VOLVO

2023

VOLVO GROUP ANNUAL REPORT

Geared for growth

The transformation towards a fossil-free society creates opportunities

Strong sales and improved earnings

Continued acceleration in innovation and investments

Driving prosperity through transport and infrastructure solutions

100%

SAFE
100%

FOSSIL-FREE
100%

MORE PRODUCTIVE
100%

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 104,000 people and serves customers in almost 190 markets. In 2023, net sales amounted to SEK 553 billion (EUR 48 billion). Volvo shares are listed on Nasdaq Stockholm.

Shaping the world we want to live in

Every day the Volvo Group's products deliver food and medicine, take children to schools, power irrigation systems and construct roads and buildings. 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.

Climate change, population growth and increasing urbanization are shifting the landscape and expectations on transport and infrastructure. In all our actions, we strive to consider how to reduce climate impact, use the world's resources more efficiently, and conduct business more responsibly.

Together with our customers and supply chain partners, governments, societies and other stakeholders, we are moving quickly to develop and introduce transport and infrastructure solutions that aim to reach our sustainability targets.

Driving prosperity socially, environmentally and financially means that we strive towards our vision of transport and infrastructure solutions that are 100% safe, 100% fossil-free and 100% more productive.

In this annual report, we describe in more detail how we work to achieve this.

The Volvo Group's formal financial reports are presented on pages 56–162, 212 and 218–220 and have been audited by the company's auditors.

Sustainability information is integrated in the sections Overview, Strategy and Our Business on pages 8–27 and 29–35, and in the Sustainability Notes on pages 163–193, and has been subject to limited assurance by the Group's auditors. For information on which pages constitute the Volvo Group's Statutory Sustainability Report, please see page 56.

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.

People – our most important asset
The Volvo Group's 104,000 employees are our most important asset. In the words of CEO Martin Lundstedt: "Succeeding in this industry is all about people, and our people make the difference."

Strong brands
The Volvo Group sells its products under the Volvo, Volvo Penta, Rokbak, Renault Trucks, Prevost, Nova Bus, Mack and Arquus brands. We also partner in alliances and joint ventures in SDLG, Milence, Eicher, Dongfeng and cellcentric. By offering products and services under different brands, we address many different customer and market segments around the world.

Competitive products and leading technology
The Volvo Group's products have been developed to contribute to efficient transport and infrastructure solutions and to provide our customers with reliable 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.

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 Aurora on autonomous vehicles. And we are pioneering a European high-performance charging network for heavy-duty trucks and coaches called Milence together with Daimler Truck and Traton Group.

Sales in almost
190
markets

Production in
18
countries

104,000
employees

SEK **553** bn
in net sales

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 secure 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.


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VOLVO

Strong financial performance in 2023

Currency-adjusted net sales increased by 11% to SEK 553 billion, with a strong growth in both vehicle and service sales.

Improved profitability – the adjusted operating income increased to SEK 77,638 M (50,467). For more information on adjustments, please see Key Ratios on page 218.

The adjusted operating margin improved to 14.0% (10.7).

Reported operating income amounted to SEK 66,784 M (45,712).

Earnings per share rose to SEK 24.50 (16.09).

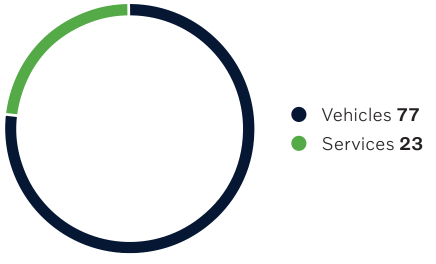
Strong operating cash flow in the Industrial Operations of SEK 45.8 billion (35.3).

Return on capital employed in the Industrial Operations improved to 36.7% (27.4).

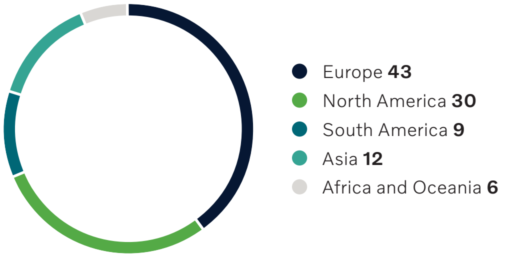
Continued high pace in the transformation with an expansion of the offer of electric vehicles and machines. All business areas are in serial production of heavy-duty electric vehicles and machines.

The Board of Directors proposes an ordinary dividend of SEK 7.50 (7.00) per share and an extra dividend of SEK 10.50 (7.00) per share.

Net sales by revenue type, %

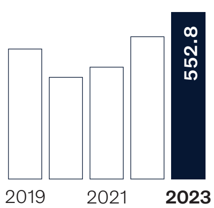


Net sales by market, %



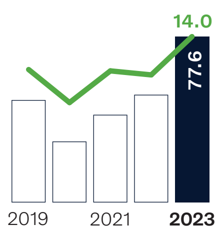
Volvo Group

Net sales, SEK bn

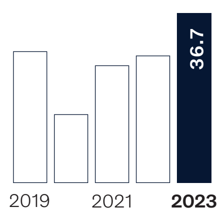


Adjusted operating income[1] and Adjusted operating margin

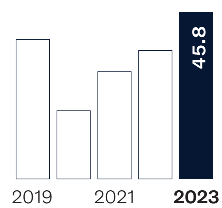
- Operating income, SEK bn
- Operating margin, %



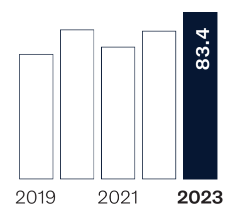
Return on capital employed Industrial Operations, %



Operating cash flow Industrial Operations, SEK bn



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



Key ratios

	2023	2022
Net sales, SEK M	552,764	473,479
Adjusted operating income[1], SEK M	77,638	50,467
Adjusted operating margin, %	14.0	10.7
Operating income, SEK M	66,784	45,712
Operating margin, %	12.1	9.7
Income after financial items, SEK M	66,726	45,077
Income for the period, SEK M	49,932	32,969
Earnings per share, SEK	24.50	16.09
Dividend, SEK per share	18.00[2]	14.00[3]
Operating cash flow, Industrial Operations, SEK M	45,821	35,327
Net financial position excl. provisions for post-employment benefits and lease liabilities, Industrial Operations, SEK bn	83.4	73.9
Return on capital employed, Industrial Operations, %	36.7	27.4
Return on equity, Financial Services, %	13.0	–0.3
Return on equity excluding Russia and Belarus, Financial Services, %	13.9	15.4
Return on shareholders' equity, Volvo Group, %	28.7	20.7
Total number of employees	104,147	102,155
Share of women, %	22	22
Share of women, presidents and other senior executives, %	29	28
Energy use per net sales, Industrial Operations, MWh/SEK M	4.4	5.1
Total CO_2 emissions per net sales, Industrial Operations, tons/SEK M (scope 1 & 2)	0.6	0.7
Share of direct material purchasing spend from suppliers having made a CSR self-assessment, %	93	89

1 For more information on adjusted operating income, please see Key Ratios on page 218.
2 Proposed by the Board of Directors to the Annual General Meeting 2024. SEK 7.50 per share in ordinary dividend and SEK 10.50 per share in extra dividend.
3 SEK 7.00 per share in ordinary dividend and SEK 7.00 per share in extra dividend.

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

Segments

	Net sales, SEK M	Share of Group net sales, %	Adjusted operating income[1], SEK M	Adjusted operating margin, %
TRUCKS Volvo Trucks, Renault Trucks, Mack Trucks, Volvo Autonomous Solutions, Volvo Energy, VE Commercial Vehicles (46% ownership), Dongfeng Commercial Vehicles (45%), cellcentric (50%) and Milence (33%).	373,048	67	55,394	14.8
CONSTRUCTION EQUIPMENT Volvo Construction Equipment, Rokbak and SDLG (70%).	104,981	19	16,993	16.2
BUSES Volvo Buses and Prevost.	22,423	4	1,059	4.7
VOLVO PENTA Engines and power systems for marine and industrial applications.	21,006	4	3,230	15.4
FINANCIAL SERVICES Provides financial services to customers and dealers.	24,012	4	3,855	N/A
GROUP FUNCTIONS & OTHER[2] Nova Bus, Arquus and common business support functions.	16,809	2	−2,950	N/A

1 For more information on adjusted operating income, please see Key Ratios on page 218.
2 Including Group eliminations.

More information about the Volvo Group's segments and how they are reported can be found in Note 6 to the Financial Statements.

Strong performance providing solid foundation for the transformation

During 2023, dedicated colleagues across the Volvo Group worked hard to keep our customer commitments and reduce the lead times as we delivered from the backlogs of vehicles and machines that have been extended since the pandemic. It was also a year characterized by geopolitical turmoil, continued supply chain disturbances and cost inflation. In these challenging circumstances, the Volvo Group continued to deliver strong growth, profitability and cash flow.

Our currency-adjusted net sales grew by 11% to SEK 552.8 billion, with sales of vehicles and machines increasing by 12% and services by 10%. Sales increased in all regions except South America. We improved our adjusted operating income to SEK 77.6 billion (50.5), corresponding to an adjusted operating margin of 14.0% (10.7). Both sales and profitability were at all-time highs.

What is more, we also continued to take important steps on our journey to decarbonize the transport and infrastructure industries. All business areas are in serial production of heavy-duty electric vehicles and machines and we are also expanding the ecosystem necessary to drive the transformation. In this changing landscape, we can provide increased value for our customers and take advantage of the long-term growth opportunities that come with electrification, autonomous solutions and new productivity services.

A strong 2023

Thanks to a strong commercial focus, we were successful in improving margins while managing cost inflation and disturbances in the supply chain that continued for most of the year and affected both productivity and costs. Despite these disturbances, our truck business delivered 246,272 vehicles, which was an increase of 6% compared with the previous year. This is a new all-time-high and the result of hard work by colleagues in the Group and across the value chain. We have a strong base with good deliveries across regions, strengthened positions in many markets, leading customer satisfaction and good product quality. Although our customers' utilization of their fleets came down somewhat compared with the very strong 2022, it continued to be on historically high levels in our major markets. Our truck business took advantage of the good demand for both new and used trucks as well as for spare parts and services and increased the currency-adjusted net sales by 14% to SEK 373.0 billion. The adjusted operating margin improved to 14.8% (10.9).

