribute any dividends to the shareholders for 2021.

Pensions

During the period from January 1 to June 30, 2021, the Deputy CEO was covered both by pension benefits provided under collective bargain agreements and by the Volvo Management Pension (VMP) and Volvo Executive Pension (VEP) plans. Both VMP and VEP were defined contribution plans. The pensionable salary consisted of the annual salary, vacation pay and a calculated short-term variable pay. The premium for the VMP plan was SEK 30,000 per year plus 20% of pensionable salary over 30 income base amounts and the premium for the VEP plan was 10% of pensionable salary. There were no commitments other than the payment of the premiums.

During this period, the Deputy CEO was also covered by Volvo Företagspension, a defined contribution plan for additional retirement benefits. For 2021, the cost amounts to SEK 4,764 (8,568).

During the period from July 1 to December 31, 2021, the Deputy CEO continued to participate in the collective bargain agreement (ITP). However, all other pension plans were replaced by a new Volvo Executive Pension (VEP) plan. This is a defined contribution (DC) plan with a contribution amounting to 35% of the annual base salary exceeding 30 income base amounts (SEK 2,046,000 in 2021). There were no commitments other than the payment of the contributions.

Total pension premiums for the Deputy CEO amounted to SEK 3,624,790 (4,049,242) in 2021.

Severance payments
The employment contract for the Deputy CEO contains rules governing severance payments when AB Volvo terminates the employment. The notice period upon termination by the company shall not exceed 12 months and the notice period upon termination by the Deputy CEO shall not exceed 6 months. In addition, in the event of termination by the company, the Deputy CEO is entitled to a maximum of 12 months' severance pay.

Remuneration to the Group Executive Board
Fixed salary, short-term and long-term incentives
Members of the Group Executive Board receive short-term and long-term incentives in addition to fixed salaries. During the financial year 2021, the short-term incentives are based on operating income and cash flow for the Volvo Group; the long-term incentives are based on operating income and return on capital employed. In 2021, short-term and long-term incentives, for Group Executive Board members excluding the President and CEO, could each amount to a maximum of 80% of the annual base salary.

For the financial year 2021, fixed salaries amounted to SEK 86,395,346 (78,342,719) for the Group Executive Board members excluding the President and CEO and the Deputy CEO, and a compensation in connection with a change in pension plans for Swedish Executive Board members to an amount of SEK 653,353 (3,000,000; compensation in connection with employment in the Group). The salaries in 2020 were lower than the contractual salaries due to a reduction in connection with the extraordinary situation caused by the covid-19 pandemic. The short-term incentive amounted to SEK 57,600,553 (43,423,320) for the Group Executive Board members excluding the President and CEO and the Deputy CEO. Short-term incentive was in average 68.3% (56.3) of the annual base salary. As part of the agreement to change the pension set-up as per July 1, 2021, (as further described below under *Pensions* to the Group Executive Board) for the Group Executive Board members in the Swedish pension plan, base salary increases between 5.50% – 8.13% were granted as per the same date and lump sum cash payments between SEK 0 – 246,135 were paid out later during the year. Other benefits, including company cars, housing and expatriate support costs, amounted to SEK 18,247,173 (20,133,762).

The Group Executive Board also participated in the long-term incentive program decided by the Board of Directors in 2021. During the financial year the outcome of the long-term incentive amounted to SEK 45,229,106 (43,423,320) for the Group Executive Board members, excluding the President and CEO and the Deputy CEO, which was 52.8% (56.3) of the annual base salaries and the full net amount shall be invested in Volvo B shares. There is to be no pay-out of the amount if the Annual Meeting held in 2022 decides not to distribute any dividends to the shareholders for 2021.

Pensions
During the period from January 1 to June 30, 2021, the Group Executive Board members enrolled in the Swedish pension plan were covered both by pension benefits provided under collective bargain agreements (ITP) and by the Volvo Management Pension (VMP) and the Volvo Executive Pension (VEP) plans. Both VMP and VEP were defined contribution plans. The pensionable salary consisted of the annual salary, vacation pay and a calculated short-term variable pay. The premium for the VMP plan was SEK 30,000 per year plus 20% of pensionable salary over 30 income base amounts and the premium for the VEP plan was 10% of pensionable salary. There were no commitments other than the payment of the premiums.

The Group Executive Board members enrolled in the Swedish pension plan were also covered by Volvo Företagspension, a defined contribution plan for additional retirement benefits. For 2021, the cost amounts to SEK 4,764 (8,568) per member.

During the period from July 1 to December 31, 2021, the Group Executive Board members enrolled in the Swedish pension plan continued to participate in the collective bargain agreement (ITP). However, all other pension plans were replaced by a new Volvo Executive Pension (VEP) plan. This is a defined contribution (DC) plan with a contribution amounting to 35% of the annual base salary exceeding 30 income base amounts (SEK 2,046,000 in 2021). There were no commitments other than the payment of the contributions.

Pension premiums for the Group Executive Board, excluding the President and CEO and the Deputy CEO, amounted to SEK 27,201,038 (29,721,602) in 2021.

Severance payments
The employment contracts for Group Executive Board members contain rules governing severance payments when AB Volvo terminates the employment. For Executives resident in Sweden, the notice period upon termination by the company shall not exceed 12 months and the notice period upon termination by the Executive shall not exceed 6 months. In addition, in the event of termination by the company, the Executive is entitled to a maximum of 12 months' severance pay.

Executives resident outside Sweden or resident in Sweden but having a material connection to or having been resident in a country other than Sweden may be offered notice periods for termination and severance payment that are competitive in the country where the Executives are or have been resident or to which the Executives have a material connection, preferably solutions comparable to the solutions applied to Executives resident in Sweden.

Volvo Group's total cost for remuneration and benefits to the Group Executive Board
The total cost for remuneration and benefits to the Group Executive Board amounted to SEK 380 M (345) and pertained to fixed salaries, short-term and long-term incentives, other benefits and pensions. It also included social fees on salaries and benefits, special payroll tax and additional costs for other benefits.

Long-term incentive programs
Long-term incentive program valid from 2016
The Board of Directors have in 2016 approved a long-term cash-based incentive program comprising the top 300 persons from senior management, including Executives, in the Volvo Group. For more information, please refer to *Types of remuneration* on page 127.

Average number of employees	2021		2020	
	Number of employees	of which women, %	Number of employees	of which women, %
AB Volvo				
Sweden	283	49	301	51
Subsidiaries				
Sweden	20,538	24	20,150	23
Western Europe (excl. Sweden)	20,383	17	21,037	17
Eastern Europe	6,584	20	6,754	20
North America	16,301	21	15,875	20
South America	6,358	17	5,736	17
Asia	11,384	16	17,429	14
Other countries	2,128	19	2,292	20
Volvo Group total	**83,958**	**20**	**89,573**	**19**

27:2

Board members and other senior executives	2021		2020	
	Number at year-end	of which women, %	Number at year-end	of which women, %
AB Volvo				
Board members[1]	11	45	11	36
CEO, Deputy CEO and other senior executives	15	27	15	27
Volvo Group				
Board members	555	25	573	23
Presidents and other senior executives	597	27	613	26

27:3

1 Board members elected by the Annual General meeting.

Wages, salaries and other remunerations SEK M	2021			2020		
	Board and Presidents	of which variable salaries	Other employees[4]	Board and Presidents	of which variable salaries	Other employees
AB Volvo[1]	73.5	34.4	404.9	62.5	28.8	338.0
Subsidiaries	706.2	184.9	41,404.9	770.7	139.9	39,715.6
Volvo Group total	**779.7**	**219.3**	**41,809.8**	**833.2**	**168.7**	**40,053.6**

27:4

Wages, salaries and other remunerations and social costs SEK M	2021			2020		
	Wages, salaries remuneration[4]	Social costs	Pension costs	Wages, salaries remuneration	Social costs	Pension costs
AB Volvo[2]	478.4	138.8	156.0	400.5	120.4	123.5
Subsidiaries	42,111.1	9,287.3	4,772.0	40,486.3	9,150.0	3,507.1
Volvo Group total[3]	**42,589.5**	**9,426.1**	**4,928.0**	**40,886.7**	**9,270.3**	**3,630.7**

27:5

1 Including current and former Board members, President and CEO, Deputy CEO and Executive Vice Presidents.

2 The parent company's pension costs, pertaining to Board members and Presidents are disclosed in note 3 Administrative expenses in the annual report of the parent company.

3 Of the Volvo Group's pension costs, SEK 89 M (92) pertain to Board members and Presidents, including current and former Board members, Presidents, Deputy CEO and Executive Vice Presidents. The Volvo Group's outstanding pension obligations to these individuals amount to SEK 625 M (609). The cost for non-monetary benefits in the Volvo Group amounted to SEK 2,877 M (2,853) of which SEK 30 M (41) pertained to Board members and Presidents. The cost for non-monetary benefits in the parent company amounted to SEK 6.0 M (9.0) of which SEK 0.0 M (0.1) to Board members and President.

4 Including compensation from authorities of SEK 268 M (2,248) due to the extraordinary situation following the covid-19 pandemic.

28 Fees to the auditors

Fees to the auditors	2021	2020
Deloitte		
– Audit fees	105	105
whereof to Deloitte AB	*35*	*30*
– Audit-related fees	6	7
whereof to Deloitte AB	*2*	*2*
– Tax advisory services	1	2
whereof to Deloitte AB	–	–
– Other fees	6	7
whereof to Deloitte AB	–	–
Total	**118**	**121**
Audit fees to others	3	3
Volvo Group Total	**121**	**124**

28:1

The audit assignment involves review of the Annual report and financial accounting and the administration by the Board and the President. Audit-related assignments mean quality assurance services required by enactment, articles of association, regulations or agreement. The amount includes the fee for reviewing the half-year report. Tax services include both tax consultancy and tax compliance services. All other tasks are defined as other.

29 Cash flow

ACCOUNTING POLICY

Cash flow statement
The cash flow statement is prepared in accordance with the indirect method. The cash flows of foreign group companies are translated at average rates. Changes in group structure, acquisitions and divestments are recognized gross, excluding cash and cash equivalents, and are included in cash flow from investing activities, in the items Acquired operations and Divested operations.

» **Read more in Note 18** Cash and cash equivalents.

Other non-cash items	2021	2020
Allowance for expected credit losses on accounts receivables/customer-financing receivables	534	1,725
Gains/losses on divested operations[1]	–1,643	–25
Unrealized exchange rate gains/losses on accounts receivables and payables	34	50
Unrealized exchange rate gains/losses on other operating assets and liabilities	114	–270
Provision for incentive programs	1,523	1,053
Gains/losses on disposals of in-/tangible assets	27	55
Gains/losses on divestments of shares and participations	15	43
Income from investments in joint ventures	67	–1,751
Service cost related to pensions	2,053	1,645
Deferred sales with residual value commitments	–3,154	–3,137
Provision for restructuring	–160	1,685
Other changes	–409	144
Total other non-cash items	**–998**	**1,217**

29:1

1 In 2021 Volvo Group divested the UD Trucks operations with a capital gain of SEK 1.7 billion.

» **Read more in Note 3** Acquisitions and divestment of operations, about gain/loss from divestments.

Changes in loans 2021		Cash flows		Non-cash items			
	December 31, 2020	New borrowings	Repayment of borrowings	Reclassifications and other changes[1]	Unrealized currency effects	Currency translation	December 31, 2021
Current bond loans and other loans	58,258	54,274	−88,200	27,772	−5,127	2,470	49,447
Non-current bond loans and other loans	95,166	36,101	−5,981	−26,913	1,501	4,302	104,177
Interest and currency risk derivatives	−5,496	–	–	–	3,484	–	−2,013
Realized derivatives	–	–	−766	–	–	–	–
Other	–	−1,234[2]	−1,165	–	–	–	–
Cash flow impact from changes in loans		**89,141**	**-96,113**				

Changes in loans 2020		Cash flows		Non-cash items			
	December 31, 2019	New borrowings	Repayment of borrowings	Reclassifications and other changes[1]	Unrealized currency effects	Currency translation	December 31, 2020
Current bond loans and other loans	56,135	66,452	−115,109	55,091	4,133	−8,445	58,258
Non-current bond loans and other loans	101,616	63,614	−5,128	−55,676	−1,104	−8,155	95,166
Interest and currency risk derivatives	−1,328	–	–	–	−4,169	–	−5,496
Realized derivatives	–	–	−895	–	–	–	–
Other	–	−1,612[2]	–	–	–	–	–
Cash flow impact from changes in loans		**128,453**	**−121,132**				

29:2

1 Includes new loans from acquired operations, which are included as cash flow from financing activities in the item Acquired operations, and remeasurements of lease liabilities which had no impact on cash flow. In 2020, SEK 584 M was reclassified from current and non-current other loans to liabilities held for sale. In 2021, no reclassification to liabilities held for sale was made.

2 During 2021, new lease liabilities of SEK 1.2 billion (1.6), included in non-current other loans, were adjusted as non-cash items.

Net borrowings decreased by SEK 7.0 billion (−7.3), mainly due to an improved operating cash flow.

Syndications were performed in Financial Services to an amount of SEK 9.8 billion (6.8). All syndications impacted cash flow this year.

» **Read more in Note 22** Liabilities regarding Current loans and Non-current loans.

» **Read more in Board of Director's report** about Cash flow statement and Financial position.

30 Financial instruments

ACCOUNTING POLICY

Financial assets and liabilities are recognized on the transaction date according to the contractual terms of the instrument. Transaction expenses are included in the assets' fair value, except in cases in which the change in value is recognized in the income statement. The transaction costs that arise in conjunction with the admission of financial liabilities are amortized over the term of the loan as financial cost.

A financial asset is derecognized from the balance sheet when the rights to the cash flows from the asset have expired at maturity or when all significants risks and benefits related to the asset have been transferred to a third party.

The fair value of financial assets is determined based on valid market prices, when available. If market prices are unavailable, the fair value is determined for each asset through the use of various measurement techniques. The fair value of financial instruments is classified based on the degree that market values have been utilized when measuring fair value. The majority of financial instruments measured at fair value held by Volvo Group is classified as level 2. The valuation of level 2 instruments is based on market conditions using quoted market data existing at each balance sheet date. The basis for the interest is the zero-coupon-curve in each currency which is used to calculate the present value of all the estimated future cash flows.

For forward exchange contracts the basis is the forward premium based on current spot rate for each currency and future date. The fair value is then discounted based on the forward rates as per the balance sheet date. Holding of shares are classified as level 1 for listed shares and level 3 for non-listed shares. Call options are classified as level 3 and are based on the Black & Scholes option pricing formula.

Financial assets measured at amortized cost

Customer-financing receivables are held as part of a business model whose objective is to collect contractual cash flows. The contractual cash flows are solely payments of principal and interest and are valued at amortized cost in accordance with the effective interest method. In this category the Volvo Group also includes accounts receivables and holding of shares in non-listed companies for which a fair value cannot reasonably be determined. The carrying value for financial assets measured at amortized cost has been analyzed and compared with an estimated fair value. The carrying value is a reasonable approximation of the fair value.

» **Read more in Note 5** Investments in joint ventures, associated companies and other shares and participations.

» **Read more in Note 15** Customer-financing receivables.

» **Read more in Note 16** Receivables.

Financial assets measured at fair value through other comprehensive income

In this category the Volvo Group includes holding of shares in listed companies as the shares are not held for trading. Changes in fair value is measured through other comprehensive income and amounted to SEK 48 M (–8).

» Read more in Note 5 Investments in joint ventures, associated companies and other shares and participations.

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

Volvo Group's financial assets and liabilities held for trading are recognized at fair value through the income statement. As presented in table 30:1, these instruments are derivatives, used for hedging interest and currency risks and marketable securities, further presented in note 18 Cash and cash equivalents.

Derivatives used for hedging interest rate exposure financing the customer financing porfolio within Financial Services as well as the debt portfolio in Industrial Operations are included in this section. Unrealized gains and losses from fluctuations in the fair value of the financial instruments are recognized in other financial income and expenses. The Volvo Group intends to hold these derivatives to maturity, which is why, over time, the market valuation will be offset by the interest-rate fixing on borrowing and lending in Financial Services, and thus not affect net income or cash flow.

Financial instruments used for hedging currency risks arising from future firm commercial cash flows are also recognized in this section. Realized result and unrealized revaluation of derivatives are recognized in other financial income and expenses to be able to net all internal flows before entering into external derivatives to hedge future currency risk. During 2021 no hedging has been performed on future firm commercial cash flows. When hedging future cash flows for specific orders the classification in the income statement is decided on a case by case basis. In 2021, gains and losses from derivatives hedging currency risks for specific orders of SEK –3 M (–47) have been recognized in operating income and SEK 32 M (63) in other financial income and expenses.

» Read more in Note 9 Other financial income and expenses.

» Read more in Note 4 Goals and policies in financial risk management.

Hedge Accounting is not applied by the Volvo Group.

Information regarding carrying amounts and fair values

In table 30:1, carrying amounts are compared with fair values for all of the Volvo Group's financial instruments.

Carrying amounts and fair values on financial instruments SEK M		**Dec 31, 2021** Carrying value	Fair value	Dec 31, 2020 Carrying value	Fair value
Assets					
Financial assets measured at fair value through the income statement					
Interest and currency risk derivatives[1]	Note 16	2,930	2,930	6,049	6,049
Other derivatives[2]		564	564	564	564
B/S Marketable securities	Note 18	167	167	213	213
		3,661	3,661	6,826	6,826
Financial assets measured at fair value through other comprehensive income					
Holding of shares in listed companies	Note 5	51	51	–	–
Financial assets measured at amortized cost					
B/S Accounts receivables	Note 16	40,776	40,776	35,660	35,660
Customer-financing receivables	Note 15	151,504	151,504	128,531	128,531
Holding of shares in non-listed companies	Note 5	488	488	276	276
Other interest-bearing receivables	Note 16	1,692	1,692	402	402
		194,460	194,460	164,870	164,870
B/S **Cash and cash equivalents**	Note 18	62,126	62,126	85,206	85,206
Liabilities	Note 22				
Financial liabilities measured at fair value through the income statement					
Interest and currency risk derivatives[3]		2,379	2,379	1,356	1,356
Financial liabilities measured at amortized cost[4]					
Non-current bond loans and other loans		102,259	103,536	94,750	97,024
Current bond loans and other loans		49,192	49,329	58,027	58,188
B/S Trade Payables		76,745	76,745	59,611	59,611
		228,197	229,610	212,388	214,823

30:1

1 The Volvo Group's gross exposure from derivatives reported as assets is reduced by 80% (87) by netting agreements and cash deposits to SEK 588 M (758).

2 The input data used in the valuation model for calculating the fair value has not changed during 2021.

3 The Volvo Group's gross exposure from derivatives reported as liabilities is reduced by 94% (64) by netting agreements and cash deposits to SEK 148 M (492).

4 In the Volvo Group balance sheet, financial liabilities include loan-related derivatives amounting to SEK –2,173 M (–647). The credit risk is included in the fair value of loans.

» Read more in Note 4 Goals and policies in financial risk management.

Derecognition of financial assets

The Volvo Group is involved in discounting activities to reduce financial risks. An evaluation is performed to establish whether substantially all the risks and rewards have been transferred to an external party when entering into an agreement. The Volvo Group's intention is not to be involved in discounting activities if not substantially all the risks and rewards can be transferred to an external party. As of December 31, 2021, there were no transferred financial assets in the Volvo Group that did not fulfill the requirements for derecognition.

Financial assets are derecognized from the balance sheet when the rights to the cash flows from the assets have expired or when substantially all risks and rewards have been transferred. Involvement in these assets is reflected in the Volvo Group's balance sheet as part of the external credit guarantees. They are valued at best estimate and recognized as provisions in the balance sheet to an amount of SEK 0.2 billion (0.1).

The Volvo Group's maximum loss exposure is considered being the total recourse relating to transferred and derecognized assets that are part of the recognized credit guarantees, i.e. the total amount the Volvo Group would have to pay in case of default of the customers. The likelihood for all customers going into default at the same time is considered to be low. The gross exposure for the Volvo Group amounted to SEK 7.4 billion (4.4) related to credit guarantees issued for customers and others and is part of the Volvo Group's contingent liabilities. This amount has not been reduced by the value of counter guarantees received or other collaterals such as the right to repossess the products.

» **Read more in Note 21** Other provisions.

» **Read more in Note 24** Contingent Liabilities.

Gains, losses, interest income and interest expenses from financial instruments

Table 30:3 shows how gains and losses, as well as interest income and interest expenses have affected income after financial items in the Volvo Group divided by the different categories of financial instruments.

In table 30:2, outstanding derivatives hedging currency and interest rate risks are presented.

Outstanding derivative instruments	**Dec 31, 2021**		Dec 31, 2020	
SEK M	Nominal amount	Carrying value	Nominal amount	Carrying value
Interest-rate swaps				
– receivable position	112,571	2,779	126,549	5,448
– payable position	202,829	–2,265	167,422	–1,214
Forward and futures				
– receivable position	–	0	248	–
– payable position	–	–	666	–73
Foreign exchange derivatives				
– receivable position	13,457	150	25,779	596
– payable position	10,719	–114	7,255	–67
Options purchased				
– receivable position	2,000	1	10,409	2
– payable position	3,068	–	0	–
Options written				
– receivable position	–	–	–	–
– payable position	–	–	205	–2
Total		**551**		**4,691**

30:2

Recognized in operating income SEK M	2021 Gain/ Loss	2021 Interest income	2021 Interest expense	2020 Gain/ Loss	2020 Interest income	2020 Interest expense
Financial assets and liabilities at fair value through the income statement						
Currency risk derivatives[1, 2]	–264	–	–	–47	–	–
Marketable securities	13	–	–	–	–	–
Financial assets measured at amortized cost						
Accounts receivables/trade payables[3]	32	–	–	–102	–	–
Cash and cash equivalents	46	–	–	–	–	–
Customer-financing receivables[4]	366	7,020	–	267	7,208	–
Holding of shares in listed companies[5]	0	–	–	20	–	–
Holding of shares in non-listed companies	–16	–	–	14	–	–
Financial liabilities measured at amortized cost[6]	**–**	**–**	**–2,451**	**–**	**–**	**–2,992**
Impact on operating income	**177**	**7,020**	**–2,451**	**152**	**7,208**	**–2,992**

Recognized in net financial items[7, 8] SEK M	2021 Gain/ Loss	2021 Interest income	2021 Interest expense	2020 Gain/ Loss	2020 Interest income	2020 Interest expense
Financial assets and liabilities at fair value through the income statement						
Marketable securities	0	0	–	–28	1	–
Interest and currency rate risk derivatives[1, 2]	–2,784	–7	–1,075	7,473	–1	–1,246
Financial assets measured at amortized cost						
Cash and cash equivalents	–	365	–	–	299	–
Financial liabilities measured at amortized cost	**3,684**	**–**	**126**	**–8,051**	**–**	**192**
Impact on net financial items[7, 8]	**900**	**358**	**–949**	**–606**	**299**	**–1,055**

30:3

1 Accrued and realized interest related to financial assets and liabilities measured at fair value through the income statement is included in the amounts for gains and losses.

2 The Volvo Group uses forward contracts and currency options to hedge the value of future cash flows in foreign currency. Both unrealized and realized result of currency risk contracts is included in the table. The amount includes gains/losses of SEK – 261 M due to hedging of cash-flow in foreign currency from dividends paid to group companies.

3 Information regarding changes in allowance for expected credit losses on accounts receivables is provided in note 16 Receivables and note 8 Other operating income and expenses. The amount includes gains/losses of SEK 228 M from revaluation of receivables in foreign currency related to dividends paid to group companies.

4 The amount includes gains/losses due to derecognition of assets where SEK 266 M (177) is related to the sale of customer-financing receivables and SEK 99 M (91) is related to early buy-out revenue. Information regarding changes in allowance for expected credit losses on customer-financing receivables is provided in note 15 Customer-financing receivables and note 8 Other operating income and expenses.

5 Changes in fair value on shares and participations in listed companies through other comprehensive income amounted to SEK 48 M (–8). » **Read more in Note 5** Investments in joint ventures, associated companies and other shares and participations.

6 Interest expenses attributable to financial liabilities measured at amortized cost recognized in operating income include interest expenses for financing operating lease activities, which are not classified as financial instruments.

7 In gain/loss, interest income and expenses related to financial instruments recognized in net financial items, SEK 900 M (–606) was recognized in other financial income and expenses. » **Read more in Note 9** Other financial income and expenses.

8 Interest expenses attributable to pensions reported in net financial items of SEK 219 M (294) are not included in this table.

» **Read more in Note 4** Goals and policies in financial risk management.

31 Changes in Volvo Group financial reporting 2021

UD Trucks

On April 1, 2021, the Volvo Group divested UD Trucks. In the section for Trucks, certain items of interest are presented excluding UD Trucks to facilitate the comparability of the Volvo Group's financial performance between the periods. Thus, UD Trucks net sales, certain income statement items of interest, net order intake and deliveries for the first quarter 2021 and the full year 2020 when UD Trucks was part of the Volvo Group are presented below for comparison purposes. UD Trucks had a marginally positive impact on the Volvo Group's adjusted operating income.

Net sales, SEK M	**First quarter 2021**	Full year 2020
Europe	4	14
North America	27	97
South America	42	116
Asia	4,751	20,218
Africa and Oceania	613	2,259
Total net sales	**5,438**	**22,703**
Of which		
Vehicles	3,346	13,855
Services	2,092	8,848

Certain Income Statement items of interest, SEK M	**First quarter 2021**	Full year 2020
Research and development expenses	–242	–1,102
Selling expenses	–793	–3,642
Administrative expenses	–87	–257

Net order intake, Number of trucks	**First quarter 2021**	Full year 2020
Europe	–	–
North America	33	63
South America	83	374
Asia	3,556	11,979
Africa and Oceania	1,345	3,668
Total net order intake	**5,017**	**16,084**
Of which		
Heavy-duty (>16 tons)	3,885	12,365
Medium-duty (7–16 tons)	874	3,080
Light-duty (<7 tons)	258	639

Deliveries, Number of trucks	**First quarter 2021**	Full year 2020
Europe	–	–
North America	16	37
South America	109	244
Asia	3,028	12,424
Africa and Oceania	841	2,753
Total deliveries	**3,994**	**15,458**
Of which		
Heavy-duty (>16 tons)	3,005	12,181
Medium-duty (7–16 tons)	771	2,695
Light-duty (<7 tons)	218	582

31:1

Nova Bus

On October 1, 2021, the Volvo Group reorganized its bus operation whereby Nova Bus has been moved from the Buses segment into the segment Group Functions & Other. To facilitate the comparability between the periods, the financial statements for 2020 and 2021 of the segments Buses and Group Functions & Other have been restated. Thus, net sales, operating income, deliveries and other segment information for 2020 are presented below for comparison purposes. The reorganization has not affected the total amounts for Industrial Operations and the Volvo Group.

Segment reporting	Buses			Group Functions & Other incl. Eliminations		
SEK M	Previously reported 2020	Restatement	**After restatement 2020**	Previously reported 2020	Restatement	**After restatement 2020**
Net sales, external customers	18,955	–4,890	**14,066**	6,983	4,890	**11,872**
Net sales, internal	836	–190	**646**	–1,908	190	**–1,719**
Net sales	**19,791**	**–5,079**	14,712	**5,074**	**5,079**	**10,154**
Expenses	–20,320	5,073	**–15,247**	–5,384	–5,073	**–10,458**
Income from investments in joint ventures and associated companies	6	–	**6**	1	–	**1**
Operating income	**–522**	**–7**	**–529**	**–309**	**7**	**–303**
Adjustments[1]	–77	–	**–77**	1,059	–	**1,059**
Adjusted operating income	**–445**	**–7**	**–452**	**–1,370**	**7**	**–1,363**
Operating margin, %	–2.6	–0.1	**–3.6**	–	–	**–**
Adjusted operating margin, %	–2.2	–0.1	**–3.1**	–	–	**–**
Other segment information						
Depreciation, amortization and impairment	–801	37	**–764**	2,874	–37	**2,837**
Restructuring costs	–140	–	**–140**	–72	–	**–72**
Gains/losses from divestments	–31	–	**–31**	4	–	**4**
Investments in in-/tangible assets	431	–81	**350**	334	81	**415**
Investments in joint ventures and associated companies	77	–	**77**	765	–	**765**
Assets held for sale	–	–	**–**	29,362	–	**29,362**
Liabilities held for sale	–	–	**–**	–6,638	–	**–6,638**

31:2

1 For more information on adjusted operating income, please see section for Key ratios.

Disaggregation of revenue	Buses			Group Functions & Other incl. Eliminations		
SEK M	Previously reported 2020	Restate-ment	**After restatement 2020**	Previously reported 2020	Restate-ment	**After restatement 2020**
Net sales per product group						
Vehicles	16,072	–4,278	**11,794**	2,912	4,278	**7,190**
Services	3,720	–801	**2,919**	2,163	801	**2,964**
Net sales	**19,791**	**–5,079**	**14,712**	**5,074**	**5,079**	**10,154**
Net sales per geographical region						
Europe	5,765	–	**5,765**	3,309	–	**3,309**
North America	8,302	–5,079	**3,223**	580	5,079	**5,659**
South America	1,793	–	**1,793**	–79	–	**–79**
Asia	2,397	–	**2,397**	927	–	**927**
Africa and Oceania	1,535	–	**1,535**	338	–	**338**
Net sales	**19,791**	**–5,079**	**14,712**	**5,074**	**5,079**	**10,154**
Timing of revenue recognition						
Revenue of vehicles and services recognized at the point of delivery	19,214	–5,065	**14,150**	2,378	5,065	**7,442**
Revenue of vehicles and services recognized over contract period	577	–15	**563**	2,696	15	**2,711**
Net sales	**19,791**	**–5,079**	**14,712**	**5,074**	**5,079**	**10,154**

31:3

Deliveries by market	Buses		
Number of buses	Previously reported 2020	Restate-ment	**After restatement 2020**
Europe	1,565	–	**1,565**
North America	1,644	–790	**854**
South America	1,152	–	**1,152**
Asia	1,097	–	**1,097**
Africa and Oceania	757	–	**757**
Total deliveries	**6,215**	**–790**	**5,425**
Of which			
Fully electric	227	–4	**223**
Hybrids	473	–390	**83**

31:4

Parent company

Parent company AB Volvo

Corporate registration number 556012-5790.

The amounts within parentheses refer to the preceding year, 2020.

Board of Directors' report

AB Volvo is the parent company of the Volvo Group and is headquartered in Gothenburg, Sweden. The operations comprise of the Volvo Group's headquarters with staff, together with some corporate functions.

Income from investments in group companies include dividends amounting to SEK 48,654 M (1,128).

The carrying value of shares and participations in group companies amounted to SEK 67,683 M (71,857), of which SEK 66,720 M (70,554) pertained to shares in wholly owned subsidiaries. The corresponding shareholders' equity in the subsidiaries (including equity in untaxed reserves but excluding non-controlling interests) amounted to SEK 129,512 M (144,701).

Investments in joint ventures and associated companies amounted to SEK 8,938 M (8,938). In the consolidated accounts for the Volvo Group these are accounted for according to the equity method. The equity portion in joint ventures and associated companies pertaining to AB Volvo amounted to SEK 11,150 M (10,177).

Financial net debt amounted to SEK 42,877 M (7,565).

AB Volvo's risk capital (equity plus untaxed reserves) amounted to SEK 81,210 M (74,700) corresponding to 60% (90) of total assets.

Income statement			
SEK M		**2021**	2020
Net sales	Note 2	**266**	**327**
Cost of sales	Note 2	–485	–327
Gross income		**–219**	**0**
Administrative expenses	Note 2, 3	–1,329	–1,185
Other operating income and expenses	Note 4	101	128
Operating income		**–1,447**	**–1,057**
Income from investments in group companies	Note 5	44,931	413
Income from investments in joint ventures and associated companies	Note 6	787	1,058
Income from other investments	Note 7	–1	–1
Interest income and similar credits		1	0
Interest expenses and similar charges	Note 8	–546	–587
Other financial income and expenses	Note 9	–17	–19
Income after financial items		**43,708**	**–193**
Appropriations	Note 10	15,813	1,020
Income taxes	Note 11	–3,190	653
Income for the period		**56,331**	**1,480**

Other comprehensive income		
Income for the period	**56,331**	**1,480**
Other comprehensive income, net of income taxes	**–**	**–**
Total comprehensive income for the period	**56,331**	**1,480**

Balance sheet			
SEK M		**Dec 31, 2021**	Dec 31, 2020
Assets			
Non-current assets			
Tangible assets	Note 12	7	7
Financial assets			
Shares and participations in group companies	Note 13	67,683	71,857
Investments in joint ventures and associated companies	Note 13	8,946	8,946
Other shares and participations	Note 13	1	1
Other non-current receivables	Note 14	487	–
Deferred tax assets	Note 11	242	298
Total non-current assets		**77,366**	**81,109**
Current assets			
Current receivables			
Receivables group companies		56,546	1,735
Other receivables	Note 15	1,235	85
Total current assets		**57,781**	**1,820**
Total assets		**135,147**	**82,929**
Equity and liabilities			
Equity			
Restricted equity			
Share capital		2,562	2,562
Statutory reserve		7,337	7,337
Unrestricted equity			
Non-restricted reserves		390	390
Retained earnings		4,590	52,930
Income for the period		56,331	1,480
Total equity		**71,210**	**64,699**
Untaxed reserves	Note 16	**10,000**	**10,000**
Provisions			
Provisions for post-employment benefits	Note 17	275	268
Other provisions	Note 18	–	3
Total provisions		**275**	**271**
Non-current liabilities	Note 19		
Liabilities to group companies		5,739	5,589
Other liabilities		6	6
Total non-current liabilities		**5,745**	**5,595**
Current liabilities			
Trade payables		133	87
Other liabilities to group companies		45,414	1,789
Tax liabilities		1,836	1
Other liabilities	Note 20	534	487
Total current liabilities		**47,917**	**2,364**
Total equity and liabilities		**135,147**	**82,929**

Cash flow statement			
SEK M		**2021**	2020
Operating activities			
Operating income		–1,447	–1,057
Depreciation and amortization		0	0
Other non-cash items	Note 22	69	–45
Total change in working capital whereof		625	–105
Change in accounts receivable		*14*	*–107*
Change in trade payables		*55*	*134*
Other changes in working capital		*556*	*–132*
Interest and similar items received		1	0
Interest and similar items paid		–546	–597
Other financial items		–16	–23
Dividends received from group companies	Note 5	15,933	1,127
Dividends received from joint ventures and associated companies	Note 6	1,213	876
Group contributions received		1,020	25,792
Income taxes paid		–2,261	–1,108
Cash-flow from operating activities		**14,591**	**24,860**
Investing activities			
Investments in in-/tangible assets	Note 12	–	–
Disposals of in-/tangible assets	Note 12	0	0
Investments of shares in group companies	Note 13	–4,580	–300
Divestments of shares in group companies	Note 5, 13	4,504	–
Investments of shares in non-group companies	Note 13	–1	–125
Divestment of shares in non-group companies	Note 13	–	176
Interest-bearing receivables	Note 14	–150	–
Cash-flow after net investments		**14,364**	**24,611**
Financing activities			
New borrowings	Note 22	35,456	–
Repayment of borrowings	Note 22	–	–24,611
Dividends to owners AB Volvo		–49,820	–
Other		0	–
Change in cash & cash equivalents		**0**	**0**
Cash & cash equivalents, beginning of year		**–**	**–**
Cash & cash equivalents, end of year		**–**	**–**

Changes in equity						
	Restricted equity		Unrestricted equity			
SEK M	Share capital	Statutory reserve	Share premium reserve	Retained earnings	Total	Total equity
Balance at December 31, 2019	**2,554**	**7,337**	**390**	**52,938**	**53,328**	**63,219**
Income for the period	–	–	–	1,480	1,480	1,480
Other comprehensive income						
Other comprehensive income for the period	–	–	–	–	–	–
Total income for the period	**–**	**–**	**–**	**1,480**	**1,480**	**1,480**
Transactions with shareholders						
Dividends to owners of AB Volvo	–	–	–	–	–	–
Other changes	8	–	–	−8	−8	0
Transactions with shareholders	8	–	–	−8	−8	0
Balance at December 31, 2020	**2,562**	**7,337**	**390**	**54,410**	**54,800**	**64,699**
Income for the period	–	–	–	56,331	56,331	56,331
Other comprehensive income						
Other comprehensive income for the period	–	–	–	–	–	–
Total income for the period	**–**	**–**	**–**	**56,331**	**56,331**	**56,331**
Transactions with shareholders						
Dividends to owners of AB Volvo	–	–	–	−49,819	−49,819	−49,819
Share based payments	–	–	–	−1	−1	−1
Transactions with shareholders	–	–	–	−49,820	−49,820	−49,820
Balance at December 31, 2021	**2,562**	**7,337**	**390**	**60,921**	**61,311**	**71,210**

» **Read more in Note 19** Equity and number of shares in the consolidated financial statements about the share capital of the parent company.

Notes to financial statements

The amounts within parentheses refer to the preceding year, 2020.

1 Accounting policies

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.

The changes in RFR 2 applicable to the fiscal year beginning January 1, 2021, has not had any significant impact on the parent company.

There are no announced changes in RFR 2 applicable to the fiscal year beginning January 1, 2022 or later.

The accounting policies applied by the Volvo Group are described in the respective notes in the consolidated financial statements. The main deviations between the accounting policies applied by the Volvo Group and the parent company are described below.

Shares and participations in group companies and Investments in joint ventures and associated companies are recognized at cost in the parent company and test for impairment is performed annually. In accordance with RFR 2, the parent company includes costs related to acquisition of a business in the acquisition value. Dividend is recognized in the income statement. All holding of shares are recognized as financial assets and the result is reported in the income from financial items.

The parent company applies the exception in the application of IFRS 9 which concerns accounting and measurement of financial contracts of guarantee in favor of subsidiaries and associated companies. The parent company recognizes the financial contracts of guarantee as contingent liabilities.

RFR 2 includes an exception in regard to IFRS 16, allowing all lease contracts to be accounted for as operational lease contract when the parent company is a lessee.

Group contributions are recognized in accordance with the alternative rule in RFR 2 and are presented as appropriations.

According to RFR 2, application of the regulations in IAS 19 regarding defined benefit plans is not mandatory for legal entities. However, IAS 19 shall be applied for supplementary disclosures when applicable. RFR 2 refers to the Swedish law on safeguarding of pension commitments ("tryggandelagen") related to recognition of provisions for post-employment benefits in the balance sheet and of plan assets in pension foundations.

Volvo Group applies IAS 19 Employee Benefits in the consolidated financial statements. This implies differences, which may be significant, in the accounting of defined benefit pension plans as well as in the accounting of plan assets invested in the Volvo Pension Foundation.

The accounting principles for defined benefit plans differ from IAS 19 mainly relating to:

- Pension liability calculated according to Swedish accounting principles does not take into account future salary increases.
- The discount rate used in the calculations is set by PRI Pensionsgaranti and Finansinspektionen, respectively.
- Changes in the discount rate, actual return on plan assets and other actuarial assumptions are recognized directly in the income statement and in the balance sheet.
- Deficit must be either immediately settled in cash or recognized as a liability in the balance sheet.
- Surplus cannot be recognized as an asset, but may in some cases be refunded to the company to offset pension costs.

2 Revenue and intra-group transactions

The recognized net sales of SEK 266 M (327) pertain mainly to revenues from sale of services to group companies SEK 238 M (288). Revenue is recognized when the control of the service has been transferred to the customer, which is when the parent company incurs the associated cost to deliver the service and the customer can benefit from the use of the delivered services.

Purchases from group companies amounted to SEK 322 M (232).

3 Administrative expenses

Personnel

Wages, salaries and other remunerations amounted to SEK 478 M (418), social costs to SEK 139 M (120) and pension costs to SEK 143 M (210). During 2020 government grants due to the extraordinary situation raised by covid-19, were received by SEK 23 M. Of these, SEK 6 M have been repaid to the authorities in Sweden during 2021. No such government grants have been received during 2021. Pension cost of SEK 14 M (10) pertained to Board Members and the President. The parent company has outstanding pension obligations of SEK 5 M (1) to these individuals.

The number of employees at year end was 284 (289).

» Read more in Note 27 Personnel in the consolidated financial statements about the average number of employees, wages, salaries and other remunerations including incentive program as well as Board members and senior executives by gender.

Depreciation

Administrative expenses include depreciation of SEK 0 M (0) and pertains to machinery and equipment.

Fees to the auditors	2021	2020
Deloitte AB		
– Audit fees	17	17
– Audit-related fees	9	3
– Other fees	0	0
Total	**26**	**20**

3:1

» Read more in Note 28 Fees to the Auditors in the consolidated financial statements for a description of the different categories of fees.

4 Other operating income and expenses

Other operating income and expenses include royalty received by SEK 107 M (202), write-offs of receivables by SEK 0 M (33) and donations, grants and Volvo profit sharing program costs by SEK 9 M (14).

5 Income from investments in group companies

Income from investments in group companies	2021	2020
Dividends received		
Volvo Autonomous Solutions AB, Sweden	21,176	–
Volvo Construction Equipment AB, Sweden	5,779	–
Volvo Treasury AB, Sweden	5,000	–
Volvo China Investment Co. Ltd, China	3,064	394
VNA Holding Inc., USA	2,678	–
Volvo Lastvagnar AB, Sweden	2,550	–
Volvo Powertrain AB, Sweden	1,800	–
Volvo Investment AB, Sweden	1,700	–
JSC Volvo Vostok, Russia	1,308	214
Volvo Penta AB, Sweden	1,030	–
Volvo Information Technology AB, Sweden	1,000	–
Volvo Group Venture Capital AB, Sweden	650	–
Volvo Financial Services AB, Sweden	500	–
Volvo Group Italia SpA, Italy	132	243
Volvo Group UK Ltd., Great Britain	109	–
Volvo Malaysia Sdn Bhd, Malaysia	80	63
Volvo Group Insurance Försäkrings AB, Sweden	75	–
Volvo Danmark A/S, Denmark	20	–
Volvo Information Technology GB Ltd., Great Britain	3	–
Volvo Automotive Finance (China) Ltd, China	–	196
Volvo Norge AS, Norway	–	18
Subtotal	**48,654**	**1,128**
Impairment of shares		
Volvo Equipamentos de Construcao Latin America, Brazil	–	–490
Volvo Italia Spa, Italy	–	–225
Subtotal	**–**	**–715**
Reversal impairment of shares		
UD Trucks Corporation, Japan	1,260	–
Subtotal	**1,260**	**–**
Income from divestment of shares		
UD Trucks Corporation, Japan	–4,980	–
Volvo Logistic UK Ltd., Great Britain	0	–
Volvo Information Technology GB Ltd., Great Britain	–3	–
Subtotal	**–4,983**	**–**
Income from investments in group companies	**44,931**	**413**

5:1

6 Income from investments in joint ventures and associated companies

Income from investments in joint ventures and associated companies includes dividend from Dongfeng Commercial Vehicles Co., Ltd by SEK 767 M (1,058) and from VE Commercial Vehicles, Ltd. by SEK 20 M (–).

7 Income from other investments

AB Volvo has not had any transactions from other investments which have had a significant impact on the financial statements.

8 Interest expenses and similar charges

Interest expenses and similar charges totaling SEK 546 M (587) include interest of SEK 546 M (587) to subsidiaries.

9 Other financial income and expenses

Other financial income and expenses include exchange rate gains and losses, costs for credit rating and stock exchange listing cost.

10 Appropriations

Appropriations include a net of group contributions of SEK 15,813 M (1,020) and reversal of additional depreciation of SEK 0 M (0).

11 Income taxes

Income taxes were distributed as follow:

Income taxes	2021	2020
Current taxes relating to the period	–3,078	–111
Adjustment of current taxes for prior period	–56	673
Deferred taxes	–56	91
I/S **Total income taxes**	**–3,190**	**653**

11:1

Deferred taxes relate to estimated tax on temporary differences.

Deferred taxes have been revaluated based on the tax rate that are expected for the period when the asset is realized or the liability is adjusted. Table 11:2 discloses the principal reasons for the difference between the corporate income tax of 20.6% (21.4) and the tax for the period:

Income taxes for the period	2021	2020
Income before taxes	59,521	827
Income tax according to applicable tax rate	–12,261	–177
Capital gains/losses	–1,072	0
Non-taxable dividends	10,185	468
Tax effect due to changed income tax rate	0	–3
Non-taxable revaluations of shareholdings	0	2
Other non-deductible expenses	–14	–210
Other non-taxable income	281	0
Adjustment of current taxes for prior period	–56	673
Withholding tax	–259	–93
Remeasurement of deferred tax assets	–4	4
Current tax on standardized method	10	–11
Income taxes for the period	**–3,190**	**653**

11:2

Specification of deferred tax assets	Dec 31, 2021	Dec 31, 2020
Provisions for post-employment benefits	242	298
B/S **Deferred tax assets**	**242**	**298**

11:3

12 Intangible and tangible assets

Intangible assets, acquisition costs	Other intangible assets	Total intangible assets
Opening balance 2020	**116**	**116**
Acquisition cost as of 2020-12-31	**116**	**116**
Acquisition cost as of 2021-12-31	**116**	**116**

Intangible assets, accumulated amortization	Other intangible assets	Total intangible assets
Opening balance 2020	**116**	**116**
Accumulated amortization as of 2020-12-31	**116**	**116**
Accumulated amortization as of 2021-12-31	**116**	**116**
B/S **Net value in balance sheet as of December 31, 2020**[1]	**–**	**–**
B/S **Net value in balance sheet as of December 31, 2021**[1]	**–**	**–**

Tangible assets, acquisition costs	Machinery and equipment	Total tangible assets
Opening balance 2020	**17**	**17**
Sales/scrapping	–1	**–1**
Acquisition cost as of 2020-12-31	**16**	**16**
Sales/scrapping	–1	**–1**
Acquisition cost as of 2021-12-31	**15**	**15**

Tangible assets, accumulated depreciation	Machinery and equipment	Total tangible assets
Opening balance 2020	**10**	**10**
Depreciation	0	**0**
Sales/scrapping	–1	**–1**
Accumulated depreciation as of 2020-12-31	**9**	**9**
Depreciation	0	**0**
Sales/scrapping	–1	**–1**
Accumulated depreciation as of 2021-12-31	**8**	**8**
B/S **Net value in balance sheet as of December 31, 2020**[1]	**7**	**7**
B/S **Net value in balance sheet as of December 31, 2021**[1]	**7**	**7**

1 Acquisition value, less accumulated depreciation, amortization and impairment.

12:1

13 Investments in shares and participations

Shares and participations in group companies
During 2021 investment in Volvo Fuel Cell Holding AB has been made by SEK 3,000 M and in Volvo Energy AB including a shareholder´s contribution by SEK 200 M. Shareholder´s contribution has been paid to Volvo Investment AB by SEK 1,380 M. Shares in UD Trucks have been divested by SEK 8,928 M. Shares in Volvo Equipamentos de Construcao Latin America has been received in form of dividend from Volvo Autonomous Solutions AB by SEK 176 M. The whole investment in Volvo Equipamentos de Construcao Latin America has been transferred to Volvo Construction Equipment AB in form of shareholder´s contribution by SEK 516 M.

During 2020, shareholder´s contribution was paid to Volvo Logistics AB by SEK 300 M. Impairment of investment in Volvo Equipamentos de Construcao Latin America was made by SEK 490 M and in Volvo Italia Spa by SEK 225 M.

Investments in joint ventures and associated companies
During 2021 no transactions have affected the value of investments in joint ventures and associated companies.

During 2020 investment in World of Volvo AB by SEK 125 M was made with 50% ownership. The investment was classified as a joint venture together with Volvo Car Corporation. The participation of 50% in Blue Chip Jet II HB was divested by SEK 176 M.

Other shares and participations
No significant transactions have affected the value of other shares and participations during 2021 and 2020.

Changes in AB Volvo´s holding of shares and participations	Group companies		Joint ventures and associated companies		Other shares and participations	
	2021	2020	**2021**	2020	**2021**	2020
Opening balance	**71,857**	**72,272**	**8,946**	**8,997**	**1**	**1**
Acquisitions/New issue of shares	3,176	–	–	125	–	–
Divestments/Redemption of shares	–11,196	–	–	–176	–	–
Shareholder’s contribution	2,096	300	–	–	1	1
Impairment of shares and participations	–	–715	–	–	–1	–1
Reversal impairment of shares and participations	1,750	–	–	–	–	–
B/S **Carrying value, as of December 31**	**67,683**	**71,857**	**8,946**	**8,946**	**1**	**1**

13:1

Holding of shares in joint ventures, associated companies and other shares and participations	Registration number	**Dec 31, 2021** Percentage holding[1]	**Dec 31, 2021** Carrying value[2]	Dec 31, 2020 Carrying value[2]
Dongfeng Commercial Vehicles Co. Ltd., China	–	45.0	7,197	7,197
VE Commercial Vehicles Ltd., India[3, 4]	–	34.7	1,616	1,616
World of Volvo AB, Sweden[4]	559233-9849	50.0	125	125
Other investments	–		9	9
Total carrying value, joint ventures, associated companies and other shares and participations			**8,947**	**8,947**

13:2

1 The percentage holding refers to the parent company AB Volvo’s holding.
2 Refers to AB Volvo’s carrying value of its holding.
3 The total holding by Volvo Lastvagnar AB and AB Volvo is 45.6%.
4 In Volvo Group the companies are reported as joint ventures, consolidated according to equity method.

AB Volvo owns, directly or indirectly, 279 (285) legal entities. The direct owned entities are listed in below table.

Holding of shares in group companies		Dec 31, 2021		Dec 31, 2020
	Registration number	Percentage holding[1]	Carrying value[2]	Carrying value[2]
Volvo Lastvagnar AB, Sweden	556013-9700	100	8,711	8,711
Volvo Autonomous Solutions AB, Sweden	556539-9853	100	8,134	8,134
UD Trucks Corporation, Japan	–	–	–	8,928
Volvo Bussar AB, Sweden	556197-3826	100	3,033	3,033
Volvo Construction Equipment AB, Sweden	556021-9338	100	8,076	7,559
AB Volvo Penta, Sweden	556034-1330	100	586	586
VNA Holding Inc., USA	–	100	3,688	3,688
Volvo Financial Services AB, Sweden	556000-5406	100	2,667	2,667
Volvo Treasury AB, Sweden	556135-4449	100	13,044	13,044
Volvo Investment AB, Sweden	556519-4494	100	4,268	2,888
Volvo Lastvagnar Sverige AB, Sweden	556531-8572	100	2,355	2,355
Volvo Fuel Cell Holding AB, Sweden	559275-6729	100	3,000	–
Volvo China Investment Co Ltd., China	–	100	1,302	1,302
Volvo Automotive Finance (China) Ltd., China	–	100	491	491
Volvo Group UK Ltd., Great Britain[3]	–	35	350	350
Volvo Group Mexico SA, Mexico	–	100	543	543
Volvo Group Venture Capital AB, Sweden	556542-4370	100	369	369
Volvo Powertrain AB, Sweden	556000-0753	100	898	898
Volvo Information Technology AB, Sweden	556103-2698	100	1,511	1,511
Volvo Parts AB, Sweden	556365-9746	100	200	200
Volvo Group Insurance Försäkrings AB, Sweden	516401-8037	100	182	182
Volvo Business Services AB, Sweden	556029-5197	100	118	118
Volvo Danmark A/S, Denmark	–	100	157	157
VFS Servizi Financiari Spa, Italy[4]	–	25	101	101
Kommersiella Fordon Europa AB, Sweden	556049-3388	100	2,693	2,693
Volvo Norge AS, Norway	–	100	50	50
Volvo Malaysia Sdn Bhd., Malaysia	–	100	48	48
JSC Volvo Vostok, Russia[5]	–	75	177	177
Volvo Group Italia Spa, Italy[6]	–	65	335	335
Volvo Logistics AB, Sweden	556197-9732	100	385	385
Volvo Information Technology GB Ltd., Great Britain	–	–	–	3
VFS Latvia SIA, Latvia	–	100	9	9
VFS Int Romania Leasing Operational, Romania	–	100	2	2
Volvo Equipamentos de Construcao, Latin America, Brazil	–	–	–	340
Volvo Energy AB, Sweden	559285-4169	100	200	–
Other holdings	–		0	0
Total carrying value group companies[7]			**67,683**	**71,857**

13:3

1 The percentage holding refers to the parent company AB Volvo's holding.
2 Refers to AB Volvo's carrying value of its holding.
3 Total holding by Volvo Lastvagnar AB and AB Volvo is 100%.
4 Total holding by Volvo Group Italia Spa and AB Volvo is 100%.
5 Total holding by AB Volvo and Volvo Trucks Region Central Europe GmbH is 100%.
6 Total holding by Renault Trucks (SAS), Volvo Lastvagnar AB, Volvo Bussar AB, AB Volvo Penta and AB Volvo is 100%.
7 AB Volvo´s share of shareholder´s equity in subsidiaries (including equity in untaxed reserves) was SEK 129,512 M (144,701).

14 Other non-current receivables

	Dec 31, 2021	Dec 31, 2020
Other non-interest bearing receivables	337	–
Other interest bearing recevables	150	–
B/S **Total non-current receivables**	**487**	**–**

14:1

Other non-interest bearing receivables include an amount of SEK 337 M (–) and refers to an earnout connected to the divestment of UD Trucks.

» **Read more in Note 3** Acquisitions and divestments of operations in the consolidated financial statements about the divestment of UD Trucks.

15 Other receivables

	Dec 31, 2021	Dec 31, 2020
Accounts receivable	5	14
Prepaid expenses and accrued income	172	20
Other receivables	1,058	51
B/S **Total other receivables**	**1,235**	**85**

15:1

Prepaid expenses and accrued income include an amount of SEK 144 M (–) and refers to an earnout connected to the divestment of UD Trucks.

There is no valuation allowance for doubtful receivables at the end of the year. Fair value is not considered to differ from carrying value.

16 Untaxed reserves

	Dec 31, 2021	Dec 31, 2020
Tax allocation reserve	10,000	10,000
Accumulated additional depreciation:		
Machinery and equipment	–	0
B/S **Total untaxed reserves**	**10,000**	**10,000**

16:1

17 Provisions for post-employment benefits

The parent company has two types of pension plans, defined contribution plans and defined benefit plans.

Defined contribution plans: post-employment benefit plans where the company makes regular payments to separate entities and has no legal or constructive obligation to pay further contributions. The expenses for defined contribution plans are recognized during the period when the employee provides service.

Defined benefit plans: post-employment benefit plans where the company's undertaking is to provide predetermined benefits that the employee will receive on or after retirement. These benefit plans are secured through balance sheet provisions or pension fund contributions. Furthermore, a credit insurance policy has been taken out for the value of the obligations. The main defined benefit plan is the ITP2 plan which is based on final salary. The plan is semi-closed, meaning that only new employees born before 1979 have the possibility to choose the ITP2 solution. The ITP2 plan for the company is funded in Volvo Pension Foundation. Pension obligations are calculated annually, on the balance sheet date, based on actuarial assumptions.

The defined benefit obligations are calculated based on the actual salary levels at year-end and based on a discount rate of 3.84% (3.84) for the ITP2 plan and –0.1% (0.3) for other pension obligations. Assumptions for discount rates and mortality rates are determined annually by PRI Pensionsgaranti for ITP2 and Finansinspektionen for other pension obligations, respectively.

The Volvo Pension Foundation was formed in 1996 to secure obligations relating to retirement pensions in accordance with the ITP plan. Since its formation, net contributions of SEK 332 M have been made to the foundation by the parent company.

Provisions for post-employment benefits in the parent company's balance sheet correspond to the present value of obligations at year end, less fair value of plan assets.

Obligations in defined benefit plans	Funded	Unfunded	Total
Obligations opening balance 2020	**700**	**248**	**948**
Service costs	26	19	45
Interest costs	28	1	29
Benefits paid	–23	0	–23
Obligations as of December 31, 2020	**731**	**268**	**999**
Service costs	24	20	44
Interest costs	29	0	29
Benefits paid	–25	–13	–38
Obligations as of December 31, 2021	**759**	**275**	**1,034**

17:1

Fair value of plan assets in funded plans	
Plan assets opening balance 2020	**931**
Actual return on plan assets	126
Contributions and compensation to/from the fund	0
Plan assets as of December 31, 2020	**1,057**
Actual return on plan assets	153
Contributions and compensation to/from the fund	0
Plan assets as of December 31, 2021	**1,210**

17:2

Provisions for post-employment benefits	Dec 31, 2021	Dec 31, 2020
Obligations[1]	–1,034	–999
Fair value of plan assets	1,210	1,057
Surplus (+) / deficit (–)	**176**	**58**
Limitation on assets in accordance with RFR2 (when plan assets exceed corresponding obligations)	–451	–326
B/S **Net provisions for post-employment benefits[2]**	**–275**	**–268**

17:3

1 The ITP2 obligations amount to SEK –746 M (–714).

2 ITP2 obligations, net, amount to SEK 0 M (0).

Pension costs	2021	2020
Service costs	44	46
Interest costs[1]	29	29
Interest income[1]	–27	17
Pension costs for defined benefit plans	**46**	**92**
Pension costs for defined contribution plans	**44**	**62**
Special payroll tax/yield tax[2]	50	51
Cost for credit insurance FPG	3	5
Total costs for the period	**143**	**210**

17:4

1 Interest income, net of SEK 29 M (17) is included in financial items.

2 Special payroll tax/yield tax are calculated according to Swedish Tax law and accrued for in current liabilities.

18 Other provisions

Other provisions include provisions for restructuring measures of SEK – M (3).

19 Non-current liabilities

Maturity	
2023–2027	5,741
2028 or later	4
B/S **Total non-current liabilities**	**5,745**

19:1

20 Other liabilities

	Dec 31, 2021	Dec 31, 2020
Wages, salaries and withholding taxes	324	282
Accrued expenses and prepaid income	204	191
Other liabilities	6	14
B/S **Total other liabilities**	**534**	**487**

20:1

No collateral is provided for current liabilities.

21 Contingent liabilities

Contingent liabilities as of December 31, 2021, amounted to SEK 284,913 M (278,457) of which SEK 284,861 M (278,410) pertained to group companies.

Credit guarantees are included to an amount corresponding to the credit limits. Credit guarantees amounted to SEK 272,306 M (266,286). The total amount pertained to group companies.

The utilized portion at year-end amounted to SEK 135,841 M (138,757), of which SEK 135,826 M (138,743) pertained to group companies.

22 Cash flow

Other non-cash items	2021	2020
Loss on divestment of shares and participations	219	–
Transfer price adjustments, net	–160	–85
Other changes	10	40
Total other non-cash items	**69**	**–45**

22:1

Change in loans	Non-current liabilities to group companies Loan Volvo Treasury AB	Current liabilities to group companies Loan/Cashpool Volvo Treasury AB
December 31, 2019	**5,589**	**26,323**
Cash flows new borrowings	–	–
Cash flows repayments of borrowings	–	–24,611
Reclassification	–	–
Other	–	–4
December 31, 2020	**5,589**	**1,708**
Cash flows new borrowings	150	35,306
Cash flows repayments of borrowings	–	–
Reclassification	–	–
Other	–	–1
December 31, 2021	**5,739**	**37,013**

22:2

Sustainability Notes

About the report
These Sustainability notes include the Volvo Group's collected sustainability disclosures. As sustainability topics are top strategic issues and well integrated in the business and operating model of the Volvo Group, additional sustainability disclosures can be found in other parts of the report, see below.

Governance
The overall governance of sustainability is described in the Corporate Governance report on page 183 and 190.

Strategy and Business model
The Volvo Group´s strategy includes sustainability priorities and is presented on pages 10–43. Our business model is outlined on pages 18–25. With business operations in more than 190 countries whereof many are classified as high-risk countries from an environmental, human rights or corruption perspective we need to ensure that we pursue our business operations in a responsible manner. Environmental, social and financial sustainability aspects as well as ethical business conduct are integrated into the Volvo Group overall strategy and business model and also incorporated into our processes and policies.

Policies
The Volvo Group Code of Conduct is a Group-wide policy that sets the standards on how we conduct business; ethically and in compliance with applicable laws and regulations. It applies everywhere we operate, for our employees and everyone else who works on our behalf. In addition to the Code of Conduct, the Volvo Group's policies on competition, human rights, data privacy, anti-corruption and export control, tax and environment are complemented with compliance programs and management systems for effective policy deployment. In line with our decentralized model each business area is responsible to ensure compliance with the Volvo Group's minimum requirements and standards for sustainable and responsible business conduct. Business areas are also free to complement existing policies and compliance programs with more stringent requirements.

Risks and mitigation
The Volvo Group's enterprise risk management process includes sustainability-related risks. Principal risks, including several sustainability-related risks, are reported in the overall Risks and uncertainties section, see pages 70–75. These Sustainability Notes include a more detailed overview on risks and mitigation activities and complements information where sustainability topics has not yet been qualified as a principal Group wide risk.

Key Performance Indicators
KPI's in relation to the environment, employees, social factors, human rights and business ethics are reported for each material topic in these Sustainability notes.

UN GLOBAL COMPACT
COMMUNICATION ON PROGRESS

This is our **Communication on Progress** in implementing the principles of the **United Nations Global Compact** and supporting broader UN goals.

We welcome feedback on its contents.

Reporting standards used
This report has been prepared in accordance with the Global Reporting Initiative's (GRI) Standards "Core" option. GRI is complemented by other relevant frameworks where stated, including the Task Force on Climate-related Financial Disclosures initiative (TCFD). GRI and UN Global Compact's guide Business Reporting in the Sustainable Development Goals (SDGs) have been used to translate the disclosures herein to a number of the 169 SDG targets.

Topics related to this report
Complementary information is available on volvogroup.com/asr2021. This includes:
- GRI index, also available on volvogroup.com/gri2021
- SASB index, Industrial Goods and Machinery
- Locations of major operations
- Membership in associations
- Code of Conduct and related policies

Impacts, stakeholders and material topics

Report content
Volvo Group's sustainability disclosures are prepared to provide stakeholders with relevant information about the Group's economic, environmental and social impact. In defining the report content, the Volvo Group applies GRI's reporting principles on stakeholder inclusiveness, sustainability context, materiality and completeness and seeks to implement the recommendations of the TCFD.

Strategic framework
The Volvo Group's framework to drive sustainability and performance revolves around climate, resources and people, and is aligned with the Sustainable Development Goals and targets from the United Nations. Our sustainability priorities have been concluded in dialogue with a network of sustainability professionals and management of all Truck Divisions, Business Areas as well as the Executive Management of the Volvo Group and the Board of Directors.

Consulting stakeholders
Stakeholder perspectives are considered throughout strategy development and deployment. The approach is to have an open dialogue with a wide range of stakeholders on sustainable business. In this work, input from stakeholders is sought via key functions within the Volvo Group and includes views from customers, investors, employees, supply chain partners and stakeholders in the community.

While different stakeholder groups raise concerns or ask for specific information on different topics certain sustainability topics are common for most stakeholder groups. During 2021 such topics have revolved mainly around climate impacts and mitigations. We have also discussed human rights, health and strategies around employment, such as diversity and training. Read more about our main stakeholder groups and their topics of interest, materiality and reporting on volvogroup.com. In addition to stakeholder input and risk assessments, materiality maps and frameworks from external sources, such as SASB, are used to confirm that relevant areas are included in the reporting.

Translated into GRI topics, material topics are briefly described in the table below. More details are provided under the specific sustainability notes on the following pages and complemented by the risk descriptions on pages 154–177.

Additional topics are mentioned briefly but not reported according to GRI, e.g. waste, water, biodiversity, materials, lobbying, and tax practices. They are included for specific stakeholders' information.

Material topics and summary of main impacts

GRI topic	Comment on the main impacts and boundaries
Economic performance	Risks and opportunities mainly relate to the transitional aspects of customer demands, emission regulation, technology development and scarce materials.
Energy and emissions	With the focus on climate change and the need to transition to a low carbon economy, reducing environmental impacts from customers' use of our products is a key business driver. Over 95% of energy and emissions related to the product's lifecycle occur in the customer use phase. It is also important to reduce emissions in Volvo Group's own operations and transportation of goods.
Employment	Continuously improving workplaces, creating jobs and adapting to market demands are primarily tied to the Volvo Group's own operations.
Labor management relations	A respectful social dialogue creates better workplaces and can help effective management of operations. The main focus is on own operations but also part of supplier requirements.
Diversity and equal opportunities	Diversity drives performance for the Volvo Group and equal opportunities in the community.
Training and education	Training enables matching of competency to needs for employees, the Volvo Group and customers and helps to create employment opportunities.
Occupational health and safety	The main focus is on own operations and employees' work situation but also a significant part of supplier requirements.
Customer health and safety	Health and safety related to the product use phase and the wider impact on road safety and end users' occupational safety.
Supplier environmental and social assessments	Suppliers make up the extended operations of the Group. Influence is mainly bound to tier one and focus areas are social topics as well as innovation for reduced environmental impact.
Human rights (including sub-topics)	Includes potential human rights impacts within Volvo Group's operations, the supply chain, operations of business partners and in relation to the use of sold products.
Anti-corruption	Volvo Group renounce all form of corruption. It distorts the market, interfere with free competition, violate laws and undermine social development.

Climate and environment

GOVERNANCE, STRATEGY, OPPORTUNITIES AND RISKS

Connection to Agenda 2030 and reporting standards

SUSTAINABLE DEVELOPMENT GOALS

Main connections to the UN SDGs and targets
7.3 Double energy efficiency
11.2 Sustainable transport systems
12.2 Sustainable management of natural resources
13.3 Knowledge and capacity building to meet climate change

7 AFFORDABLE AND CLEAN ENERGY
11 SUSTAINABLE CITIES AND COMMUNITIES
12 RESPONSIBLE CONSUMPTION AND PRODUCTION
13 CLIMATE ACTION

Referenced reporting standards
GRI 201 – Economic performance
TCFD recommendations

The Volvo Group supports the TCFD. The below is the second time the Volvo Group is reporting having regard to TCFD and this report sets forth the Group's disclosures on its overall governance, strategy and management of climate related risks and opportunities, including relevant climate related metrics and targets. The Volvo Group recognizes that there continues to be more work to be done in developing the disclosures to align with each of the 11 recommendations of the TCFD and to take account of new guidance on metrics, targets and transition plans published in October 2021. A number of climate-related projects and activities planned for 2022 will assist to further develop these disclosures.

Governance

The AB Volvo Board of Directors and the Executive Board are ultimately responsible for the oversight of the Volvo Group's climate-related risks and opportunities and are responsible for setting the strategic direction of the Group, as further detailed on page 180–195 in the Corporate Governance Report.

A number of cross-functional working groups consolidates and prepares information for consideration in strategic decision-making at the Board of Director and Executive Board level. Two such groups with representation from executive management have meet regularly during year, focusing on the Group's climate goals and on sustainability disclosures, respectively. This work has included, among other things, reviewing the Group's climate targets on a regular basis and reporting to the Board of Directors and Executive Board on progress against these targets.

Strategy

The Volvo Group supports the ambitions of the Paris Agreement – to keep the increase of the global average temperature to well below 2 °C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5 °C. The Volvo Group welcomes the conclusion of the Glasgow Climate Pact at COP26 in November 2021 which saw the parties reaffirm this commitment. While the Group recognizes the challenges this represents, in light of recent estimates that an increase between 1.8 °C and 2.4 °C is more likely, the Group has committed to the SBTi Business Ambition for 1.5 °C and set ambitious science-based targets in relation to its Scope 3 emissions in pursuit of its own net-zero targets.

To achieve ambitions of the Paris Agreement, emissions need to decline rapidly across all of society's main sectors, including buildings, industry, transport and energy, and in the transport sector, there is an increasing need for products with lower emissions of GHGs and for solutions using technologies that increase resource efficiency. The ongoing transition of the transport sector towards new technologies and new service-based business models bring significant business opportunities as well as transitional risks for the Volvo Group. It has been important for the Group therefore to integrate climate-related risks and opportunities into the overall Volvo Group strategy and business and operating model.

Climate-related risks

As part of this integration, through the Group's Enterprise Risk Management process (see page 70) the Volvo Group has identified a number of climate-related risks, as set out below. These can be divided into two categories, transitional climate risks and physical climate risks. Transitional climate risks include for instance technology-related risks, policy- and legal-related risks, market risks and reputational risks. Physical climate risks include both acute physical risks, such as extreme weather events, and chronic physical risks, for instance those arising due to changing weather patterns, rising mean temperature and rising sea levels.

Transitional climate risks

The Volvo Group has identified a number of climate-related transitional risks, which are incorporated into the Volvo Group Enterprise Risk Management process. Transitional risks may be material for the Volvo Group in the short, medium and long term. These risks, including their potential impact, are described in more detail on page 70–75 under the following risk categories:

- Regulations, page 71
- Transformation risk, page 71
- New business models, page 72
- Reliance on suppliers and scarce materials, page 72
- Climate risk, page 73.

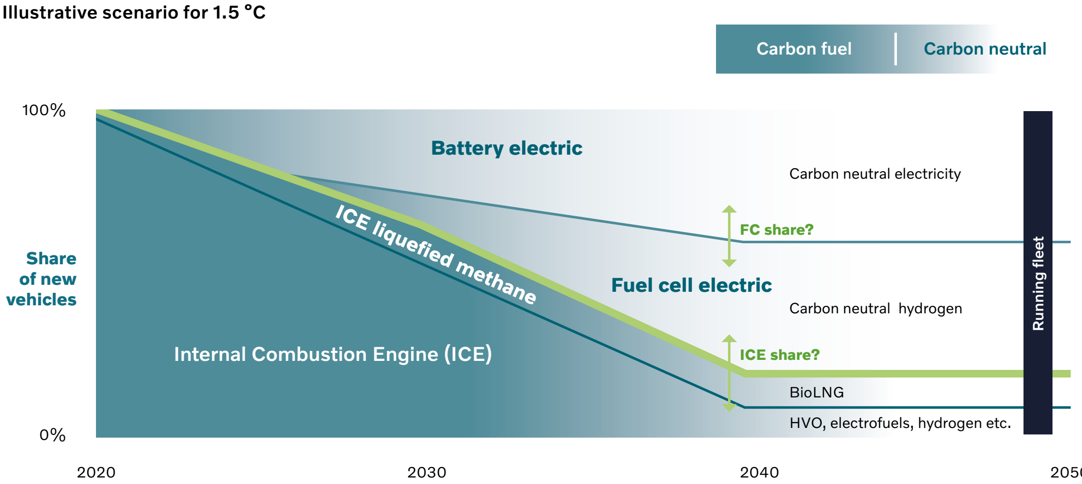
Physical risks

Based on the main scenario outlined in the Volvo Group's strategy – a 1.5 °C scenario – the physical risks are not identified as material in the short- to medium-term perspective. Climate-related acute physical risks, such as extreme weather events, as well as chronic physical risks are likely to increase in the long-term if the global warming significantly exceeds a 1.5 °C scenario. Physical risks will be closely monitored, reviewed and reported on if they emerge as material from a Group perspective.

Climate-related opportunities for the Volvo Group

The transition of the transport sector offers significant challenges for the Volvo Group, but alongside that it also offers a number of business opportunities. The Volvo Group strives to lead the development of new technologies and is continuing to develop an extensive portfolio of products and services using new technologies. The ambition is to continue to provide high quality products and services to our customers, while at the same time enabling our customers to reduce their environmental impact.

Illustrative scenario for 1.5 °C



The illustration describes a pathway to reach the ambitions of the Paris Agreement and to achieve net-zero greenhouse gas emissions. Since it takes approximately ten years to renew a running fleet, the aim is to by 2040 offer products propelled by low GHG energy sources. The exact future product mix cannot be foreseen but, in this scenario, the running fleets in the transportation sector are likely to include different technologies that can be powered by renewable energy. These solutions can be battery-electric, fuel cell-electric or vehicles propelled with low GHG intensity energy sources for combustion engine drivelines. In order to reach the ambitions of the Paris Agreement, this shift needs to happen on a global scale.

The Volvo Group is broadening its offer of products that can be powered by renewable energy through the introduction of electric vehicles as described on page 28–32. The Group also invests in fuel cell technology with the ambition to have a heavy-duty hydrogen offer available during the second half of this decade. In parallel, the Volvo Group continues to offer products that can be powered by renewable liquid and gaseous fuels like HVO (hydrogenated vegetable oil) and biogas, see page 36. In addition to new technology products, the Volvo Group has developed a range of service solutions that help to reduce the number of transports needed by optimizing fill rates, consolidating transports and choosing the most effective routing.

Customer demand for products and solutions with lower environmental impact is increasing, although the transition pace differs between business areas and regions. When using electricity as main power source in transport operations, the operational cost are reduced. At the same time, the capital cost increases. The transition to electrification also depends on external factors such as the existence of a functioning charging infrastructure and access to renewable energy sources to power battery electric and fuel cell electric products. Customer demand in different markets is dependent on factors such as availability of the necessary infrastructure and energy, governmental incentives for green technologies and the removal of fossil-fuel subsidies. The Volvo Group strives to have products and solutions available in pace with customer demand using a highly flexible production system.

The Volvo Group has issued a Green Financial Framework to enable access to additional capital for the development and production of sustainable technologies for the transport sector.

Scenario analysis

In order to help understand the risk posed by climate change and their potential impacts on the Volvo Group, the Group has begun work on its climate change scenario analysis. This includes exploring climate scenarios from the IEA and IPCC, as well as secondary sources interpreting those scenarios specifically in relation to the transport sector. At this stage, this exercise is still in early stages, with further work planned for 2022. At present, the main scenarios are the “well below 2 °C scenario”, and “1.5 °C scenario”, as set out below.

Climate scenarios

As part of setting the target levels in SBTi for the Volvo Group Business Areas, analyzes have been performed in order to understand the level of emission reductions needed in order to adopt to the emission reduction pathways aligned with the ambitions in the Paris agreement on well below 2 °C and 1.5 °C ambitions. This has covered usage of the target models developed by the SBTi including climate scenarios from the IEA and IPCC. The analyzes provide inputs on important factors such as modelling customer demand, regulatory requirements, infrastructure roll-out, access to renewable energy and governmental incentives for clean technologies which in turn are essential inputs to the respective Business Areas’ plans.

Potential pathways to a 1.5 °C or a well below 2 °C scenario include a successful decarbonization of the transport sector as well as the energy sector. The transition to electrification depends not only on the product and service offering, but also on external factors such as the existence of a functioning infrastructure and access to renewable energy sources to power battery electric and fuel cell electric products. Recognizing the need for collaboration on a system-wide basis, the Volvo Group has taken part in a number of multi-stakeholder initiatives, including the WWF Climate Savers programme as part of which we 2015–2020 drove 14 initiatives to promote energy efficiency, reduced carbon emissions and positively influence the value chain. The Volvo Group looks forward to continuing such collaboration, including on a cross-sector basis, in the future.

As part of our analysis, the Volvo Group has performed GHG emission reduction scenarios based on the composition of the annual volume and GHG emissions of products forecasted to be put on different markets over time. The Business Areas and Truck Divisions have undertaken scenario analyses, including modelling customer demand, regulatory requirements, infrastructure roll-out, access to renewable energy, governmental incentives for clean technologies, etc. The analysis showed that, without action, the scenario presented risks to us. However, while these would need to be managed, some of these changes also present material opportunities. The results of the analysis have since been fed into the relevant Business Area and Truck Division business strategies to support development and offering of the right mix of products for each respective market over time. This may include electrified products as well as conventional combustion engine products powered by renewable liquid and gaseous fuels.