Our truck operations continued the rollout of improved electric trucks and supporting services and started testing fuel cell-electric trucks on public roads.

In 2023, the construction equipment market outside of China was more or less on the same level as the preceding year. There was a good development in the first half of the year and a weaker second half in both North America and Europe. In China the downward pressure continued. There is uncertainty about the near-term development due to higher interest rates and lower economic growth, but in the long term many countries must not only renew an aging infrastructure but also expand it as populations and economies grow. Volvo Construction Equipment's (Volvo CE) currency-adjusted net sales increased by 1% to SEK 105.0 billion, despite deliveries of Volvo-branded machines decreasing by 3% and deliveries from our SDLG brand in China going down by 48%. The adjusted operating margin improved to 16.2% (13.2).

Volvo CE continued to drive the transformation with the launch of several electric products of different sizes and supporting services into more markets. We also announced an investment in battery pack production at the excavator plant in Changwon, South Korea. Furthermore, a new dedicated business unit for compact machines and solutions was established, with the aim of driving growth and profitability in this important and growing segment.

Demand for buses continued to improve, particularly for coaches and on the service side as travel kept increasing. Currency-adjusted net sales in the Buses segment rose by 15% and amounted to SEK 22.4 billion. The underlying profitability improved, with an adjusted operating margin of 4.7% (1.9).

On the city bus side of the business, demand for electric buses continued to increase and Volvo Buses continued the rollout of its global all-electric BZL chassis. During the year, we decided to restructure the business model for Volvo Buses in Europe and for

"Decarbonizing the transport and infrastructure industries is a critical step toward a more sustainable future."

Nova Bus in North America to structurally improve competitiveness and profitability.

For Volvo Penta, demand on both the marine and industrial side was good in the beginning of 2023, but weakened during the course of the year, particularly for smaller boats. For the full year, sales of both engines and services grew, with currency-adjusted net sales increasing by 10% to SEK 21.0 billion. The adjusted operating margin increased to 15.4% (14.0).

Volvo Penta broadened its electric portfolio on the industrial side with battery-based energy storage solutions and the electrification of applications in material handling and construction. On the marine side, the Innovation Award-winning Joystick Docking was introduced and the successful Inboard Performance System was expanded into larger vessels.

For our customer-financing business, Volvo Financial Services, the good customer activity levels were reflected in low credit provision expenses and a stable portfolio performance. The adjusted operating income increased to SEK 3,855 M and the return on equity was 13.0% (−0.3).

In addition to the strong growth and continued good profitability, return on capital employed in the Industrial Operations increased to 36.7% (27.4). We also generated a strong operating cash flow of SEK 45.8 billion (35.3). At year-end, we had net financial assets of SEK 83.4 billion in the Industrial Operations, pension and lease liabilities excluded. Our strong performance allows us to both continue to provide our shareholders with a good return on their investments and at the same time fund the activities that are driving the transformation of our industries to more sustainable solutions. The Board of Directors proposes an ordinary dividend of SEK 7.50 (7.00) per share and an extra dividend of SEK 10.50 (7.00) per share.

Improving performance and driving the long-term strategy
We are working with several strategic priorities to capture growth opportunities and improve our underlying performance. One area of priority is the service business, because it contributes to increasing our customers' uptime and productivity and strengthens our relationship with them. Furthermore, it provides stability to the Group's earnings over the business cycle.

Another important area is to continue to strengthen our North American truck business. We have made great progress in improving profitability over the business cycle in North America, not least thanks to a stronger service business, and now we are taking the next step. In the beginning of 2024, Volvo Trucks launched an all-new platform as the base for a range of new truck models with all upcoming technologies such as battery-electric, fuel cell-electric and internal combustions engines running on renewable fuels including hydrogen. We are starting with a new version of our best-selling Volvo VNL model. We are confident that this new platform is a game-changer with class-leading energy efficiency.

A third focus area is to drive leadership in zero-emission vehicles, where we have established a strong position thanks to being early out in launching a wide range of electric vehicles and machines. Step by step we are improving our electric products in terms of increased ranges, shorter charging times and new active safety features. We are also continuously expanding our comprehensive ecosystem of charging infrastructure, route simulation services, maintenance and repair and financial solutions to make our customers' adoption of electric vehicles as easy as possible.

We also maintain focus on our long-term vision to offer solutions that are 100% safe, 100% fossil-free and 100% more productive. We have set climate targets in line with what the latest climate science deems necessary to keep global warming at a maximum 1.5 °C and our pathway to reach the goals of the Paris Agreement have been validated by the Science Based Targets initiative. And we have continued to strengthen our work with the principles of the UN Global Compact regarding people, business ethics and the environment.

We know that we are at the early stages of a long journey, but we also know that the transport and infrastructure industries are vital in driving sustainable growth. Their pivotal roles lie not only in their capacity to reduce emissions but also in their potential to drive transformative change and sustainable development. Our customers use our products and services to move goods and materials, help people get to work or school and build and maintain the infrastructure we all rely on every day. With a growing world population, increasing urbanization and growing e-commerce, the demand for transport and infrastructure will continue to increase. We will meet this demand with solutions that are considerably more sustainable, more productive and safer than today. We have already begun this journey together with a growing number of customers. The shift to a decarbonized transport system is a unique growth opportunity for us as a Group, while at the same time enabling us to have a positive impact on our customers' businesses and on society.

The transformation to electric products goes hand in hand with our strategy to offer our customers complete solutions that bring them both value and peace of mind. It is about really understanding our customers' businesses and providing complete packages with equipment, financing, service contracts, insurance, uptime and productivity services, and in the case of electric solutions also charging capabilities and battery optimization. This is an opportunity for us to deepen our engagement with our customers' businesses and to build true partnerships over time.

As our customers begin their journey towards net-zero, many of them realize that transports make up a substantial part of their carbon footprint. More than 7,000 companies have signed up to the Science Based Target initiative and this creates a positive pressure for change in the value chains. Acting as advisors and solutions providers, we work together with our customers – and sometimes with their customers – to help them decarbonize their transport systems. This shift will gain further momentum in the coming years when these companies are looking to deliver on their own Science Based Target commitments for 2030.

Three-pronged approach on the road to net-zero

On our road to net-zero, we are developing multiple solutions in parallel because we believe that there is no silver bullet that will solve the climate challenge. Therefore, we are investing considerable resources in developing both battery-electric and fuel-cell electric technologies as well as internal combustion engines running on low carbon fuels. It is important to remember that these technologies will complement each other, not compete. The Volvo Group has been instrumental in creating a market for electric trucks and construction equipment that did not exist only a few years ago. Today, electric trucks, buses and construction machines are part of our core business. So, customers looking to transition away from fossil fuels do not have to wait and see which technology will "win" – they can start looking at available options in their local market today. The solution they are looking for to cut carbon emissions is in most cases already available from the Volvo Group.

The involvement of other stakeholders and partnerships are key success factors, and we truly believe that it is only by moving forward together that we can make a positive impact on our climate and facilitate a green economy. To accelerate the rate of change even further, we are working with partners in a number of key areas, ranging from our strategic alliance with Isuzu Motors, with Samsung SDI on batteries, our joint venture with Daimler Truck on fuel cells, cellcentric, and our partnership with Daimler Truck and the Traton Group on charging infrastructure in Europe, Milence.

We are convinced that our commitment to decarbonization will lead to increased revenues. The main driver is the higher value of the electric vehicles and machines and increased service contract penetration and duration. Revenue growth will also be supported by increased revenues from autonomous solutions, new digital services and services connected to energy solutions. This is a great opportunity for us, as the shift drives systems thinking, where the vehicle and machine is one part of a total solution encompassing charging infrastructure, battery optimization, maintenance, financing and other value-adding services.

Many milestones passed during the year

We were early out in the transformation, starting with hybrid-electric city buses more than ten years ago and have been on a steady development and improvement journey since then. In 2023 deliveries of fully electric vehicles and machines grew by 128% to 4,996 units, albeit from low volumes.

We are producing our electric trucks on the same lines as conventional trucks, enabling us to utilize our existing industrial footprint and draw on the vast knowledge and experience of our talented colleagues in operations. Volvo Trucks has a broad electric line-up with a total of six electric trucks designed to handle a wide variety of transport assignments. In Q4, Renault Trucks started serial production of heavy-duty electric trucks for regional transport and construction, complementing their successful electric light- and medium-duty trucks. Our electric trucks are developed with our customers' diverse operations in mind. Proof that they are already creating value came when the Volvo FH Electric was selected as "International Truck of the Year 2024". It was the first time ever that an electric truck won the award.

In 2022, we showcased our future fuel cell electric trucks, and in 2023 we tested them on public roads for the first time. These zero exhaust emission trucks will be especially suitable for longer distances and when using only batteries is not an option, for example in areas with insufficient charging infrastructure. But hydrogen is not limited to fuel cells, we also see great potential in using green hydrogen in the internal combustion engine.

There is a growing demand for clean, efficient, and safe urban transportation that we can tap into. In October, we announced that we will join forces with Renault Group and CMA CGM Group to address this demand with an all-new generation of fully electric and software-defined vans and associated services. Production is planned to start in 2026.

Batteries are crucial for the electrification journey. We are already assembling battery modules into battery packs in-house and we are taking further steps in the value chain with the start of production of battery modules. In 2023, we had a groundbreaking ceremony for our planned battery cell plant in Mariestad, Sweden and with the acquisition of the business and assets of the Proterra Powered business unit we fast forward the establishment of a battery value chain in North America. With the acquisition, we will both complement the current and accelerate our future battery-electric road map.

In this annual report you can read more about these important events and other achievements during a very intense year.

A solid foundation to build on

Decarbonizing the transport and infrastructure industries is a critical step toward a more sustainable future. This transformation requires collaborative efforts from companies, industries, communities, and governments worldwide. We in the Volvo Group are determined to be a positive force in this shift with our ever more efficient transport and infrastructure solutions.

We have been successful in building a solid foundation with a strong financial position, customer satisfaction and relations, industrial backbone, technology, products and services and – most importantly – people. I would like to extend my gratitude to all colleagues and business partners for their hard work and dedication. I have said it before, but it is worth repeating: succeeding in this industry is all about people, and our people make the difference.

Martin Lundstedt
President and CEO

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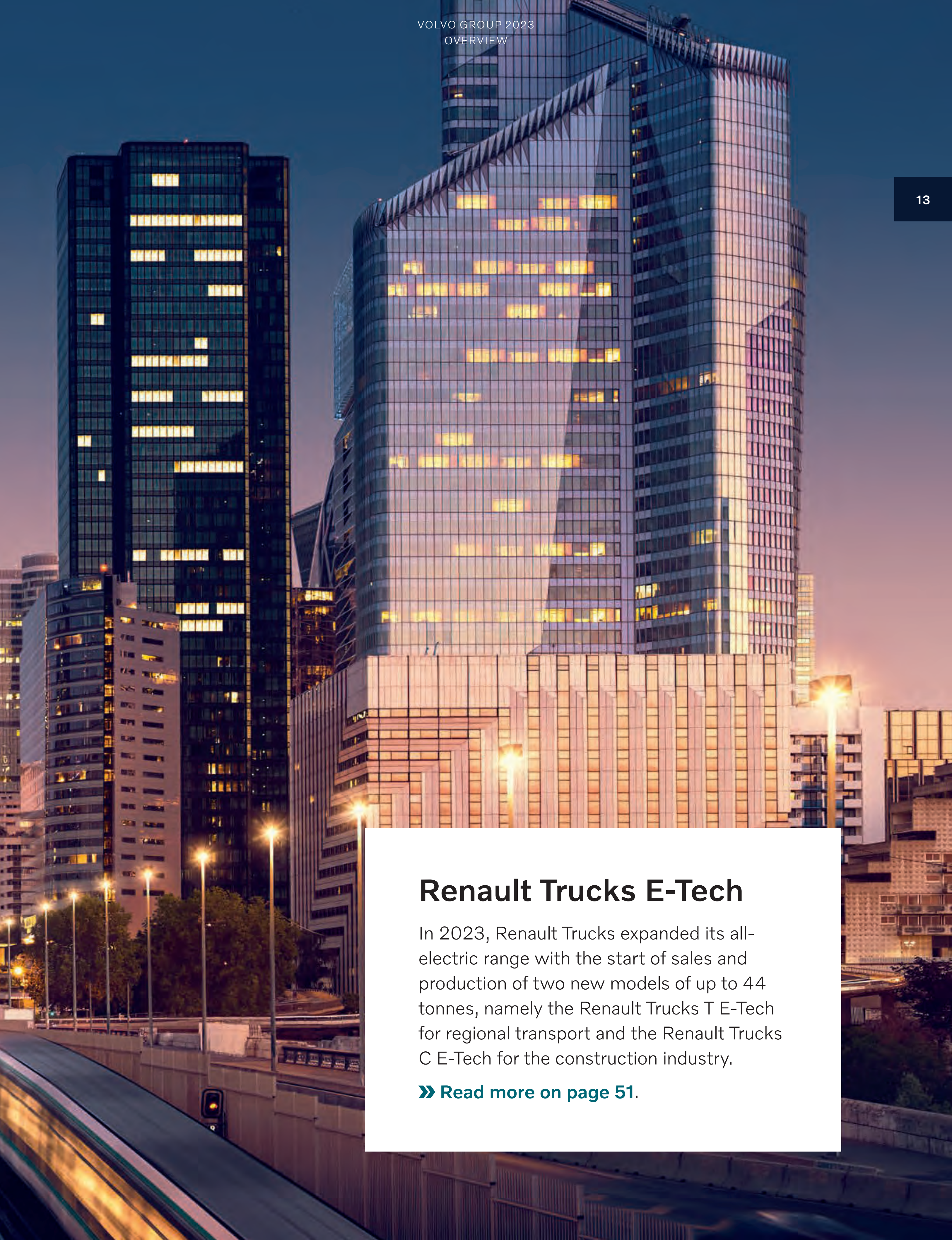
Our strong performance allows us to both provide our shareholders with a good return on their investments and at the same time fund the activities that are driving the transformation of our industries to more sustainable solutions.


100% ELECTRIC



Renault Trucks E-Tech

In 2023, Renault Trucks expanded its all-electric range with the start of sales and production of two new models of up to 44 tonnes, namely the Renault Trucks T E-Tech for regional transport and the Renault Trucks C E-Tech for the construction industry.

» **Read more on page 51**.

Our mission – driving prosperity

Our mission is to drive prosperity through our transport and infrastructure solutions. Our vision is to be the most desired and successful provider in our industries, across the globe.

We develop our products, services and solutions to create value for our customers, to contribute to the well-being and safety of people and to sustainable societies. By doing so, we also create value for our shareholders.

We aspire to deliver leading customer satisfaction for all brands in their segments; to be the most admired employer in the industry, and to have industry-leading profitability. The Group's values, Customer success, Trust, Passion, Change and Performance, serve as a guide to our day-to-day behavior and drive decisions on all levels of the organization. Our Code of Conduct outlines how we in the Volvo Group do business: ethically and in compliance with the law.

VOLVO GROUP

MISSION

Driving prosperity through transport and infrastructure solutions

VISION

Be the most desired and successful transport and infrastructure solution provider in the world

ASPIRATIONS

Have leading customer satisfaction for all brands in their segments | Be the most admired employer in our industry | Have industry leading profitability

VALUES

Customer success | Trust | Passion | Change | Performance

CODE OF CONDUCT

We earn business fairly and lawfully | We safeguard company information and assets | We respect and care for one another | We separate personal interests from business activities | We communicate transparently and responsibly

Seven strategic priorities
In addition to the mission, vision, aspirations, values and Code of Conduct we have decided on seven strategic priorities to capture growth opportunities and improve underlying performance. The strategic priorities provide the overall direction and act as a guide in our decision-making, but should not be seen as a detailed action plan. The order in which the priorities are presented does not reflect their relative importance.

Providing peace of mind for our customers
To be successful the key is to create value for our customers by impacting their bottom line profitability. By understanding our customers' priorities and challenges, we can provide products, services and solutions that grow their revenues and decrease their costs. This is the basis for our strategic direction.

Our holistic approach to supporting our customers and their business needs is built upon a strong foundation of products, services and total solutions. Our aim is to help our customers to maximize their uptime and productivity. We do this in several ways.

World-class products
The Volvo Group sells its products under the Volvo, Volvo Penta, Rokbak, Renault Trucks, Prevost, Nova Bus, Mack and Arquus brands. We also partner in alliances and joint ventures in SDLG,

Seven strategic priorities – balancing perform and transform

1 **Transform the Volvo Group to become a leading end-to-end integrator and offer easy-to-integrate products and services through strong brands.**

2 **Grow the service business and target selected industry verticals offering a portfolio of tailor-made solutions.**

3 **Secure a desirable and sustainable product and service portfolio with the right quality, leveraging new and well-known technologies, CAST (Common Architecture and Shared Techology), partnerships, and digital innovation – accelerating electromobility solutions.**

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.**

5 **Develop robust profitability throughout the decentralized regional value chains by leveraging global scale, digitalization, a purpose-fit footprint and continuous improvement using the Volvo Performance System.**

6 **Selectively capture, accelerate and scale-up new businesses and develop competencies and capabilities needed.**

7 **Reinforce value-based leadership and ways of working where all colleagues are empowered to take action and are accountable for the results.**

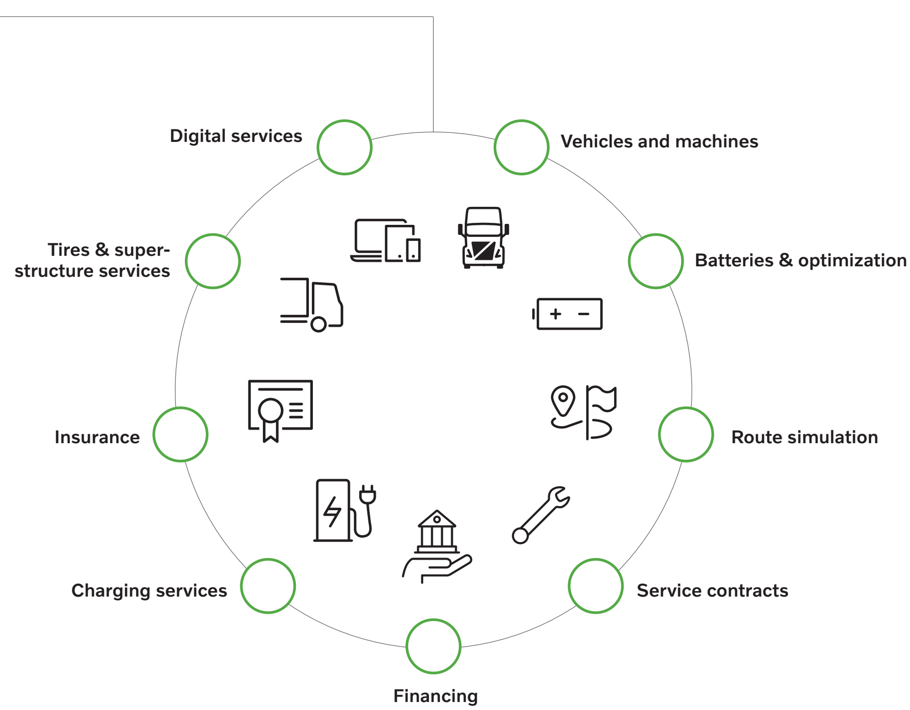
Milence, Eicher, Dongfeng and cellcentric. By offering products and services under different brands, we address many different customer and market segments around the world.