Financial planning

The Volvo Group's investment plan includes a technology roadmap to increase zero-emission vehicles or low-emission vehicles that can enable net-zero transport solutions. These include solutions based on electric and hydrogen drivelines as well as sustainable biofuels.

Investments in property, plant and equipment will increase in connection with the Group building up capacity for battery-electric and fuel cell-electric vehicles. However, thanks to the Group's modular product architecture both electric trucks and trucks with combustion engines can be produced on the same assembly lines, thus limiting the investments needed for this transition in the industrial system.

Many plants that are currently producing components for combustion engines will gradually introduce production of components for electric vehicles. Investments in research and development are accelerated to help customers switch to more sustainable solutions. A substantial part of the investments is already today directed towards products and services based on zero-exhaust emission technology, and we expect this share to increase gradually. However, the actual outcome will depend on several factors, such as technology and infrastructure development, emission regulations, government incentives and customer demand. Read more about sustainable finance on pages 162–163.

Risk management

The Volvo Group works with a Group-wide Enterprise Risk Management (ERM) process, which is a systematic and structured process to consolidate and analyze risks and mitigations as well as to follow up on the risks that might impact the Group's business.

In accordance with the decentralized Volvo Group governance model, each Business Area and Truck Division is accountable for its own risk management. For more information on risk identification and management, see page 70. Once risks have been identified, Truck Divisions, Business Areas and Group functions report them in the ERM process using an integrated multi-disciplinary approach. The ERM process includes all types of risks for the Volvo Group, so the processes for identifying, assessing and managing climate and other sustainability related risks are fully integrated into the Volvo Group's wider risk management.

The risks identified in the ERM process undergo a materiality analysis. The Group recognizes that some externalities impact the business in several ways and climate change is a good example of this as it poses both long-term strategic risks, for instance as a result of technology shifts and increasing government regulations, and short to medium term risks, for example in relation to customer satisfaction, physical disruptions of the production system and requirements of environmental regulation. The materiality analysis is conducted with internal and external stakeholders, and the risks that are classified as material are risks which can, separately or in combination, have a material adverse effect on the Group's business, strategy, financial performance, cash flow, shareholder value or reputation. These risks are considered to be the most prominent risk factors for the Volvo Group, see page 70.

Metrics and targets

Recognizing that climate change is one of the biggest challenges of our time, the Volvo Group has set ambitious science-based targets. The cornerstone of these targets is the Group's ambition to achieve net-zero greenhouse gas emissions by 2040, a key element of which will require the Group to develop ranges that help reduce our customers' emissions. Developing products and solutions that reduce the GHG footprint of our customers is thus the priority in the Volvo Group climate strategy. In this transition work, the Volvo Group has established several metrics and targets to assess and manage climaterelated and environmental risks and opportunities in relation to its products and operations.

Focus on scope 3 – use of sold products

The most significant part of product life-cycle emissions – over 95% – occurs during the use of sold products, when the end-users drive or operate vehicles and machines. Electric vehicle sales and research and development metrics are directly linked to reducing use phase GHG-emissions.

Focus on scope 1 and 2 emissions from own production and operations

Emissions from our own operations and from purchased energy. Targets and ambitions are set to increase energy efficiency for operations and to reduce the carbon intensity of the energy used.

Focus on other scope 3 emissions, risks or opportunities

Emissions from own transportation and distribution make up a smaller part of the life-cycle impact but is strategically important due to the sector served by the Volvo Group. The Volvo Group works with third party logistics providers to increase the use of efficient transport modes and to reduce unnecessary transports by e.g., increasing fill rates and more efficient routing.

Related information on public policy advocacy is also found on page 178.

METRICS AND TARGETS OVERVIEW

Metrics	Ambition or target
Overall • Scope 1, scope 2, and scope 3 emissions	• Net-zero by 2040
Focus on scope 3 – use of sold products • Scope 3 emissions during use of sold products per segment or industry • Sales volumes from electric vehicles • Research and development expenses to zero tailpipe emission technology and other GHG reducing technologies	• Interim targets by business segment **SBTi validated – see next page for details** • 35% electric sales by 2030 • Long-term, net-zero value chain GHG emissions by 2040
Focus on own production and operations • Scope 1 and 2 emissions • Energy saving initiatives GWh	• Reduce scope 1 and 2 emission by 50% 2030 **SBTi validated – see next page for details** • Energy saving initiatives of 150 GWh implemented 2021–2025
Focus on other risks / opportunities • Freight CO_2 emissions per produced unit	• Reduce freight CO_2 emissions per produced unit by 30% 2025 compared to 2018

In addition, the Group also constantly considers the environmental footprint from its own operations. Additional metrics are listed on the next pages. See Energy and Emissions on page 158 and Waste, Water and Environmental Compliance on page 161.

Index of TCFD recommended disclosures		Page reference
Governance The organizations governance around climate-related issues and opportunities	The Board's oversight of climate-related risks and opportunities.	154, 183
	The Management's role in assessing and managing climate-related risks and opportunities.	154, 190
Strategy Actual and potential impacts of climate-related risks and opportunities on the organization's business, strategy and financial planning where such information is material	The climate-related risks and opportunities the organization has identified over the short, medium and long term.	154–156
	The impact of climate-related risks and opportunities on the organization's businesses, strategy and financial planning.	155
	The resilience of the organization's strategy taking into consideration different climate-related scenarios, including a 2 °C or lower scenario.	155–156
Risk Management Actual and potential impacts of climate-related risks and opportunities on the organization's business, strategy and financial planning where such information is material	The company's processes for identifying and assessing climate-related risks.	70, 156
	The organization's processes for managing climate-related risks.	70, 156
	The processes for identifying, assessing and managing climate-related risks are integrated into the organization's overall risk management.	70, 156
Metrics and targets Actual and potential impacts of climate-related risks and opportunities on the organization's business, strategy and financial planning where such information is material	The metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.	156–157
	The Scope 1, Scope 2 and, if appropriate, Scope 3 GHG emissions and the related risks.	156–160
	The targets used by the organization to manage climate-related risks and opportunities and performance against targets.	155–160

ENERGY AND EMISSIONS

Connection to Agenda 2030 and reporting standards

SUSTAINABLE DEVELOPMENT GOALS

Main connections to the UN SDGs and targets
7.3 Double rate of energy efficiency
8.4 Resource efficiency in production
11.2 Sustainable transport systems
12.2 Sustainable management of natural resources

7 AFFORDABLE AND CLEAN ENERGY
8 DECENT WORK AND ECONOMIC GROWTH
11 SUSTAINABLE CITIES AND COMMUNITIES
12 RESPONSIBLE CONSUMPTION AND PRODUCTION

Referenced reporting standards
GRI 302 – Energy
GRI 305 – Emissions
TCFD recommendations

The Volvo Group's Environmental Policy is the steering document addressing risks and opportunities in areas such as emissions, resource use, chemicals and residuals. Strategic priorities related to environment and climate are based on product life cycle assessments and aim to reduce emissions and other climate-related risks where they make the most impact.

Emission metrics, targets and disclosures are based on the Greenhouse Gas (GHG) Protocol corporate standard. Within scope 3, category 11 use of sold products is currently disclosed as being identified as the material category in the baseline GHG inventory representing over 95% of the total emission footprint. When nothing else is stated, GHG emissions are adjusted for acquisitions and divestments according to the accounting principles of the GHG protocol. The Volvo Group has reported climate-related information, targets and results since the beginning of the 2000s. The approach of managing climate-related risks has served the Volvo Group well, both in terms of reducing emissions in line with targets set and in terms of developing new technologies and business plans to meet the transition towards fossil-free transports.

Science-based targets for Scope 1, 2 and 3 emissions

The Volvo Group committed to the Science-Based Targets initiative (SBTi) "Business Ambition for 1.5 °C" in 2020 and had validated targets set in June 2021. The Volvo Group is targeting a net-zero value chain offer by 2040. Given that the average life-time of the Group's products is approximately 10 years, this should allow the Group to achieve net-zero value chain greenhouse gas emissions by 2050. The pace of change is particularly important, and the Group has set ambitious milestone targets along the way.

The targets are set in different ways for the Group's different businesses. What they have in common is that they are all contributing to the ambitions of the Paris agreement.

Part of value chain	Scope 1, 2 or 3	Approximate share based on baseline GHG inventory	2021	2020	2019
				Mton	
Production, technical centers, warehouses and dealerships	**Scope 1** Direct emissions	<0.5%	0.245	0.205	0.245
	Scope 2 Indirect emissions from purchased energy	<0.5%	0.114	0.121	0.124
Use of sold products	**Scope 3 use phase**[1] Indirect emissions from use of sold products	~95%	286	241	323
Other indirect emissions	**Other Scope 3**	Approximately 4% of the greenhouse gas inventory are related to purchased goods and services, transportation and distribution, waste generated in operations business travel, employee commuting etc.			

1. The reported data is in six months arrear for emissions from use of sold products for trucks and buses to obtain logged usage data.

Volvo Group's Science Based Targets are set to reach net-zero value chain GHG emissions by mid-century at the latest. The ambition is to reach this already by 2040.

SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

These other indirect emission are not yet included in the report. However, internal targets exists for certain areas such as transportation.

Methods and data collection

Scope 1 and 2 emissions method and data collection

Environmental impacts and greenhouse gas inventory are established according to the Greenhouse Gas Protocol's Corporate Accounting and Reporting Standard, which is a standardized framework for quantifying and reporting GHG emissions in CO_2-equivalents (CO_2e).

Less than 1% of life cycle emissions are connected to scope 1 and 2, including production plants, engineering centers, offices and dealerships. These are under the Volvo Group's direct management and higher level of control.

Scope 3 use phase emissions method and data collection

Scope 3 emission results are reported to indicate the progress toward the net-zero SBTi targets for the Volvo Group products. The methodology for calculating emissions from use of sold products has been designed to meet the requirements provided in the relevant standards of the GHG Protocol; namely the GHG Protocol Corporate Standard, the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard, and Technical Guidance for Calculating Scope 3 Emissions, which includes expected lifetime emissions from all applicable products sold in the reporting period.

The target methodology and boundaries are following the SBTi Transport Science Based Target setting guidance and the target setting requirements and tools from the SBTi. The methodology is based on activity data on product annual usage, years in service, energy consumption and associated well to wheel GHG emission factors for the different energy sources utilized (diesel, electricity etc.).

In absence of a normalized test procedure for Trucks, manufacturers are invited to present and justify their own estimates or simulations based on fuel consumption and specific activity data. The applied expected activity data and other parameters are associated with a level of uncertainty and may be subject to change due to implementation of regulations or global, regional, or national policy changes, or improved data quality. From a sensitivity analysis perspective, changes in any of the parameters will impact outcome, but changes of assumptions of products' years in service currently have more significant impact on calculated results.

Furthermore, the calculations do not take into account all aspects of e.g. the efficiency improvements in increased load in tones per vehicle km which is an important measure to increase the efficiency in the transport sector and reduce emissions of GHG. Since the calculation methodology is being developed, and e.g. different sources for emission factors and methods may be used for determining the activity data (annual usage, distance travelled etc.), the Volvo Group's emission data may not be fully comparable to that of other entities. We also expect that the Group's method to calculate the emission footprint may be developed further over time, and this may well alter results and, to ensure proper comparison, the baseline. If the calculation method is developed or assumptions used are adjusted in any material way, we intend to report on that in a transparent manner. As matters currently stand, the data is directionally useful but is subject to the limitations expressed above.

Other scope 3 emissions

The remaining part of indirect emissions account for approximately 4% of emissions in scope. These are included in the work for net-zero value chain greenhouse gas emissions, but they are not yet subject to validated science-based targets. For some areas, targets are already existing, for example freight transports.

Targets and results 2021

Calculated GHG emissions from use of sold products have been reduced from approximately 323 million tons in 2019 to 286 million tons in 2021. The Volvo Group has introduced a range of solutions with improved energy and fuel efficiency, but the main effect so far comes from lower sales volumes of trucks compared with the baseline in 2019.

SBTi approved targets, from baseline 2019

SCOPE 3 USE PHASE Trucks	Target 2030 −40% emissions per vehicle km	Status 2021 −2%
SCOPE 3 USE PHASE Buses	Target 2030 −40% emissions per vehicle km	Status 2021 +7%
SCOPE 3 USE PHASE Construction equipment	Target 2030 −30% absolute emissions	Status 2021 +17%
SCOPE 3 USE PHASE Volvo Penta	Target 2034 −37.5% absolute emissions	Status 2021 −5%
SCOPE 1–2 Own operations	Target 2030 −50% absolute emissions	Status 2021 −3%

Trucks

Within the trucks segment calculated GHG-emissions per vehicle kilometer have been reduced by 2% in 2019–2021. This is mainly due to fuel consumption improvements. See pages 28–37 for examples of fuels efficiency and electrification.

Buses

For buses, the result of emission per vehicle-kilometer was 7% higher 2021 compared with 2019. The increase in relative emissions is mainly the result of the sales mix with a higher proportion of city buses compared to coaches. The driving pattern of city buses with stop and go results in higher emissions per vehicle-kilometer than coaches.

Construction equipment

Sales of machines have increased significantly, especially in Asia, which has resulted in calculated scope 3 GHG emissions increasing by 17% from the baseline 2019. Over the longer term, the plan is that electrified and more energy-efficient products will enable reduced total emissions.

Volvo Penta

Total calculated GHG emissions were 5% lower than compared to 2019. The result is mainly an effect of sales volumes.

Own operations

In the Volvo Group's own scope 1 and 2 emissions were 3% lower 2021 compared to 2019. Investments to reduce energy consumption by 15 GWh has been implemented during 2021. Although some of these initiatives are relatively small compared to the total energy usage, all energy-conservation activities implemented today save energy over many years. Supply chain disruptions have during the year led to certain irregularities in manufacturing scheduling which have reduced the effectiveness and results of the work done to reduce energy consumption and associated emissions of greenhouse gas.

Overall, as the Volvo Group is operating in cyclical industries which are linked to economic activity, such as the GDP development, sales volumes and utilization of the rolling fleet of products can vary considerably from one year to the next. Consequently, the overall GHG-emissions will in the short term depend on where we are in the business cycle. Also, since the Group is selling its products in more than 190 markets, shifts in the regional and market mix can also have a significant impact on the GHG emissions due to different carbon intensity in the energy mix. Product mix also is another factor which may have a significant impact. For example, in 2021 the strong volume growth in China for Volvo Construction Equipment contributed to an increase of the absolute GHG emissions for this business area.

The actual development will also depend on a number of external factors, such as our customers' access to low-carbon electricity, low-carbon fuels such as liquefied biogas, charging stations and in the longer-term hydrogen as a low-emission alternative etc.

The Volvo Group has already launched several electric vehicles and machines. However, a broader range of electric products is still to be launched, which is expected to accelerate the reduction of the Group's GHG emissions. Customer adoption of these electric vehicles and machines and their access to low-carbon electricity will be key to reach our ambition of a net-zero GHG emissions by 2040.

Detailed energy and emission performance

The reporting scope has been expanded in 2021 to align with SBTi requirements. A new baseline is set to 2019. Results for 2020 and 2019 are restated and are not comparable to previous reports. The main changes are that approximately 300 dealership locations have been added and UD Trucks has been divested.

Calculated scope 3 emissions, category 11, use of sold products

Metric tons x1,000,000 CO_2e	**2021**	2020	2019
Trucks total	180	143	219
Buses total	5	8	14
Construction Equipment	82	74	70
Volvo Penta	19	16	20
Total use of sold product	**286**	**241**	**323**

Scope 1 and 2 GHG emissions and sources of emissions

Metric tons x1,000 CO_2e		**2021**	2020	2019
Natural gas	Scope 1	114	97	115
Diesel	Scope 1	81	71	82
Other	Scope 1	50	37	48
Total scope 1	**Scope 1**	**245**	**205**	**245**
Electricity	Scope 2	102	107	106
District heating	Scope 2	12	14	17
Total scope 2, market based	**Scope 2**	**114**	**121**	**124**
Total scope 2, location based	Scope 2	204	193	215
Total Scope 1 and 2		**359**	**326**	**369**

Scope 1, 2 GHG emissions intensity

Scope 1 and 2	**2021**	2020	2019
Net sales, Industrial operations, SEK M	361	326	418
Products delivered, (x1,000)	307	267	333
CO_2 (scope 1 and 2) by net sales	0.99	1.00	0.88
CO_2 (scope 1 and 2) by products delivered	1.17	1.22	1.12

Out of scope CO_2 emissions

Metric tons x1,000	**2021**	2020	2019
Biogenic CO_2	10	5	6

Energy within and outside the organization
(Connected to scope 1 and 2 emissions)

Energy GWh		**2021**	2020	2019
Natural gas	Scope 1	559	473	563
Diesel	Scope 1	314	271	311
Other	Scope 1	197	149	179
Electricity	Scope 2	1,099	952	1,086
District heating	Scope 2	255	197	216
Total		**2,423**	**2,043**	**2,355**
Whereof renewable energy %		40%	37%	35%
Relative energy use		**2021**	2020	2019
Net sales, Industrial operations,	SEK bn	361	326	418
Energy / net sales	MWh / SEK M	6.7	6.3	5.6

Executed energy saving initiatives
The target is to implement energy saving investments 2021–2025 that together save 150 GWh per year from 2025.

Accumulated GWh		**2021**	2020	2019
Annual implemented initiatives	GWh	15	37	40

Other emissions to air
Nitrogen oxides (NO_x), sulphur oxides (SO_x) and solvents

Metric tons		**2021**	2020	2019
NO_x	tons	223	192	291
SO_x	tons	5.0	3.7	8.5
Solvents (VOC)	tons	1,304	1,224	1,406

WATER, WASTE AND ENVIRONMENTAL COMPLIANCE

Connection to Agenda 2030 and reporting standards

SUSTAINABLE DEVELOPMENT GOALS

Main connections to the UN SDGs and targets

6.4 Increase water use efficiency
8.4 Improve resource efficiency in production
12.2 Sustainable management of natural resources
12.4 Responsible management of chemicals
12.5 Reduce waste generation

6 CLEAN WATER AND SANITATION
8 DECENT WORK AND ECONOMIC GROWTH
12 RESPONSIBLE CONSUMPTION AND PRODUCTION

Referenced reporting standards

GRI 307 – Environmental Compliance 2016

The Volvo Group's Environmental Policy is the steering document for managing risks in areas such as emissions, resource use, chemicals and residuals. It is based on the principles of life cycle management and continuous improvement.

The Group's ISO 14001 certified environmental management system covers approximately 95% of production facilities and 90% of distribution centers. The management system is used in a hierarchical way to deploy effective environmental work in the Group's divisions and business areas. This means that the Business Areas and Truck Divisions are all responsible for their environmental performance in the same way as for financial or other performance. Environmental management is also part of supplier assessments, read more on page 175–176.

Several data points below have been corrected from what was reported in 2020. Adjustments are not considered significant.

Water

Risks of effluents are mitigated through active environmental management and control in the Group's operations.

Water use is included in this report due to specific interest and tracking from certain stakeholders.

Water consumption in production

	2021	2020	2019
Total water consumption, Mega-liters	4,628	4,856	5,389
Relative water consumption, Cubic meters/SEK M net sales	12.8	14.9	12.9

At Group level, only total water consumption is available, not by source.

Waste and recycling

Volvo Group's sites either have in place or are in the process of developing landfill-free objectives. This work is supported by a directive and guidelines setting out the criteria for when a Volvo Group site can be considered a landfill-free site.

Waste by type and disposal method

Metric tons	**2021**	2020	2019
Recycling, metal scrap from operations	111,260	82,076	103,404
Recycling, other metal scrap	16,865	13,338	18,609
Recycling, non-metal	158,776	139,272	130,543
% recycling of total	*86%*	*86%*	*75%*
Composting	2,433	1,868	2,314
Incineration with energy recovery	23,269	18,171	29,165
% recycled, composted or energy recovery	*94%*	*93%*	*85%*
Incineration without energy recovery	2,027	1,634	2,150
Treatment by professional waste contractor	11,116	9,943	19,588
Landfill	5,858	6,043	26,792
Landfill, only inert material	470	691	2,546
Total residuals	**332,075**	**273,037**	**335,111**
Whereof hazardous wastes	**53,314**	**51,712**	**50,909**

Materials of concern

Some of the materials used in Volvo Group's products come in scarce supply and some materials and substances are potentially hazardous. The Group works to reduce its dependency on such materials and substances with the aim to protect both people and the environment and to secure sustainable supply. In collaboration with partners, the Volvo Group proactively evaluates alternatives in the design and supply processes to minimize and eliminate use of scarce materials and substances of concern.

Scarce materials may lead to a variety of difficulties such as high prices and increased risk for corrupt behavior or adverse human rights impacts when sourced from high-risk areas. Volvo Group is implementing a dedicated supplier Sustainable Minerals Program, currently focusing on tin, tungsten, tantalum, gold and cobalt, to support sourcing of materials in a responsible way. The program is built on the five-step framework of the OECD due diligence guidance for responsible supply chains of minerals from conflict-affected and high-risk areas with respect to social and environmental topics, as well as on the tools of the Responsible Minerals Initiative, to which the Volvo Group is a member.

Environmental compliance

No significant environmental incidents or spills were recorded during 2021. In 2021 the Volvo Group had 12 licensed facilities in Sweden. For some facilities the environmental permits are under review due to planned changes.

Biodiversity

The Volvo Group strives to consider and manage both direct and indirect environmental impacts. Regarding biodiversity, the value chain perspective can be divided in three main areas – our own operations, supplied material and impact during use of sold products.

Within the own operations, risks are considered both for the establishment of new operations as well as for the ongoing operation. The Group has implemented minimum environmental requirements helping to prevent negative environmental impact from material environmental aspects. The requirements are applicable for all operations in absence of more stringent regulatory requirements.

Upstream in the value chain, Group supply chain partners are evaluated with similar requirements.

One of the biodiversity risks in the transport sector is the production of fuels. Biobased fuels continue to be important alternatives to conventional diesel in several markets to reduce fossil greenhouse gas emissions in the short term. However, the availability of sustainable biofuels does not meet demand in all areas.

Sustainable finance

EU TAXONOMY REGULATION DISCLOSURES

The EU Taxonomy is a classification system for sustainable economic activities. The Taxonomy disclosure requirements are new in this year's reporting. This disclosure is based on current understanding of the rules and may be amended in the future to align with new regulatory guidance provided and developing reporting practices, as knowledge of the Taxonomy requirements matures.

In this year's disclosure, information is based on the guidance provided under the draft Commission notice on the interpretation of certain legal provisions of the Disclosures Delegated Act under Article 8 of EU Taxonomy Regulation on the reporting of eligible economic activities and assets, dated February 2, 2022 (the 'Draft Commission Notice') with respect to the Taxonomy eligibility requirements. However, as alternative approaches to determining eligibility exist, additional Taxonomy-eligibility information have on a voluntary basis been included for transparency purposes.

The Volvo Group has identified that certain of its economic activities qualify as eligible to be considered "environmentally sustainable" under the Taxonomy Regulation ((EU) 2020/852) and its delegated acts (the "Taxonomy"). The Group manufactures low carbon technology for transport and other low carbon technologies which are eligible pursuant to sections 3.3 Manufacture of low-carbon technologies for transport ('3.3 Activities') and 3.6 Manufacture of other low-carbon technologies ('3.6 Activities') of Annex 1 to Commission Delegated Regulation (EU) 2021/2139 (the "Delegated Climate Act"). The activities identified are defined as enabling activities in relation to the climate change mitigation objective.

Both the manufacture of low-carbon technologies for transport, and the manufacture of other low-carbon technologies are of strategic importance in the Volvo Group's transition towards a net-zero greenhouse gas emission value chain. See more on page 155.

None of the activities of, or Volvo Group investments in, joint ventures are included in this report.

So far, the Volvo Group considers its eligible activities pursuant only to the climate change mitigation objective, and 3.3 Activities and 3.6 Activities are conducted in different operating segments of the Group. No activities should hence have been double counted for purposes of calculating the Taxonomy KPIs presented.

The methodology applied for disclosure is described in the table below.

			Table 1: Mandatory Taxonomy disclosure[1]			**Table 2:** Voluntary Taxonomy information[2]		
			Turnover	**Operating expenses**	**Capital expenditure**	**Turnover**	**Operating expenses**	**Capital expenditure**
Group total (denominator)		SEK M	372,216	15,537	13,051	372,216	15,537	13,051
Eligible activities	Code							
Manufacture of low carbon technologies for transport	*3.3*	%	*53*	*76*	*78*	*53*	*76*	*78*
Manufacture of other low carbon technologies	*3.6*	%	*0.1*	*2*	*0.3*	*25*	*21*	*12*
Total share taxonomy eligible activities		%	**53**	**78**	**79**	**78**	**97**	**90**
Non eligible activities		%	*47*	*22*	*21*	*12*	*3*	*10*

1 This mandatory disclosure is based on a broad interpretation of eligibility for 3.3 Activities and a stricter for 3.6 Activities, in accordance with the approach explained in the Draft Commission Notice. In relation to 3.3 Activities, the Draft Commission notice sets forth that the reference to "low carbon" should not be taken into account when determining Taxonomy-eligibility. This interpretation therefore considers that the vast majority of the Group's transport vehicles are Taxonomy-eligible. For 3.6 Activities, eligibility depends on the objective of the activity, which should be aimed at substantial life cycle greenhouse gas (GHG) emissions savings in other sectors of the economy.

2 This voluntary information is based on a broad interpretation of eligibility for both 3.3 Activities and 3.6 Activities, meaning that the vast majority of machinery could be eligible, in the same way as transport vehicles.

The NACE-code system is a statistical classification system of economic activities in the European Union, established by Regulation (EC) No 1893/2006 and referenced in the Taxonomy. This has been used as overall guidance to identify potentially eligible economic activities. Activities from spare parts, components, and products outside NACE-code C29.1 and C28 are not considered as eligible.

Qualitative information related to turnover

The Taxonomy disclosure in Table 1 on eligible turnover includes revenues from all new vehicles as well as repair and maintenance in 3.3 Activities, and revenues from new zero-emission machinery in the 3.6 Activities.

The voluntary Taxonomy information in Table 2 includes eligible revenues from all new vehicles and machinery, as well as repair and maintenance.

The total turnover reported covers the revenue recognized as explained in note 7, see page 94, and includes revenues from the Volvo Group's industrial operations as well as from financial and operating leases.

Qualitative information related to operating expenses

The Taxonomy disclosure in Table 1 on eligible operating expenses include non-capitalized research and development costs for new product development as well as maintenance on existing products. It includes expenses related to transport vehicles in Activity 3.3, and expenses related to low- and zero-emission machines in Activity 3.6.

The voluntary Taxonomy information in Table 2 includes eligible expenses as above, related to the vast majority of the both 3.3 and 3.6 Activities.

The operating expenses reported covers the non-capitalized research and development costs from the Volvo Group's industrial operations. These are the operating expenses so far estimated as material in relation to the disclosure requirements. As internal processes are enhanced and further guidance and advice on interpretation of the regulation is provided, the total relevant operating expenses as well as share of Taxonomy eligible operational expenses may be adjusted.

Qualitative information related to capital expenditures

The Taxonomy disclosure in Table 1 on eligible capital expenditures includes capitalized expenditures for product development and property, plant and equipment related to transport vehicles in 3.3 Activities, and capitalized expenditures for product development and property, plant and equipment related to low- and zero-emission machines in 3.6 Activities.

The voluntary Taxonomy information in Table 2 includes eligible capital expenditures for product development and property, plant and equipment related related to the vast majority of the both 3.3 and 3.6 Activities.

Capitalized product development and property, plant and equipment reported are included in the information provided, see notes 12-13 on pages 100-103 for details.

Volvo Group modular product architecture

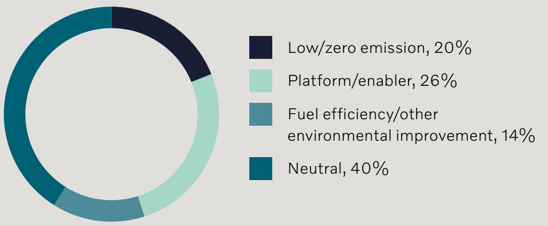
Many of the products developed, produced and sold are based on the Group's modular system CAST (Common Architecture and Shared Technology) to drive commonality and efficiency in the value chain. This enables low and zero-emission vehicles and conventional vehicles to be based on the same vehicle platform and produced on the same assembly lines. Consequently, expenses and tangible and intangible investments are rarely exclusive to one type of product, but common across products and sites.

DISCLOSURES ON RESEARCH AND DEVELOPMENT INVESTMENTS

A significant part of the Volvo Group's research and development expenses are related to emission-reduction activities, such as improved fuel efficiency, enabling low-carbon fuels, electrification, as well as energy and transport efficiency. Volvo Group's research and development expenses have been divided into four main categories. This classification is new in this year's reporting. The classification of various research and development projects is continuously evaluated and may be amended in the future.

- **Low- and zero-emission projects** – directly associated with products with low or zero tailpipe emissions.
- **Platform and enabler projects** – to develop technology common for both conventional products as well as low or zero emission vehicles based on the Group's modular architecture (CAST). This includes development of technology such as common electrical architecture, cabs, aerodynamics, connectivity and safety features.
- **Fuel efficiency and other environmental improvement projects** – with the aim to improve environmental performance of internal combustion engine vehicles, e.g. fuel efficiency, emission reduction, bio-LNG and other low-carbon fuel projects.
- **Neutral projects** – projects in this category may result in environmental benefits but which have not been assessed as significant.

R&D expenses



In 2021, approximately 60% of the Volvo Group's gross R&D expenses[1] were considered either low and zero emission, fuel efficiency and pollution-prevention, or platform and enabler projects.

During the year, the Volvo Group also invested SEK 6.5 billion in the fuel cell joint venture cellcentric. Neither the investment, nor the expenses associated with cellcentric are included in the above figures.

1 Excluding effects from capitalization and amortization.

Employees and development

Connection to Agenda 2030 and reporting standards

SUSTAINABLE DEVELOPMENT GOALS

Main connections to the UN SDGs and targets

4.3 Equal access to affordable, technical, vocational and higher education
4.4 Increase the number of people with relevant skills
5.1 End discrimination against women and girls
5.5 Ensure women's full participation in leadership and decision making

4 QUALITY EDUCATION
5 GENDER EQUALITY

Referenced reporting standards

GRI 401 – Employment 2016
GRI 402 – Labor management relations 2016
GRI 404 – Training and education 2016
GRI 405 – Diversity and equal opportunities 2016

The Volvo Group Code of Conduct is the foundation for responsible business conduct that builds trust with stakeholders in societies where the Group operates. As an integral part of daily operations, the leaders of Business Areas, divisions and functions are accountable for areas such as employment practices, labor relations, people development and diversity. To do this effectively, they are supported by both local and central HR professionals, expertise and leadership. In addition to the topics listed herein, different countries, regions and units may address specific areas in line with the local context and needs.

EMPLOYMENT

To create an inclusive, safe, and engaging work environment built on care for people is an essential focus area for Volvo Group. Recognizing that digitalization, electromobility and automation are making a significant impact on the business and ways of working, the Volvo Group People & Culture strategy describes the people dimension of the journey towards 2030. The view on people as the company's most valuable asset will not diminish with increasing automation and digitalization. Instead, a competence shift in multiple dimensions is fundamental for Volvo Group's perform and transform strategy. The approach is to invest in people, to encourage lifelong learning, to grow talent, and to create a people centric culture where everyone is encouraged to contribute.

This competence shift will help Volvo Group to realize its People Commitment – to reduce lost time accidents by 50%, to have at least 35% female employees in general and in leadership positions, to have at least 85% employee engagement and at least 85% of employees recommending Volvo Group as a great place to work, by 2030.

Employee turnover and new employee hires

Employee turnover[1], % Per age, gender and total	**2021** Year of age and total			2020 Year of age and total		
	<40	40+	All	<40	40+	All
Europe	**10**	**7**	**8**	**10**	**7**	**8**
Men	*10*	*7*	*8*	*10*	*7*	*8*
Women	*9*	*8*	*8*	*10*	*7*	*8*
North America	**17**	**9**	**12**	**35**	**20**	**25**
Men	*16*	*9*	*12*	*36*	*21*	*26*
Women	*19*	*8*	*12*	*32*	*17*	*22*
South America	**8**	**5**	**7**	**16**	**19**	**17**
Men	*9*	*5*	*7*	*15*	*18*	*16*
Women	*8*	*6*	*7*	*18*	*24*	*19*
Asia/Pacific	**12**	**8**	**7**	**10**	**9**	**8**
Men	*12*	*8*	*7*	*10*	*8*	*7*
Women	*12*	*7*	*9*	*14*	*11*	*11*
Africa	**6**	**7**	**7**	**13**	**12**	**12**
Men	*6*	*7*	*7*	*13*	*13*	*13*
Women	*4*	*9*	*6*	*11*	*10*	*11*
Group total	**11**	**8**	**9**	**15**	**10**	**12**
Men	*11*	*8*	*9*	*15*	*10*	*12*
Women	*11*	*8*	*9*	*15*	*10*	*12*

1 The total employee turnover rate is the proportion of employees who left Volvo Group both voluntary (such as retirements and resignations) and involuntary (including due to redundancy).

New hires Per age, gender and total	**2021** Year of age and total			2020 Year of age and total		
	<40	40+	All	<40	40+	All
Europe	**3,817**	**1,293**	**5,110**	**1,514**	**621**	**2,135**
Men	*2,621*	*997*	*3,618*	*1,115*	*468*	*1,583*
Women	*1,196*	*296*	*1,492*	*399*	*153*	*552*
North America	**2,374**	**1,127**	**3,501**	**1,161**	**750**	**1,911**
Men	*1,881*	*855*	*2,736*	*909*	*558*	*1,467*
Women	*493*	*272*	*765*	*252*	*192*	*444*
South America	**1,165**	**227**	**1,392**	**640**	**95**	**735**
Men	*934*	*171*	*1,105*	*496*	*80*	*576*
Women	*231*	*56*	*287*	*144*	*15*	*159*
Asia/Pacific	**1,150**	**150**	**1,300**	**830**	**89**	**919**
Men	*882*	*126*	*1008*	*695*	*66*	*761*
Women	*268*	*24*	*292*	*135*	*23*	*158*
Africa	**85**	**11**	**96**	**55**	**9**	**64**
Men	*58*	*8*	*66*	*39*	*9*	*48*
Women	*27*	*3*	*30*	*16*		*16*
Group total	**8,591**	**2,808**	**11,399**	**4,200**	**1,564**	**5,764**
Men	*6,376*	*2,157*	*8,533*	*3,254*	*1,181*	*4,435*
Women	*2,215*	*651*	*2,866*	*946*	*383*	*1,329*

Over time, Volvo Group has developed pragmatic solutions and ways of working to adjust according to changing demands. Volvo Group works in close dialogue with employee representatives for the deployment of solutions that help to maintain and strengthen the competence needed for the Group as well as reducing negative social consequences. This can include utilizing time-banks to reduce labor time, furlough, re-skilling or upskilling for continued employability, early retirement, financial compensation, internal mobility programs and outplacement via third parties.

LABOR AND MANAGEMENT RELATIONS

Volvo Group bases the relation between the company and employees, including employee representatives and unions, on honesty, transparency, fairness and creativity. These basic principles were jointly developed with the Global Works Council members and guide how to act together when maneuvering Volvo Group through necessary business changes. One cornerstone in this relationship is a yearly Volvo Global Dialogue in which about 50 employee representatives from over 20 different countries meet with the CEO and Volvo Group Management members to discuss the current business situation and strategic initiatives of the Group, but also specific future opportunities in respect of new Business Areas, digitalization and needed competence shifts.

In 2021, the CEO and members of the Executive Board have had several more meetings with the Global Works Council and European Works Council than usual. Such dialogues have been even more important due to the uncertainty on production and deliveries as consequences from the covid-19 effects and supply chain disturbances. Virtual meetings have enabled higher frequency and even closer dialogue between labor and management representatives.

Three ordinary and two deputy members appointed by employee organizations are part of the AB Volvo Board of Directors.

Process regarding operational changes

Prior to major organizational changes, the employee representatives and relevant authorities are informed and consulted in accordance with legal and contractual requirements. In 2021, the Group conducted eight information meetings with the European Works Council, complemented by 72 meetings with local employee representatives and unions in different countries to consult on changes and their specific impact on a local level.

An estimated 45% of regular employees around the world are members of an independent trade union. Approximately 72% of employees globally are covered by Collective Bargaining Agreements. This shows a significantly higher union density rate or coverage of collective bargaining than the average compared to the International Labor Organization statistics, especially in the Group's major markets like Sweden, the US, Poland and Brazil.

DIVERSITY AND EQUAL OPPORTUNITIES

Diversity and inclusion in the workplace drive performance by enriching creativity, encouraging innovation, and improving decision making.

Volvo Group has been working systematically with diversity and inclusion for over a decade. The work includes a wide range of aspects, such as culture, generations, competence, background and gender. It also includes facilitation and support of networks for employees on sexual orientation and gender identity, as well as employees with diverse abilities. The overall ambition is to attract a wide range of people, to grow and develop them and attain the skills and competencies needed for today as well as for the future.

As part of its People Commitment, Volvo Group has set a target of having at least 35% female employees, both in general and in management positions by 2030. One of the overall aims is that management and workforce reasonably reflect the diversity of the regions and businesses of the Group. To increase the level of gender diversity, Volvo Group is working in multiple dimensions. The Group's recruitment strategy strives for gender neutral job-ads and an all-gender inclusive recruitment process, with mixed interview panels, that results in diverse recruitment shortlists. To increase the female talent pool both in the short-term and long-term perspective, Volvo Group engages in activities designed to increase the gender diversity and boost females' interest in tech and manufacturing jobs, e.g. through internship programs, career return programs and cooperation with technical schools and NGOs.