The Volvo Group's products have been developed to contribute to efficient transport and infrastructure solutions and to provide our customers with reliable 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 contracts and assistance services. We also offer batteries and battery optimization, route simulation and charging services. The range and flexibility of the offering means that solutions can be tailor-made for each customer to secure 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.

Total solutions



Consistency in delivery of both growth and profit

The performance of the Volvo Group has improved substantially during the last few years. Our focus has been on 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, well-established dealer networks and customer relations. We have strong finances and are in a good position to be able to invest further in new technologies. Our aim is to excel on the basics and build resilience. This is key to our long-term profitability.

Growing service business

Our financial performance is ultimately decided by how close we work with our customers and how successful we are in providing peace of mind to them. A good indicator of this is the development of our service sales. In 2023, net sales in the service business amounted to SEK 127.5 billion, equivalent to 23% of Group net sales. The compounded annual growth rate in the service business has been 5% over the last five years. A stronger service relation and growing service business support our profitability throughout the business cycle. This is an area of priority for the Volvo Group.

To continue growing our service business we will focus on the untapped potential that exists both in terms of market share and in terms of increasing the sales of spare parts, workshop hours, financing, insurance and uptime services. Around 2.1 million trucks, 700,000 construction machines and 80,000 buses have been produced by the Volvo Group in the last ten years, of which many are connected. With these as a base we can extend our service offer and increase the uptime and productivity to the benefit of our customers.

Transformation accelerating growth

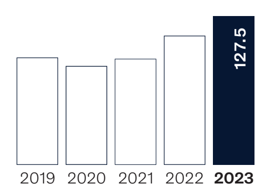
Over the last decade, the Volvo Group has established industry-leading profitability and a strong return on capital employed and is now taking the next step on its strategic journey. The need for transportation is increasing as are the investments in infrastructure, and the drivers of transformation within our industries are clear.

Today's trucks and construction machines are not used to their full capacity due to e.g. congestion, insufficient route planning and low fill rates. However, with current infrastructure, a fully loaded

Good growth in service sales

Growing the service business is an area of priority. In 2023, net sales of services amounted to SEK 127.5 billion, corresponding to 23% of the Group's total sales.

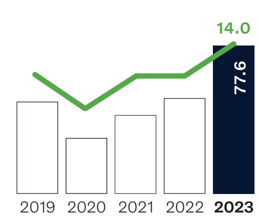
Net sales of services, SEK bn



Improved through-cycle earnings resilience

Profitability has improved in recent years. In 2023, the adjusted operating income amounted to SEK 77.6 billion with an adjusted operating margin of 14.0% (10.7). In 2019–2023 the average adjusted operating margin was 10.4%.

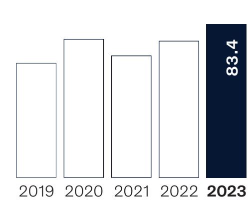
Adjusted operating income, SEK bn
Adjusted operating margin, %



Strong financial position

The Group's financial position is strong with a net cash position in the Industrial Operations of SEK 83.4 billion excluding post-employment benefits and lease liabilities at year-end 2023.

Net financial position Industrial Operations, SEK bn



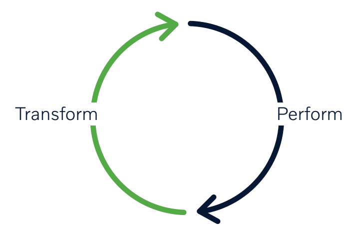
truck operating on diesel is one of the most energy-efficient ways of transporting goods on our roads. The same is true for construction equipment in current applications. However, our view is that battery-electric and fuel cell-electric vehicles and machines as well as products with internal combustion engines running on different types of renewable fuels are the future. These offers will be further developed to meet upcoming stringent CO_2 regulations and our customers' increased demand for sustainable alternatives.

When it comes to safety aspects, it is a fact that people lose their lives or are injured in traffic and on work sites with human error by far being 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 underutilized road networks. We continuously invest in products and services that offer safer, more sustainable and more productive solutions to our customers. To accelerate this development, we have also invested in new business models and new technology in recent years, with Volvo Autonomous Solutions (V.A.S.) and Volvo Energy as two examples.

V.A.S. develops commercially viable solutions for on- and off-road applications. Our autonomous solutions make our customers' operations more safe, productive and sustainable. Volvo Energy will offer both public and private charging solutions, energy storage, battery optimization and battery lifecycle management.

We transform our business to provide even greater value to our customers and respond to the need for transport and infrastructure solutions that are safe, more sustainable and more productive. The Volvo Group has a good initial market position in electric vehicles and machines and the focus is on accelerating the commercialization of new technologies and business models to get traction and

Perform to finance the transformation



Delivering on our financial ambitions and strategic direction

Over the last decade, the Volvo Group has established an industry-leading level of profitability and is now taking the next step on its strategic journey. Growth is expected to accelerate with the main driver being the higher value of electric vehicles and machines.

impact. The transformation is expected to accelerate our growth with the main driver being the higher value built into the electric vehicles and machines.

Geared for growth

At Volvo Group we are committed to offering the flexible services and solutions our customers need to build their business in the smartest way possible. The shift to electric equipment drives system thinking, where the truck or machine is one part of a total solution encompassing charging infrastructure, battery optimization, maintenance, financing and value-adding services.

For us, this transition brings a deeper, broader, and more long-term engagement in our customers' business. It also provides a significant opportunity for growth. We estimate that there is a potential to increase our revenues by more than 50% over the life-cycle of a product when comparing an electric vehicle to a conventional version. This is primarily based on the increased sales values of electric vehicles and machines but also on increased revenues from autonomous solutions, new digital services and services connected to energy solutions. Other factors expected to drive growth are increased service contract penetration and an increase in the duration of the contracts.

We also believe that autonomous solutions have the potential to bring a wide range of benefits to society. The introduction of self-driving vehicles and machines opens the way for transport systems that have a significantly reduced impact on the climate, are more productive, more energy efficient and safer. Since 2020, the Volvo Group has a business area, Volvo Autonomous Solutions, focused on developing and commercializing industrial autonomous transport solutions.

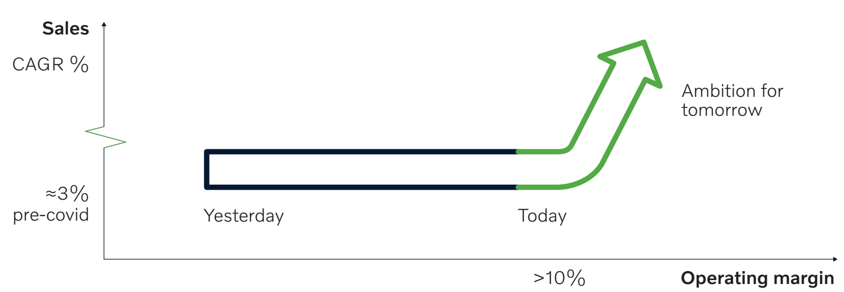
Although autonomous solutions are in relatively early phases, we believe that they may offer a significant growth opportunity as they tap into substantial revenue pools that we have not previously addressed. Instead of selling a truck or machine, we can provide customers with complete transport systems, driving productivity for them and revenues for the Volvo Group.

Enabling conditions

The transition to net-zero emissions in the transport and infrastructure industries will depend on a variety of factors. In addition to the availability of the Volvo Group's product and service offering but, there are 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 will also depend on factors such as governmental incentives for green technologies and the price of fossil fuel.

Clear opportunity for growth

- Capturing industry growth
- Untapped service potential
- Electric vehicles and machines
  - – higher sales value
  - – increased market shares
  - – increased service contract penetration and duration
- Autonomous solutions
- Energy services
- Digital services



Sustainable transport and infrastructure solutions

Transport of people and goods are essential for economic and social development. With a growing global population, rapid urbanization and increasing e-commerce, demand for transport and infrastructure are expected to continue to increase. We must meet this demand with products, services and solutions that are more sustainable.

The Volvo Group is a leading force in the shift towards the electrification of the transportation and infrastructure industries, making a real impact on our customers' efforts to reduce their carbon footprint.

It is our long-term vision to offer solutions that are:

- 100% safe
- 100% fossil-free
- 100% more productive.

Safe
Safe because we cannot accept a situation where, every year, people are killed and injured on roads and work sites. Safety is about putting people at the center of everything we do. We have a vision of zero accidents with Volvo Group products and in our own operations. We work proactively with our partners and with society to develop intelligent solutions that not only mitigate the consequences of accidents but strive to avoid them altogether. And, of course, safety is a prerequisite for vehicle uptime and increased productivity.

Fossil free
Fossil free because climate change is the challenge of our generation. We are enabling our customers to be leaders in the shift towards a decarbonized transport system. We offer fully electric solutions ranging from compact excavators to city buses and heavy-duty trucks with zero greenhouse gas tailpipe emissions and provide our customers a fast-track to emission reduction, while managing total investment and cost of operation parameters.

More productive
More productive because that will help us meet the growing demand for transport and infrastructure while staying within the boundaries of what our planet can sustain. Many transports are run with half-empty loads. By optimizing flows and increasing the utilization of equipment we believe it is possible to double the productivity of our customers' logistics systems. To improve productivity and the use of available resources, we are working with AI and Machine Learning technologies to optimize transportation through load consolidation, capacity sharing, and to improve fleet

100%

SAFE 100%

FOSSIL-FREE 100%

MORE PRODUCTIVE 100%

efficiency. In addition, we are developing autonomous transport solutions for confined areas such as quarries and mining, as well as for hub-to-hub transports on highways.

Driving the transition to net-zero
Around the globe, businesses are starting to move towards decarbonization with the help of Volvo Group products and services.

Just as the Volvo Group has set ambitious targets on greenhouse gas emission reductions that are in line with the Paris Agreement and approved by the Science Based Targets initiative (SBTi), many of our customers and their customers are also committing to their own sustainability goals. This contributes to them phasing out vehicles and machines running on fossil fuels and replacing them with electric products. Our range of zero-emission products and services play an important role in supporting this.