In the empowerment, performance and accountability driven working environment of Volvo Group, the responsibility for promoting diversity lies in the hands of Truck Divisions, Business Areas, Group Functions and each employee. Different countries, regions and units may have different diversity challenges. To maximize the positive effects of diversity and inclusion, the leaders and team members of each business area and function are responsible for making it an integral part of their daily operations and to drive specific diversity goals and actions that fit their business context.

On the corporate level, the Volvo Group follows age and gender as key indicators of diversity. The total gender balance is assessed as a total of the workforce, for line management positions and at the senior management level, as described in the gender diversity table below.

Diversity of governance bodies and employees

Age diversity of the Volvo Group workforce, %	**2021 <40 / 40+**	2020 <40 / 40+	2019 <40 / 40+
Europe	36 / 64	36 / 64	37 / 63
North America	36 / 64	33 / 67	34 / 66
South America	61 / 39	61 / 39	59 / 41
Asia / Pacific	57 / 43	51 / 49	44 / 56
Africa	54 / 46	54 / 46	56 / 44
Group average	**40 / 60**	**40 / 60**	**40 / 60**

Gender diversity of the Volvo Group workforce, %	**2021 Women / Men**	2020 Women / Men	2019 Women / Men
Europe	22 / 78	21 / 79	21 / 79
North America	21 / 79	21 / 79	14 / 86
South America	18 / 82	17 / 83	17 / 83
Asia / Pacific	17 / 83	14 / 86	14 / 86
Africa	26 / 74	24 / 76	24 / 76
Group average	**21 / 79**	**19 / 81**	**19 / 81**

Gender diversity over time, share of women, %

	2021	2020	2019	2018	2017
All employees	21	19	19	18	19
Manager (all levels)	23	20	20	19	19
Presidents and other senior executives	27	26	26	25	25
AB Volvo Board (Elected by the AGM)	45	36	40	40	36

ExcelHer supports female talents to return to the workplace

To fulfill the aspirations to create an inclusive workplace and increase access to hire more female talent, Volvo Group India has conceptualized an initiative focused on empowering women in re-launching their professional journey. ExcelHer, a unique career restart program created exclusively for women, is just one of many efforts to create an inclusive workplace. The nine-month long career returnship program aims to help women on a career break for more than a year, by supporting them in getting up-to-date with the technical or functional skills, building their leadership competencies, and helping society benefit from this talent pool.

During the assignment the participants gain access to personal development and mentorship from business leaders. At the end of the internship, the returnees have the opportunity to explore full-time roles with Volvo Group in India based on the individual's performance and business requirements. Since its inception, the program has received great response and the first class of around 25 women professionals are already on-board.

Programs for upgrading employee skills and transition assistance programs

The Group offers programs specifically designed for leadership development and for job roles that require upgraded skills or that will be transitioned over time.

The E-mobility journey in Blainville

Transforming the technology competence base is fundamental to Volvo Group's future success. To succeed, Volvo Group is reshaping the approach to technology, introducing new ways of working and shifting the competencies.

The Blainville plant was the first facility in the Group producing fully electric trucks. A complete competence shift program was established based on experiences from Volvo Bus, Volvo Group University together with the Business Unit, Group Trucks Operations and Group Trucks Technology experts. Together they adjusted the existing learning portfolio and developed additional programs to make the learning offer fit the local needs.

By 2021, 2,500 participants, operators and managers of the electromobility ecosystem have acquired the needed competences in electromobility business understanding and urban fully electric truck technologies. The electrical safety program, compliant with French regulation for high voltage handling were also part of the competence shift program. Thanks to the training, a safe production start was secured with maintained efficiency, good business understanding and a gradual shift towards new skills in the Blainville plant.

TRAINING AND EDUCATION

Leadership, learning and development is a vital contributor to the transformation of the Group and to employees' employability. Volvo Group University is focused on providing high quality training in competence areas that are common across business areas, divisions or functions. This spans from leadership development, across sales and price management, agile methodologies and compliance training, to technology related topics such as electromobility and automation. Learning comes in many shapes, and most of people's development takes place during the course of a working day, in the teams. It is facilitated by the company throughout the employment cycle. To ensure access to training, despite the limitations due to the pandemic, a large part of instructor lead programs is adapted for a virtual delivery. The quality of the experience is maintained, or even enhanced, and the diversity of participants has improved. It has further opened up possibilities for employees outside the major sites to join training activities and to build networks across the Group.

Business operations drive development of the competences specific to their needs. During times of production stops trainer-led sessions and online training are made available to the teams, organized as "learning camps". It allows a large number of employees to expand their knowledge in critical areas. A multitude of digital learning solutions on different subjects, and in a variety of formats, is available to all employees via mobile and computer. These provide a base for individual development, as well as learning and reflecting together in teams.

Vocational training is an important factor in driving prosperity. In addition to training for employees and distributors, the Group initiates, supports or runs vocational training programs across the world focusing on practical skills for mechanics, bus or truck drivers and machine operators. Volvo Group specialists can be directly involved as teachers or trainers and in some countries the Group cooperates with technical colleges and universities.

In several markets, the Volvo Group and its customers have experienced a mismatch between skills and business needs. In many of these markets the Volvo Group therefore works together with national and international aid agencies to provide the education needed for increasing employment and opportunities for people to be self-sufficient.

Such projects aim at creating employment opportunities in the heavy-duty machinery and commercial vehicles industry. The projects are designed to improve the relevance and quality of technical and vocational training and education in our sector and to ensure that experienced and new professionals are equipped with marketable skills that enhance their employability. See example from Zambia on the next page.

Safety

CUSTOMER HEALTH AND SAFETY

Connection to Agenda 2030 and reporting standards

SUSTAINABLE DEVELOPMENT GOALS

Main connections to the UN SDGs and targets

3.6 Halve road traffic accidents

8.8 Promote safe working environments

11.2 Provide access to safe, affordable and sustainable transport systems for all, improving road safety.

Referenced reporting standards

GRI 416 – Customer health and safety 2016

Volvo Group has a value chain approach to customer health and safety that considers the effects on customers, end users and indirect stakeholders. The Group's business and the products it offers target a wide range of application areas and impact many categories of people, such as drivers and operators, commuters, as well as other traffic system users like cyclists and pedestrians.

The vision is zero accidents with Volvo Group products, and the offering of world-leading products and solutions for sustainable transports is an important part of getting closer to our vision.

Volvo Group's products are used in complex and challenging environments. Every year, 1.3 million people lose their lives in road traffic accidents worldwide, and many million are seriously injured. In addition, there are occupational health and safety risks in and around vehicles and machines, both on the road and in construction and work sites. Issues such as noise and air pollution are also considered in customer health and safety.

A holistic approach means addressing all these concerns in a proactive and systematic way. Volvo Group works systematically with in-depth accident research to understand the context and challenges facing customers in their operations. This knowledge is then used in product development to achieve continuous improvements. Volvo Group also works with partners in academia and policy makers to promote progress in road traffic safety and enable safer solutions to be brought to the market. Designing the best solutions to address these global health and safety challenges is delivering both on the Volvo Group's commitment to the Sustainable Development Goals and to offer the most competitive solutions to customers and business partners. The knowledge gained on safety is shared via communication and training programs in many markets where the Group operates to raise awareness and promote a safe driving behavior.

Assessment of the health and safety impacts

All product lines are assessed for health and safety impacts. Such assessment can include product assessments, audits of different processes in the design, development, production and use phases, as well as research investigations from real accidents. Please read more on volvogroup.com/safety.

Strengthening the employability of Zambian youth

Vocational training helps to match jobs and improves safety in vehicle operations. The Zambian Industrial Training Academy (ZAMITA academy) established a center of excellence in 2016, to upskill the workforce on operations and maintenance of modern heavy equipment used in the mining, construction and transport industries. This is part of an overall National Development plan to systematically improve vocational training and increasing the supply of skilled workers and create one million new Zambian jobs over a five-year period. The managing partners of the academy, United Nations Industrial Development Organization (UNIDO), the Embassy of Sweden in Zambia, the Volvo Group and the Government of Zambia has pledged to continue supporting the academy for the coming years.

In recent years, the academy was expanded to serve the commercial transport sector workforce development in Ndola, Zambia. The second phase of the project aims to increase the capacity of ZAMITA through a multi-lateral public-private partnership program to overcome the skills shortage in the commercial transport sector. Volvo Trucks Southern Africa is involved for technology transfer, updating the curriculum, supplying the necessary infrastructure and staff development training.

The ZAMITA academy has boosted its efforts in generating productive employment for young Zambian men and women. This and similar initiatives help to close the skills gap, facilitate safe operations and empower the next generation workforce in finding meaningful employment. At year-end 2021, the academy had trained over one thousand students since its inception.

OCCUPATIONAL HEALTH AND SAFETY

Connection to Agenda 2030 and reporting standards

SUSTAINABLE DEVELOPMENT GOALS

Main connections to the UN SDGs and targets
3.3 End epidemics of communicable diseases
8.8 Promote safe working environments

3 GOOD HEALTH AND WELL-BEING
8 DECENT WORK AND ECONOMIC GROWTH

Referenced reporting standards
GRI 403 – Occupational health and safety 2018

The health, safety and wellbeing of employees and business partners is always the first priority of the Volvo Group. Health and safety are material issues in several aspects of Volvo Group's direct operations as well as in activities that occur along the value chain. The Volvo Group Health and Safety Policy gives direction on how workplace safety, health and wellbeing shall be handled within the Group. The policy covers both direct employees and consultants.

In 2021, the Group continued to deal with the effects of the covid-19 pandemic. Significant efforts were put in place to hinder and slow down the spread of the pandemic and protect employees. New workplace routines with preventive hygiene and safety measures for production units, offices and meeting areas were implemented. Remote work has been widely enabled, including ergonomics guidance and an expanded IT infrastructure to secure technical functionality of digital meetings and collaboration tools. Internal and external communication channels have been used to keep the workforce informed about the pandemic situation, business updates and of specific behavioral protocols. In many countries, Volvo Group has arranged on-site vaccination via third party health service providers. Only business critical business travel was conducted.

In addition, the Group has sought to balance remote work with proactive approaches towards mental health and wellbeing, to avoid isolation, e.g. through raising awareness and ensuring adequate support is available. As an example, mental health webinars and sessions on how to boost resilience were organized.

Volvo Group has further continued its focus on a safe return to the workplace with high activity levels across the Group. Prevention of serious and fatal incidents, with targeted approaches towards high-risk activities, has been another focus area during this year.

Safety is the first item on the agenda in Business Review Meetings with all business areas and their units. Throughout 2021, the Group has emphasized how health, safety and wellbeing is its first priority and communicated this commitment widely by senior leaders across the Group. Within the Group, a global network of over 200 expert practitioners on occupational health and safety – including doctors, nurses, safety engineers, psychologists, and ergonomists collaborate to find and share best practices.

Occupational health and safety management system

Each business area, division and function is accountable and responsible for managing health, safety and wellbeing. Volvo Buses and Volvo Construction Equipment have continued to certify their parts of the management systems according to ISO 45001. Others have been developing internal safety management systems with regular assessments and coaching as an integral part the Volvo Group Management System (VGMS) and Volvo Production System (VPS). This helps to ensure that there are written procedures, internal controls, clear ownership and management review, and that deviations are acted upon. The scope of prevention work includes both physical and psychological health, and workplace safety. It covers all employees working for Volvo Group on- or off-site, as well as the period of time spent commuting to and from work.

Hazard identification, risk assessment and incident investigation

Volvo Group and its subsidiaries apply tools and processes to manage risk and create productive working environments. Risk assessments are carried out on a regular basis at all levels from shop floor to office. Health and safety professionals ensure the quality of risk assessments and involve line management and union representatives in this work. Potential risks are in focus during internal assessments and external audits, where typically a sample of risk assessments and corrective and preventative actions are reviewed. Managers and employees are reviewed in their knowledge of their own major risks. Measures to mitigate or eliminate the identified risks are defined and implemented, and risk assessments are reviewed and updated periodically or after any incident has occurred.

Recordable accidents are reported and followed up at the unit level and further up in the organization, continuing up to the Group level. Investigations resulting in corrective and preventative actions must be deployed after each recordable accident. In cases where the issue is linked to risks that may be relevant for other units – the causes of the accident and the corrective and preventative measure to avoid a repeat are shared with other relevant units within the global health and safety network. In certain cases, directives are built to be deployed throughout the company as part of a preventative measure.

Based on the risk assessment carried out for a specific machine, process or work area, employees receive training so they understand the risks and how to manage them – through following defined procedures or wearing personal protective equipment, for example. When defining corrective or preventative actions in response to identified risk, the Volvo Group Health and Safety Policy requires that the hierarchy of control measures principles be applied. The first option is hazard elimination. If hazard elimination is not possible, substitution, engineering controls, administrative controls and personal protective equipment are applied. The policy is distributed and made visible on the walls of factories and offices within the company.

Employees are asked to report accidents, incidents and unsafe acts and conditions – as they are a vital source of improvements and highlight opportunities to better control the associated risk. The Volvo Group's Code of Conduct and related processes make it clear that any management reprisals against individuals making such reports in good faith are not tolerated. If a manager or colleague acts against the Code of Conduct – a whistle blower process can be used to escalate this.

Health and safety coordinators are employed to support team leaders and managers in the organization. Periodic training is also organized on health and safety procedures, roles and responsibilities for managers and health and safety coordinators.

Ergonomics in focus

Ergonomics is a prioritized area across the Volvo Group and individual workstations are regularly assessed for improvements. Operators, employees and consultants also receive training on occupational ergonomics tailored to specific areas, whether manufacturing, administration or when working from home. Training centers on many of the Group's sites also offer and promote training courses opportunities on focused themes within ergonomics.

Ergonomics guidelines exist for specific roles. In manufacturing for example, guidelines summarize the main ergonomics specifications and provide general principles for an ergonomic-based approach to workstations design and layout.

Occupational health services

Occupational health services are provided to employees at most units and vary from one country to another depending on the specific needs of the unit, the level of health service provided and local legislation. In many countries and locations, health services are supported by company doctors and nurses, psychologists, physiotherapists and ergonomists.

In some countries/organizations such services can be supplied by third parties. If so, they are required to ensure data privacy in accordance with applicable regulations. Occupational health services play a major role in health promotion. These service providers manage confidential databases and can help to provide anonymized reports about relevant health aspects – diabetes, cardiovascular disease, stress levels, etc. – to implement relevant preventive and corrective actions.

Worker participation, consultation and communication on occupational health and safety

Worker representatives are appointed to health and safety committees by employees. Depending on the type of business area, health and safety committees operate on the factory level, retail office level or unit level. The main objective of the committees is to bring together worker and management representatives, define actions and jointly agree on measures needed to improve health and safety performance. Committees meet on a regular basis and decisions taken shall be communicated to the workforce, acted upon and followed up. The committees could also be involved in accident and incident investigations and support in additional corrective or preventative measures.

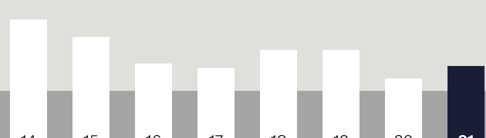
Worker training on occupational health and safety

All employees and consultants are provided health and safety training as well as other Code of Conduct training as part of their induction training. More specific training is provided depending on the job responsibilities. Specific training for potentially hazardous jobs – such as working with electricity or hazardous substances, at heights and in high heat conditions – is mandatory for employees working in these environments, and needs to be repeated on a regular basis. All training is provided during working hours. The effectiveness of these trainings is assessed locally depending on each organization and country.

Promotion of worker health

The Volvo Group has for a long time provided various health promoting activities beyond occupational safety. These programs are often provided by external partners. Health promotion programs may cover topics such as preventing communicable diseases, substance abuse, obesity, healthy lifestyle, physical exercise, nutrition, sleep and stress management. The psychological work environment is growing in focus, and many tools are available to support in preventing issues and promoting good mental health.

Rates of injury and number of work-related fatalities 2014–2021



	14	15	16	17	18	19	20	21
Lost time accident rate (LTAR) per 200,000 worked hours.	1.59	1.38	1.06	1.00	1.22	1.22	0.87	**1.03**
Number of accidents with lost time	1,109	980	809	789	972	1,004	656	735
Number of fatalities Employees	3	0	0	3	1	0	0	0
Number of fatalities Contractors	0	0	0	0	2	0	0	0

There are various types of tools that can be used depending on specific and individual needs. The confidentiality of individuals is protected in line with general data privacy laws. Throughout the year many countries have used pulse surveys and engagement tools to understand attitudes and feelings in general, and in particular to a shift where work-life is affected by remote work and social distancing. This approach has been useful and actions have been taken in response.

Prevention and mitigation of occupational health and safety impacts directly linked by business relationships

In accordance with the Volvo Group's Supplier Code of Conduct, on-site audits are performed at suppliers on a wide variety of sustainability topics. Health and safety are central elements to this process. Read more about this on page 170–171 – Supplier social assessments.

Occupational safety, as well as road safety, are central elements in the Group's offer to end-users. Volvo Group provides customer solutions and training to increase safe behavior and safe product use. Please read more about customer health and safety on next page.

Workers covered by an occupational health and safety management system

The Volvo Group Management System includes health and safety management based on legal requirements and covers all employees and consultants, and these are all included in the safety reporting presented below.

The percentage of employees and consultants who have been covered by an internal audit cannot be reported for the previous year. The data is not available.

By December 2021, 64 sites covering around 30% of Volvo Group's employees have chosen to certify their operations according to ISO 45001. Volvo Buses and Volvo Construction Equipment are two business areas that have chosen to certify their entire operations.

Work-related injuries

Volvo Group measures the accident and accident rates in all locations including plants, workshops and offices in all countries of operations. In 2021, the accident rate was 1.03 per 200,000 worked hours.

Health and safety data is reported at operating unit level and consolidated at Business Area/Truck Division and Group level. The data is collected quarterly at the Group level and on a monthly basis by several business areas and truck divisions. Work is ongoing to facilitate consolidation of data across the Group. While many different KPIs are reported for different needs, lost time accidents and lost time accident rate are the KPIs used on Group level.

High-consequence or serious work-related injuries and related hazards are not consolidated at Group level but are shared in health and safety networks to for learning purposes and risk mitigation.

Human Rights

Connection to Agenda 2030 and reporting standards

SUSTAINABLE DEVELOPMENT GOALS

Main connections to the UN SDGs and targets

5.1 End discrimination against women and girls
8.7 Take immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking
8.8 Protect labor rights and promote safe and secure working environments for all workers

5 GENDER EQUALITY
8 DECENT WORK AND ECONOMIC GROWTH

Referenced reporting standards

GRI 406 – Non-discrimination 2016
GRI 407 – Freedom of association and collective bargaining 2016
GRI 408 – Child labor 2016
GRI 409 – Forced or compulsory labor 2016
GRI 412 – Human rights assessments 2016
UN Guiding Principles Reporting framework

The Volvo Group is committed to respecting internationally recognized human rights. Negative human rights impacts may potentially materialize not only within our own organization, but also through our business relationships and in the value chain. We also seek to address adverse human rights impacts with which the Volvo Group is involved. We are continuing to strengthen and align our human rights work with the following international frameworks:

- UN International Bill of Human Rights.
- ILO's eight fundamental conventions.
- UN Global Compact.
- UN Guiding Principles on Business and Human Rights.
- OECD Guidelines for Multinational Enterprises.
- Children's Rights and Business Principles.

These frameworks provide guidance in contexts with elevated human rights risks and where local regulations are sometimes insufficient or inadequately enforced. The Volvo Group reports on its human rights-related work under applicable laws and regulations, including national laws under the EU's non-financial reporting directive, and the Modern Slavery legislation in Australia and the United Kingdom. In 2021, we published Modern Slavery Statements for relevant companies within the Volvo Group in line with these legal disclosure requirements.

Human rights governance and oversight

The Volvo Group's human rights governance follows our allocation of business accountability and includes several cross-functional governance fora across the company. At the Group level, the strategic direction on human rights is steered by the Volvo Group Human Rights Board with relevant members from the Executive Board.

Group functions such as Corporate Responsibility, Legal and Compliance, and People and Culture, together with the Truck Divisions and Business Areas identify, assess, and monitor human rights-related risks within our operating environment. The human rights due diligence and mitigation efforts adopt a risk-based approach considering country-specific risk levels and our operational context in the country, inherent risks in certain purchasing categories and sales segments, and potential concerns brought to our attention by internal and external stakeholders.

Human Rights Policy commitment

The Volvo Group launched a standalone Human Rights Policy in 2021. This policy sets the common threshold for our commitment to respect human rights and applies to all Volvo Group entities, employees and others working at our sites.

The human rights policy is complemented by the Volvo Group's Code of Conduct and specific policies, directives, and guidelines developed by our Truck Divisions and Business Areas on several human rights-related areas. These include health and safety, responsible purchasing through our Supplier Code of Conduct (updated in 2021), human resources, responsible sales, and whistleblowing.

Salient human rights risks

The Volvo Group's sustainability ambitions are divided into the three areas of climate, resources and people. Human rights risks may be associated with our activities and business relationships in all three of these areas. The Human Rights Policy describes the Volvo Group's ten salient human rights risks across these three areas.

CLIMATE	RESOURCES	PEOPLE
Climate & environmental impacts	Hazardous materials & substances	Health, safety & facilities
	Minerals & metals from conflict-affected and high-risk areas	Fair employment & working conditions
		Freedom of association & collective bargaining
		Non-discrimination & fair treatment
		Forced labor & modern slavery
		Child labor & children's rights
		Sales to conflict-affected & high-risk areas

These risks have been identified through the implementation of human rights due diligence across the value chain, the enterprise risk management process, ongoing dialogues with unions, inputs from grievance channels including the Volvo Group Whistle mechanism, and collaboration with peers and others. While these risks are the current areas of focus, we will remain alert to the potential for other human rights risks that may arise. Many of these topics are also part of the mandatory training for all employees on the Volvo Group Code of Conduct and other human rights-related training and awareness initiatives.

Human rights due diligence across the value chain
Our human rights work is designed to identify, prevent, and mitigate potential or actual adverse human rights risks and impacts.

To facilitate systematic and ongoing human rights due diligence throughout the Volvo Group, we adopt and implement a Human Rights Plan listing prioritized activities. We strive to align the processes and methodology with the UN Guiding Principles on Business and Human Rights, and other recognized international best practices.

Our own operations
Our Truck Divisions and Business Areas undertake human rights due diligence in relevant parts of their value chains including their own operations. At a Group level, we carry out country-by-country human rights reviews with the ambition to cover all operations, employees, and other personnel at our sites in the reviewed country.

These involve desktop analyses, self-assessments, and in-person workshops with the local management and human resources personnel. Discussions are also held with employees, on-site service providers, union representatives and, where relevant, other stakeholders. The findings of each country-level human rights review are communicated to relevant members of the Executive Board. Following each review, action plans are developed with ownership and accountability within the local management.

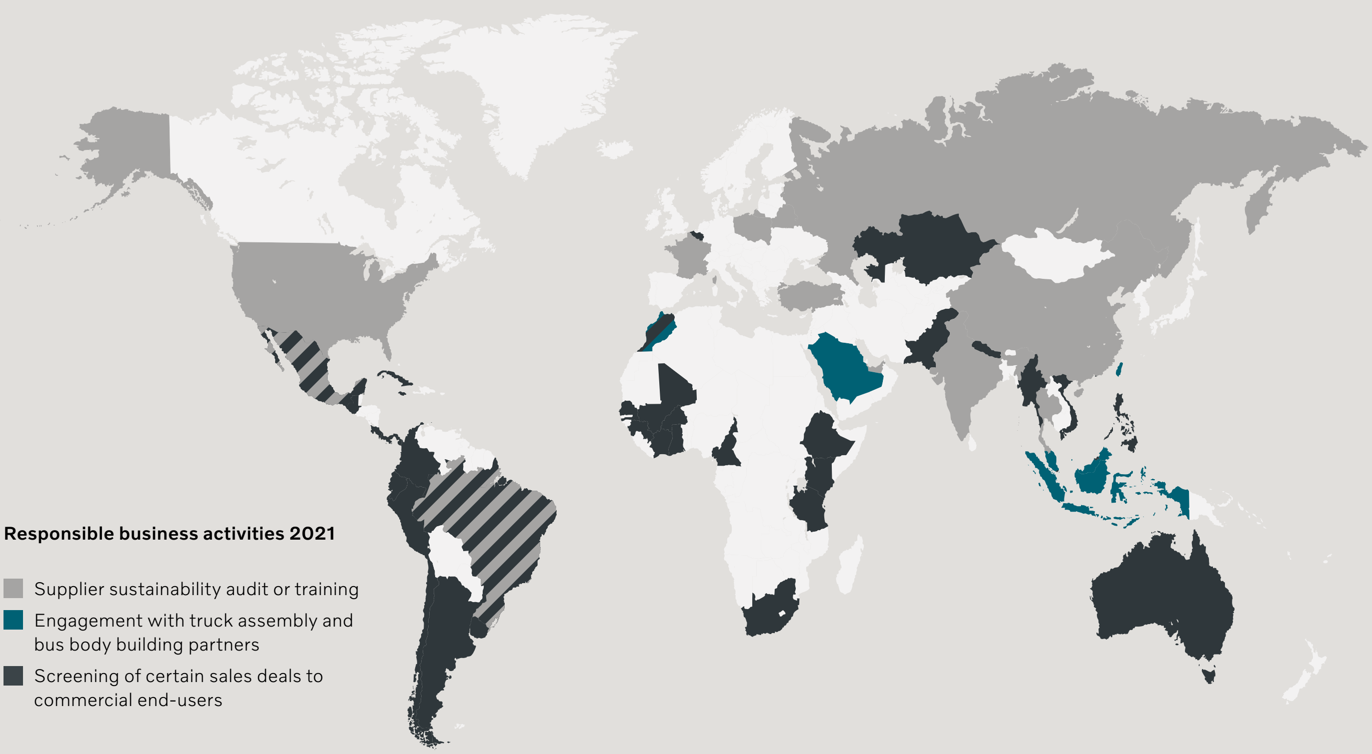
Human rights reviews have been performed in India (2017), South Africa (2018), and Mexico (2019). After a pause in 2020 and 2021 due to the covid-19 pandemic and following a review of the process and methodology we are aiming to restart human rights reviews. The target is to perform human rights reviews covering all own operations in countries with elevated human rights concerns by 2025.

Our supply chain
The Volvo Group's Supplier Code of Conduct sets minimum requirements, and aspirations for our suppliers in the areas of climate, resources and people, including human and labor rights, health and safety, responsible sourcing of raw materials, environmental performance, and business ethics. In 2021, we strengthened our Supplier Code of Conduct with firmer requirements and targets including more explicit due diligence requirements on our direct suppliers to cover further tiers in the supply chain, read more on page 175.

Business partners – truck assembly and bus body building
In addition to our owned manufacturing operations, the Volvo Group collaborates with private business partners to assemble trucks in certain locations in Africa and Asia and build bus bodies on our chassis in line with customer requirements globally.

Activities ongoing to secure that they respect human rights according to Volvo Group's standard includes social and environmental requirements in contractual agreements, self-assessments and on-site reviews. In 2021, we followed up on a 2019 review at a truck assembly partner in Malaysia focusing on employment practices. The review was carried out on-site and the final analysis of the outcome is still under discussion together with our truck assembly partner.

In 2021, Volvo Buses analyzed the risk profiles of its bus body builders from a human rights perspective and included human and labor rights related requirements as part of contractual agreements with body builders identified as high risk.



In addition, the Volvo Group is involved in CSR Europe's Responsible Trucking Initiative. The initiative aims to improve employment and working conditions for truck drivers in the road transport sector across Europe. In 2021, the initiative released new social guidelines for common expectations towards suppliers and sub-contractors on human rights, working conditions and business ethics, read more at www.csreurope.org/.

Our sales channels and the use of products

Certain sales deals are assessed for risks related to human rights, primarily in connection with direct sales deals involving customer financing and support from export credit guarantees, sales to certain high-risk end users such as the military and law enforcement. Certain sales deals are also assessed in specific customer segments such as the fossil fuels sector, mining, and sales to conflict-affected areas.

During 2021, Volvo Construction Equipment developed a new dealer operating standard on responsible sales that includes certain mandatory requirements as well as two aspirational levels thus providing an opportunity to engage with our dealers on responsible sales. Volvo Trucks initiated the strengthening of their standards and agreements with our sales business partners such as distributors and dealers to include human rights-related requirements. See page 174 for more details on our Responsible sales approach, and specific activities undertaken in 2021.

Human rights awareness

Training and raising awareness for our colleagues and relevant business partners is a key element of our human rights work. In 2021, the Executive Management Teams of Volvo Trucks, Volvo Buses, Group Truck Operations, and Group People and Culture participated in human rights-related awareness sessions.

In addition, several awareness sessions were organized by our Group Functions, Truck Divisions and Business Areas in which more than 1,000 colleagues working in areas such as human resources, legal and compliance, communication, purchasing, and sales participated. These overall human rights awareness initiatives complement other specific training on related topics such as diversity and inclusion, health and safety, non-discrimination and anti-harassment, equal pay and living wage, responsible purchasing, and responsible sales.

Stakeholder engagement related to human rights

We engage with our colleagues and external stakeholders including customers, investors, NGOs, and other societal actors on our human rights approach and performance. In 2021, our engagement with external stakeholders primarily related to our overall human rights governance and policy, sourcing from conflict-affected areas, and sales to military end-users and to customers in certain markets. See pages 174 for more details on responsible sales including our response and actions on stakeholder concerns.

Grievance channels and access to remedy

Our employees, representatives of the Volvo Group, and external stakeholders can report any instances of breach of our Code of Conduct and other policies, including human rights violations, where the Volvo Group or any of its representatives are believed to be involved. Grievances can be reported through internal and publicly available grievance channels described in our Code of Conduct, including the Volvo Group Whistle. Reports can be made anonymously wherever permitted by local law.

The Volvo Group aims to provide for or cooperate in the remediation of negative human rights impacts if our activities have caused or contributed to them and seek to play a role in the remediation of negative human rights impacts that we may be directly linked to in our operations, products, services, or business relationships.

See page 177 for more information on our grievance channels and the types of concerns reported in 2021.

Specific disclosures on salient human rights risks

Climate and environmental impacts

We recognize the importance of the transition to a low carbon economy envisaged by the Paris Agreement, and that a safe and clean environment is essential for the full enjoyment of human rights. We have set Science-Based Targets and are actively working to reduce climate and environmental impacts in our operations and our value chain. **> Read more on page 158–159**

Hazardous materials and substances

We have a target to phase out potentially hazardous materials and substances, where possible, and to secure their safe and responsible handling throughout the value-chain.

Minerals and metals from conflict-affected and high-risk areas

A dedicated Sustainable Minerals Program supports our efforts to pursue due diligence for supply chain transparency and to promote responsible sourcing, extraction, and handling of such materials. **> Read more on page 176**

Health and safety

As a human centric company, safety is a priority in everything we do. We have a vision for zero accidents with Volvo Group products and in our workplaces. **> Read more on page 168–169**

Fair employment and working conditions

The Volvo Group assesses potential gaps in employment and working conditions in our due diligence activities in own operations and in the supply chain. Our policies such as the Code of Conduct, Human Rights Policy, Supplier Code of Conduct, and global and local human resources guidelines spell out our expectations.

In 2021, we took the initiative to develop a framework on fair living wages covering our own operations globally to increase awareness and identify any potential gaps. We will continue to develop and implement this framework in 2022 and beyond to address any identified gaps. To support this work, the Volvo Group partnered with the Fair Wage Network in order to further strengthen our competence in this area, and to align our principles with international best practices.

Freedom of association and collective bargaining

Legal compliance is the foundation for Volvo Group's activities. Varying country legislation on union independence means the approach to managing freedom of association and collective bargaining may differ from one country to another. The Volvo Group respects the right of all employees to form and join an association to represent their interests as employees, to organize, and to bargain collectively or individually, as well as the right to refrain from joining a union.

We assess risks related to freedom of association and collective bargaining as part of our overall human rights due diligence in our own operations and in the supply chain. Human and labor rights issues, as well as other relevant topics, can also be raised during the Volvo Global Dialogue – a global forum where employee representatives engage in discussions with the Volvo Group's executive management.

Our Supplier Code of Conduct requires suppliers to respect their employees' right to freedom of association and their right to collective bargaining. It also provides that where local law sets restrictions on the right to freedom of association and collective bargaining, the supplier shall allow alternative forms of worker representation, association, and bargaining.

> Read more on labor management relations on page 165 and responsible purchasing on page 175.

Non-discrimination and fair treatment

At the Volvo Group, we do not tolerate harassment and discrimination and aim to mitigate unconscious bias.

In 2021, 38 allegations perceived as related to discrimination or harassment were reported via the Volvo Group Whistle, included in the category "Fair Workplace Management" on page 177. All reports were investigated, with six being in progress at year-end. Over half of the closed reports were unsubstantiated. Most cases resulted in some corrective actions, such as training, coaching or changes to processes or routines. Relevant disciplinary measures were taken in the substantiated cases.

The Volvo Group provides awareness trainings to prevent harassment and discrimination. This is done with the Volvo Group Code of Conduct as the core foundation. In addition, special courses on prevention of harassment and discrimination are offered for managers in some jurisdictions, for example the training Civil Treatment for Leaders in the US and the workshop Active Measures, held in Sweden to enable a workplace environment with zero tolerance for harassment and discrimination.

> Read more about our approach on diversity, equity, and Inclusion on page 165.

Forced labor and modern slavery

The Volvo Group assesses risks related to forced and compulsory labor as part of our overall human rights due diligence in our own operations and relevant parts of the value chain. In 2021, no cases of forced or compulsory labor were identified at own operations or during supplier sustainability audits. During the year, we published Modern Slavery Statements for relevant companies within the Volvo Group in line with legal disclosure requirements.

The covid-19 pandemic has resulted in increased forced labor and modern slavery risks and we continue to monitor for these elevated risks in our supply chain. In 2021, our Code of Conduct training for all employees also had a focused module on Modern Slavery.

> Read more about Code of Conduct training on page 177.

Child labor and children's rights

The Volvo Group assesses risks related to child labor and children's rights as part of our overall human rights due diligence in our own operations and relevant parts of the value chain. In 2021, no cases of child labor were identified at own operations or in supplier sustainability audits.

When considering human rights, we look at a range of aspect where we can have an impact. On road traffic safety, One area close to our business is road traffic safety and in this context, children's rights as road users are emphasized. Our global campaign Stop. Look. Wave. is designed to teach children all around the world about traffic safety and to spread the awareness of the rights of all road users.

In connection with our Sustainable Minerals Program in the supply chain, we are also considering how the Volvo Group can be more involved on the ground to prevent child and forced labor in the conflict minerals supply chains through collaboration with local civil society organizations.

> See pages 167 for more information on road and traffic safety, and responsible purchasing on pages 175–176.

Sales to conflict-affected and high-risk areas

The sale and use of our products in conflict and other high-risk contexts could result in potential adverse human rights impacts. Therefore, we review certain sales deals – involving customer financing and support from export credit guarantees, sales to certain high-risk end users such as military and law enforcement end-users, and sales to conflict-affected areas.

> In addition to this chapter, see pages 174 for an overview of activities related to responsible sales.

Responsible sales

Connection to Agenda 2030 and reporting standards

SUSTAINABLE DEVELOPMENT GOALS

Main connections to the UN SDGs and targets

8.8 Protect labor rights and promote safe and secure working environments for all workers

8 DECENT WORK AND ECONOMIC GROWTH

The Volvo Group has processes and policies with the aim to ensure that our business is conducted in compliance with applicable laws and regulations, including sanctions and export control regimes. In addition, we assess certain sales deals for risks related to human rights, environmental factors, and business ethics as part of knowing the customer or end-user. These assessments are primarily carried out in connection with direct sales involving customer financing and support from export credit guarantees, and sales to certain high-risk end users, such as the military, and sales to conflict-affected areas.

Assessment of commercial sales deals

When assessing sales deals, we use credible tools for risk identification. The findings are assessed, described, and escalated to relevant fora within our Business Areas or to Group Functions. Actions for identified findings typically include engagement with our customers with the aim to support them to mitigate identified risks. In some cases, we may also engage with other external organizations such as embassies or NGOs. If the risks are considered too high and difficult to mitigate, we may decide not to proceed. In our assessments, we consider country risk levels, customer segments, end-users and intended end-use of our products. Our Business Areas have the responsibility to perform these assessments, with support from Group Functions when needed.

In 2021, Volvo Trucks, Renault Trucks, Volvo Construction Equipment and Volvo Buses assessed approximately 170 sales deals, involving customer financing and sales to certain high-risk markets. Some of these assessments identified issues related to potential adverse impacts on the environment and communities, lack of respect for human and labor rights, poor employment conditions, occupational health and safety, and unethical business behavior.

Example of sales deal screened

A screening of a mining customer in Africa highlighted recent allegations of water pollution. Volvo Construction Equipment raised the issue with the dealer and the customer to understand their view on the allegations. The customer, a local company, independently commissioned a nearby university to test water samples at the outlets of the mine. The water analysis and university report verified the mine was not the source of the problem.

Sales to military end-users

The Volvo Group's Business Areas are required to escalate potential sales to military end-users in certain countries for assessment by Group Functions before submitting an offer. Military end-users include the armed forces and other armed law enforcement agencies, and the country risk level considers factors such as the existence of arms embargos, armed conflicts, political instability, and human rights-related risks. This process is governed by an internal directive on military sales and is on top of any export license requirements from national authorities. The European Union's common rules governing control of exports of military technology and equipment include several criteria on respect for human rights and international humanitarian law which member states are expected to consider when granting such export licenses.