In 2015, there were 116 companies taking action with the SBTi. In 2022 that number was 4,200 and by the end of 2023 it had grown to 7,000.

Shift to electric
The shift to electric propulsion systems (both battery and hydrogen fuel cell-based) is not limited to heavy- and medium-duty trucks – it also covers construction equipment, buses as well as marine and industrial power applications. In addition, fossil-free biofuels can be used in combustion engines to help reduce greenhouse gas emissions.

Our electric vehicles and machines, based on well-proven technology within the Volvo Group, are serving in real operations. The electrified transport and infrastructure solutions are helping transport operators and customers in the construction sector to significantly reduce emissions and noise.

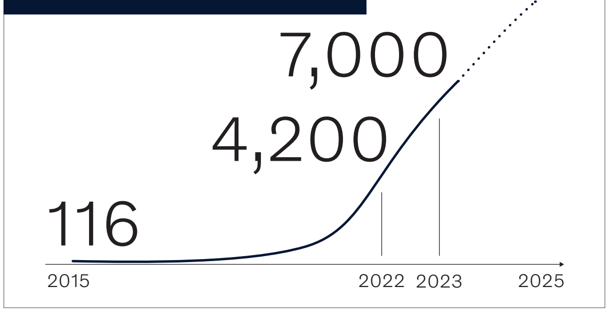
Already today, electric trucks and construction machines are viable options from a total cost of ownership perspective in certain segments in some markets. This transformation is expected to continue to develop segment by segment and region by region, with demand for electric trucks and machines expected to increase. This is exemplified by the illustration below with the expected development for trucks.

With improvements in battery and hydrogen fuel cell technology and the development of charging networks, the Volvo Group is convinced that there will be a transformation of most of the transport and infrastructure industries. However, the pace of electric transportation adoption will vary from region to region and depend on the availability of robust charging and hydrogen infrastructure. To this end, Volvo Group is an active partner in several battery charging and hydrogen infrastructure projects in both Europe and North America, with the express aim of increasing adoption rates and thereby further reducing emissions. Customer demand will also be dependent on governmental incentives for investments in green technologies and the price of fossil fuel.

Rollout of sustainable transport and infrastructure solutions
Our introduction of electric trucks, buses and machines has been ongoing for some time. In fact, it started back in 2015 with our first hybrid electric bus. We are drawing on the experience from

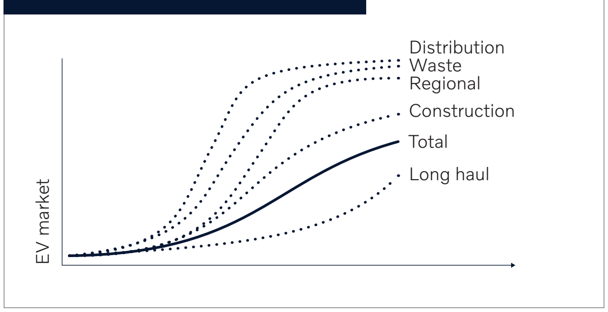
Taking action with science-based targets

Companies taking action with SBTi on climate change mitigation.



Expected adoption of electric trucks

Electrification will happen segment by segment and region by region.

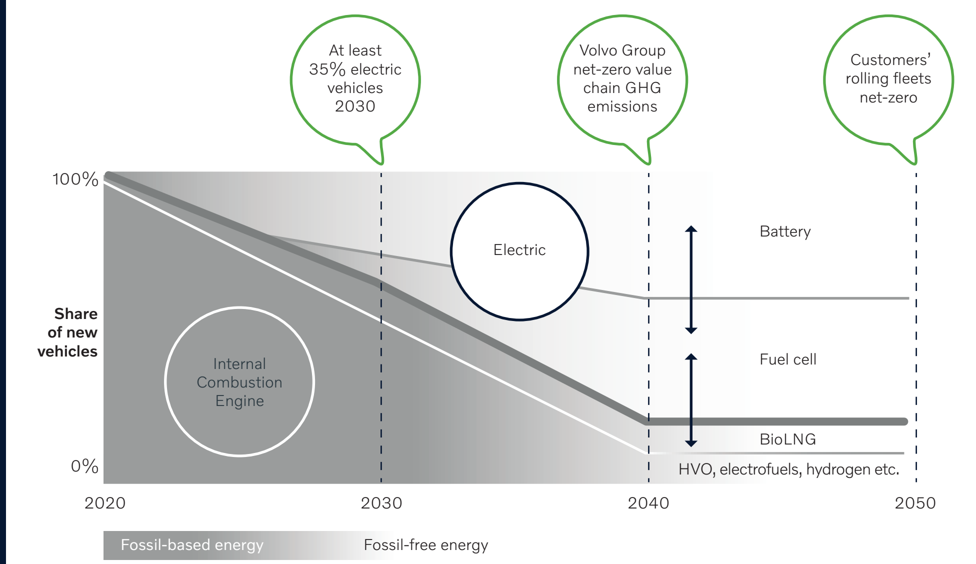


The Volvo Group's path to decarbonization

Our ambition is to reach net-zero greenhouse gas emissions by 2040. This will enable our customers to have net-zero rolling fleets by mid-century as it takes approximately ten years to renew a rolling fleet. We have a three-pronged approach to the decarbonization of the product offer and customers' fleets of vehicles and machines:

- Battery-electric
- Fuel cell-electric
- Internal combustion engines running on lower carbon fuels such as green hydrogen, biogas and HVO.

The black vertical arrows indicate that there is uncertainty about the future market share of the different technologies.



the city bus applications, having built the hybrid-electric solutions into battery-electric buses.

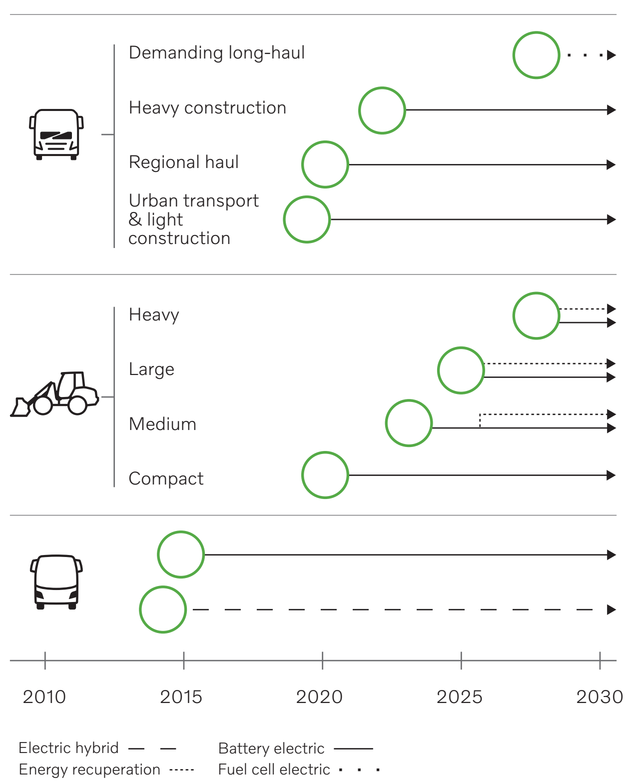
On the truck side, Volvo Trucks, Renault Trucks and Mack Trucks started series production of trucks for important segments such as city distribution, waste and recycling in 2020. The Group continued its step-by-step rollout with regional haul Volvo trucks in North America in 2021 and of Volvo trucks for regional haul and heavy construction in Europe in 2022. Renault Trucks started series production of its heavy-duty electric trucks in November 2023. The Volvo Group intends to have electric products and solutions for all relevant truck segments, eventually also the demanding long-haul segment, which is expected to be a combination of battery-electric and fuel cell-electric vehicles. In addition, there will be combustion engines running on renewable fuels, with green hydrogen being one option.

The first electric compact construction equipment were introduced in select markets in Europe in 2020. The rollout continued in Europe and North America in 2021, followed by Asia in 2022. The first medium-duty electric machine, the 23-ton EC230 electric excavator, was brought to selected markets in 2022 and in 2023 more markets in Europe were added. For heavier construction machines, fuel-cells is also expected to be an alternative towards the end of this decade.

Volvo Penta is also fully committed to developing reliable electric solutions for applications such as fire trucks, forklifts and terminal tractors.

Both vehicle and machine equipment applications will rely on the availability of local or onsite electric charging or hydrogen generation and refueling infrastructure.

Electrification roadmap




100% ELEC
RENAULT TRUCKS E-T
itchToElectric

Strong assets a base for the transformation

In the shift to electric vehicles and machines and autonomous transport, the Volvo Group has several strong assets such as a modular platform, a well-invested industrial system and strong partnerships.

The Volvo Group's modular vehicle architectures can continue to serve the Group well. They create flexibility as well as cost and capital efficiencies in research and development as well as in the industrial system.

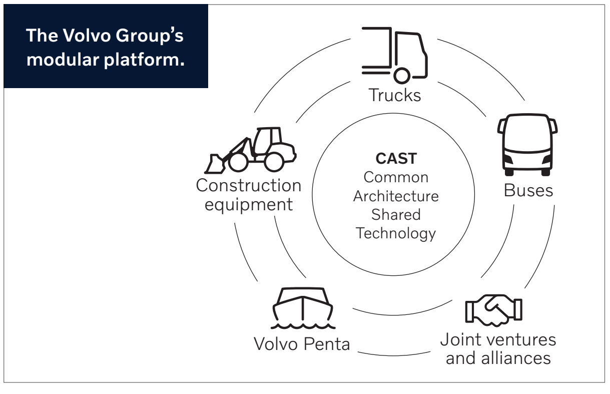
CAST – the Volvo Group's modular system
The Volvo Group and its partners can benefit from the Group's modular platform Common Architecture & Shared Technology (CAST). The ambition with CAST is the continuous development of a competitive set of modular products and services that are easy to integrate, meet future legal, market and societal needs, as well as meeting customer expectations. The CAST system is modular, scalable and cost-efficient.