Human rights and international humanitarian law are considered in addition to compliance, public affairs, and reputation aspects. In 2021, Volvo Group assessed approximately 40 potential transactions to selected military and government end-users in various countries. Depending on the country of end-use, sales deals either require a decision by the Volvo Group's Military Sales Committee (comprising relevant members of our executive management) or a recommendation from Group Functions to the Business Area for its own decision.

Stakeholder questions on sales to certain markets

In addition to questions around our approach on sales to military end-users, the Volvo Group has received specific questions on use of the Group's products in Israel and in jade mining in northern Myanmar.

In Israel, the sale of our trucks, buses, construction equipment and other products is made via a private importer. These sales are not targeted towards any specific areas within Israel and the products could be used in many different applications by different users. Further, our products have a long-life span and may be rented out and change ownership many times during their life cycle and we are limited in our possibilities to influence how and where our products will be used throughout their entire life cycle.

In 2018, a Swedish NGO published a report on environmental and human rights-related risks in the jade mining sector in northern Myanmar also featuring our products. Volvo Construction Equipment has since then engaged with an external organization to assess human rights risks in the country. The efforts were acknowledged by the NGO's follow-up report in 2020. Since 2020, our dealer is no longer selling to the jade mining sector. The 2021 military coup brought renewed focus on our sales to Myanmar. Following the coup, an internal coordination team was formed by Volvo Construction Equipment to closely monitor the political situation. Together with our dealer, we have intensified due diligence of sales deals focusing on the end-user and intended end-use.

Governance and awareness

As part of the continuous improvement, the Volvo Group's business areas continued to strengthen their approach to responsible sales including governance, screening procedures, and training and awareness. In 2021, approximately 440 colleagues in sales and customer finance representing Volvo Trucks and Volvo Buses participated in awareness sessions related to responsible sales.

Suppliers

SUPPLIER SOCIAL AND ENVIRONMENTAL ASSESSMENTS

Connection to Agenda 2030 and reporting standards

Main connections to the UN SDGs and targets
8.8 Protect labor rights and promote safe working environments
12.4 Responsible management of chemicals and waste
13.3 Knowledge and capacity building to meet climate change mitigation

Referenced reporting standards
GRI 414 – Supplier social assessment 2016
GRI 308 – Supplier environmental assessment 2016

The Group relies on a global network of supply chain partners to innovate, produce and deliver parts, systems or complete solutions for the product and services offered by Volvo Group. A global supply chain can mean a range of environmental and social risks. The ongoing digitalization, automation and electrification in the transport and infrastructure industries also increases use of new and potentially scarce materials as well as reliance on new suppliers and associated risks.

Supply chain due diligence
The basis of the Volvo Group Responsible Purchasing program are our supply chain due diligence activities based on commitment, assessment, reaction and reporting.

Commitment
The Supply Partner Code of Conduct outlines the minimum sustainability requirements, which suppliers shall comply with in the areas of human rights, working conditions, health and safety, responsible sourcing of raw materials, environmental performance and business ethics. It also includes aspirations through which suppliers are encouraged to go beyond the basic requirements to further advance sustainable performance and impact in the areas covered by the Code of Conduct. The Supply Partner Code of Conduct was strengthened and updated in 2021 to align with the Volvo Group's sustainability ambitions in the areas of climate, resources and people. The updated Code of Conduct outlines amongst other the mandatory pathway for all suppliers to establish net-zero greenhouse gas emission supply chains by 2040 at the latest and our suppliers' obligation to demonstrate their accountability towards circularity.

The Volvo Group Human Rights Policy launched during 2021, also outlines the Volvo Group position regarding Human Rights, see more on page 170.

Assessment
The supplier screening and auditing is centrally coordinated by Volvo Group Purchasing and covers primarily tier one suppliers. A risk-based approach is used to prioritize screenings and audits. Prioritization is made by reviewing risks by country or market, commodities, processes or work areas of the suppliers. In addition to this overall risk mapping, environmental, human rights and other social risks can be flagged during any type of supplier audit, training or visit. For this purpose, the Volvo Group carries out most audits and reviews with internal resources with a shared responsibility between procurement staff and specialized auditors, whose tasks it is to ensure that proper actions are taken to resolve identified gaps.

Screenings are done from desktop studies using Volvo Group's internally developed risk tool and external risk heat maps, in combination with supplier self-assessments. Risk assessments are also done based on the usage of certain specifically identified minerals and materials. The Volvo Group has identified a range of minerals and materials with higher sustainability risks as critical, including but not limited to tin, tantalum, tungsten and gold and materials used in our electrification journey such as cobalt, lithium, nickel and graphite. But also materials connected with high CO_2 emissions such as aluminum/bauxite and iron ore/steel. Read more about our Sustainable Minerals Program on next page.

Auditing of suppliers is traditionally carried out at suppliers' locations by Volvo Group specialists. Despite the covid-19 situation with travel restrictions and on-site audits being very challenging to perform, the Group has carried out 45 on-site supplier audits during the year. The Code of Conduct audit procedure is based on a checklist with questions focusing on a wide range of aspects, such as human rights, working conditions, environment and business ethics. The responsibility of improvements and corrective actions always lies with the suppliers themselves, where non-compliance cases are managed by the responsible buyer together with the auditor until resolved. First and foremost, the work focuses on establishing a strong partnership and developing a sustainable supply base. Those who fail to address critical issues risk having their contracts terminated. All Volvo Group Purchasing employees receive regular mandatory trainings on the concept of sustainability and on the content of our Code of Conduct.

In 2021, 97% of the total Volvo Group direct material spend was to suppliers who were self-assessed on environmental and social criteria, 93% with a recorded approved score. In high-risk areas, this percentage was 99%, where 96% have recorded an approved score.

In total, 1,340 sustainability self-assessments were carried out in 2021. The result of the self-assessment is an initial screening used in the supplier selection process. Suppliers with a non-approved score that have been onboarded as business partners have been activated into a corrective action plan process.

In addition, new suppliers of direct material in high-risk countries are subject to due diligence, through screening or audit. Indirect material suppliers are audited when the suppliers are located in a high-risk country and the annual spend exceeds a certain pre-defined financial threshold.

After a long break due to covid-19 restrictions, onsite audits have slowly been resumed in certain countries where travel has been possible, mainly India and China. Live supplier sustainability trainings under the umbrella of Drive Sustainability have also been re-launched in a digital format and during 2021 Volvo Group has invited and onboarded suppliers located in Russia, France, India and Turkey. We have also actively participated and invited suppliers to the Drive Sustainability e-learning, offering a basic introduction to Drive Sustainability and sustainable purchasing. During 2021, a total of 1,100 number of supplier employees completed the e-learning.

Social impacts in the supply chain and actions taken

In 2021, deviations were found within the areas of health and safety, working hours and sustainability communication towards sub-suppliers. In the area of health and safety, the deviations related mainly to hazardous waste disposal. In the area of working hours, the findings were related to excessive working hours and in the area of supplier communication, the deviations were found around inconsistent sub-supplier Codes of Conduct, lack of cascading requirements and information and training to sub-contractors about social, environmental or business ethics requirements. The findings from the audits are communicated back to the suppliers. The suppliers are expected to set up and implement a corrective action plan in a timely manner. Such corrective actions are then monitored by the responsible buyer in cooperation with the auditor and the Responsible Purchasing Team. All have confirmed corrective actions to be taken.

Environmental impacts in the supply chain and actions taken

In 2021, minor deviations related to hazardous waste management were found, these were connected to the deviations above. From an environmental perspective these were seen as minor, but from a health and safety perspective they were considered more significant. All have confirmed corrective actions to be taken.

An important environmental focus in the supply chain focuses on the transition to net-zero greenhouse gas emissions. This includes both components and solutions used in Volvo Group's products but will increasingly also include emission performance at suppliers. During 2021, emission hot spots in the supply chain have been identified based on updated life cycle assessments. We have also identified prioritized suppliers based on greenhouse gas intensity, based on both current as well as expected future technology. This analysis will be used to set up individual and specific decarbonization plans with selected suppliers. These supply chain ambition follows the Volvo Group's overall ambition to enable customers to go fossil free by 2040.

Sustainable Minerals Program

As part of our Supply Chain Due Diligence program, the Volvo Group has a specific focus on a range of selected minerals and materials. The Volvo Group's ambition is to support its suppliers to secure sustainable supply chains of these minerals and the ultimate aim is to secure an environmentally and socially sound supply chain of components and minerals. Conflict minerals and cobalt are part of our Sustainable Minerals Program where we accelerate the supply chain activities even more and go deeper and wider to make risk assessments and drive sustainable corrective actions. Tin, tantalum, tungsten, gold and cobalt are part of our global supply chains and are used in a variety of materials and components. As part of this work, Volvo Group is a member of RMI (Responsible Minerals Initiative, see information to the right). In 2021, 821 tier one companies are selected in the Volvo Group's sustainable minerals program with the aim to create transparency and visibility in the supply chains of conflict minerals and cobalt by using the Conflict Minerals and Cobalt Reporting template of the RMI.

Several of the invited companies already collaborate and all invited will be assessed on the parameters of (a) strength of Human Rights Due Diligence program and (b) association to smelters or refiners of concern in their supply chain. The long-term ambition of the Sustainable Minerals program is to drive full transparency by 2025 where all supply chain partners in scope are to be compliant with our Responsible Purchasing standards and requirements.

Examples of industry collaborations for sustainable supply chains

The Responsible Minerals Initiative (RMI) is a collaborative platform addressing responsible mineral sourcing issues in global supply chains. Volvo Group is working with RMI with the aim to ensure responsible and sustainable sourcing of tin, tantalum, tungsten and gold (sometimes referred to as conflict minerals), as well as cobalt. Through RMI, participants develop and gain access to tools and resources to ensure regulatory compliance and support responsible sourcing of minerals from conflict-affected and high-risk areas.

DRIVE Sustainability is a network of eleven leading automotive companies working towards enhancing sustainability throughout the automotive industry by leveraging a common voice and by engaging with our supply chain partners, stakeholders and related sectors on impactful activities. Volvo Group is active in several working groups within the initiative to leverage a circular and sustainable automotive value chain. During 2021, the Drive Sustainability network was extended to Drive+ where tier 1 suppliers are invited to become members in order to strengthen the dialogue, collaboration and understanding in order to achieve common sustainable supply chains. Drive Sustainability also during 2021 launched the Raw Material Outlook Platform, an open platform helping the automotive industry to manage and remediate sustainability risks of raw materials through value chain mapping and Sustainability/ESG risk identification.

The Global Battery Alliance a public-private collaboration platform under the umbrella of the World Economic Forum. The vision is to create a circular and sustainable battery value chain set on ten guiding principles covering issues from the circular recovery of battery materials, ensuring transparency of greenhouse gas emissions and their progressive reduction, to eliminating child and forced labor.

Business ethics and compliance

Connection to Agenda 2030 and reporting standards

SUSTAINABLE DEVELOPMENT GOALS

Main connections to the UN SDGs and targets
16.5 Substantially reduce corruption and bribery

16 PEACE, JUSTICE AND STRONG INSTITUTIONS

Referenced reporting standards
GRI 205 – Anti-corruption 2016

COMPLIANCE PROGRAMS

Legal compliance forms the basis for everything we do in the Volvo Group. It covers many different areas and is guided by people of expertise and knowledge across the Group, and spans across topics such as emissions regulations, competition and anti-corruption laws, anti-money laundering, export control regulations and data privacy.

Our Code of Conduct states that we compete in a fair manner on the merits of our products and services and not participate in or endorse any corrupt practices. These principles of compliance are implemented through dedicated resources and compliance programs, including policies and guidelines, a comprehensive range of e-learning and tailored face-to-face training, counselling and support, as well as auditing and reviews. In addition, the Volvo Group has implemented Whistleblowing channels that can be used by internal and external parties for all compliance areas.

ANTI-CORRUPTION

The Volvo Group strictly prohibits and condemns all forms of corruption, including bribery. This is not only because it is illegal, but also because of a strong conviction that corruption distorts the market, interferes with free competition, violates laws and undermines social development. Volvo Group employees at all levels are prohibited from participating, or otherwise becoming involved, in any form of corruption, including offering or accepting, directly or indirectly, bribes, excessive gifts or hospitality or facilitation payments. The Volvo Group expects all its business partners to maintain the comparable anti-corruption principles and does not tolerate that they get involved in corruption in any form.

The exposure of the Volvo Group and its employees to corruption risks stems from various risk factors. For instance, the company has a global footprint with business operations in many countries, including countries that are considered to be high-risk from a corruption perspective. The Volvo Group business involves high-value contracts and direct and indirect participation in private and public tender procedures. Further, the company is exposed to third-party compliance risks due to its interactions with a broad range of business partners and other third parties, such as officials or representatives of government bodies or institutions.

The Volvo Group has established a dedicated anti-corruption policy and detailed instructions and guidelines to complement the Volvo Group Code of Conduct. Among other things, these include books and records requirements, a mandatory risk-based anti-corruption due diligence process for new and existing business partners, rules and procedures for facilitation payments, gift and hospitality, third party remuneration, sponsorships and charitable donations. Where deemed necessary we have further documents in adjacent areas such as anti-money laundering and fraud reporting. Group Compliance is responsible for designing and developing the Volvo Group anti-corruption compliance program and monitors the implementation across the Group. A network of compliance officers in the business areas and divisions work closely with Group Compliance to ensure the implementation in their respective areas.

Volvo Group uses a combination of audits, management control systems and internal controls to ensure adherence to the Code of Conduct. Further, the Code of Conduct encourages all employees to speak up and report suspected violations to their managers or other management representatives. Another way to raise a concern is through the Volvo Group Whistle, available on volvogroup.com.

Communication and training about anti-corruption
Volvo Group's top management, Group Compliance and other internal stakeholders regularly communicate the importance of anti-corruption compliance in various forms. Training is a central element of the Volvo Group's compliance programs. Following a risk-based approach, the Volvo Group provided instructor led anti-corruption training to more than 4,300 employees in 2021. Anti-corruption is also addressed in Volvo Group's annual Code of Conduct e-learning completed by more than 37,000 employees.

WHISTLEBLOWER REPORTING

In Volvo Group, we believe that a vivid speak-up culture is a crucial element for the company's success, can help uncover misconduct, and prevent violations of the law. The Volvo Group Whistle, is hosted by a third party and open to anyone within or outside the company to ask a question or report a concern related to the Volvo Group Code of Conduct. In 2021, an updated Whistleblowing and Investigations Policy was published to emphasize Volvo Group's commitment of non-retaliation and whistleblower protection, including confidentiality, right to anonymity, and other key aspects of proper handling of the reported concerns. The policy builds on legal requirements from different jurisdictions, including the European Union Directive 2019/1937 on the protection of persons who report breaches of Union law.

The Whistleblowing and Global Investigations function is an independent unit within Group Compliance. In 2021, Group Compliance received 121 concerns through several available reporting channels. All reports were investigated. We observed an increased activity compared to the previous year. Nine of the reported cases were categorized as suspected corruption or conflict of interest of which one was closed substantiated, with appropriate disciplinary and remediation actions taken.

Whistleblower concerns escalated to Group Compliance

	2021		2020	
Type of concerns reported	No.	%	No.	%
Fair workplace violations	48	40%	39	40%
Offences against company assets	24	20%	27	28%
Business conduct offences	25	21%	10	10%
Offenses endangering the environment or health and safety	13	11%	3	3%
Violations of privacy or private sphere	4	3%	1	1%
Offenses against financial integrity	0	0%	2	2%
Inquiries	7	6%	15	15%
	121	**100%**	**97**	**100%**

TAX POLICY – KEY PRINCIPLES

The Volvo Group has a clear policy on how to manage tax across the organization. The policy is adopted by the Volvo Board of Directors and establishes the following key principles:

The Volvo Group shall comply with the tax laws and regulations in all countries where we operate. Tax compliance is a matter of legal adherence and responsible business behavior. Tax compliance therefore requires consideration of both the wording and the spirit of the law. Where tax laws and regulations are unclear, prudence shall be observed by applying a high standard of professional integrity to maintain the Volvo Group's reputation as a compliant taxpayer contributing to society wherever operations take place.

The Volvo Group strives to comply with domestic and international tax reporting requirements and shall act transparently towards Tax Authorities, by providing them with all relevant information requested to assess the Group's compliance with tax laws and regulations.

The Volvo Group seeks to ensure that taxes are paid where value is created by adhering to applicable transfer pricing rules and guidelines as developed by the OECD and other standard setting and regulatory bodies.

The Volvo Group shall manage its operations in a tax conscious manner, notably by avoiding double taxation, safeguarding its deferred tax assets and applying tax consolidation according to local legislations. The Volvo Group does not engage in aggressive tax planning activities through structures in tax havens or otherwise.

The average corporate tax rate of the Volvo Group for the last five years is 23% (24).

PUBLIC POLICY

The Volvo Group has a continuous dialogue with authorities, regulators and policymakers on issues relevant for us and our customers' business and operations. The dialogue is guided by yearly priorities approved by the Executive Board. The Group is engaged in direct and indirect advocacy related to public policy, mainly in the EU and the US. Associated costs are reported to lobby registers for transparency. In 2021, the total staff cost for lobbying in the EU and the US was approximately SEK 14 M.

The Volvo Group observes neutrality with regard to political parties and their representatives. The Volvo Group Code of Conduct and related policies serve as the foundation for our position on public policy.

The Volvo Group's advocacy efforts, direct or indirect via its memberships in associations are based on the following guiding principles, set by the Executive Board:

1. In line with the Paris Climate Agreement
2. Fair and free trade
3. Level playing field
4. Technology neutrality
5. Global standards
6. Long-term prerequisites
7. Clarity and predictability

Volvo Group is member of several trade associations, providing a possibility to monitor and comment on proposed regulations and policies. During the year, the Group has reviewed its material memberships and their positions on climate change. This is an important element in the work towards net-zero value chain greenhouse gas emissions.

In 2021, 14 organizations were reviewed based on their importance for Volvo Group's business and industry, that they operate in regions or countries where Volvo Group has significant business, and the possibility for Volvo Group to influence the position of the association. Seven of the assessed organizations were considered as aligned with Volvo Group's position and strategy supporting the ambition of the Paris Climate Agreement, seven were found to be partly aligned. Volvo Group will continue to follow up the partly aligned positions striving towards harmonized climate ambitions.

A list of memberships is available on volvogroup.com/lobbying.

Organizational profile and reporting practices

Reporting cycle
The reporting cycle is annual. No significant restatements have been made. The reporting period is January 1, 2021 to December 31, 2021. The date of the most recent report was February 26, 2021.

Name of the organization
The name of the company issuing this report is AB Volvo (publ). The company is the parent company of the Volvo Group.

Activities, brands, products and services
The Volvo Group is one of the world's leading manufacturers of trucks, buses, construction equipment and marine and industrial engines. The Group also provides complete solutions for financing and service. The Volvo Group's brand portfolio consists of Volvo, Volvo Penta, Rokbak, Renault Trucks, Prevost, Nova Bus, Mack and Arquus. We partner in alliances and joint ventures with the SDLG, Eicher, Dongfeng and cellcentric brands.

Location of headquarters and operations
The Volvo Group is headquartered in Gothenburg, Sweden, and has production facilities in 19 countries and sells its products in more than 190 markets. The company was founded in Sweden in 1927 where the Volvo Group still operates a significant part of its operations. Other significant operations are found in the US, Brazil, India, France and China. For more information about major production facilities, please refer to volvogroup.com/asr2021.

Ownership and legal form
AB Volvo (publ) is a publicly held company, and its shares are listed on the stock exchange Nasdaq Stockholm, Sweden.

Scale of the organization
Net sales amounted to SEK 372 billion in 2021. See page 92 for segment reporting. Refer to page 213 for a summary of products delivered.

Supply chain

As one of the world's leading manufacturers of trucks, buses, construction equipment and marine and industrial engines, the Volvo Group is highly reliant on robust global and local supply chains to deliver components, parts and complete services and systems.

In 2021, the Volvo Group bought goods and services for SEK 254 billion.

Significant changes to the organization and its supply chain

In 2021, the Group finalized the divestment of UD Trucks, which had certain impact on financial and environmental reporting, see note 3 on page 81.

Precautionary principle or approach

A precautionary principle is applied. This is exemplified by the life-cycle management approach taken when developing trucks, buses, construction equipment and other vehicles and machinery. Applying life-cycle approach provides insights for decision making on environmental gains and potential trade-offs. This approach is the foundation for the Volvo Group Environmental Policy.

External initiatives

The Volvo Group is a signatory of the UN Global Compact. It further recognizes and supports several international conventions and principles, including the International Bill of Human Rights, the ILO eight fundamental conventions, the UN Guiding Principles on Business and Human Rights and the OECD Guidelines for Multinational Enterprises. In addition, the Group participates in a number of initiatives and collaboration platforms more specifically targeting CO_2 emission reductions, such as:

- **Science Based Targets initiative (SBTi)** – a partnership between CDP, the United Nations Global Compact, World Resources Institute and the WWF. The purpose is to provide technical assistance and expert resources to companies who set science-based targets in line with the latest climate science.
- **Race to Zero** – another part of the United Nations initiatives for climate action. By committing to the Business Ambition for 1.5 °C, the Volvo Group is automatically committed in the Race to Zero.
- **First Movers Coalition** – a cross-industry platform to make purchasing commitments in order to create early markets for critical technologies needed to achieve net-zero by 2050.
- **H2Accelerate** – an industry collaboration focusing on creating the conditions for the mass-market roll-out of hydrogen trucks in Europe.
- **European Clean Hydrogen Alliance** – aims at an ambitious deployment of hydrogen technologies by 2030, bringing together renewable and low-carbon hydrogen production, demand in industry, mobility and other sectors, and hydrogen transmission and distribution. With the alliance, the EU wants to build its global leadership in this domain, to support the EU's commitment to reach carbon neutrality by 2050.
- **Energy Transition Commission** – a global coalition from across the energy landscape committed to achieving net-zero emissions by mid-century.
- **The Global Battery Alliance** – a public-private collaboration platform working to help establish a sustainable battery value chain.
- **Responsible Minerals Initiative** – a broad industry collaborative platform addressing responsible mineral sourcing issues in global supply chains. Develop and provide tools and resources to make sourcing decisions that improve regulatory compliance.

Data collection

Quantitative data for the sustainability disclosures are consolidated in different systems.

Environmental data is reported at site level following the setup of the environmental management system. The data is controlled internally by an environmental coordination network and consolidated at Group level.

Health and safety data is reported at operating unit level and consolidated at Business Area/Truck Division and Group level.

Other employee-related data is reported and quality assured at legal entity level, consolidated and quality assured at a shared service center and controlled and reviewed at Group level.

Compliance-related information is gathered using a case management system from the Code of Conduct help and whistleblower reporting line provided by a third party.

Qualitative data is collected from a range of functions responsible for driving each material sustainability topic.

External assurance

The Volvo Group has secured external assurance of certain parts of its sustainability-related activities. Limited assurance has been done on the topics of Energy and Emissions as reported on pages 158–160 and activities undertaken as part of the Volvo Group's commitment to SBTi as described on page 158–159 and further on volvogroup.com/climate, where the separate assurance letter is also available.

The Group's auditors issue a statutory opinion in accordance with the audit standard RevR 12 as defined on page 203 of the Annual and Sustainability Report under the title The auditor's opinion regarding the statutory sustainability report.

Information on employees and other workers

Total number of employees by employment contract, by gender and region

	Permanent		Temporary		Agency/consultants	Total workforce
	Men	Women	Men	Women		
Europe	38,173	10,355	1,195	721	7,860	58,306
North America	13,383	3,573	184	65	796	18,001
South America	4,839	1,021	723	218	140	6,941
Asia and Pacific	8,687	1,685	413	143	806	11,736
Africa	621	203	23	21	2	870
Group total	**65,703**	**16,837**	**2,538**	**1,168**	**9,604**	**95,850**

Total number of employees by employment type, by gender

	Full time		Part time		Agency/consultants	Total workforce
	Men	Women	Men	Women		
Group total	**67,494**	**17,459**	**747**	**546**	**9,604**	**95,850**

Corporate Governance Report 2021

The Volvo Group appreciates sound corporate governance as a fundamental base in promoting its long-term strategic objectives and in achieving a trusting relation with shareholders and other key stakeholders. High standards when it comes to transparency, reliability and ethical values are guiding principles within the Volvo Group's operations.

The Swedish Corporate Governance Code

AB Volvo's shares are admitted to trading on the stock exchange Nasdaq Stockholm's main market. As a listed company, Volvo applies the Swedish Corporate Governance Code (the Code), which is available at www.corporategovernanceboard.se.

This Corporate Governance Report has been prepared in accordance with the Swedish Annual Accounts Act and the Code, and is separate from the Annual and Sustainability Report. The report has been reviewed by, and includes a report from, Volvo's auditors.

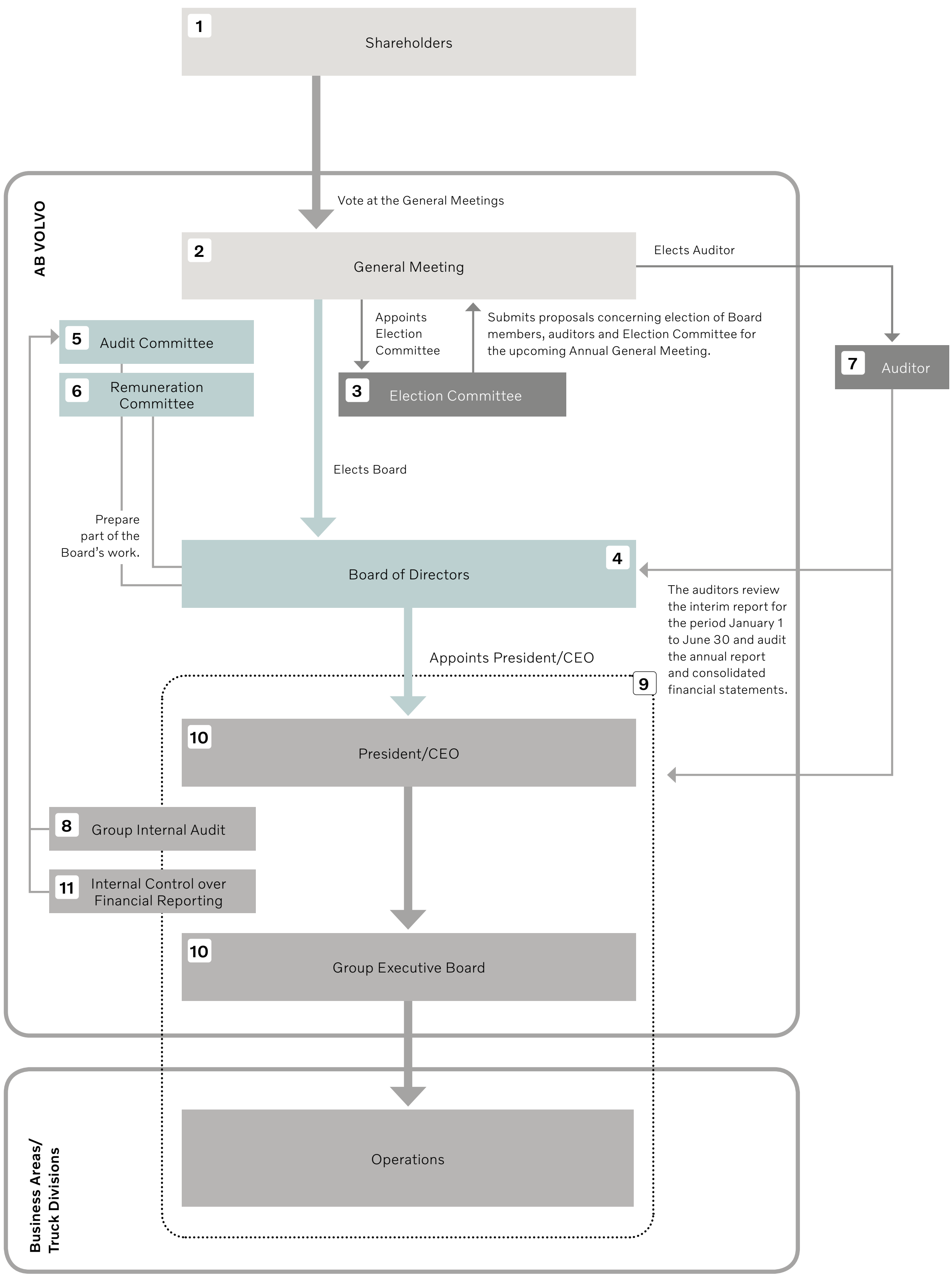
Corporate Governance Model

At the General Meetings of AB Volvo, which is the parent company of the Volvo Group, the shareholders exercise their voting rights with regard to for example the composition of the Board of Directors of AB Volvo and the election of auditors.

An Election Committee, appointed by the Annual General Meeting, submits proposals to the General Meeting concerning the election of Board members and Board Chairman as well as proposals for resolutions concerning remuneration of the Board. When applicable, the Election Committee also submits proposals to the General Meeting for the election of external auditors and for resolutions concerning fees to the auditors.

The Board is ultimately responsible for Volvo's organization and the management of its operations.

In addition, the Board appoints the President and CEO of AB Volvo. The CEO is in charge of the daily management of the Group in accordance with the guidelines provided by the Board.


1 Shareholders
Vote at the General Meetings
AB VOLVO
2 General Meeting
Elects Auditor
Appoints Election Committee
Submits proposals concerning election of Board members, auditors and Election Committee for the upcoming Annual General Meeting.
5 Audit Committee
6 Remuneration Committee
3 Election Committee
7 Auditor
Elects Board
Prepare part of the Board's work.
4 Board of Directors
The auditors review the interim report for the period January 1 to June 30 and audit the annual report and consolidated financial statements.
Appoints President/CEO
9
10 President/CEO
8 Group Internal Audit
11 Internal Control over Financial Reporting
10 Group Executive Board
Business Areas/ Truck Divisions
Operations

1 SHARES AND SHAREHOLDERS

Volvo has issued two classes of shares: series A and series B. At a General Meeting, series A shares carry one vote and series B shares one-tenth of a vote. The two share classes carry equal rights in the assets and earnings of the company. According to a special share conversion clause in the Articles of Association, holders of series A shares are entitled to request that their series A shares be converted to series B shares. Implementation of such conversions, which occurs on a regular basis, entail that the total number of votes in the company decreases.

The share register of AB Volvo is maintained by Euroclear Sweden AB. On December 31, 2021, Volvo had 358,253 shareholders according to the share register. The largest shareholder, in terms of votes on that date was AB Industrivärden, with 27.7 percent of the votes. As per the same date, Geely Holding held 16.0 percent of the votes, AMF Insurance & Funds held 5.4 percent of the votes, Alecta held 4.2 percent of the votes and AFA Insurance held 2.3 percent of the votes.

For more information about the Volvo share and its shareholders, please refer to the Board of Director's Report on pages 68–69 of the Annual and Sustainability Report.

2 GENERAL MEETING

General

The General Meeting is Volvo's highest decision-making body. The Annual General Meeting is held within six months of the end of the financial year, normally in Gothenburg, Sweden.

In addition to what follows from applicable law regarding shareholders' right to participate at General Meetings, under Volvo's Articles of Association shareholders must give notice of their attendance (within the time stated in the convening notice) and, when applicable, notify the company of any intention to bring assistants.

A shareholder who wants the General Meeting to consider a particular matter must submit a request to the Board in sufficient time prior to the General Meeting to the address provided on Volvo's website, www.volvogroup.com.

The Annual General Meeting 2021 was held on March 31, 2021 and an Extraordinary General Meeting was held on June 29, 2021 to resolve on an extraordinary dividend. To reduce the risk of spreading the covid-19 virus and considering the authorities' regulations and advice on avoiding public gatherings, both the Annual General Meeting 2021 and the Extraordinary General Meeting were carried out through postal voting, without any physical attendance, pursuant to temporary legislation. As communicated by the Swedish Corporate Governance Board in March 2020, this is not to be considered a deviation from the Code.

Annual General Meeting 2022

Volvo's Annual General Meeting 2022 will be held on Wednesday, April 6, 2022. For further information about the Annual General Meeting 2022, please refer to the end of the Annual and Sustainability Report and Volvo's website, www.volvogroup.com.

3 ELECTION COMMITTEE

Duties

The Election Committee is elected by the General Meeting. The Election Committee shall perform the tasks that are incumbent upon the Election Committee according to its instructions from the General Meeting and the rules of the Code. The main task is to prepare and present proposals to the Annual General Meeting on behalf of the shareholders for the election of Board members, Chairman of the Board and Board remuneration and, when applicable, proposals for auditors and fees to the auditors.

In addition, the Election Committee presents proposals for members of the Election Committee for the following year, in accordance with prevailing instructions for Volvo's Election Committee.

Composition

In accordance with the current instructions for Volvo's Election Committee (adopted by the Annual General Meeting 2019), the Annual General Meeting shall elect five members to serve on the Election Committee, of whom four shall represent the largest shareholders in the company in terms of votes, who have expressed their willingness to participate in the Election Committee. In addition, one of the members shall be the Chairman of the AB Volvo Board. Volvo's Annual General Meeting 2021 resolved to appoint the following individuals as members of the Election Committee:

- Bengt Kjell (AB Industrivärden)
- Anders Oscarsson (AMF and AMF Funds)
- Ramsay Brufer (Alecta)
- Carine Smith Ihenacho (Norges Bank Investment Management)
- Carl-Henric Svanberg, Chairman of the Board

The Election Committee appointed Bengt Kjell as Chairman of the Election Committee.

4 BOARD OF DIRECTORS

Duties

The Board is ultimately responsible for Volvo's organization and management of the company's operations. The Board is responsible for the Group's long-term development and strategy, for regularly controlling and evaluating the Group's operations and for the other duties set forth in the Swedish Companies Act.

Composition

In 2021, AB Volvo's Board consisted of eleven members elected by the Annual General Meeting and three members and two deputy members appointed by employee organizations.

The Annual General Meeting 2021 re-elected Matti Alahuhta, Eckhard Cordes, Hanne de Mora, Eric Elzvik, Kurt Jofs, Martin Lundstedt, Kathryn V. Marinello, Martina Merz, Helena Stjernholm and Carl-Henric Svanberg as Board members and Martha Finn Brooks was elected as new Board member. The previous Board member James W. Griffith did not stand for re-election. The Annual General Meeting re-elected Carl-Henric Svanberg as Chairman of the Board. A more detailed presentation of each Board member is set out in the "Board of Directors" section on pages 186–187.

Prior to the Annual General Meeting 2021, the Election Committee announced that it had applied the provisions of rule 4.1 of the Code as board diversity policy. The aim is that the Board as a collective should possess the required mix in terms of background and knowledge, whereby an even gender distribution is taken into particular account. The result of the Election Committee's application of the diversity policy is a Board that represents a mix of both professional experience and knowledge as well as geographical and cultural backgrounds. 45 percent (five out of eleven) of the Board members elected by the Annual General Meeting are women.

Independence requirements

The Board of Directors of AB Volvo is subject to the independence requirements prescribed in the Code.

Prior to the Annual General Meeting 2021, the Election Committee presented the following assessment of the independence of Board members elected at the Annual General Meeting 2021.

Carl-Henric Svanberg, Matti Alahuhta, Eckhard Cordes, Hanne de Mora, Eric Elzvik, Martha Finn Brooks, Kurt Jofs, Kathryn V. Marinello and Martina Merz were all considered independent of the company and company management, as well as the company's major shareholders.

Martin Lundstedt, as President of AB Volvo and CEO of the Volvo Group, was considered independent of the company's major shareholders but not of the company and company management.

Helena Stjernholm was considered independent of the company and company management but not in relation to one of the major shareholders, due to her capacity as President and CEO of AB Industrivärden.

Work procedures

Every year, the Board adopts work procedures for the Board's work.

The work procedures outline how the Board's duties should be distributed, including the specific role and duties of the Chairman, instructions for the division of duties between the Board and the President and for the reporting of financial information to the Board. The Board has also adopted specific instructions for the Board's committees, which are linked to the work procedures.

The Board's work in 2021

The Board's work is mainly performed within the framework of formal Board meetings and through meetings in the committees of the Board. In addition, regular contact is maintained between the Chairman of the Board and the CEO in order to discuss ongoing business and to ensure that the Board's decisions are executed.

In 2021, there were ten regular Board meetings, two extraordinary Board meetings and one statutory Board meeting. Due to the covid-19 pandemic, several of the Board meetings during 2021 were held as video conferences. In light thereof, the Board has decided that, from both a sustainability and efficiency perspective, some of the ordinary Board meetings should continue to be held as video conferences also after the pandemic. The attendance of the Board members at the Board meetings in 2021 is presented in the table on page 185. The company's auditor attended one Board meeting during the year.

During 2021, the Board has continued to monitor the measures taken to address the challenges and consequences of the covid-19 pandemic, with continuous focus on the health and safety of Volvo Group colleagues, customers and business partners as well as to maintain a tight cost control and focus on cash flow. The global shortage of semiconductors and other components has been a challenge throughout the year as well as the ramp-up of production to meet the strong demand, both of which have been closely monitored by the Board.

The focus on sustainability has increased further during 2021 and the Volvo Group's sustainability work and objectives are an integrated part of the Volvo Group's business and are regularly reported to the Board by the Volvo Group management. In addition, work is on-going to strengthen the reporting and enable consolidated follow-ups within the area of sustainability. In 2021 the Volvo Group's climate targets were validated by the Science Based Targets initiative (for further information, see pages 158-160) and the Board adopted the Volvo Group Human Rights Policy as well as the Volvo Group Tax Policy.

The speed of transformation of the industry is accelerating and, in light thereof, the Board has devoted most of its time to strategic topics, with particular focus on disruptive technologies related to digitalization, connectivity, automation and electromobility. These technologies play an essential part in the Group's positioning in the transformation of the industry towards climate-neutral and sustainable transportation and infrastructure solutions. During 2021, the Volvo Group has entered into several partnerships with focus on autonomous solutions, electrification and charging infrastructure. These include, among others, partnering with Aurora to jointly develop autonomous transport solutions, the completion of the transaction to form a fuel-cell joint venture with Daimler Truck AG and the signing of a binding agreement with Daimler Truck and the Traton Group to create a joint venture to install and operate a high-performance public charging network for battery electric, heavy-duty long-haul trucks and coaches across Europe. In addition, the strategic alliance with Isuzu became operational in 2021. Furthermore, the Board has taken the decision to invest in a truck plant in China in order to strengthen Volvo Trucks' position in the Chinese market in this period of transformation.

By allocating time to business reviews of the Group's various Truck Divisions and Business Areas the Board remains continuously up to date on the status and development of the Group's transformation work and strategies in relation thereto. Furthermore, the Board has devoted time to talent review and succession planning and on the review and follow-up of the company's quality work. Related to this work, the Board usually makes a yearly visit to the company's operations throughout the world. In October 2021, the Board travelled in Sweden and visited the Volvo Group's truck plant in Tuve (Göteborg) and the Volvo Group's construction equipment operations in Eskilstuna and Braås.

During 2021, the Board decided on an overall financial plan and investment framework for the Group's operations. In addition, the Board regularly monitors the Group's earnings and financial position and maintains continuous focus on risk related issues such as overall risk management and ongoing legal disputes and investigations. Furthermore, the Board regularly reviews the management's short and long-term incentive programs to ensure that they fulfill their purpose and drive the right behaviour in the current business environment.

Finally, during 2021, the Board resolved, in light of the Volvo Group's improved profitability, resilience in downturns and strong financial position and following the sale of UD Trucks, to propose that the proceeds from the sale of UD Trucks was to be distributed to the shareholders as an extraordinary dividend.

Evaluation of the Board's work

In 2022, the Board performed its yearly evaluation of the Board's work during the previous year. The purpose of the evaluation is to further develop the Board's efficiency and working procedures and to determine the main focus of the Board's coming work. In addition, the evaluation serves as a tool for determining the competence required by the Board and for analyzing the competence that already exists in the current Board. By that, the evaluation also serves as input for the Election Committee's work with proposing Board members.

As part of the yearly evaluation, Board members were asked to complete a questionnaire and assess various areas related to the Board's work from their own perspective. The areas evaluated for 2021 included the Board's composition, understanding of key stakeholders, the management and focus of Board meetings, Board support and committees and how the Board addresses issues related to strategy and strategic priorities, sustainability, potential risks, succession planning and people oversight. The areas covered by the evaluation may differ from one year to another to reflect the development of the Board's work and the Volvo Group and for 2021, particular focus was kept on the transformation of the vehicle industry and, in light thereof, strategic topics and priorities for the Volvo Group, mainly relating to sustainability, digital development and new technologies.

Separate evaluations were conducted of the Board as a collective, of the Chairman of the Board, the Audit Committee and the Remuneration Committee. The results of the evaluations of the Board as a collective and of the Chairman will be discussed by the Board. The results of the evaluations of the committees will be discussed by the relevant committee. In addition, the results of the evaluations of the Board as a collective and of the Chairman are shared with the Election Committee.

Remuneration of Board Members

The Annual General Meeting resolves on fees to be paid to the Board members elected by the Annual General Meeting. For information about Board remuneration adopted by the Annual General Meeting 2021, please refer to Note 27 in the Group's notes in the Annual and Sustainability Report. The Board members decided to voluntarily abstain from 20 percent of their Board and Committee remuneration during the time period from the Annual General Meeting 2020 to the Annual General Meeting 2021 as a result of the adverse financial consequences caused by the covid-19 pandemic.

Remuneration of Board members, 2021 (from AGM on March 31, 2021)	SEK
Chairman of the Board	3,700,000
Board member[1]	1,100,000
Chairman of the Audit Committee	390,000
Member of the Audit Committee	180,000
Chairman of the Remuneration Committee	165,000
Member of the Remuneration Committee	118,000

1 With the exception of the CEO.

The Board's committees

5 AUDIT COMMITTEE

Duties

The Board has an Audit Committee primarily for the purpose of supervising the accounting and financial reporting processes and the audit of the annual financial statements.

The Audit Committee's duties include preparing the Board's work to assure the quality of the Group's financial reporting by reviewing interim reports, the Annual and Sustainability Report and the consolidated accounts. The Audit Committee also has the task of reviewing and overseeing the Group's legal and taxation matters as well as compliance with laws and regulations that may have a material impact on financial reporting. Furthermore, the Audit Committee has the task of reviewing and overseeing the impartiality and independence of the company's auditors. The Audit Committee is also responsible for evaluating both internal and external auditors' work and, when applicable, handling the tender process for audit services. In addition, it is the Audit Committee's task to preapprove what other services, beyond auditing, the company may procure from the auditors. The Audit Committee also adopts guidelines for transactions with companies and persons closely associated with Volvo. Further, the Audit Committee evaluates the quality, relevance and effectiveness of the Group's system for internal control over financial reporting, as well as with respect to the internal audit and risk management, and discharge any other duties of an audit committee according to law or its instructions. Finally, the Audit Committee oversees developments within the ESG (Environmental, Social and Governance) standards, and the Group's reporting in these areas.

Composition and work in 2021

At the statutory Board meeting following the Annual General Meeting 2021, the following Board members were appointed members of the Audit Committee:

- Hanne de Mora
- Eric Elzvik
- Helena Stjernholm

Hanne de Mora was appointed Chairperson of the Audit Committee.

The Audit Committee met with the external auditors without the presence of management on two occasions in 2021 in connection with Audit Committee meetings. The Audit Committee regularly met with the Head of Group Internal Audit in connection with Audit Committee meetings.

The Election Committee's assessment of independence of the Audit Committee members prior to the Annual General Meeting 2021 is presented above under the "Independence requirements" section on page 183.

The Audit Committee and the external auditors, among other tasks, discussed the external audit plan and the view of risk management. The Audit Committee held nine regular meetings and one extraordinary meeting during 2021. The attendance of Board members at the committee meetings is presented in the table on page 185. The Audit Committee reports the outcome of its work to all members of the Board on a regular basis and the minutes of the Audit Committee meetings are available for all Board members.

6 REMUNERATION COMMITTEE

Duties

The Board has a Remuneration Committee for the purpose of preparing and deciding on issues relating to the remuneration of senior executives in the Group. The duties of the Committee include making recommendations to the Board on the Board's decisions regarding terms of employment and remuneration of the CEO and the Deputy CEO of AB Volvo, principles for the remuneration, including pensions and severance payments, of other members of the Group Executive Board and principles for variable salary systems, share based incentive programs and for pension and severance payment structures for other senior executives in the Group.

The Remuneration Committee shall also monitor and evaluate ongoing programs and programs concluded during the year for the variable remuneration of senior executives, application of the remuneration policy for remuneration to the Volvo Group Executive Board, and the current remuneration structures and levels in the Group.

The Board shall prepare a remuneration report for each financial year detailing the remuneration that is covered under the remuneration policy. The remuneration report shall include the total remuneration, i.e. both compensation that has been and remains to be paid out, and outline how such remuneration correlates to the remuneration policy. The remuneration report also provides details on the remuneration of AB Volvo's President and CEO and Deputy CEO. The remuneration report shall be submitted to the Annual General Meeting for approval.

Composition and work in 2021

At the statutory Board meeting following the Annual General Meeting 2021, the following Board members were appointed members of the Remuneration Committee:

- Carl-Henric Svanberg
- Matti Alahuhta
- Kurt Jofs
- Mikael Sällström

Carl-Henric Svanberg was appointed Chairman of the Remuneration Committee.

The Election Committee's assessment of the independence of members of the Remuneration Committee in accordance with the requirements in the Code, prior to the Annual General Meeting 2021, is presented under "Independence requirements" on page 183.

The Remuneration Committee held four regular meetings during 2021. The attendance of Board members at committee meetings is presented in the table below. The Remuneration Committee reports the outcome of its work to all members of the Board on a regular basis.

The Board's composition and attendance at meetings January 1, 2021 – December 31, 2021

Member	Board meetings (13 incl. statutory)	Audit Committee (10)	Remuneration Committee (4)
Carl-Henric Svanberg	13		4
Martin Lundstedt	13		
Matti Alahuhta[1]	13		4
Eckhard Cordes[2]	12		
Eric Elzvik	13	10	
Martha Finn Brooks[3]	9		
James W. Griffith[4]	3		1
Kurt Jofs[5]	13		3
Kathryn Marinello[6]	13		
Martina Merz[7]	13		
Hanne de Mora[8]	13	10	
Total number of meetings	**13**	**10**	**4**

Member	Board meetings (13 incl. statutory)	Audit Committee (10)	Remuneration Committee (4)
Helena Stjernholm	13	10	
Lars Ask, employee representative	12		
Mats Henning, employee representative	13		
Mikael Sällström, employee representative[9]	12		4
Camilla Johansson, employee representative	13		
Mari Larsson, employee representative	13		
Total number of meetings	**13**	**10**	**4**

1 Matti Alahuhta partly attended the ordinary Board meeting in February 2021.
2 Eckhard Cordes partly attended the ordinary Board meeting in September 2021.
3 Martha Finn Brooks joined the Board in March 2021 and has since attended all Board meetings during 2021, except for one of the ordinary Board meetings in October 2021 and part of the ordinary Board meeting in December 2021.
4 James W. Griffith resigned from the Board in March 2021.
5 Kurt Jofs was appointed member of the Remuneration Committee in March 2021.
6 Kathryn Marinello partly attended the ordinary Board meetings in June, September and December 2021.
7 Martina Merz partly attended the ordinary Board meetings in February, June and September 2021.
8 Hanne de Mora partly attended the statutory meeting in March 2021 and the extraordinary meeting in November 2021.
9 Mikael Sällström partly attended one of the ordinary Board meetings in October 2021.

Board of Directors

Board members elected by the Annual General Meeting	 **Carl-Henric Svanberg** *Chairman of the Board, Chairman of the Remuneration Committee*	 **Matti Alahuhta** *Member of the Remuneration Committee*	 **Eckhard Cordes**	 **Eric Elzvik** *Member of the Audit Committee*	 **Martha Finn Brooks**
Education	MSc in Applied Physics, Linköping Institute of Technology, BSc Business Administration, University of Uppsala.	MSc, Dr Sc. Doctor of Science, Helsinki University of Technology.	MBA and PhD, University of Hamburg.	MSc Business Administration, Stockholm School of Economics.	BA Economics and Political Science, Yale University. MBA International Business from Yale School of Management, Yale University.
Born	1952	1952	1950	1960	1959
Member of the Volvo Board	Chairman of the Volvo Board since April 4, 2012.	Since April 2, 2014.	Since April 1, 2015.	Since April 5, 2018.	Since March 31, 2021.
Position and Board memberships	Chairman of the European Round Table of Industry (ERT).	Board Chairman: DevCo Partners Oy. Board Member: Kone Corporation.	Partner in Cevian Capital and EMERAM Capital Partners. Board Chairman: Bilfinger SE. Member of the Executive Committee of Eastern European Economic Relations of German Industry.	Board Chairman: Global Connect Group. Board member: Telefonaktiebolaget LM Ericsson, Landis+Gyr Group AG and VFS Global.	Board Member: Jabil, Constellium, CARE USA and CARE Enterprise Inc.
Principal work experience	Has held various positions at Asea Brown Boveri (ABB) and Securitas AB, President and CEO of Assa Abloy AB, President and CEO of Telefonaktiebolaget LM Ericsson, Board Chairman of BP plc, member of External Advisory Board of the Earth Institute at Columbia University and the Advisory Board of Harvard Kennedy School. Previous assignments also include Chairman of the Royal Swedish Academy of Engineering Sciences (IVA).	Has held several management positions in the Nokia Group – President of Nokia Telecommunications, President of Nokia Mobile Phones and Chief Strategy Officer of the Nokia Group, President of Kone Corporation 2005–2014 and 2006–2014 also CEO. Previous Board assignments include Vice Chairman of Metso Outotec and member of the Board in ABB Ltd.	Started within Daimler Benz AG in 1976, where he has held several management positions, such as Head of the trucks and buses business, Head of Group Controlling, Corporate Development and M&A in AEG AG and CEO of Mercedes Car Group. Previously CEO of Metro AG, senior advisor at EQT and Board member of Air Berlin, SKF, Carl Zeiss and Rheinmetall AG. Since 2012 partner in Cevian Capital and EMERAM Capital Partners respectively.	Joined ABB in 1984 and has held several management positions in the Finance function at ABB in Sweden, Singapore and Switzerland – most recently as Group CFO between 2013 and 2017 and previously as CFO for the Divisions Discrete Automation & Motion and Automation Products and a position as Head of M&A and New Ventures and also as Head of Corporate Development. Currently, senior industrial advisor to EQT.	Has held various management positions in Cummins truck and bus businesses from 1986–2002. From 2002–2005 Martha was CEO, Rolled Products and SVP in Alcan Inc. and from 2005–2009 she was the President and COO of Novelis Inc., global leader in aluminum rolled products and recycling. Martha has been a Board Member of Harley-Davidson, International Paper, Bombardier, and privately held Algeco Scotsman.
Holdings in Volvo, own and related parties	2,000,000 Series B shares.	146,100 Series B shares.	None.	7,475 Series B shares.	4,000 American depositary receipts representing Volvo B shares (ADRs).

Board members appointed by the employee organizations

	 **Lars Ask** *Employee representative, ordinary member*	 **Mats Henning** *Employee representative, ordinary member*	 **Mikael Sällström** *Employee representative, ordinary member* *Member of the Remuneration Committee*
Born	1959	1961	1959
Member of the Volvo Board	Ordinary member since April 6, 2016. Deputy member from June 16, 2009–2016.	Since May 9, 2014.	Since September 7, 2009.
Background within Volvo	With Volvo since 1982.	With Volvo since 1982.	With Volvo 1980–1999 and since 2009.
Holdings in Volvo, own and related parties	116 Series B Shares.	293 Series A shares, 655 Series B shares.	293 Series A shares, 155 Series B shares.

					
Kurt Jofs *Member of the Remuneration Committee*	**Martin Lundstedt** *President and CEO*	**Kathryn V. Marinello**	**Martina Merz**	**Hanne de Mora** *Chairperson of the Audit Committee*	**Helena Stjernholm** *Member of the Audit Committee*
MSc, KTH Royal Institute of Technology, Stockholm.	MSc, Chalmers University of Technology.	BA from State University of New York at Albany, MBA & Doctorate from Hofstra University.	BS from University of Cooperative Education, Stuttgart.	BA in Economics from HEC in Lausanne, MBA from IESE in Barcelona.	MSc Business Administration, Stockholm School of Economics.
1958	1967	1956	1963	1960	1970
Since June 18, 2020.	Since April 6, 2016.	Since April 2, 2014.	Since April 1, 2015.	Since April 14, 2010.	Since April 6, 2016.
Board Member: Telefonaktiebolaget LM Ericsson, Feal AB and Arjeplog Hotel Silverhatten AB.	President and CEO of AB Volvo. Board Chairman: Permobil AB. Board Member: The European Automobile Manufacturers' Association (ACEA) and Autoliv Inc. Member of the Royal Swedish Academy of Engineering Sciences (IVA) and the European Round Table of Industry (ERT).	President and CEO of PODS. Board Chairperson: Concentrix. Board Member: Ares Acquisition Corporation.	President and CEO of Thyssenkrupp AG. Board Member: SAF Holland SA.	Board Chairperson: Microcaps AG Board Member: IMD Supervisory Board and Nestlé S.A.	President and CEO of AB Industrivärden. Board Member: AB Industrivärden, Sandvik AB and Telefonaktiebolaget LM Ericsson.
Previous positions include Executive Vice President and responsible for Telefonaktiebolaget LM Ericsson's Networks business 2003–2008, CEO of Segerström & Svensson 1999–2001, CEO of Linjebuss 1996–1999 and various positions within ABB and Telefonaktiebolaget LM Ericsson. Previous Board assignments include Board Chairman of Vesper Holding AB and of Höganäs AB.	President and CEO of Scania 2012–2015. Prior to that, various managerial positions at Scania since 1992. Co-chairman of the UN Secretary - General's High-Level Advisory Group on Sustainable Transport 2015–2016. Previous Board assignments include Board member of Concentric AB.	Several management positions at Citibank, Chemical Bank New York (now JP Morgan Chase), First Bank Systems and First Data Corporation, Division President General Electric Financial Assurance Partnership Marketing and Division President General Electric Fleet Services, President and CEO of Ceridian Corporation and subsequently also Chairman, Board Chairman, President and CEO of Stream Global Services, Inc. Senior Advisor, Ares Management, LLC. Board Member of Nielsen, RealPage, General Motors Co. and MasterCard US. Until 2020 President and CEO of Hertz Global Holdings.	Until January 2015, CEO for Chassis Brakes International. Has, during almost 25 years held various management positions in Robert Bosch GmbH, most recently as Executive Vice President Sales and Marketing in the Chassis System Brakes division combined with responsibility for regions China and Brazil and previously CEO of the subsidiary Bosch Closure Systems, also member of the Board of Management of Brose Fahrzeugteile GmbH & Co.	Credit Analyst Den Norske Creditbank in Luxemburg 1984. Various positions within brand management and controlling within Procter & Gamble 1986-1989, Partner McKinsey & Company, Inc. 1989-2002, one of the founders and owners, also Board Chairperson of the global consulting firm and talent pool a-connect (group) AG from 2002 until May 2021. Previous Board assignments also include Board member of Metso Outotec Oyj.	Between 1998 and 2015, employed by the private equity firm IK Investment Partners (former Industri Kapital) where she held various positions. She was a Partner with responsibility for the Stockholm office. She was also a member of IK's Executive Committee. Prior to that she worked as a consultant for Bain & Company.
41,215 Series B shares.	223,755 Series B shares.	None.	4,500 Series B shares.	18,230 Series B shares.	8,000 Series B shares.

Deputies appointed by the employee organizations

	
Camilla Johansson *Employee representative, deputy member*	**Mari Larsson** *Employee representative, deputy member*
1966	1978
Deputy member since April 6, 2016.	Deputy member since May 22, 2015.
With Volvo since 1997.	With Volvo since 2004.
643 Series A shares, 155 Series B shares.	605 Series A shares, 155 Series B shares.

Secretary to the board


Sofia Frändberg *Secretary to the Board* Master of Laws
1964
Secretary to the Board since April 1, 2013.
Executive Vice President Group Legal & Compliance and General Counsel.
1,738 Series A shares, 59,007 Series B shares.

7 EXTERNAL AUDITING

Volvo's auditors are elected by the Annual General Meeting. The auditors review the interim report for the period January 1 to June 30 and audit the annual financial statements and consolidated accounts. The auditors also review the Corporate Governance Report and confirms whether the Group has presented a Sustainability Report. The auditors report the results of their audit in the Audit Report and in an opinion on the Corporate Governance Report, and provides an opinion on whether the guidelines for remuneration to senior executives have been complied with, which they present to the Annual General Meeting.

The current auditor, Deloitte AB, was elected at the Annual General Meeting 2018 for a period of four years. Jan Nilsson is responsible for the audit of Volvo and is the Auditor-in-Charge.

For information about Volvo's remuneration of the auditors, please refer to Note 28 "Fees to the auditors" in the Group's notes in the Annual and Sustainability Report.

8 GROUP INTERNAL AUDIT

Volvo's internal audit function, Group Internal Audit, provides the Board and the Group Executive Board with an independent, risk based and objective assurance on the effectiveness and the efficiency of the governance, risk management and control systems of the Volvo Group. Group Internal Audit runs from time to time advisory work as well. Group Internal Audit helps the organization to accomplish its objectives by bringing a systematic, disciplined approach to evaluate and to improve the effectiveness of risk management, control and governance processes.

Group Internal Audit performs internal audits in selected focus areas, identified through an independent risk assessment process involving key stakeholders, input from past audits and from the other assurance functions including the external auditors. This audit plan is approved by the Audit Committee. In addition, special assignments requested by management and the Audit Committee are performed. The audits cover, among other things, assessments on the adequacy and effectiveness of the Volvo Group's processes for controlling its activities and managing its risks and evaluation of compliance with policies and directives.

The head of Group Internal Audit reports directly to the CEO, the Group's General Counsel and the Board's Audit Committee.

For additional information on internal control over financial reporting, see pages 194–195.

9 GOVERNANCE PRINCIPLES AND ORGANIZATIONAL STRUCTURE

Volvo's strategy

The Volvo Group's mission is to "Drive prosperity through transport and infrastructure solutions". The Volvo Group has the ambition to drive prosperity socially, environmentally and financially, by striving for transport and infrastructure solutions that are safe, fossil-free and productive. The Volvo Group drive the transformation in its industry to shape the world we want to live in. Based on the updated Group's strategic priorities and Volvo Group 2030 ambitions, each Business Area defines its own operational plans. The long-term plans, such as the Group's industrial and product plans, are also crucial parts of the Group's strategic direction. For more information about the Volvo Group's strategy, please refer to pages 10–17 of the Annual and Sustainability Report.

Governance documents

Another key component of the Group's governance is its policies and directives, such as the Code of Conduct and policies pertaining to investments, financial risks, accounting, financial control and internal audit, which contain Group-wide operating and financial rules for the operations, as well as responsibility and authority structures.

Organizational structure

The Volvo Group is organized into five Group Functions, three Truck Divisions and ten Business Areas. The five Group Functions (Group Finance, Group Legal & Compliance, Group People & Culture, Group Communication and Group Digital & IT) are tasked with supporting the entire organization with expertise within each Group Function area, developing standards through policies, directives and guidelines and providing services and/or products for the entire Group.

The Volvo Group's truck business is supported by the three Truck Divisions: Group Trucks Technology (GTT), Group Trucks Purchasing (GTP) and Group Trucks Operations (GTO).

The business of the Volvo Group is organized in ten Business Areas: Volvo Trucks, Renault Trucks, Mack Trucks, Volvo Construction Equipment, Volvo Buses, Volvo Penta, Volvo Autonomous Solution (VAS), Volvo Financial Services (VFS), ARQUUS and, as of February 2021, the newly established Business Area Volvo Energy. On April 1, 2021 the Volvo Group divested UD Trucks.

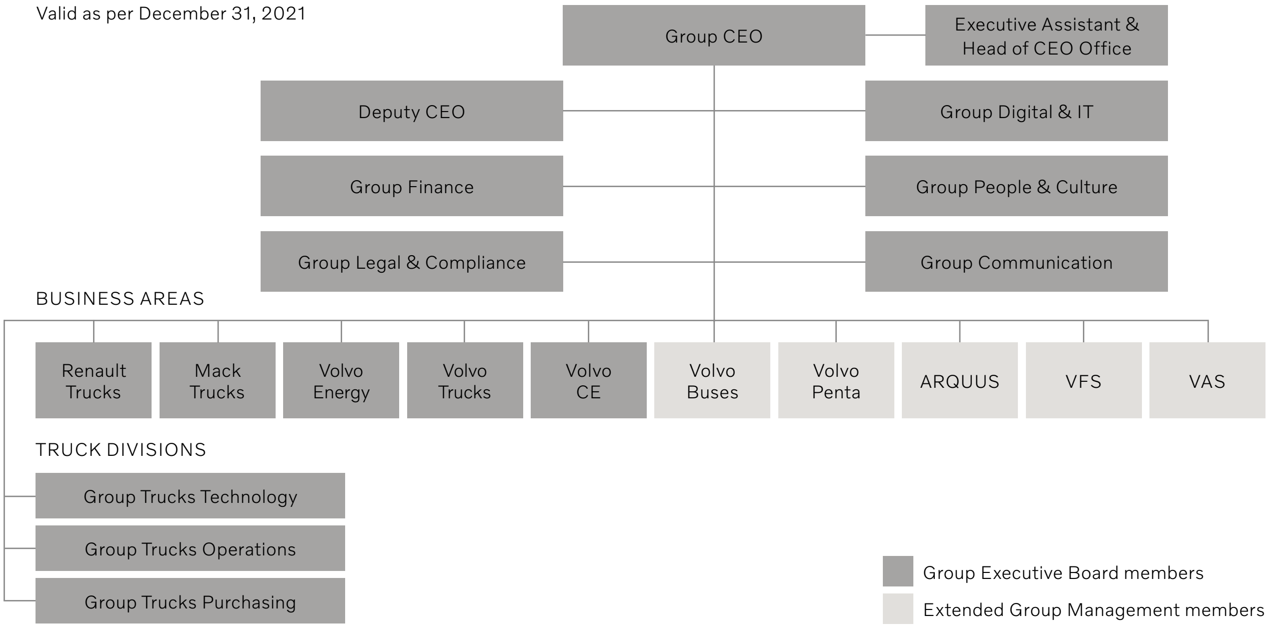
Each Business Area and Truck Division has its own quarterly Business Review Meeting (BRM) to support strategic development and business performance, where key decisions for the respective Truck Divisions or Business Areas are made.

For cross-functional alignment and interaction between different functions and organizations and for taking specific decisions which are sometimes not part of the line organizations ordinary responsibilities, several cross-functional decision forums have been formalized, including: People Board, Digital and IT BRM, Connected Solutions Board, Product Board, Quality Board and Sales & Operations Planning Executive decision meeting.

With this governance model, Volvo can utilize the synergies of having global organizations for product development, purchasing and manufacturing, while maintaining clear leadership and responsibility for each business area to make sure that customer needs are met. The aim of the governance model is that all Business Areas are driven according to the same distinct business principles, whereby each Business Area can follow and optimize its own earnings performance and cash flow generation in the short- and long-term.

Volvo Group organization

Valid as per December 31, 2021



10 GROUP EXECUTIVE BOARD AND GROUP MANAGEMENT

The CEO is responsible for managing the day-to-day operations of the Volvo Group and is authorized to make decisions on matters that do not require AB Volvo Board approval. The CEO leads the operations of the Volvo Group, e.g. through the Group Executive Board, the extended Group Management and the cross-functional forums.

The Group Executive Board is the highest operational decision forum and is chaired by the President and CEO of the Volvo Group, Martin Lundstedt. Furthermore, the members of the Group Executive Board are the Deputy CEO, Executive Vice Presidents of the Group Functions, Executive Vice Presidents and Presidents of Volvo Trucks, Renault Trucks, Mack Trucks, Volvo Construction Equipment and Volvo Energy as well as the Executive Vice Presidents of the Truck Divisions.

The members of Group Management report directly to the CEO and include the Presidents of Volvo Buses, Volvo Penta, Volvo Autonomous Solutions (VAS), Volvo Financial Services (VFS) and ARQUUS respectively. The Group Executive Board and Group Management meet to align on Group matters on a quarterly basis.

Remuneration of the Group Executive Board

AB Volvo's Annual General Meeting shall, at least every fourth year, resolve on a remuneration policy for remuneration to the members of the Group Executive Board, based on a proposal from the Board. For information about the remuneration policy adopted by the Annual General Meeting 2021, please refer to Note 27 "Personnel" in the Group's notes in the Annual and Sustainability Report.

Changes to the Group Executive Board and Group Management

As of February 1, 2021 Anna Westerberg replaced Håkan Agnevall as President of Volvo Buses and joined Group Management. In February 2021 Joachim Rosenberg, member of the Volvo Group Executive Board, was appointed President of the new business area Volvo Energy.

In February 2022 it was announced that Tina Hultkvist has been appointed Chief Financial Officer and new member of the Volvo Group Executive Board as of 15 March 2022. She will hence succeed Jan Ytterberg, who will continue as Volvo Group senior advisor.

Sustainability and climate related matters

Sustainability is of strategic importance to the Group and the accountability to drive sustainability performance primarily lies with the Truck Divisions and Business Areas. The organizational structure described in this Corporate Governance Report applies to all strategic topics within the Volvo Group, including climate and sustainability matters. For sustainability related matters, the Volvo Group relies on an integrated approach to ensure that environmental, social and economic topics are considered in all relevant decision-making. Opportunities and risks related to sustainability are identified in all Truck Divisions and Business Areas, and may relate to e.g. government regulation, technology development, customer satisfaction and physical risks. The principal risks are consolidated in the Volvo Group's enterprise risk management process and managed by the Group Executive Board and the Truck Divisions, Business Areas and Group Functions.

On Group level, the work is coordinated by cross-functional forums and working groups assigned by one or several Group Executive Board members with representatives from the relevant Truck Divisions and Business Areas. These forums and working groups prepare the material for decision-making at Group Executive Board level, to be executed in the respective Truck Divisions, Business Areas and/or Group Functions.

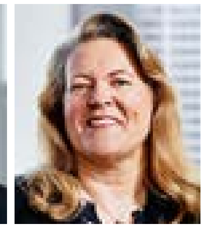
The most relevant cross-functional forums and working groups for sustainability related matters are:

- The Product Board, headed by the Chief Technology Officer, where climate related opportunities and risks are managed primarily as part of the transition towards fossil-free transportation.
- The People Board, headed by the Executive Vice President and Head of People & Culture, which focuses on all significant employee related matters such as training, health and safety, diversity, inclusion and talent management.
- The Environmental Committee, a delegated committee from Group Legal & Compliance where Group Functions, Truck Divisions and Business Areas representatives coordinate environmental management with the mission to secure the effective work of the Volvo Group's Environmental Policy and management system.
- The Human Rights Board, chaired by the Executive Vice President Group Communication and the Senior Vice President, Corporate Responsibility with Group Executive Board members who coordinate the implementation of the Group's Human Rights policy and work.

Group Executive Board






	Martin Lundstedt *President and CEO*	**Jan Gurander** *Deputy CEO*	**Roger Alm** *Executive Vice President Volvo Group and President Volvo Trucks*	**Bruno Blin** *Executive Vice President Volvo Group and President Renault Trucks*	**Sofia Frändberg** *Executive Vice President Group Legal & Compliance and General Counsel*	**Andrea Fuder** *Executive Vice President Volvo Group Trucks Purchasing and Chief Purchasing Officer for Volvo Group*	**Jens Holtinger** *Executive Vice President Group Trucks Operations*
Education	MSc.	MSc.		MBA.	Master of Laws.	MSc and MBA.	MSc in Mechanical Engineering, Chalmers University of Technology.
Born	1967	1961	1962	1963	1964	1967	1970
Principal work experience	President and CEO of AB Volvo and member of the Group Executive Board since October 2015. President and CEO of Scania 2012–2015. Prior to that, various managerial positions at Scania since 1992. Co-chairman of the UN Secretary-General's High-Level Advisory Group on Sustainable Transport 2015–2016. Previous Board assignments include Board member of Concentric AB.	Deputy CEO since 2018. Deputy CEO & CFO 2016–2018. CFO & Executive Vice President Volvo Group 2014–2016. CFO & Senior Vice President Finance Volvo Car Corporation 2011–2013. CFO MAN Diesel & Turbo SE 2010. CFO MAN Diesel SE 2008–2009. Group Vice President and CFO Scania AB 2001–2006. President of Business Unit Finance AB Volvo 1999–2001. Senior Vice President & Finance Director Scania AB 1998–1999. Member of the Group Executive Board since 2014. With Volvo 1999–2001 and since 2014.	Executive Vice President Volvo Group and President Volvo Trucks since 2018. Senior Vice President Volvo Trucks Europe 2016–2018. Senior Vice President Volvo Group Trucks Northern Europe 2015–2016. President Volvo Group Trucks Latin America 2012–2014. President Volvo Trucks Latin America 2010–2011. Managing Director Volvo Trucks, Region East 2004–2009. Member of the Group Executive Board since January 2019. With Volvo since 1989.	After having worked for several companies in the manufacturing, quality and purchasing areas, he joined Renault Trucks Purchasing in 1999. Has held several senior positions over the years until being appointed Senior Vice President of Volvo Group Purchasing. Has also served as Senior Vice President, Group Truck Sales South Europe from January 2013–2016. Executive Vice President Volvo Group and President Renault Trucks since 2016. Member of the Group Executive Board since March 2016. With Volvo since 1999.	Member of the Group Executive Board since April 2013. Head of Corporate Legal at AB Volvo 1998–2013. Corporate Legal Counsel at AB Volvo 1994–1997.	Has worked in Quality and Logistic and held various senior positions at Volkswagen's Purchasing organization since 1992. Head of Purchasing at Scania 2012–2016. Executive Vice President Volvo Group Trucks Purchasing and Chief Purchasing Officer for Volvo Group since 2017. Member of the Group Executive Board since 2017. With Volvo since 2017.	Executive Vice President Group Trucks Operations since 2020. Senior Vice President Europe & Brazil Manufacturing Group Trucks Operations 2016–2020. Vice President Powertrain Production Skövde Plant 2012–2016. Has held several leading positions within the Volvo Group. Member of the Group Executive Board since October 2020. With Volvo since 1995.
Board memberships	Chairman of Permobil AB. Board Member of the European Automobile Manufacturers' Association (ACEA) and Autoliv Inc. Member of the Royal Swedish Academy of Engineering Sciences (IVA) and of the European Round Table of Industry (ERT).	Board Member of Teknikföretagen and Skanska AB.			Secretary to the AB Volvo Board since April 2013. Member of the Advisory Board of cellcentric GmbH & Co. KG.	Member of the Board of the German-Swedish Chamber of Commerce.	
Holdings in Volvo, own and related parties	223,755 Series B shares.	83,306 Series B shares.	398 Series A shares, 26,332 Series B shares.	32,033 Series B shares.	1,738 Series A shares, 59,007 Series B shares.	1,600 Series A shares, 47,623 Series B shares.	16,788 Series B shares.

							
Melker Jernberg *Executive Vice President Volvo Group and President Volvo Construction Equipment*	**Diana Niu** *Executive Vice President Group People & Culture*	**Scott Rafkin** *Executive Vice President and Chief Digital Officer for Volvo Group*	**Joachim Rosenberg** *Executive Vice President Volvo Group and President Volvo Energy*	**Lars Stenqvist** *Executive Vice President Group Trucks Technology and Volvo Group Chief Technology Officer*	**Martin Weissburg** *Executive Vice President Volvo Group and President Mack Trucks*	**Kina Wileke** *Executive Vice President Group Communication*	**Jan Ytterberg** *Executive Vice President Group Finance and CFO*
MSc in Mechanical Engineering.	MBA and BA in Economics.	BBA (Bachelors in Business Administration), University of Massachusetts at Amherst.	MSc Industrial Engineering and Management, MSc Financial Economics, MSc Business and Economics.	MSc Industrial Engineering.	Master of Business Management, BSc Industrial Management.	MA in journalism.	MSc in Business Administration and Economics.
1968	1966	1969	1970	1967	1962	1974	1961
Executive Vice President Volvo Group and President Volvo Construction Equipment since 2018. CEO and President at Höganäs AB 2014–2017. Executive Vice President, Business Area EMEA at SSAB 2011–2014. Has held various positions at Scania AB since 1989, most recently as Senior Vice President Buses and Coaches at Scania AB 2007-2011. Member of the Group Executive Board since January 2018. With Volvo since 2018.	Executive Vice President Group People & Culture since 2019. Joined Volvo Group in February 2005, with SVP HR jobs in two Business Areas, Trucks Asia Pacific and Volvo Construction Equipment. Worked for Telefonaktiebolaget LM Ericsson from July 1993 to January 2005 in a number of leadership positions. Member of the Group Executive Board since January 2019.	Executive Vice President and Chief Digital Officer Volvo Group since 2020. President Volvo Financial Services 2014–2019. Chief Financial Officer Volvo Financial Services 2010–2014. Senior Vice President Global Operations Volvo Financial Services 2003–2009. Senior Vice President Risk Volvo Financial Services 2001–2002. Prior to 2001, held several senior positions with Volvo Car Finance North America. Prior to Volvo, Business Assurance and Capital Markets Manager Coopers & Lybrand LLC. Member of the Group Executive Board since January 2020. With Volvo since 2001.	Executive Vice President Volvo Group and President Volvo Energy since 2021. Executive Vice President Volvo Group and Chairman UD Trucks 2016–2021. Executive Vice President Group Trucks Sales 2015–2016. Executive Vice President Group Trucks Sales & Marketing APAC 2012–2014. President Volvo Group Asia Truck Operations 2007-2011. Vice President Volvo Group Alliance Office 2007. Vice President Volvo Powertrain 2005-2007. Consultant with McKinsey & Company 1996–2004. Member of the Group Executive Board since 2012. With Volvo since 2005.	Executive Vice President Group Trucks Technology and Volvo Group Chief Technology Officer since October 2016. Head of R&D and CTO at Volkswagen Truck & Bus 2015–2016. Senior Vice President Vehicle Definition R&D at Scania 2007–2015. Prior to that various senior positions at Scania since 1992. Member of the Group Executive Board since October 2016. With Volvo since October 2016. Fellow of the Royal Swedish Academy of Engineering Sciences (IVA).	President Mack Trucks since 2018. President Volvo Construction Equipment 2014–2017. President & CEO Volvo Financial Services 2010–2014. President Volvo Financial Services Americas 2005–2010. Prior to Volvo, President Woodard LLC, President Great Dane Financial Services and Senior Vice President ORIX. Member of the Group Executive Board since March 2016. With Volvo since 2005.	Responsible for Group Communications since 2018. With the Volvo Group since 2008, most recently as Senior Vice President Brand, Communication & Marketing Volvo Penta 2016–2017, Senior Vice President External Corporate Communication Volvo Group 2012–2016 and CEO Communication Volvo Group 2008–2012. Has held a number of positions in TV4 Group 1998–2008. Member of the Group Executive Board since 2018.	Executive Vice President Group Finance and CFO since 2018. CFO of Husqvarna Group 2015–2018. Executive Vice President and CFO of Scania Group 2006–2015. Various positions in accounting and finance, Scania Group 1987–2006. Member of the Group Executive Board since November 2018. With Volvo since 2018.
			Member of the Board of Concentric AB since April 2021.			Board Member of International Chamber of Commerce (ICC), Sweden.	
31,120 Series B shares.	54,169 Series B shares.	37,342 Series B shares.	87 Series A shares, 228,536 Series B shares.	32,062 Series B shares.	124,163 Series B shares.	344 Series A shares, 18,761 Series B shares.	18,925 Series B shares.