Through well-defined performance steps and continuous reduction of complexity, the CAST ecosystem supports our different brand strategies across disruptive technology trends while capturing synergies for the Volvo Group and its joint ventures and alliance partners.

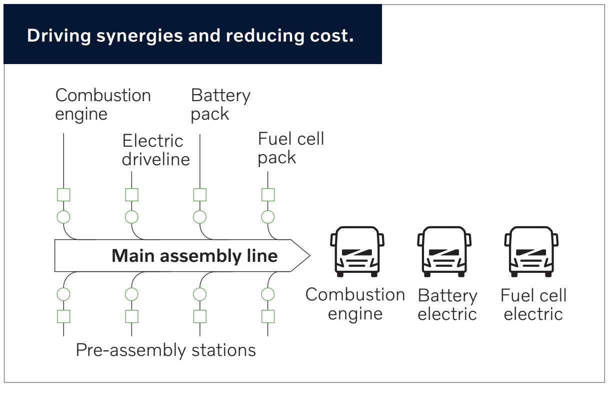
Trucks with different drivelines on the same assembly line
The Volvo Group's modular vehicle architecture creates advantages in both the development and manufacturing phase. For example, it allows us to put either an internal combustion engine, a battery-electric driveline or fuel cell-electric driveline in the same truck chassis. In this way, we can reduce time and costs in the development phase and bring new offers to the market faster. In addition, we can manufacture the different variants on the same assembly line in existing plants, leveraging our skilled workforce and invested capital.

Increased depth of engagement in the battery value chain
In 2022, Volvo Group opened its very first battery pack assembly plant. Located in Ghent, Belgium, the plant supplies ready-to-install batteries for Volvo Trucks' full electric heavy-duty trucks. In the new battery plant, cells and modules from Samsung SDI are assembled into battery packs that are tailor-made for the Volvo Group's products. In 2025, the plant in Ghent will start to also produce battery modules. The decision to install battery module

Common Architecture & Shared Technology



Trucks with different drivelines on same line



manufacturing capacity is an important step for the Volvo Group to shape its future value chain for battery systems.

Another important step is the process to establish a large-scale production plant for battery cells in Mariestad, Sweden. Construction of the plant is planned to begin in 2024 with commissioning towards the end of this decade. The Volvo Group plans to gradually increase capacity to reach large-scale series production. The battery cells will be designed specifically for commercial vehicle applications.

In the beginning of 2024, the Volvo Group acquired the battery business from Proterra in the US, adding new capabilities and capacity to the Group. Read more on page 52.

Leadership through partnerships

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. Below are some examples.

We have a strategic alliance with Isuzu Motors. The alliance aims to capture opportunities in the ongoing transformation of the commercial vehicle industry. Alliance work includes a technology partnership and creating a larger volume base to support investments for world-class technology.

We also have a strategic alliance with Samsung SDI to develop batteries for the Volvo Group's electric products. Working together with Samsung SDI, Volvo Group aims to accelerate the speed of development and strengthen the long-term capabilities within electromobility, to the benefit of customers in different segments and markets.

Partnerships with other OEMs

The Volvo Group and Daimler Truck have a fuel cell joint venture called cellcentric, with the intention to develop, produce and commercialize fuel cell systems for heavy-duty vehicle applications and other use cases.

Together with Daimler Truck and the Traton Group we have founded Milence, to install and operate a high-performance public charging network for battery-electric heavy-duty long-haul trucks across Europe.

Partnerships for autonomous solutions

We work together with Aurora to develop autonomous solutions for on-highway transportation. Aurora is a US-based company specialized on the development of virtual drivers. Volvo Autonomous Solutions has also partnered with customers DHL Supply Chain and UBER Freight regarding on-highway autonomous solutions and with for instance Holcim to further develop the use of autonomous electric haulers in quarries.

Fossil-free steel, aluminum and clean energy

The Volvo Group collaborates with SSAB on the research, development and commercialization of the world's first vehicles made of fossil carbon emission-free steel.

We also have a collaboration with H2 Green Steel for near zero emission steel. Under the long-term agreement Volvo Group will purchase near zero emission steel from H2 Green Steel's new plant in Boden in Northern Sweden. Start of production is planned for end of 2025 with deliveries to Volvo Group starting mid-2026.

During the UN Climate Change Conference COP28 held in Dubai in December 2023, the Volvo Group announced a new strategic partnership with Norsk Hydro, that includes establishing a roadmap towards supplying near zero aluminum ahead of 2030 and to enable greater use of low-carbon aluminum in Volvo's production towards supplying net zero aluminum in 2040. The partnership will also explore how Volvo Group's innovative transport solutions can be used in Norsk Hydro's mining operations in Brazil to further reduce the carbon intensity of the aluminum value chain.

Amid increasing demand for clean energy, Volvo Group in 2023 partnered with Vattenfall, the largest producer of renewable electricity in Sweden. Read more on page 44.

Driving change with public-private partnerships

We are also active in public-private partnerships to drive change. One such partnership is First Movers Coalition which has been established with the aim to drive demand for low carbon technologies. Volvo Group is a founding member of the coalition.

H2Accelerate is a collaboration with the aim to accelerate the use of hydrogen as a fuel for heavy-duty road transport in Europe. The group comprises vehicle OEMs Volvo Group, Daimler Truck and Iveco and hydrogen suppliers Shell, OMV and TotalEnergies.

Group targets – fulfilling our ambitions

The Volvo Group has targets for both financial development and development in the area of sustainability.

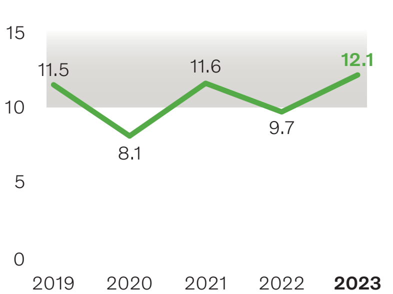
Financial targets

The current financial targets were set by the Board of Directors in 2017 and encompass operating margin for the Volvo Group, net financial position in the Industrial Operations and return on equity in Financial Services.

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 is 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.

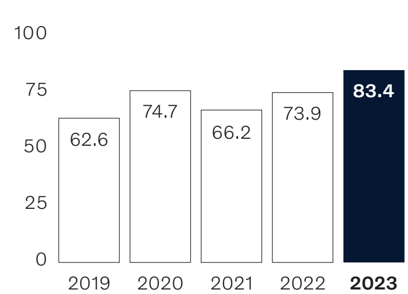
OPERATING MARGIN FOR THE VOLVO GROUP, %



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

Outcome: In 2023, the operating margin amounted to 12.1% (9.7). In 2019–2023 the average operating margin was 10.6%. In 2023, the adjusted operating margin amounted to 14.0% (10.7). In 2019–2023 the average adjusted operating margin was 10.4%. For more information on adjusted operating margin, please see Key Ratios on page 218.

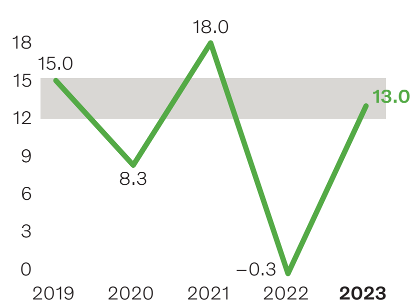
NET FINANCIAL POSITION INDUSTRIAL OPERATIONS, excl. post-employment benefits and lease liabilities, SEK bn



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 2023, the Industrial Operations had a net financial asset position of SEK 83.4 billion (73.9).

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 2023, return on equity amounted to 13.0 (–0.3) at an equity ratio of 8.0%. In 2019–2023 the average return on equity was 10.8%. Excluding Russia and Belarus return on equity was 13.9% in 2023 and 15.4% in 2022. In 2019–2023 the average return on equity excluding Russia and Belarus was 14.1%. For more information on adjustments, please see Key Ratios on page 218.

Climate targets

The Volvo Group has committed and set targets in line with the Science-Based Targets initiative (SBTi) campaign Business Ambition for 1.5°C, and we have set ambitious milestone targets in our own operations and value chain along the way. As the most significant emissions are in the customers' use-phase, the Volvo Group sees significant opportunities in helping to decarbonize their operations.

The transition towards lower emissions in our industries is at an early stage but is expected to accelerate with increased electric vehicle sales and with the support of fuel-efficiency improvements.

The Group's own operations (Scope 1 and 2) make up less than 1% of total emissions. The use-phase (Scope 3.11) makes up approximately 95% of lifecycle emissions and this is our main focus of decarbonization. Consequently, we have established targets per segment.

For Trucks and Buses, the targets are set in emission per vehicle-kilometer. For Construction Equipment, Volvo Penta and our own operations, the targets are set as total absolute reductions. These targets are approved by the SBTi as science based.

Tracking of emissions in remaining scopes, representing approximately 4% of the total, is under development.

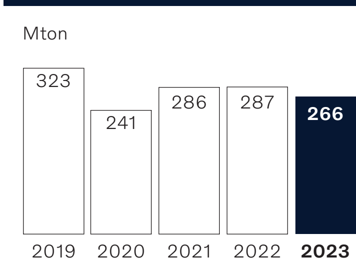
SBTI APPROVED CLIMATE TARGETS, from baseline 2019

Scope 3 use phase	Scope 3 use phase	Scope 3 use phase	Scope 3 use phase	Scope 1–2
TRUCKS	**BUSES**	**CONSTRUCTION EQUIPMENT**	**VOLVO PENTA**	**OWN OPERATIONS**
Target 2030 **–40%** emissions per vehicle km	**Target 2030** **–40%** emissions per vehicle km	**Target 2030** **–30%** absolute emissions	**Target 2034** **–37.5%** absolute emissions	**Target 2030** **–50%** absolute emissions
Status 2023 **–6%**	**Status 2023** **–5%**	**Status 2023** **–40%**	**Status 2023** **+11%**	**Status 2023** **–23%**

On an aggregated level, the total calculated emissions amounted to 266 million tons 2023 compared with 323 million tons in 2019. The result in total GHG emissions is a combination of energy efficiency, sales volumes and product mix. For construction equipment, lower sales volumes in China compared to baseline is the most important factor.