Extended Group Management team





	Nils Jaeger *President of Volvo Autonomous Solutions*	**Emmanuel Levacher** *President and CEO of ARQUUS*	**Heléne Mellquist** *President of Volvo Penta*	**Marcio Pedroso** *President of Volvo Financial Services*	**Anna Westerberg** *President of Volvo Buses*
Born	1969	1962	1964	1968	1975
Principal work experience	Responsible for Volvo Autonomous Solutions since 2020. With the Volvo Group since 2014, most recently as President of Volvo Financial Services EMEA. Prior to joining Volvo Group, several leading positions within Deere & Company, including the position as Vice President International Finance, Europe, CIS, N&ME EAST, Northern Africa and Global Trade Finance.	During his 30 years in the automobile industry (Renault Trucks, Renault, Volvo), Emmanuel has held multiple operational and strategic functions in contact with markets on the five continents. He has also built a solid experience with French and foreign governments, state authorities and public and diplomatic institutions.	2019–2020 Senior Vice President of Volvo Trucks Europe, 2016–2019 Senior Vice President of Volvo Trucks International and 2012–2016 CEO of TransAtlantic AB. 1988–2011 Heléne has held several leading position within the Volvo Group.	Between 2015 and 2019 President of Volvo Financial Services Americas. President of Brazil and Chile for Volvo Financial Services 2011–2014. Vice President Latin America Markets for Volvo Financial Services 2010–2011. Marcio has held other senior positions and special assignments across Americas and Europe in the Volvo Group, 2001–2010. Prior to 2001, held various leadership positions outside of Volvo in insurance and corporate finance.	President of Volvo Buses since 2021. Senior Vice President, Volvo Group Connected Solutions 2017–2021. Prior that President for Volvo Group Venture Capital 2014–2017 and Vice President, Product Management Industrial, Volvo Penta 2010–2014. With Volvo since 2009.

11 INTERNAL CONTROL OVER FINANCIAL REPORTING

The Board is responsible for the internal controls according to the Swedish Companies Act and the Code. The purpose of this report is to provide share-holders and other interested parties with an understanding of how internal control is organized at Volvo with regard to financial reporting. The description has been designed in accordance with the Swedish Annual Accounts Act and is thus limited to internal control over financial reporting.

Introduction

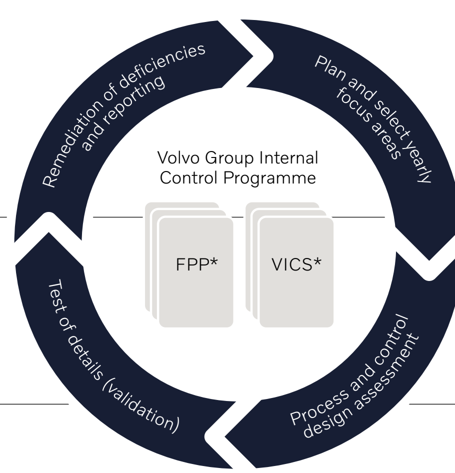
Volvo has a function for internal control with the objective to provide support for management, allowing them to continuously provide solid internal controls relating to financial reporting. Work that is conducted through this function is primarily based to ensure compliance with directives and policies, and to create effective conditions for specific control activities in key processes related to financial reporting. The Audit Committee is regularly informed of the results of the work performed by the Internal Control function within Volvo with regard to risks, control activities and follow-up on the financial reporting.

Volvo also has an internal audit function, Group Internal Audit, which among other things, independently monitors that companies in the Group follow the principles and rules that are stated in the Group's directives, policies and instructions for financial reporting. The head of the Group Internal Audit function reports directly to the CEO, to the Group's General Counsel and the Board's Audit Committee.

Control environment

Fundamental to Volvo's control environment is the business culture that is established within the Group and in which managers and employees operate. Volvo works actively on communication and training regarding

Volvo Group Internal Control Program
Yearly evaluation of the effectiveness of internal control over financial reporting (ICFR) within the Volvo Group.
* FPP – Financial Policies and Procedures;
VICS – Volvo Internal Control Standard



the company's basic values included in the Group's Code of Conduct, to ensure that the business conducted by the organization is characterized by good ethics, integrity and is in compliance with the law.

The foundation of the internal control process relating to the financial reporting is based on the Group's directives, policies and instructions, as well as the organization's responsibility and authority structure. The principles for Volvo's internal controls and directives and policies for the financial reporting are contained in the Volvo Group Management System, a group wide management system comprising, among other things, instructions, rules and principles.

Risk assessment

Risks relating to financial reporting are evaluated and monitored by the Board through the Audit Committee inter alia through identifying risks that could be considered as material, and through the mitigating generic controls. The risk assessment is based on a number of criteria, such as the complexity of the accounting principles, revaluation principles of assets or liabilities, complex and/or changing business circumstances, etc. The risks together with mitigating generic controls are collected in a framework for internal control over financial reporting, Volvo Internal Control Standard (VICS).

Control activities

In addition to the Board and its Audit Committee, the management groups and other decision-making bodies in the Group constitute overall supervisory bodies. Business processes are designed to ensure that potential errors or deviations in the financial reporting are prevented, discovered and corrected by implementing control activities that correspond to the generic controls defined in the VICS framework. Control activities range from review of outcome results against earlier periods and forecasts in management group meetings to specific reconciliation of accounts and analyses of the ongoing processes for financial reporting.

Information and communication

Policies and instructions relating to the financial reporting are updated and communicated on a regular basis from management to all affected employees. The Group's financial reporting function has direct operating responsibility for the daily financial reporting and works to ensure a uniform application of the Group's policies, principles and instructions for the financial reporting and to identify and communicate shortcomings and areas of improvement in the processes for financial reporting.

Follow-up

Ongoing responsibility for follow-up rests with the Group's financial reporting function. In addition, the Group Internal Audit and the Internal Control function conduct review and follow-up activities in accordance with what is described in the introduction of this report. More specifically, the Internal Control function runs and coordinates evaluation activities through the "Volvo Group Internal Control Programme", with the purpose of systematically evaluating the quality of the internal control over financial reporting on an annual basis. An annual evaluation plan is established and presented to the Audit Committee. This evaluation program comprises three main areas:

1. Group-wide controls: Self-assessment procedure carried out by management teams at business area, Group Function and company levels. The main areas evaluated are compliance with the Group's financial directives and policies and the Group's Code of Conduct.
2. Process controls at transaction level: Processes related to the financial reporting are evaluated by testing procedures/controls based on the framework for internal control over financial reporting, Volvo Internal Control Standards (VICS).
3. General IT controls: Processes for maintenance, development and access management of financial applications are evaluated by testing procedures and controls.

The results of the evaluation activities are reported to Group management and the Audit Committee. During 2021, the Internal Control function reported two times to the Audit Committee regarding the annual evaluation plan, status on outstanding issues and final assessment of the control environment.

Göteborg, February 24, 2022

AB Volvo (publ)

AUDITOR'S REPORT ON THE CORPORATE GOVERNANCE STATEMENT

To the general meeting of the shareholders of AB Volvo (publ)
corporate identity number 556012-5790

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 180–195 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, February 24, 2022

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.

Proposed policy for remuneration to senior executives

The Board of Directors proposes that the Annual General Meeting adopts the following policy for remuneration to senior executives. As compared to the current remuneration policy, adopted at the Annual General Meeting 2021, two changes are proposed. First, in order to bring the total remuneration towards a more market competitive level, it is proposed to increase the maximum long-term incentive opportunity level for the President and CEO, from maximum 100 per cent of base salary as of today to maximum 150 per cent of the base salary. To increase the long-term incentive, where the pay-out is 100 per cent invested into Volvo shares subject to a three-year holding period, will also further strengthen the alignment with long-term shareholder interests. Secondly it is proposed to clarify that, in addition to short-term incentives, long-term incentives will be regarded as pensionable salary, if required by law or collective agreement.

The Board of Directors' of AB Volvo (publ) proposal for guidelines for remuneration to the Volvo Group Executive Board (remuneration policy)
These guidelines (AB Volvo's remuneration policy) concern the remuneration and other terms of employment for the members of the Volvo Group Executive Board ("Executives").

The guidelines are forward-looking, i.e. they are applicable to remuneration agreed, and amendments to remuneration already agreed, after the proposed adoption of these guidelines by the 2022 annual general meeting. These guidelines do not apply to any remuneration decided or approved by the general meeting. Any new share-based incentive plans will, where applicable, be resolved by the general meeting, but no such plan is currently proposed.

The guidelines' promotion of the Volvo Group's business strategy, long-term interests and sustainability
It is a prerequisite for the successful implementation of the Volvo Group's business strategy and safeguarding of its long-term interests, including its sustainability, that the Group can recruit, retain and develop senior management. These guidelines enable AB Volvo to offer Executives a competitive total remuneration. More information regarding the Volvo Group's business strategy is available in the Volvo Group Annual and Sustainability Report.

Types of remuneration
Volvo Group remuneration to Executives shall consist of the following components: base salary, short-term and long-term variable incentives, pension benefits and other benefits.

Short-term incentives may, for the President and CEO, amount to a maximum of 100 per cent of the base salary and, for other Executives, a maximum of 80 per cent of the base salary.

Long-term incentives may, for the President and CEO, amount to a maximum of 150 per cent of the base salary and, for other Executives, a maximum of 80 per cent of the base salary. The current long-term incentive plan for the Group's senior management, including the Executives, was introduced in connection with the 2016 annual general meeting. The objective of the program is to drive long-term value creation and align the interests of the senior management with those of shareholders. To achieve this, the program operates on a four-year cycle: with a performance based annual award, which is invested in Volvo shares with a mandatory lock-in period of three years. There will be no payout under the long-term incentive program if the Annual General Meeting that is held in the year following the performance year, decides not to distribute any dividends to the shareholders. The program is funded on an annual basis by an award, measured against performance criteria established by the Board of Directors. The after-tax portion of this payment must be immediately invested in AB Volvo shares which must be held for a minimum of three years. In this way, the Executives will build up a shareholding in the company and have a vested interest over the longer-term development in the value of the shares. At the end of the three-year period, the Executives may sell their shares, if they meet the requirement for owning shares valued at two years of the pre-tax base salary for the President and CEO and one year of the pre-tax base salary for the other Executives. The holding requirements for the Executives shall cease upon termination of an Executive's employment, and the Board of Directors may grant such other exceptions to the requirements as the Board deems appropriate.

Further cash remuneration may be awarded in extraordinary circumstances, provided that such extraordinary arrangements are limited in time and only made on an individual basis, either for the purpose of recruiting or retaining Executives, or as remuneration for extraordinary performance beyond the individual's ordinary tasks. Such remuneration may not exceed an amount corresponding to 100 per cent of the annual base salary. Any resolution on such remuneration shall be made by the Board of Directors based on a proposal from the Remuneration Committee.

For the President and CEO, pension benefits shall be granted on the basis of a defined contribution plan. The pensionable salary shall include base salary only. The pension contributions for the President and CEO attributable to the annual base salary shall amount to not more than 35 per cent of the base salary.

Other benefits may include, for example, life insurance, medical and health insurance, and company cars. Premiums and other costs relating to such benefits may amount to not more than 3 per cent of the annual base salary for the President and CEO.

For other Executives, pension benefits shall be granted on the basis of a defined contribution plan except where law or collective agreement require a defined benefit pension. The pensionable salary shall include base salary and, where required by law or collective agreement, incentives. The total pension contributions for other Executives shall amount to not more than 35 per cent of base salary, unless a higher percentage results from the application of law or collective agreement.

Other benefits may include, for example, life insurance, medical and health insurance, and company cars. Premiums and other costs relating to such benefits may amount to not more than 10 per cent of the annual base salary for other Executives.

Remuneration for Executives that reside outside Sweden or reside in Sweden but having a material connection to or having been residing in a country other than Sweden may be duly adjusted to comply with mandatory rules or local practice, taking into account, to the extent possible, the overall purpose of these guidelines.

In addition to remuneration set out above, Executives who relocate for the purposes of the position or who work in other multiple countries may also receive such remuneration and benefits as are reasonable to reflect the special circumstances associated with such arrangements, taking into account the overall purpose of these guidelines and alignment with the general policies and practices within the Volvo Group applicable to cross border work.

Termination of employment

Upon termination of an Executive's employment, the notice period may not exceed twelve months. Base salary during the notice period and severance pay may not together exceed an amount corresponding to the base salary for two years.

Executives that reside outside Sweden or reside in Sweden but having a material connection to or having been residing in a country other than Sweden may be offered notice periods for termination and severance payment as are reasonable to reflect the special circumstances, taking into account the overall purpose of these guidelines and alignment with the general policies and practices within the Volvo Group.

Criteria for awarding variable cash remuneration, etc.

Short-term and long-term incentives shall be linked to predetermined and measurable criteria. The criteria – which for example may relate to EBIT, cash flow, return on capital employed or similar ratios, or sustainability targets – shall be devised to promote the Volvo Group's strategy and long-term value creation and strengthen the link between achieved performance targets and reward. The criteria for short-term and long-term incentives shall be determined by the Board of Directors annually. The satisfaction of the criteria shall be measured over periods of one year each.

To which extent the criteria for awarding variable remuneration has been satisfied shall be determined when the relevant measurement period has ended. The Board of Directors is responsible for the determination of variable remuneration to all Executives.

Claw-back and adjustments

Executives participating in the Volvo Group's current short-term and long-term incentive plans are obligated, in certain circumstances and for specified periods of time, to repay, partially or in its entirety, variable incentive awards already paid if payments have been made by mistake or been based on intentionally falsified data or in the event of material restatement of the Volvo Group's financial results. Furthermore, the Board of Directors may decide on adjustments of pay-out under the incentive plans (before payment has been made) in case of extraordinary circumstances or to adjust for unforeseen one-timers.

Salary and employment conditions for employees

In the preparation of the Board of Directors' proposal for these remuneration guidelines, the Board has considered that the various benefits offered to the Executives need to be aligned with the general structures applicable for employees of AB Volvo at levels that are competitive in the market. Thus, salary and employment conditions for other AB Volvo employees have been taken into account by including information thereon in the Remuneration Committee's and the Board of Directors' basis of decision when evaluating whether the guidelines and the limitations set out herein are appropriate.

The decision-making process to determine, review and implement the guidelines

The Board of Directors has established a Remuneration Committee. The Committee's tasks include preparing the Board of Directors' decision to propose guidelines for executive 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 Remuneration Committee shall also monitor and evaluate plans for variable remuneration for Executives, the application of the guidelines for executive remuneration as well as the current remuneration structures and compensation levels in the Group. The members of the Remuneration Committee are independent of AB Volvo and its executive management. The President and CEO and other members of the executive management do not participate in the Board of Directors' processing of and resolutions regarding remuneration-related matters in so far as they are affected by such matters.

Derogation from the guidelines

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

Description of changes to the guidelines, etc

In order to bring the total remuneration towards more market competitive level, it is proposed to increase the maximum long-term incentive opportunity level for the President and CEO, from maximum 100% of base salary as of today to maximum 150% of the base salary. In addition, increasing the long-term incentive where the pay-out is 100% invested into Volvo shares subject to a three-year holding period will further strengthen the alignment with long-term shareholder interests.

The only further changes proposed to the Remuneration Policy are editorial changes as well as a clarification on pensionable salary in relation to incentives.

During 2021, the company has carefully considered feedback received from shareholders and proxy advisors in connection with the Annual General Meeting 2021 and otherwise during the year. For further information, please refer to the section Looking ahead to 2022 in the Remuneration Report 2021.

Additional information regarding executive remuneration in the Volvo Group is available in the Volvo Group Annual and Sustainability Report.

Proposed disposition of unappropriated earnings

AB Volvo	SEK
Retained earnings	4,979,927,622.05
Income for the period 2021	56,330,828,043.03
Total retained earnings	**61,310,755,665.08**

The Board of Directors proposes that the above sum be disposed of as follows:

	SEK
To the shareholders, an ordinary dividend of SEK 6.50 per share and an extraordinary dividend of SEK 6.50, for a total of	26,434,877,092.00
To be carried forward	34,875,878,573.08
Total	**61,310,755,665.08**

The record date for determining who is entitled to receive dividends is proposed to be Friday April 8, 2022.

In view of the Board of Directors' proposal to the Annual General Meeting to be held April 6, 2022 to decide on the distribution of an ordinary dividend of SEK 6.50 per share and an extraordinary dividend of SEK 6.50 per share, the Board of Directors hereby makes the following statement in accordance with Chapter 18, Section 4 of the Swedish Companies Act.

The Board of Directors concludes that the Company's restricted equity is fully covered after the proposed dividend. The Board of Directors further concludes that the proposed dividend is justifiable in view of the parameters set out in Chapter 17, Section 3, second and third paragraphs of the Swedish Companies Act. In connection herewith, the Board of Directors wishes to point out the following:

The proposed dividend reduces the Company's solvency from 52.7% to 41.2% and the Group's solvency from 27.9% to 24.0%, calculated as per year end 2021. The Board of Directors considers this solvency to be satisfactory with regard to the business in which the Group is active.

According to the Board of Directors' opinion, the proposed dividend will not affect the Company's or the Group's ability to fulfill their payment obligations and the Company and the Group are well prepared to handle both changes in the liquidity and unexpected events.

The Board of Directors is of the opinion that the Company and the Group have capacity to assume future business risks as well as to bear contingent losses. The proposed dividend is not expected to adversely affect the Company's and the Group's ability to make further commercially justified investments in accordance with the Board of Directors' plans.

In addition to what has been stated above, the Board of Directors has considered other known circumstances which may be of importance for the Company's and the Group's financial position. In doing so, no circumstance has appeared that does not justify the proposed dividend.

If the Annual General Meeting resolves in accordance with the Board of Directors' proposal, SEK 34,875,878,573.08 will remain of the Company's non-restricted equity, calculated as per year end 2021.

The Board of Directors has the view that the Company's and the Group's shareholders' equity will, after the proposed dividend, be sufficient in relation to the nature, scope and risks of the business.

The Board of Directors and the President certify that the annual financial report has been prepared in accordance with generally accepted accounting principles and that the consolidated accounts have been prepared in accordance with the international set of accounting standards referred to in Regulation (EC) No 1606/2002 of the European Parliament and of the Council of 19 July 2002 on the application of international accounting standards, and give a true and fair view of the position and profit or loss of the Company and the Group, and that the management report for the Company and for the Group gives a fair review of the development and performance of the business, position and profit or loss of the Company and the Group, and describes the principal risks and uncertainties that the Company and the companies in the Group face.

Göteborg, February 24, 2022

Carl-Henric Svanberg
Board Chairman

Matti Alahuhta
Board member

Eckhard Cordes
Board member

Eric Elzvik
Board member

Martha Finn Brooks
Board member

Kurt Jofs
Board member

Martin Lundstedt
President, CEO and Board member

Kathryn V. Marinello
Board member

Martina Merz
Board member

Hanne de Mora
Board member

Helena Stjernholm
Board member

Lars Ask
Board member

Mats Henning
Board member

Mikael Sällström
Board member

Our audit report was issued on February 24, 2022

Deloitte AB

Jan Nilsson
Authorized Public Accountant

Audit report for AB Volvo (publ)

To the general meeting of the shareholders of AB Volvo (publ) corporate identity number 556012-5790

REPORT ON THE ANNUAL ACCOUNTS AND CONSOLIDATED ACCOUNTS

Opinions

We have audited the annual accounts and consolidated accounts of AB Volvo (publ) for the financial year 2021-01-01–2021-12-31. The annual accounts and consolidated accounts of the company are included on pages 44–151, 196–198 and 204–206 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.

Allowance for Expected Credit Losses for Customer-Financing and Accounts Receivables

Risk description

Volvo Group applies a simplified expected credit loss model for customer-financing, as well as accounts receivables, under which the loss allowance is measured at an amount equal to lifetime expected credit losses. The allowance is recorded at initial recognition and is reassessed during the contract period. The accounting principles for expected credit losses and management's significant judgments applied in relation thereto are further described in Note 15 "Customer-Financing Receivables" and Note 16 "Receivables" to the annual report.

The determination of the allowance for expected credit losses for receivables require management to make significant qualitative judgments, including assumptions regarding current and forecasted market conditions and individual assessment of the largest customers and business segments. The ongoing covid-19 pandemic, in combination with macroeconomic factors, has resulted in increased market volatility and increased uncertainties in certain geographies. Further, there is a high degree of uncertainty and subjectivity in determining the severity and duration of the pandemic and its impact on the Volvo Group's customers and business segments. Changing market conditions in certain geographical markets increases the complexities in managements qualitative judgments and estimates. As such, historical credit loss information used within the expected credit loss model to forecast future credit losses may not adequately reflect the current and future economic environment.

Our Audit Approach

Our audit procedures included, but were not limited to:

- Evaluating the design and implementation of relevant internal controls implemented within the allowance for expected credit loss process.
- Assessing the reasonableness of the expected credit loss model and methodology used including reviewing management's written policies, procedures, and accounting position papers around the model.
- Performing audit procedures to test the completeness and accuracy of the underlying data and information used in management's expected credit loss model and management overlays.
- Independently reperforming the calculations within the model to ensure the output is accurate and carried out retrospective review to assess the reliability of model's historical ability to estimate future credit losses.
- Assessing and challenging the reasonableness of management's significant assumptions in relation to severity of default at portfolio level as well as at customer-by-customer level by evaluating the financial position of the customer in certain cases, frequency of default and management overlays, including inspection of documentation supporting key assumptions and considerations taken by management.
- For customer financing receivables, our procedures included involving our financial service industry valuation experts, where relevant, with specific knowledge and expertise who assisted in evaluating the reasonableness of the methodology and models used.

Provisions for losses from claims from customers and other third parties – EC Antitrust Settlement

Risk description

In July 2016, the European Commission and Volvo Group reached a settlement with regards to antitrust allegations made by the European Commission against Volvo Group and other companies in the truck manufacturing industry. Following the adoption of the European Commission's settlement decision, the Company has received and may continue to receive a significant number of third-party damage claims from customers and other third parties alleging that they suffered loss, directly or indirectly, by reason of the conduct covered in the decision.

The accounting principles for legal disputes is further described in Note 21 "Other Provisions" and Note 24 "Contingent Liabilities" to the annual report. The recognition and measurement of any provisions recorded or quantification of contingent liabilities to be disclosed for such legal disputes is complicated, requires expert legal input, and involves consideration of potential future outcomes of the claims which at this stage are uncertain. Due to these complexities, the valuation of any such provisions or contingent liabilities is significantly impacted by management's ultimate judgments and best estimates. On December 31, 2021, the Company has not been able to make a reliable estimate of the amount of any provision or contingent liability that could arise from these claims.

Our Audit Approach

Our audit procedures included, but were not limited to:

- Holding discussions with management and audit the relevant documentation and conclude how management and the board assessed the claims.
- Holding discussions with internal legal department and with Volvo Group's external legal advisors in order to obtain an understanding of matters relevant to the claims.
- Reviewing internal minutes and relevant assessments prepared for management and Board to corroborate the consistency of information received.
- Assessing the appropriateness of the Company's final accounting conclusions.
- Assessing the adequacy of the disclosures around the legal proceedings.

Impairment risk for vehicles sold with residual value commitment

Risk description

When the sale of the vehicle is combined with a residual value commitment and it is concluded that control with respect to the vehicle sold has not been transferred, the sales transaction is recognized as an operating lease transaction and an asset is recognised in the balance sheet. These assets carry a risk that the ultimate disposal of the used vehicles could lead to a loss if the price development of these vehicles is worse than what was expected when the contracts were entered. The assessment of the risk is based on the estimation of the used vehicle's future fair market value. The accounting principles for vehicles sold with residual value commitment and management's significant judgments applied in relation thereto are further described in Note 13 "Tangible Assets" to the annual report.

Fair market values are dependent on the situation in the used vehicle markets prevailing when the vehicles are expected to be returned. The future-oriented valuation is based on several assumptions and involves high degree of estimation for example on conditions of the vehicles returned and expected repair costs, future price developments due to change of market conditions and distribution channels used for ultimate disposal of the vehicles. Due to the ongoing covid-19 pandemic and other market developments, for example shortage of new trucks in the market, during 2021 the prices of used trucks are volatile. Consequently, there is a high degree of uncertainty and subjectivity in determining the Fair Market Value of the trucks sold under residual value commitments.

Our Audit Approach

Our audit procedures included, but were not limited to:

- Evaluating the design and implementation of relevant internal controls implemented within the determination of fair market value process.
- Assessing the reasonableness of the methodology used in determination of fair market value including reviewing management's written policies, procedures, and accounting position papers.
- Performing audit procedures to test the completeness and accuracy of the underlying data and information used by management in determining the fair market value.
- Assessing and challenging the reasonableness of management's significant assumptions in relation to fair market values of used vehicles based on current market trends and future market developments, expected repair costs and distribution channels. Management's assessment was evaluated based on enquiries and inspection of documentation supporting key assumptions and considerations taken by management.

Other information than the annual accounts and consolidated accounts

The Board of Directors and the President are responsible for other information. The other information includes the Remuneration report, and the pages 1–43, 152–195, 199–203 and 207–215 in this document which does not include the annual accounts and consolidated accounts or our Auditors report.

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 President

The Board of Directors and the President 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 President 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 President 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 President 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 President of AB Volvo (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 President 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 President

The Board of Directors and President are 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 President 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 President 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/revisornsansvar. 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 President 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 AB Volvo (publ) 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 #[0deced797c812367a9b1322b78f3304c656a4d9ec1e2f8ed51a4501d9941c118] 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 AB Volvo (publ) 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 President

The Board of Directors and the President 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 President 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 President, 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 President.

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 includes 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 AB Volvo by the general meeting of the shareholders on April 5, 2018 and has been the company's auditor since April 5, 2018.

Göteborg, February 24, 2022

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.

AUDITOR'S REPORT ON THE STATUTORY SUSTAINABILITY REPORT

To the general meeting of the shareholders of AB Volvo (publ)
corporate identity number 556012-5790

Engagement and responsibility
It is the board of directors and Managing Director who are responsible for the statutory sustainability report for the financial year 2021-01-01–2021-12-31 as set out on page 44 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 RevR 12 *The auditor's opinion regarding the statutory sustainability report*. This means that our examination of the statutory sustainability report is substantially different and 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 opinion.

Opinion
A statutory sustainability report has been prepared.

Göteborg, February 24, 2022

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.

Key Ratios

The Volvo Group uses key ratios with the aim to provide valuable information to management, investors and analysts when analyzing trends and financial performance of the Group. The key ratios are not defined by IFRS, unless otherwise is stated, and may differ from similar measures used by other companies and are therefore not always comparable. The measures should be considered as a complement to, and not a substitute for, the financial information presented in compliance with IFRS. Definitions and reconciliations of significant key ratios are presented in the annual report. If the reconciliation is not directly reflected in the financial statements, a separate reconciliation is presented below.

Basic earnings per share (defined by IFRS)
Definition: Income for the period attributable to shareholders of AB Volvo divided by the weighted average number of shares outstanding during the period. For reconciliation see *note 19 Equity and number of shares.*

Cash flow
Definition: The combined changes in the Group's cash and cash equivalents during the fiscal year. Changes in cash and cash equivalents are specified with reference to changes in operating activities, changes in investing activities, which add up to operating cash flow, as well as changes in net investments and financing activities. For reconciliation see *Consolidated cash flow statements*.

Diluted earnings per share (defined by IFRS)
Definition: Income for the period attributable to the shareholders of AB Volvo divided by the average number of shares outstanding plus the average number of shares that would be issued as an effect of ongoing share-based incentive programs and employee stock option programs. For reconciliation see *note 19 Equity and number of shares*.

EBITDA and EBITDA margin
Definition: EBITDA is the operating income before depreciation and amortization of tangible and intangible assets. The key figure EBITDA margin is calculated as operating income adjusted with depreciation and amortization, in relation to net sales.

	Industrial Operations	
SEK M	**2021**	2020
Net sales	361,062	326,472
Operating income	39,783	25,919
Amortization product and software development	2,622	2,733
Amortization other intangible assets	135	334
Depreciation tangible assets	11,540	12,861
Total depreciation and amortization	14,297	15,928
Operating income before depreciation and amortization (EBITDA)	**54,080**	**41,847**
EBITDA margin, %	**15.0**	**12.8**

Equity ratio
Definition: Total equity divided by total assets.

	Industrial Operations		Volvo Group	
SEK M	**2021**	2020	**2021**	2020
Total equity	129,619	135,127	144,118	148,142
Total assets	371,022	377,579	515,856	510,821
Equity ratio, %	**34.9**	**35.8**	**27.9**	**29.0**

Gross margin
Definition: Gross income divided by net sales.

	Industrial Operations		Volvo Group	
SEK M	**2021**	2020	**2021**	2020
Net sales	361,062	326,472	372,216	338,446
Gross income	84,013	73,539	89,753	79,127
Gross margin, %	**23.3**	**22.5**	**24.1**	**23.4**

Interest coverage
Definition: Operating income plus interest income and similar credits divided by interest expense and similar charges.

	Industrial Operations	
SEK M	**2021**	2020
Operating income	39,783	25,919
Interest income and similar credits	362	372
Operating income and interest income and similar credits	40,145	26,291
Interest expenses and similar charges	–1,172	–1,422
Interest coverage, times	**34.3**	**18.5**

Net capitalization of research and development cost
Definition: Capitalized research and development cost reduced by amortizations.

	Volvo Group	
SEK M	**2021**	2020
Capitalization	3,031	2,163
Amortization	–2,479	–2,548
Net capitalization of research and development cost	**552**	**–385**

Net financial position
Definition: Cash and cash equivalents, marketable securities and interest-bearing receivables reduced by interest-bearing liabilities, lease liabilities and provisions for post-employment benefits. For reconciliation see table *Net financial position*, which is presented after the balance sheet for the Volvo Group. Net financial position is also presented excluding provisions for post-employment benefits and lease liabilities, net.

Operating income, operating margin, adjusted operating income and adjusted operating margin

Definition operating income: Operating income is profit before interest and tax, also known as EBIT (Earnings before interest and tax) and is a measure of profit from the ordinary business operations. For reconciliation see the *Income statements Volvo Group.*

Definition operating margin: Operating income divided by net sales. Definition adjusted operating income: Adjusted operating income is profit before interest and tax as well as significant expenses or income of a one-time character.

Definition adjusted operating margin: Adjusted operating income divided by net sales.

2021 SEK M	Quarter	Trucks	Construction Equipment	Buses[1]	Volvo Penta	Group functions & Other incl. elim[1]	Industrial operations	Financial Services	Eliminations	Volvo Group
Net sales		**230,881**	**92,031**	**13,652**	**14,437**	**10,061**	**361,062**	**13,437**	**–2,283**	**372,216**
Operating income		**27,349**	**12,228**	**78**	**2,092**	**–1,964**	**39,783**	**3,289**	**2**	**43,074**
Depreciation of Assets held for sale	1	–	–	–	–	246	246	–	–	246
Divestment of UD Trucks	2	1,653	–	–	–	–	1,653	–	–	1,653
Restructuring charges related to headcount reductions	4	128	0	20	0	2	150	9	0	159
	Year	1,781	0	20	0	248	2,049	9	0	2,059
Adjusted operating income		**25,567**	**12,228**	**59**	**2,092**	**–2,212**	**37,733**	**3,279**	**2**	**41,015**
Operating margin, %		**11.8**	**13.3**	**0.6**	**14.5**	**–**	**11.0**	**–**	**–**	**11.6**
Adjusted operating margin, %		**11.1**	**13.3**	**0.4**	**14.5**	**–**	**10.5**	**–**	**–**	**11.0**

2020 SEK M	Quarter	Trucks	Construction Equipment	Buses[1]	Volvo Penta	Group functions & Other incl. elim[1]	Industrial operations	Financial Services	Eliminations	Volvo Group
Net sales		**208,262**	**81,453**	**14,712**	**11,891**	**10,154**	**326,472**	**13,960**	**–1,987**	**338,446**
Operating income		**15,764**	**9,583**	**–529**	**1,402**	**–303**	**25,919**	**1,564**	**2**	**27,484**
Depreciation of Assets held for sale	1	–	–	–	–	234	234	–	–	234
Depreciation of Assets held for sale	2	–	–	–	–	315	315	–	–	315
Depreciation of Assets held for sale	3	–	–	–	–	291	291	–	–	291
Depreciation of Assets held for sale	4	–	–	–	–	287	287	–	–	287
Restructuring charges related to headcount reductions	2	–2,335	–615	–85	–50	–70	–3,155	–45	–	–3,200
Restructuring charges related to headcount reductions	3	28	–12	–8	–8	–	0	–	–	0
Restructuring charges related to headcount reductions	4	821	140	16	12	1	990	2	–	992
	Year	–1,486	–488	–77	–46	1,059	–1,037	–43	–	–1,081
Adjusted operating income		**17,251**	**10,071**	**–452**	**1,448**	**–1,363**	**26,955**	**1,606**	**2**	**28,564**
Operating margin, %		**7.6**	**11.8**	**–3.6**	**11.8**	**–**	**7.9**	**–**	**–**	**8.1**
Adjusted operating margin, %		**8.3**	**12.4**	**–3.1**	**12.2**	**–**	**8.3**	**–**	**–**	**8.4**

1 The operations of Nova Bus have been reclassified from the Buses segment into the segement of Group Functions & Other as of October 1, 2021. To facilitate comparability, financial numbers for 2021 and 2020 have been restated in this report. Read more in Note 31 Changes in Volvo Group financial reporting 2021.

Penetration rate

Definition: Share of unit sales financed by Financial Services in relation to total number units sold by the Volvo Group in markets where financial services are offered.

	Financial Services	
Number of units	**2021**	2020
Number of financed units	69,556	61,047
Number of units sold where financial services are offered	228,867	201,525
Penetration rate, %	**30**	**30**

Return on capital employed

Definition: Operating income plus interest income and similar credits divided by weighted average capital employed.

	Industrial Operations	
SEK M	**2021**	2020
Operating income, 12 months rolling	39,783	25,919
Interest income and similar credits, 12 months rolling	362	372
Operating income and interest income and similar credits, 12 months rolling	40,145	26,291
Weighted average capital employed	158,849	179,029
Return on capital employed, 12 months rolling, %	**25.3**	**14.7**

Return on operating capital

Definition: Operating income divided by weighted average operating capital.

	Industrial Operations	
SEK M	**2021**	2020
Operating income	39,783	25,919
Weighted average operating capital	76,589	88,305
Return on operating capital, 12 months rolling, %	**51.9**	**29.4**

Return on total equity

Definition: Income for the period divided by weighted average total equity.

	Volvo Group	
SEK M	**2021**	2020
Income for the period	33,243	20,074
Weighted average total equity	141,805	145,343
Return on total equity, 12 months rolling, %	**23.4**	**13.8**

Sales growth adjusted for currency and acquired and divested operations

Definition: Sales growth adjusted for currency and acquired and divested operations, divided by net sales for the prior year.

	Industrial Operations		Volvo Group	
SEK M	**2021**	2020	**2021**	2020
Net sales	361,062	326,472	372,216	338,446
Increase/decrease of net sales for the year	34,589	−91,889	33,771	−93,534
Currency rates	15,403	13,941	16,063	14,768
Acquired and divested units	17,122	0	17,122	0
Adjusted Increase/decrease of net sales for the year	67,115	−77,948	66,955	−78,766
Sales growth adjusted for currency and acquired and divested units, %	**20.6**	**−18.6**	**19.8**	**−18.2**

Self-financing ratio

Definition: Cash flow from operating activities divided by net investments in tangible assets, intangible assets and leasing vehicles as defined in the *Consolidated cash flow statement*.

	Industrial operations		Volvo Group	
SEK M	**2021**	2020	**2021**	2020
Cash flow from operating activities	41,664	25,862	33,647	30,610
Investment in in-/tangible assets and leasing vehicles, net	12,224	7,317	16,002	10,974
Self-financing ratio, %	**341**	**353**	**210**	**279**

Eleven-year Summary

The reporting in the eleven-year summary is based on IFRS. Respective year is presented in accordance with the Generally Accepted Accounting Practice (GAAP) for that year. Earlier years are not restated when new accounting standards are applied.