The reported emissions for the year in 'scope 3.11' use phase make up the vast majority of the total emissions footprint and is calculated by including expected lifetime emissions from all products sold in the reporting year. As such, annual sales volumes 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 detailed information on GHG emissions, measurements and targets on pages 170–171.

GREENHOUSE GAS EMISSIONS




ELECTRIC

Volvo EC230 Electric launched in Europe

In 2022, Volvo Construction Equipment launched its mid-size EC230 Electric in Norway. The battery-electric excavator has since then been successfully deployed at fossil-free construction sites in markets such as Sweden and is now commercially available to selected customers across Europe.

Sustainability impacts across the value chain

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

Business models depending on use case

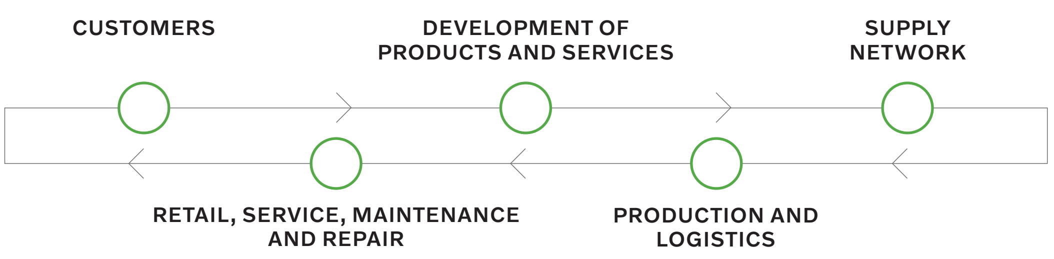
Volvo Group is continuously striving to develop business models suitable for different customers and their specific use cases. We summarize our key business models in three variants.

1. We offer uptime and performance with vehicles and machines that our customers take full ownership of. Here we add value with premium products and services as well as financing solutions.
2. We offer customers the opportunity to increase capacity through business models based on usership, where we bundle products and services. Examples are rental services, operating leases and equipment as a service.
3. We offer customers productivity-based solutions where we design turnkey solutions and where we operate sites or routes for certain segments. This can include infrastructure establishment such as charging, battery monitoring and automation.

In terms of volumes and net sales, the majority of our business is within the first type of business model, where the ownership is transferred to the customer.

In the transition towards net zero greenhouse gas emissions, we see opportunities to move more into business models based on usership and end-to-end productivity solutions.

In this shift we see opportunities to generate more value for our customers. The shift is also a clear growth opportunity for the Volvo Group, based on the higher sales values of electric vehicles and machines, autonomous solutions, new digital services and services connected to energy solutions.



Our customers

The Volvo Group's business areas support customers in the main segments of trucks, buses, construction equipment, marine drive systems and industrial engines. Customers and end users are active in many industries. Direct customers are found in the key industries of road freight transportation, public transportation, construction and infrastructure development sectors.

Our aim is to support our customers by providing offers that increase their productivity, provide safe operations, secure uptime and increase fuel efficiency and thus reduces GHG and exhaust emissions, since the use-phase makes up approximately 95% of CO_2 emissions.

Sustainable business focus areas

- Customer and end-user safety » **page 184**
- Climate » **page 166**

Development of products and services

Fulfilling our customers' needs and improving their safety, 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 we are investing in that need to be balanced with investments in the development of current technologies.

We provide a range of products and services to customers on almost 190 markets. The Group's product offering includes new trucks, buses, machines and engines as well as sales of used trucks, buses, machines, trailers, superstructures and special vehicles.

Services include sale of spare parts, maintenance services, repairs, extended coverage, connectivity solutions and other aftermarket products. Services also includes sales in Financial Services related to finance leases, operating leases and insurance.

Sustainable business focus areas

- R&D related to zero- and low-emission vehicles » **page 169**

Supply network

The Volvo Group depends on global and regional supply chains to deliver components, parts and complete services and systems. Approximately 12,000 suppliers support the Volvo Group's serial production and in total the Group's supply network is made up of more than 50,000 suppliers globally. When developing a robust supplier base, we look at a wide range of impacts, opportunities and risks. Our Supply Partner Code of Conduct sets the foundation for how we work.

Our supply partners have an important role in helping to develop the solutions needed for our net-zero ambition as well as to reduce supply chain emissions. Our latest inventory shows that GHG emissions from the supply chain make up approximately 4% of the total product life-cycle emissions. Focus areas for emission reduction activities have been identified in aluminum, steel, plastics, batteries and electronics.

Sustainable business focus areas

- Responsible purchasing and social impact » **page 189**
- Supplier environmental assessments » **page 173**
- Sustainable minerals program » **page 190**

Production and logistics

Our global industrial and logistics system strives for continuous improvement to deliver on customer expectations and meet internal targets. 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.

The manufacturing operations depend on suppliers that sub-assemble parts and systems. The Volvo Group utilizes truck assembly partners and bus body builders to carry out certain assembly processes for the final product.

Sustainable business focus areas

- Employees and workforce » **page 179**
- Health and safety » **page 182**

Retail, service, maintenance and repair

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.

We offer different levels of service contracts to optimize and extend product life, which can lead to both resource efficiency and business opportunities. Durable products in combination with added services can enable good opportunities to extend product usefulness and sell used or repurposed vehicles and parts.

Sustainable business focus areas

- Responsible sales » **page 188**
- Resource use » **page 173**

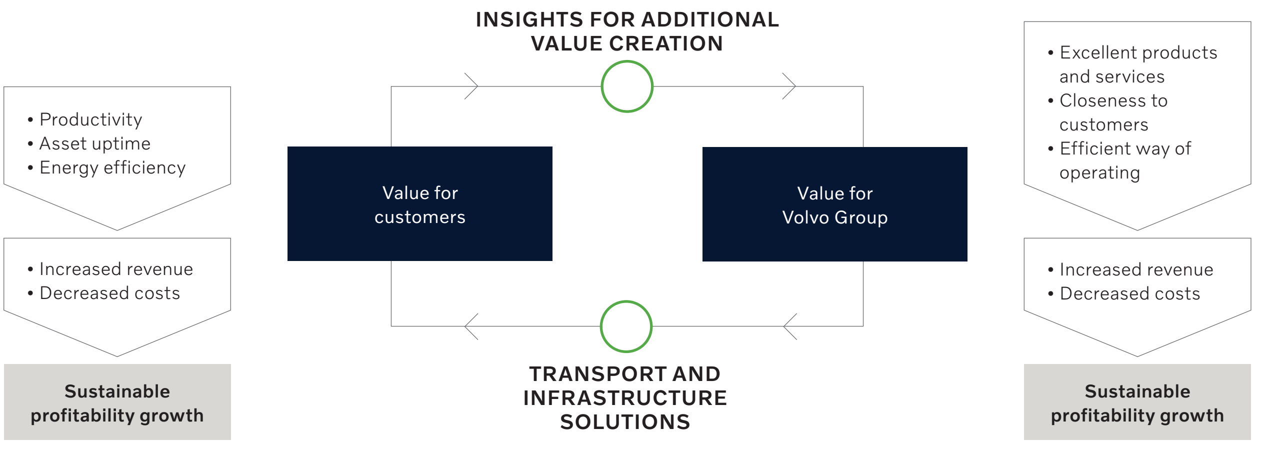
Driving prosperity for many stakeholders

By delivering customer value, we also create value for ourselves, our employees, our owners, other stakeholders and for society as a whole.

We believe that the key to being successful 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 their costs.

Key areas to create value for our customers are offers that increase our customers' productivity, secure uptime and increase fuel efficiency.

Value creation



For customers

For our customers, uptime is everything. Regardless of 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. Around 2,1 million trucks and 80,000 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 employees

(SEK bn)

57.0

The Group's 104,000 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 2023, we paid SEK 57,020 M in salaries and remuneration.

For suppliers

(SEK bn)

374.5

A solid supplier base and professional partnerships are essential for the Volvo Group. The 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 2023 we bought goods and services for SEK 374,526 M.

For shareholders

(SEK bn)

36.6

The Volvo Group strives to generate value for its shareholders through a positive share price development and payout of dividends. From 2018 to 2023 the price for the Volvo B share rose by 126%. 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 2023, shareholders received dividends totaling SEK 28,468 M. To the 2024 AGM, the Board of Directors proposes an ordinary dividend of SEK 7.50 per share and an extra dividend of SEK 10.50 per share, in total SEK 36,602 M.

For society

(SEK bn)

39.1

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 2023, the Group paid SEK 12,891 M in social costs, SEK 5,423 M in pension costs and SEK 20,807 M in income taxes, in total SEK 39,121 M. We also pay customs duties as well as property and energy taxes.

For creditors

(SEK bn)

1.2

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 2023, the Volvo Group paid its creditors SEK 1,158 M in interest.

For the Volvo Group

(SEK bn)

39.8

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 2023, the Volvo Group invested SEK 26,645 M in R&D and another SEK 13,120 M in property, plant and equipment, in total SEK 39,765 M.

Volvo Group colleagues driving the transformation

For Volvo Group, creating a safe, inclusive, and engaging work environment for its employees is an essential focus area. Digitalization, electromobility, and automation have a significant impact on our business and ways of working, and in this shift our people are the most valuable asset.

Our care for people comes to life in how we encourage lifelong learning, promote upskilling and reskilling, grow talent, invest in people and create a culture where everyone can contribute. This approach will help Volvo Group 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.