Consolidated income statement SEK M	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Net sales	**372,216**	**338,446**	**431,980**	**390,834**	**334,748**	**301,914**	**312,515**	**282,948**	**272,622**	**303,647**	**310,367**
Cost of sales	–282,463	–259,319	–326,895	–303,478	–254,581	–231,602	–240,653	–220,012	–212,504	–235,085	–235,104
Gross income	**89,753**	**79,127**	**105,085**	**87,357**	**80,167**	**70,312**	**71,862**	**62,937**	**60,118**	**68,562**	**75,263**
Research and development expenses	–18,027	–16,798	–18,539	–15,899	–16,098	–14,631	–15,368	–16,656	–15,124	–14,794	–13,276
Selling expenses	–23,959	–26,510	–33,037	–30,890	–28,582	–26,867	–27,694	–27,448	–28,506	–28,248	–26,001
Administrative expenses	–4,870	–4,621	–5,901	–5,798	–5,642	–5,121	–5,769	–5,408	–5,862	–5,669	–7,132
Other operating income and expenses	246	–5,459	–221	–2,273	–1,061	–3,135	–4,179	–7,697	–3,554	–2,160	–1,649
Income from investments in joint ventures and associated companies	–54	1,749	1,859	1,948	1,407	156	–143	46	96	–23	–81
Income from other investments	–15	–3	285	33	135	112	4,609	50	–30	–47	–225
Operating income	**43,074**	**27,484**	**49,531**	**34,478**	**30,327**	**20,826**	**23,318**	**5,824**	**7,138**	**17,622**	**26,899**
Interest income and similar credits	358	299	320	199	164	240	257	328	381	510	608
Interest expenses and similar charges	–1,167	–1,349	–1,674	–1,658	–1,852	–1,847	–2,366	–1,994	–2,810	–2,476	–2,875
Other financial income and expenses	926	–518	–1,345	–870	–385	11	–792	931	11	–301	297
Income after financial items	**43,190**	**25,917**	**46,832**	**32,148**	**28,254**	**19,230**	**20,418**	**5,089**	**4,721**	**15,355**	**24,929**
Income taxes	–9,947	–5,843	–10,337	–6,785	–6,971	–6,008	–5,320	–2,854	–919	–4,097	–6,814
Income for the period	**33,243**	**20,074**	**36,495**	**25,363**	**21,283**	**13,223**	**15,099**	**2,235**	**3,802**	**11,258**	**18,115**
Attributable to:											
Owners of AB Volvo	32,787	19,318	35,861	24,897	20,981	13,147	15,058	2,099	3,583	11,039	17,751
Non-controlling interest	456	755	635	466	302	75	41	136	219	219	364
	33,243	**20,074**	**36,495**	**25,363**	**21,283**	**13,223**	**15,099**	**2,235**	**3,802**	**11,258**	**18,115**

Income statement Industrial Operations SEK M	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Net sales	**361,062**	**326,472**	**418,361**	**378,320**	**323,809**	**291,459**	**303,582**	**275,999**	**265,420**	**296,031**	**303,589**
Cost of sales	–277,048	–252,933	–319,055	–296,109	–248,382	–225,797	–236,311	–217,251	–209,307	–231,216	–233,097
Gross income	**84,013**	**73,539**	**99,306**	**82,210**	**75,428**	**65,662**	**67,271**	**58,748**	**56,113**	**64,815**	**70,492**
Research and development expenses	–18,027	–16,798	–18,539	–15,899	–16,098	–14,631	–15,368	–16,656	–15,124	–14,794	–13,276
Selling expenses	–21,575	–24,284	–30,483	–28,642	–26,495	–24,946	–25,857	–25,778	–26,904	–26,582	–25,181
Administrative expenses	–4,859	–4,611	–5,887	–5,756	–5,602	–5,081	–5,728	–5,367	–5,824	–5,639	–4,753
Other operating income and expenses	300	–3,673	230	–1,828	–640	–2,531	–3,473	–6,931	–2,710	–1,600	–1,045
Income/loss from investments in joint ventures and associated companies	–54	1,749	1,859	1,948	1,407	156	–143	46	96	–23	–82
Income from other investments	–15	–4	285	33	135	112	4,610	49	–31	–46	–225
Operating income	**39,783**	**25,919**	**46,771**	**32,067**	**28,135**	**18,740**	**21,312**	**4,111**	**5,616**	**16,130**	**25,930**

Consolidated balance sheets

SEK M	**2021**	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Intangible assets	37,070	34,577	36,668	38,104	35,893	37,916	36,416	37,115	36,588	40,373	39,507
Property, plant and equipment	54,405	49,113	53,496	55,673	53,348	55,875	53,618	55,181	52,233	55,004	54,540
Assets under operating leases	39,969	37,962	43,326	43,103	37,166	34,693	32,531	31,218	25,672	29,022	23,922
Shares and participations	21,225	13,436	13,113	11,875	11,225	12,420	12,050	9,839	6,327	2,890	1,874
Inventories	63,916	47,625	56,644	65,783	52,701	48,287	44,390	45,533	41,153	40,409	44,599
Customer-financing receivables	151,504	128,531	142,982	126,927	109,378	110,821	102,583	99,166	83,861	80,989	78,699
Interest-bearing receivables	3,702	5,880	2,743	3,393	3,501	2,393	2,938	2,555	1,389	5,635	3,638
Other receivables	81,772	73,982	81,432	82,509	72,961	70,814	61,932	68,448	59,943	55,531	59,877
Cash and cash equivalents	62,293	85,419	61,660	47,093	36,270	25,172	24,393	33,554	29,559	28,889	37,241
Assets held for sale	–	34,296	32,773	203	51	525	3,314	288	8,104	–	9,348
Assets	**515,856**	**510,821**	**524,837**	**474,663**	**412,494**	**398,916**	**374,165**	**382,896**	**344,829**	**338,742**	**353,244**
Total equity[1]	144,118	148,142	141,678	125,831	109,011	97,764	85,610	80,048	77,365	86,914	85,681
Provision for post-employment benefits	12,177	18,430	19,988	16,482	14,476	14,669	13,673	16,683	12,322	6,697	6,665
Other provisions	28,095	27,335	30,835	32,165	25,477	26,408	27,207	28,010	19,900	21,787	20,815
Interest-bearing liabilities	153,624	153,424	157,752	135,857	127,676	141,048	132,607	147,985	135,001	131,842	130,479
Other liabilities	177,842	152,204	164,171	164,328	135,854	118,879	114,495	110,042	99,891	91,502	104,888
Liabilities held for sale	–	11,286	10,413	–	–	148	573	130	350	–	4,716
Total equity and liabilities	**515,856**	**510,821**	**524,837**	**474,663**	**412,494**	**398,916**	**374,165**	**382,896**	**344,829**	**338,742**	**353,244**
[1]of which non-controlling interests	3,073	2,847	3,083	2,452	1,941	1,703	1,801	1,723	1,333	1,266	1,100
Assets pledged	6,742	14,960	21,220	15,988	12,791	10,592	9,428	7,680	5,078	4,099	1,832
Contingent liabilities	17,971	13,832	13,732	14,247	15,242	16,056	15,580	15,940	17,290	17,763	17,154

Balance sheets Industrial Operations

SEK M	**2021**	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Intangible assets	36,971	34,423	36,467	37,889	35,716	37,768	36,314	37,010	36,479	40,267	39,385
Property, plant and equipment	54,356	49,045	53,411	55,631	53,308	55,812	53,554	55,087	52,146	54,899	54,446
Assets under operating leases	32,150	29,460	33,794	32,700	24,051	22,752	20,616	19,484	17,013	21,263	16,749
Shares and participations	21,209	13,421	13,095	11,866	11,215	12,409	12,042	9,825	6,321	2,884	1,871
Inventories	63,715	47,273	56,080	65,366	52,231	48,080	44,194	45,364	40,964	40,057	43,828
Customer-financing receivables	2,537	1,695	1,570	1,560	1,358	1,698	11	1,828	1,406	1,397	1,702
Interest-bearing receivables	3,723	6,301	4,916	3,882	4,966	4,415	3,738	2,777	2,195	11,011	6,734
Other receivables	96,758	84,413	99,082	101,347	85,822	75,759	68,223	70,413	60,679	54,324	59,062
Cash and cash equivalents	59,603	82,186	57,675	43,907	32,447	20,875	21,210	31,105	28,230	27,146	35,951
Assets held for sale	–	29,362	28,427	203	51	525	3,314	288	8,104	–	9,348
Assets	**371,022**	**377,579**	**384,517**	**354,351**	**301,165**	**280,093**	**263,216**	**273,181**	**253,537**	**253,248**	**269,076**
Total equity	129,619	135,127	127,150	113,144	97,790	86,579	75,151	70,105	68,467	78,321	76,682
Provision for post-employment benefits	12,095	18,282	19,850	16,374	14,391	14,608	13,621	16,580	12,249	6,663	6,635
Other provisions	24,918	23,794	27,055	28,476	22,680	22,545	23,936	25,054	17,575	19,653	19,101
Interest-bearing liabilities	19,919	35,017	32,326	25,328	27,001	33,944	32,562	48,180	52,491	54,472	55,394
Other liabilities	184,471	158,721	172,209	171,029	139,303	122,269	117,374	113,131	102,405	94,139	106,548
Liabilities held for sale	–	6,638	5,927	–	–	148	573	130	350	–	4,716
Total equity and liabilities	**371,022**	**377,579**	**384,517**	**354,351**	**301,165**	**280,093**	**263,216**	**273,181**	**253,537**	**253,248**	**269,076**

Consolidated cash flow statements SEK bn	**2021**	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Operating income	43.1	27.5	49.5	34.5	30.3	20.8	23.3	5.8	7.1	17.6	26.9
Depreciation and amortization	18.7	20.6	20.6	18.4	16.9	16.7	16.8	15.9	17.4	14.7	13.9
Other non-cash items	–1.0	1.2	–2.8	9.7	1.4	–0.4	–0.5	6.1	2.4	1.4	1.3
Change in working capital	–17.5	–13.7	–18.2	–23.7	–4.7	–13.9	–9.0	–14.1	–10.8	–21.9	–15.1
Dividends received from joint ventures and associated companies	0.8	1.1	0.5	–	–	–	–	–	–	–	–
Financial items and income tax	–10.4	–5.0	–10.1	–7.7	–6.3	–5.7	–4.6	–5.0	–5.1	–8.0	–7.3
Cash flow from operating activities	**33.6**	**30.6**	**39.0**	**31.2**	**37.6**	**17.5**	**25.9**	**8.7**	**11.0**	**3.8**	**19.7**
Investments in in-/tangible assets	–12.5	–8.8	–12.0	–10.7	–7.7	–9.5	–8.8	–8.6	–12.2	–14.6	–12.6
Investments in leasing assets	–9.3	–8.6	–10.0	–10.1	–11.5	–10.8	–10.5	–10.1	–8.2	–10.0	–7.4
Disposals of in-/tangible assets and leasing assets	5.8	6.3	7.4	6.2	5.4	9.0	6.0	5.0	3.4	3.1	3.3
Investments and divestments of shares, net	–7.4	–0.5	0.1	1.0	2.2	0.2	–2.0	0.1	0.0	–1.2	–0.1
Acquired and divested operations, net	22.0	0.4	1.3	–0.2	0.9	1.4	0.4	7.4	0.9	3.4	–1.6
Interest-bearing receivables including marketable securities	–0.1	1.1	–1.0	0.1	1.6	2.5	3.6	–4.8	0.5	3.7	2.6
Cash flow after net investments	**32.2**	**20.7**	**24.9**	**17.4**	**28.5**	**10.4**	**14.5**	**–2.3**	**–4.6**	**–11.8**	**3.9**
Change in loans, net	–7.0	7.3	9.3	1.9	–9.0	–2.2	–13.2	6.7	13.0	14.1	8.7
Repurchase of own shares	–	–	–	–	–	–	–	–	–	–	–
Dividend to AB Volvo's shareholders	–49.8	–	–20.3	–8.6	–6.6	–6.1	–6.1	–6.1	–6.1	–6.1	–5.1
Dividend to non-controlling interests	–0.6	–0.8	0.0	0.0	0.0	–0.2	0.0	0.0	–0.2	0.0	0.0
Other	–0.1	–0.1	0.2	0.0	0.0	0.0	0.0	–0.1	0.1	0.0	0.0
Change in cash and cash equivalents excluding translation differences	**–25.4**	**27.1**	**14.0**	**10.7**	**12.8**	**1.9**	**–4.8**	**–1.8**	**2.2**	**–3.8**	**7.5**
Translation differences on cash and cash equivalents	2.3	–3.4	0.5	0.1	–0.7	1.0	–0.4	1.1	–0.5	–0.8	–0.1
Change in cash and cash equivalents	**–23.1**	**23.7**	**14.5**	**10.8**	**12.1**	**2.9**	**–5.2**	**–0.7**	**1.7**	**–4.6**	**7.4**

Operating cash flow Industrial Operations SEK bn	**2021**	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Operating income	39.8	25.9	46.8	32.1	28.1	18.7	21.3	4.1	5.6	16.1	26.0
Depreciation and amortization	14.3	15.9	15.8	13.8	12.6	12.6	12.6	12.7	14.5	12.0	11.4
Other non-cash items	–1.4	–0.8	–3.6	8.9	0.9	–1.1	–1.1	5.3	1.5	0.8	0.6
Change in working capital	–2.3	–11.0	–0.5	–11.0	–0.2	–14.7	–1.9	–3.3	–2.0	–9.2	–4.2
Dividends received from joint ventures and associated companies	0.8	1.1	0.5	–	–	–	–	–	–	–	–
Financial items and income taxes	–9.5	–4.2	–9.5	–7.5	–5.6	–5.6	–4.0	–4.5	–4.9	–7.3	–6.9
Cash flow from operating activities	**41.7**	**25.9**	**49.0**	**36.4**	**35.8**	**9.9**	**26.7**	**14.3**	**14.7**	**12.4**	**26.9**
Investments in in-/tangible assets	–12.5	–8.7	–11.9	–10.7	–7.7	–9.4	–8.8	–8.6	–12.2	–14.6	–12.6
Investments in leasing assets	–0.0	–0.0	–0.1	–0.0	–0.1	–0.1	–0.3	–0.5	–1.5	–3.6	–1.4
Disposals of in-/tangible assets and leasing assets	0.4	1.4	1.4	0.9	0.4	3.2	0.7	1.1	0.5	0.9	1.2
Operating cash flow	**29.4**	**18.5**	**38.3**	**26.6**	**28.4**	**3.5**	**18.3**	**6.4**	**1.5**	**–4.9**	**14.1**

Exports from Sweden SEK M	**2021**	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Volvo Group, total	108,538	92,746	118,543	117,887	107,958	91,962	86,731	78,174	88,560	84,314	91,065

Key ratios	**2021**	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Gross margin, %[1]	23.3	22.5	23.7	21.7	23.3	22.5	22.2	21.3	21.1	21.9	23.7
Research and development expenses as percentage of net sales[1]	5.0	5.1	4.4	4.2	5.0	5.0	5.1	6.0	5.7	5.0	4.4
Selling expenses as percentage of net sales[1]	6.0	7.4	7.3	7.6	8.2	8.6	8.5	9.3	10.1	9.0	8.0
Administration expenses as percentage of net sales[1]	1.3	1.4	1.4	1.5	1.7	1.7	1.9	1.9	2.2	1.9	2.3
Operating income before depreciation and amortization (EBITDA), SEK M[1]	54,080	41,847	62,568	45,858	40,732	31,373	33,886	16,784	20,089	28,117	37,376
EBITDA margin, %[1]	15.0	12.8	15.0	12.1	12.6	10.8	11.2	6.1	7.6	9.5	12.3
Net capitalization of research and development, SEK M	552	–385	1,006	791	–876	90	–550	–1,441	787	2,264	1,197
Return on capital employed in Industrial Operations, %	25.3	14.7	28.4	22.4	–	–	–	–	–	–	–
Return on operating capital in Industrial Operations, %	51.9	29.4	52.3	39.0	32.5	21.5	25.0	4.5	5.9	16.5	28.8
Return on total equity, %	23.4	13.8	27.0	21.3	20.8	14.9	18.4	2.8	5.0	12.9	23.1
Interest coverage, times[1]	34.3	18.5	28.1	19.5	15.3	10.3	9.1	2.2	2.1	6.7	9.6
Self-financing ratio, %	210	279	268	213	272	155	194	64	84	18	118
Self-financing ratio Industrial Operations, %	341	353	458	373	483	155	316	180	112	72	210
Net Financial position excl. post-employment benefits and lease liabilities SEK M[1]	66,227	74,691	62,596	43,926	26,339	–1,151	349	–9,924	–19,828	–19,023	–14,974
Net financial position excl. post-employment benefits and lease liabilities as percentage of total equity[1]	51.1	55.3	49.2	38.8	26.9	–1.3	0.5	–14.2	–29.0	–24.3	–19.5
Net Financial position incl. post-employment benefits and lease liabilities SEK M[1]	50,356	50,959	37,267	29,101	12,200	–15,679	–13,237	–26,378	–32,066	–22,978	–19,346
Net financial position incl. post-employment benefits and lease liabilities as percentage of total equity[1]	38.8	37.7	29.3	25.7	12.5	–18.1	–17.6	–37.6	–46.8	–29.3	–25.2
Equity ratio	27.9	29.0	27.0	26.5	26.4	24.5	22.9	20.9	22.4	25.7	24.3
Equity ratio, Industrial Operations	34.9	35.8	33.1	31.9	32.5	30.9	28.6	25.7	27.0	30.9	28.5
Equity ratio excluding non-controlling interest	27.3	28.4	26.4	26.0	26.0	24.1	22.4	20.5	22.0	25.2	23.9

1 Pertains to the Industrial Operations.

Business area statistics

Net sales[1] SEK M		**2021**	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Trucks	Europe	107,798	92,127	112,125	111,237	99,642	91,468	83,767	72,757	73,640	76,365	83,451
	North America	65,308	52,038	85,731	70,233	52,405	51,849	73,017	53,696	40,314	42,650	37,042
	South America	23,569	15,830	23,753	16,021	12,789	10,613	11,624	19,669	23,318	21,172	26,847
	Asia	21,359	35,441	37,610	36,664	36,998	33,464	31,589	29,264	26,740	36,531	37,840
	Africa and Oceania	12,846	12,826	17,427	16,203	14,646	13,256	13,982	15,518	14,462	15,565	13,741
	Total	**230,881**	**208,262**	**276,647**	**250,358**	**216,480**	**200,650**	**213,978**	**190,904**	**178,474**	**192,283**	**198,920**
Construction Equipment	Europe	29,524	23,191	30,300	27,291	22,977	19,739	17,732	17,215	16,356	16,518	17,765
	North America	16,583	13,020	17,404	15,575	12,234	10,724	11,843	10,784	8,319	12,027	7,829
	South America	3,951	2,245	2,532	2,304	1,760	1,414	2,207	3,234	3,314	3,788	4,163
	Asia	36,427	39,095	33,932	33,781	25,058	15,765	16,424	18,458	21,911	27,033	29,999
	Africa and Oceania	5,546	3,902	4,437	5,287	4,468	3,088	2,802	3,164	3,539	4,192	3,745
	Total	**92,031**	**81,453**	**88,606**	**84,238**	**66,497**	**50,731**	**51,008**	**52,855**	**53,437**	**63,558**	**63,500**
Buses	Europe	5,886	5,765	7,369	7,036	7,753	7,861	7,284	6,139	5,429	6,200	6,631
	North America	4,089	8,302	15,543	13,244	12,512	11,345	10,635	6,721	5,929	6,675	7,532
	South America	882	1,793	3,281	1,393	1,148	1,363	1,425	2,559	1,836	2,794	2,715
	Asia	1,371	2,397	2,617	2,094	3,135	3,067	2,557	1,892	2,055	2,853	2,953
	Africa and Oceania	1,423	1,535	2,209	2,060	1,530	1,749	1,678	1,334	1,457	1,774	1,992
	Total	**13,652**	**19,791**	**31,019**	**25,826**	**26,078**	**25,386**	**23,580**	**18,645**	**16,707**	**20,295**	**21,823**
Volvo Penta	Europe	7,464	6,064	6,671	7,487	5,727	4,973	4,462	3,779	3,714	3,620	4,274
	North America	2,949	2,532	3,180	2,912	2,456	2,191	2,161	1,584	1,491	1,486	1,379
	South America	474	345	319	299	289	291	365	386	297	306	335
	Asia	2,698	2,228	2,439	2,443	2,082	1,891	1,855	1,615	1,692	1,867	2,130
	Africa and Oceania	851	691	679	599	566	546	562	425	356	352	341
	Total	**14,437**	**11,891**	**13,287**	**13,741**	**11,119**	**9,893**	**9,406**	**7,790**	**7,550**	**7,631**	**8,458**
Volvo Aero	Europe	–	–	–	–	–	–	–	–	–	2,404	2,893
	North America	–	–	–	–	–	–	–	–	–	2,657	3,300
	South America	–	–	–	–	–	–	–	–	–	0	7
	Asia	–	–	–	–	–	–	–	–	–	109	104
	Africa and Oceania	–	–	–	–	–	–	–	–	–	49	52
	Total	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**5,219**	**6,356**
	Other and eliminations	10,061	5,074	8,802	4,157	3,635	4,799	5,610	5,806	9,252	7,044	4,532
Net sales Industrial Operations		**361,062**	**326,472**	**418,361**	**378,320**	**323,809**	**291,459**	**303,582**	**275,999**	**265,420**	**296,031**	**303,589**
Financial Services	Europe	5,929	6,116	6,279	6,063	5,431	5,116	5,278	5,120	4,686	4,703	4,663
	North America	4,519	4,907	5,534	4,600	4,234	4,202	4,033	2,999	2,900	2,833	2,326
	South America	1,618	1,380	1,555	1,276	1,368	1,235	1,116	1,122	1,009	1,195	1,131
	Asia	843	1,022	1,010	800	543	476	548	638	707	795	571
	Africa and Oceania	528	535	492	332	235	213	224	232	237	257	192
	Total	**13,437**	**13,960**	**14,870**	**13,070**	**11,812**	**11,242**	**11,199**	**10,111**	**9,539**	**9,783**	**8,883**
	Eliminations	–2,283	–1,987	–1,252	–555	–873	–787	–2,265	–3,162	–2,336	–2,167	–2,104
Volvo Group total		**372,216**	**338,446**	**431,980**	**390,834**	**334,748**	**301,914**	**312,515**	**282,948**	**272,622**	**303,647**	**310,367**
Of which:												
Vehicles[2]		282,666	247,397	332,558	299,356	252,063	223,996	237,430				
Services		78,396	79,075	85,804	78,963	71,747	67,463	66,152				
Financial Services		13,437	13,960	14,870	13,070	11,812	11,242	11,199				
Eliminations		–2,283	–1,987	–1,252	–555	–873	–787	–2,265				

1 Volvo Aero was divested on October 1, 2012.

2 Including construction equipment and Volvo Penta engines.

Operating income[1] SEK M	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Trucks	27,349	15,764	31,552	19,541	20,383	15,020	19,517	4,157	6,145	10,216	18,227
Construction Equipment	12,228	9,583	11,910	12,125	7,917	2,246	2,044	652	2,592	5,773	6,812
Buses	78	–522	1,337	575	928	911	860	92	–190	51	1,114
Volvo Penta	2,092	1,402	1,876	2,341	1,439	1,269	1,086	724	626	541	825
Volvo Aero	–	–	–	–	–	–	–	–	–	767	360
Financial Services	3,289	1,564	2,766	2,411	2,192	2,086	2,006	1,712	1,522	1,492	969
Other	–1.962	–308	91	–2,515	–2,532	–707	–2,195	–1,514	–3,557	–1,217	–1,408
Operating income/loss Volvo Group	**43,074**	**27,484**	**49,531**	**34,478**	**30,327**	**20,826**	**23,318**	**5,824**	**7,138**	**17,622**	**26,899**

1 Between 2009 and 2011, the benefits from the synergies created in the business units are transferred back to the various business areas. Operating income in 2014 included expected credit losses of 660. See section for Key ratios regarding adjusted items.

Operating margin %	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Trucks	11.8	7.6	11.4	7.8	9.4	7.5	9.1	2.2	3.4	5.3	9.2
Construction Equipment	13.3	11.8	13.4	14.4	11.9	4.4	4.0	1.2	4.9	9.1	10.7
Buses	0.6	–2.6	4.3	2.2	3.6	3.6	3.6	0.5	–1.1	0.3	5.1
Volvo Penta	14.5	11.8	14.1	17.0	12.9	12.8	11.5	9.3	8.3	7.1	9.8
Volvo Aero	–	–	–	–	–	–	–	–	–	14.7	5.7
Volvo Group Industrial Operations	**11.0**	**7.9**	**11.2**	**8.5**	**8.7**	**6.4**	**7.0**	**1.5**	**2.1**	**5.4**	**8.5**
Financial Services	24.5	11.2	18.6	18.4	18.6	18.6	17.9	16.9	16.0	15.3	10.9
Volvo Group	**11.6**	**8.1**	**11.5**	**8.8**	**9.1**	**6.9**	**7.5**	**2.1**	**2.6**	**5.8**	**8.7**

Regular employees at year-end Number[1]	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Trucks	50,974	56,483	59,142	58,891	55,026	52,154	54,668	58,067	58,542	61,256	62,315
Construction Equipment	13,847	13,404	13,756	13,419	12,788	13,397	13,889	14,901	14,663	14,788	18,422
Buses	5,117	6,608	8,324	8,178	7,943	7,353	7,270	6,900	6,648	7,514	8,529
Volvo Penta	1,832	1,798	1,800	1,713	1,622	1,530	1,470	1,422	1,412	1,361	2,549
Volvo Aero	–	–	–	–	–	–	–	–	–	–	3,179
Financial Services	1,546	1,511	1,538	1,401	1,363	1,328	1,340	1,339	1,355	1,362	1,323
Other	9,224	7,688	8,015	8,527	8,362	8,277	9,827	10,193	12,913	12,436	1,845
Volvo Group, total	**82,540**	**87,492**	**92,575**	**92,129**	**87,104**	**84,039**	**88,464**	**92,822**	**95,533**	**98,717**	**98,162**

1 As of 2012, employees in business units are not allocated to the business areas.

Environmental performance
More detailed information and management approach are further described in Sustainability Notes on page 158–161.

Absolute values and related to net sales	2021	2020	2019[1]	2018
Energy usage (GWh; MWh/SEK M)	2,423; 6.7	2,043; 6.3	2,355; 5.6	2,196; 5.8
Direct GHG emissions, CO_2e, scope 1 (1,000 tons; tons /SEK M)	245; 0.7	205; 0.6	245; 0.6	223; 0.6
Indirect GHG emissions, CO_2e scope 2 (1,000 tons; tons/SEK M)	114; 0.3	121; 0.4	124; 0.3	198; 0.5
Indirect GHG emissions, CO_2e scope 3 use of sold products (Mton)	286	241	323	
Water consumption (1,000 m^3; m^3/SEK M)	4,628; 12.8	4,865; 14.9	5,389; 12,9	4,870; 12.9
NO_x emissions (tons; kilos/SEK M)	223; 0.6	192; 0.6	291; 0.7	360; 1.0
Solvent emissions (tons; kilos/SEK M)	1304; 3.6	1,224; 3.7	1,406; 3.4	2,148; 5.7
Sulphur dioxide emissions (tons; kilos/SEK M)	5.0; 0.01	3.7; 0.01	8.5; 0.02	13.6; 0.04
Hazardous waste (tons; kilos/SEK M)	53,314; 148	51,712; 159	50,909; 122.0	38,601; 102.0
Net sales, Industrial operations (SEK bn)	361.1	326.5	418.4	378.3

1 New reporting scopes established with baseline 2019. Numbers for 2020 and 2019 have been restated or added in this report for comparability.

Regular employees at year-end Number	**2021**	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Sweden	21,022	20,598	21,094	20,887	19,965	19,235	20,412	21,384	22,588	23,052	24,663
Europe, excluding Sweden	27,378	27,678	29,033	28,807	27,596	26,955	27,662	29,449	29,746	30,382	30,458
North America	16,956	15,559	17,750	17,845	15,882	14,245	15,534	15,217	16,397	16,569	15,427
South America	5,860	5,448	5,466	5,228	4,774	4,762	5,380	6,353	6,275	5,977	5,234
Asia	9,305	16,121	16,863	16,888	16,526	16,469	17,046	17,793	17,953	20,222	19,924
Africa and Oceania	2,019	2,088	2,369	2,474	2,361	2,373	2,430	2,626	2,574	2,515	2,456
Volvo Group total	**82,540**	**87,492**	**92,575**	**92,129**	**87,104**	**84,039**	**88,464**	**92,822**	**95,533**	**98,717**	**98,162**

Delivered units Number	**2021**	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Heavy-duty trucks (>16 tons)	170,295	140,652	201,092	193,886	171,963	158,025	176,589	173,650	170,307	172,798	179,779
Medium-duty trucks (7–16 tons)	13,907	10,736	12,700	14,065	14,331	15,691	14,749	15,114	16,779	32,935	34,631
Light trucks (<7 tons)	18,256	15,453	18,977	18,539	16,108	16,708	16,137	14,360	13,188	18,284	23,982
Total trucks	**202,458**	**166,841**	**232,769**	**226,490**	**202,402**	**190,424**	**207,475**	**203,124**	**200,274**	**224,017**	**238,391**

Number		**2021**	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Trucks	Europe	98,600	79,814	104,145	110,349	105,432	97,909	86,448	72,458	82,088	84,355	95,113
	North America	47,629	32,056	62,308	53,877	37,941	39,193	64,507	57,714	44,755	47,806	42,613
	South America	28,718	17,684	23,729	16,146	11,073	9,442	11,069	23,741	29,137	23,443	29,274
	Asia	17,842	27,009	29,435	32,276	35,476	31,502	31,979	32,399	28,692	51,514	56,165
	Africa and Oceania	9,669	10,278	13,152	13,842	12,480	12,378	13,472	16,812	15,602	16,899	15,226
	Total	**202,458**	**166,841**	**232,769**	**226,490**	**202,402**	**190,424**	**207,475**	**203,124**	**200,274**	**224,017**	**238,391**
Construction Equipment	Europe	20,453	15,762	21,420	19,567	17,519	14,700	12,539	14,174	13,522	12,545	
	North America	6,217	5,025	7,278	7,218	5,685	5,105	5,710	7,127	5,240	6,782	
	South America	4,263	2,335	2,004	2,023	1,372	1,175	2,036	3,669	3,568	3,908	
	Asia	65,635	68,232	53,664	50,716	36,254	21,072	22,339	33,648	44,892	49,263	
	Africa and Oceania	3,303	2,406	2,519	3,130	3,297	2,254	2,094	2,699	3,564	2,982	
	Total	**99,871**	**93,760**	**86,885**	**82,654**	**64,127**	**44,306**	**44,718**	**61,317**	**70,786**	**75,480**	
Buses	Europe	1,388	1,565	2,350	2,142	2,645	2,676	2,431	2,221	2,146	2,491	2,695
	North America	1,118	1,644	3,084	2,796	2,973	2,659	2,398	1,590	1,752	1,826	3,014
	South America	726	1,152	1,917	973	784	1,149	1,415	2,985	2,434	2,560	2,620
	Asia	585	1,097	1,465	1,451	2,186	1,849	1,656	1,242	1,822	2,945	3,417
	Africa and Oceania	705	797	915	1,064	805	1,220	925	721	756	856	1,040
	Total	**4,522**	**6,215**	**9,731**	**8,426**	**9,393**	**9,553**	**8,825**	**8,759**	**8,910**	**10,678**	**12,786**

2017	2016	2015	2014	2013	2012	2011
2,068; 6.4	2,076; 7.1	2,077; 6.8	2,168; 7.9	2,320; 8.7	2,483; 8.5	2,471; 8.1
207; 0.6	211; 0.7	220; 0.7	231; 0.8	255; 1.0	273; 0.9	255; 0.8
192; 0.6	196; 0.7	192; 0.6	218; 0.8	243; 0.9	260; 0.9	
4,817; 14.9	4,430; 15.2	4,919; 16.2	4,982; 18.1	5,815; 21.9	7,372; 25.2	7,970; 26.2
301; 0.9	333; 1.1	344; 1.3	332; 1.2	347; 1.3	413; 1.4	474; 1.6
1,681; 5.2	1,792; 6.1	1,885; 6.2	2,472; 9.0	2,221; 8.4	2,358; 8.1	2,554; 8.4
13.3; 0.04	12.9; 0.04	32.1; 0.1	37.9; 0.1	23.4; 0.1	26; 0.1	34; 0.1
31,941; 98.6	27,649; 94.9	27,824; 91.6	24,944; 90.4	28,395; 107.0	32,547; 111.4	25,943; 85.5
323.8	291.5	303.6	276.0	265.4	292.2	303.6

Volvo share statistics

Data per share [1]	**2021**	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Basic earnings, SEK[1]	16.12	9.50	17.64	12.25	10.08	6.47	7.42	1.03	1.77	5.44	8.75
Ordinary dividend, SEK	6.50[8]	6.00	0	5.00	4.25	3.25	3.00	3.00	3.00	3.00	3.00
Extraordinary dividend, SEK	16.00[9]	9.00	0	5.00	0	0	0	0	0	0	0
Share price at year end (B share), SEK	209.65	193.80	156.90	115.95	152.70	106.40	79.10	84.70	84.45	88.80	75.30
Dividend yield (B share), %[2]	10.7	7.7	0	8.6	2.8	3.1	3.8	3.5	3.6	3.4	4.0
Effective return (B share), %[3]	20	33	35	–21	48	39	–3	4	–2	22	–34
Price/earnings ratio (B share)[4]	13.0	20.4	8.9	9.5	14.8	16.4	10.7	82.2	47.7	16.3	8.6
EBIT multiple[5]	8.3	12.5	6.1	6.5	9.9	11.7	7.7	26.3	19.6	9.0	5.1
Payout ratio, %[6]	140	158	0	82	41	50	40	291	169	55	34
Total equity, SEK[7]	69	72	68	61	52	47	41	39	38	43	42
Return on total equity, %	23.4	13.8	27.0	21.3	20.5	14.9	18.4	2.8	5.0	12.9	23.1

1 Basic earnings per share is calculated as income for the period divided by average number of shares outstanding.

2 Proposed dividend in SEK per share divided by share price at year end.

3 Share price at year end, including proposed dividend during the year, divided by share price at beginning of the year.

4 Share price at year end divided by basic earnings per share.

5 Market value at year end less net financial position and non-controlling interests divided by operating income.

6 Cash dividend divided by basic earnings per share.

7 Total equity for shareholders in AB Volvo divided by number of shares outstanding at year end.

8 Proposed by the Board of Directors to the Annual General Meeting 2022.

9 Of which SEK 9.50 per share in dividend relating to the distribution of the proceeds from the sale of UD Trucks paid out in July 2021 and SEK 6.50 per share proposed by the Board of Directors to the Annual General Meeting 2022.

Other share data	**2021**	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Number of shareholders at year end	362,144	283,731	250,798	245,663	240,521	237,654	234,989	237,871	246,265	242,482	251,715
Number of Series A shares outstanding at year end, million	445	448	456	457	459	472	485	492	499	526	643
Number of Series B shares outstanding at year end, million	1,588	1,585	1,577	1,576	1,573	1,560	1,546	1,537	1,530	1,502	1,385
Average number of shares outstanding, million	2,033	2,033	2,033	2,032	2,032	2,031	2,030	2,028	2,028	2,028	2,027
Number of Series A shares traded in Stockholm during the year, million	88.1	65.7	43.8	51.8	46.7	67.2	51.7	86.3	53.0	45.4	130.5
Number of Series B shares traded in Stockholm during the year, million	1,065.9	1,407.6	1,146.1	1,293.8	1,341.3	1,667.9	2,052.1	2,068.7	1,878.5	2,081.2	2,944.1

The largest shareholders in AB Volvo, December 31, 2021	Number of shares	Share of votes, %	Share of capital, %
Industrivärden	174,200,000	27.7	8.6
Geely Holding	167,247,516	16.0	8.2
AMF Insurance & Funds	69,775,433	5.4	3.4
Alecta	66,231,010	4.2	3.3
AFA Insurance	15,003,079	2.3	0.7
BlackRock	69,062,595	2.1	3.4
AP4 Fund	16,476,306	1.7	0.8
Norges Bank Investment Management	46,764,623	1.6	2.3
Vanguard	51,343,420	1.5	2.5
Swedbank Robur Funds	66,544,164	1.4	3.3
Total	**742,648,146**	**64.0**	**36.5**

Distribution of shares, December 31, 2021	Number of shareholders	% of total votes	Share of capital, %
1–1,000 shares	308,069	2.9	3.1
1,001–10,000 shares	49,694	5.9	6.8
10,001–100,000 shares	3,834	3.3	4.6
100,001–	547	87.9	85.5
Total	362,144	100.0	100.0

Annual General Meeting, April 6, 2022

The Annual General Meeting of AB Volvo will be held on Wednesday, April 6, 2022. For further information about the Annual General Meeting 2022, please refer to Volvo's website, www.volvogroup.com.

Volvo's Election Committee

The following persons are members of Volvo's Election Committee:

Bengt Kjell	Chairman of the Election Committee (AB Industrivärden), appointed by the Annual General Meeting.
Anders Oscarsson	(AMF and AMF Fonder), appointed by the Annual General Meeting.
Ramsay Brufer	(Alecta), appointed by the Annual General Meeting.
Carine Smith Ihenacho	(Norges Bank Investment Management), appointed by the Annual General Meeting.
Carl-Henric Svanberg	Chairman of the Board, appointed by the Annual General Meeting.

Among other duties, the Election Committee is responsible for submitting to the Annual General Meeting proposals for candidates to serve as members of the Board of Directors, Chairman of the Board and proposal for auditors if applicable. The Election Committee also proposes the amount of the fees to be paid to the Board of Directors.

Preliminary financial calendar

Annual General Meeting 2022	April 6, 2022
Report on the first quarter 2022	April 22, 2022
Report on the second quarter 2022	July 19, 2022
Report on the third quarter 2022	October 20, 2022

The reports are available on www.volvogroup.com and www.volvogroup.se on date of publication and are also sent electronically to shareholders who have advised Volvo that they wish to receive financial information.

Historical and current time series reflecting the Volvo Group's market information are published regularly on www.volvogroup.com and on www.volvogroup.se.

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The Volvo Group drives prosperity through transport and infrastructure solutions, offering trucks, buses, construction equipment, power solutions for marine and industrial applications, financing and services that increase our customers' uptime and productivity. Founded in 1927, the Volvo Group is committed to shaping the future landscape of sustainable transport and infrastructure solutions. The Volvo Group is headquartered in Gothenburg, Sweden, employs 95,000 people and serves customers in more than 190 markets. In 2021, net sales amounted to SEK 372 billion (EUR 37 billion). Volvo shares are listed on Nasdaq Stockholm.

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