Employee Safety
Volvo Group never compromises on workplace safety in its operations and works towards a zero-accident rate with proven methods that strive to avoid any conditions that put employees at risk. In addition to seeking to reduce the most frequent accidents, which are usually also the minor ones, Volvo Group is increasing its focus on preventing serious injuries and fatalities. All our operations are governed by safety standards and everyone in our organization has both the right and the responsibility to raise issues to improve workplace safety – until we reach a zero-accident rate, there is always more to be done to improve.

Work life balance and mental health
Volvo Group is made up of a palette of unique individuals, each with their own interests and motivations. Everyone's work life balance equation is different. That is why we believe that in addition to Group programs, good communication and a trusting relationship between employee and manager is the foundation for a healthy work life balance that accommodates individual needs. Improved mental health at work leads to higher performance, trust between individuals and within teams, and high engagement. In Volvo Group, we believe that healthy workplaces have clear roles and expectations, enough time to carry out tasks, appropriate work environments, and support. Volvo Group offers a wide range of measures to identify warning signs and prevent factors leading to excessive stress - from apps and training videos to face-to-face sessions with psychologists and occupational therapists.

Opportunities for personal and professional development
Volvo Group values the desire of its employees to grow and take on new responsibilities – our people will help shape tomorrow's society. Here, employees are part of a global lifelong learning culture that can unlock the full potential of everyone. It allows people to learn faster than the world around is changing, so that we can be ready to upskill, reskill and seize the opportunities around us. In Volvo Group, career development is backed up by regular dialogues on performance and growth, designed to help employees excel and make sure that their aspirations and personal goals are met. The company offers structured career paths and training programs for many different roles, such as people leaders, project managers, engineers, and specialists. While employees are in the driver's seat of their own careers, Volvo Group supports their ambitions through state-of-the-art training.

Volvo Group University is the central function of the Group's learning ecosystem. It develops, designs and provides training and learning experiences well rooted in both todays and future business needs. Our corporate university is an expert on adult learning and makes sure employees get quality assured training. Every year Volvo Group allocates approximately half a million training days to our employees and retail organizations worldwide. And not only that – Volvo career opportunities also include shadowing, reverse mentoring, individual coaching, and networking.

Diversity and inclusion
Volvo Group draws strength from its diversity. To continuously improve inclusion and reflect the diverse world we operate in, the Group provides leaders and employees with the chance to master inclusive skills and works to combat unconscious bias impacts. We work to create equitable leadership development opportunities and strive for at least 35% of each gender in all our teams. We have an amazing opportunity to draw ideas and viewpoints from more generations than was ever possible before in the workplace. Today, five generations work side by side in Volvo Group. We also have a long history of including unique and diverse abilities in our operations, especially in key markets, and we are working to increase focus in this area globally.

We channel our passion for inclusion into our employee networks. These resource groups give a voice to key diversity threads and engage the majority as allies to build a more inclusive Volvo Group. We have networks across the globe supporting: Women and Gender balance, Generational, LGBTQ+, and Multicultural inclusion as well as Diverse Abilities. Our networks interact with leaders and employees to deepen understanding of these key topics.

Ghent | Innovative approaches for upskilling and reskilling

The training center at the plant in Ghent, Belgium is a showcase of how Volvo Group prepares its workforce for the future truck industry. With a holistic approach to upskilling and reskilling, the organization has explored new ways to develop talents and build a growth mindset.

A competence map that identifies new competence needs and assesses the current competence level serves as a strong foundation. In addition, shifting from a yearly to a quarterly learning and development cycle has allowed the organization to better adapt to the fast-changing environment. This has not only increased the awareness and involvement of the managers in the learning process, but also helped strengthen the learning culture.

The training center has implemented several innovative methods and tools to upskill and reskill its employees, such as:

- Gamification and Lego exercises to teach topics such as safety, standardized work and Volvo Performance System (VPS) in a more engaging and effective way.
- The "truck in a box," which is a display that contains the complete electrical circuit of a truck with cables, buttons, and lights for both the chassis and the entire cab. This tool provides a visual overview of how everything works and gives the opportunity to simulate and test fault codes etc.
- Mixing theoretical training with practical exercises in a lifelike environment. In the Battery pack training (BP1), participants practice how to assemble parts on a training battery pack with their safety protection on.
- Exploring future technology, by allowing engineers, trainers and first line managers to take part in university courses to learn more about hydrogen and fuel cell technology.

The training center in Ghent has also developed a tailor-made initiative to reskill employees for a technical profile. This didactic setup with tools and equipment in a suitcase, combined with online training and exercises helps employees explore and learn how to e.g. connect electrical circuits correctly.

"One of the best things with the didactic set-up of the training suitcase is that it allows our employees to explore a technical talent they didn't know they had. Thanks to the blended approach with a combination of digital and hands-on training, they can learn independent of time and place and work at their own pace. Just by doing some simple exercises, they develop their interest and their skills and start to think – wow, I can do that," says Nico Van Den Broeke, group leader at the training and competence center in Ghent.

Five reasons to join Volvo Group according to our people

We like to believe that it is the combination of an inspiring purpose, innovation leadership, a strong culture with growth opportunities and fair compensation that is the reason why people want to work and do business with us. We asked our employees why they wanted to join us. These are the top five reasons.

1. Be cared for and listened to
2. Design your own career
3. Get rewarded for your contribution
4. Work with the latest technologies
5. Leave society in good shape for the next generation

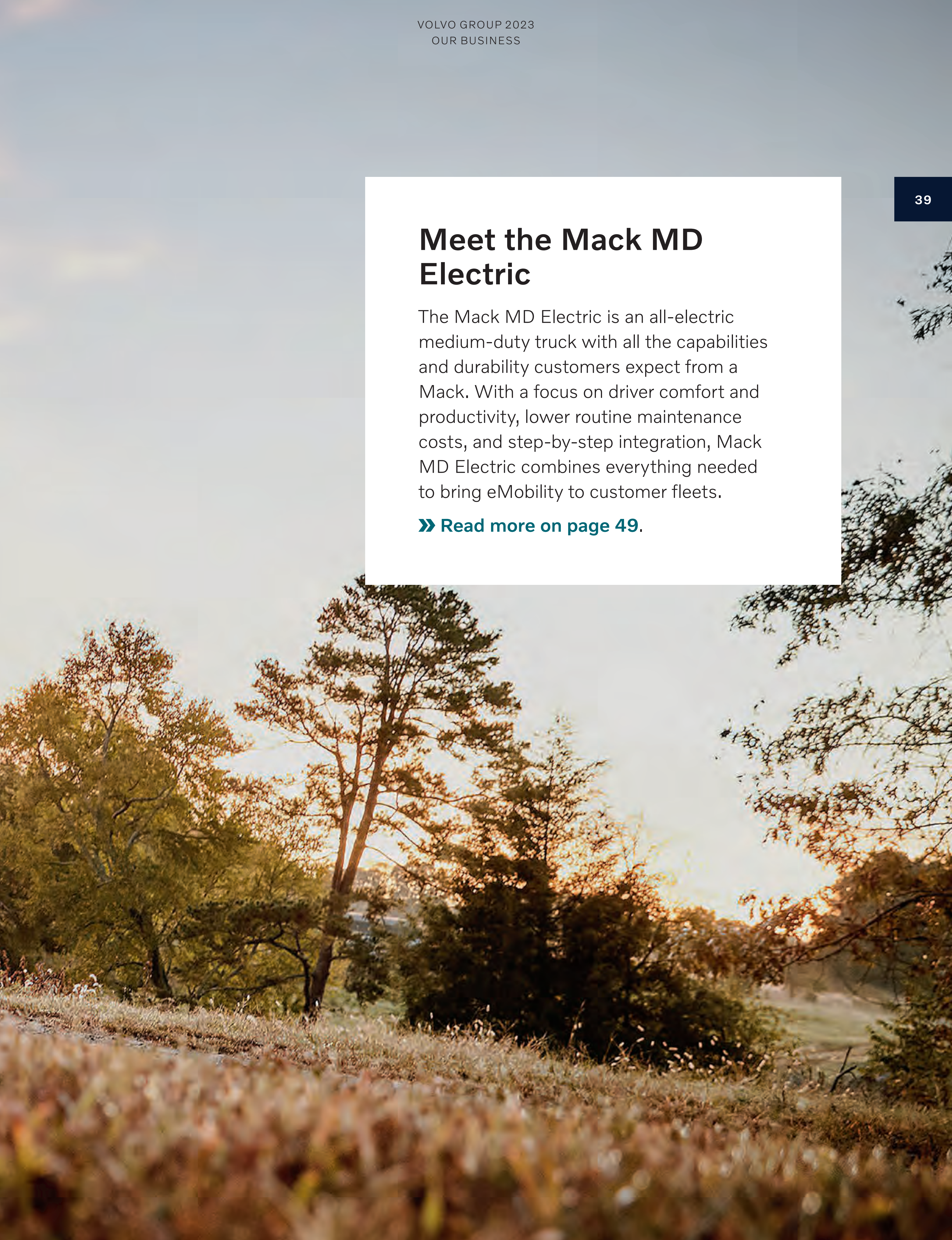
Read more here


Elite
MACK

Meet the Mack MD Electric

The Mack MD Electric is an all-electric medium-duty truck with all the capabilities and durability customers expect from a Mack. With a focus on driver comfort and productivity, lower routine maintenance costs, and step-by-step integration, Mack MD Electric combines everything needed to bring eMobility to customer fleets.

» Read more on page 49.



An intensive year with new products and collaborations

During the year, the Volvo Group launched new products and entered into new partnerships to drive the transformation. We also restructured some of our operations to improve performance.

Volvo Group | Investment in Waabi, a developer of next generation autonomous trucking technology

In January, Volvo Group Venture Capital AB invested in the Canadian-founded company Waabi Innovation Inc, which develops the next generation of autonomous trucking technology. The investment highlights the companies' shared commitment to redefine the way we move goods and to accelerate the deployment of future transport solutions. Waabi uses advanced artificial intelligence technology to test, assess skills, and ultimately teach a virtual driver to maneuver safely and efficiently in a commercial-ready autonomous trucking solution.

Volvo Construction Equipment | Battery pack production at excavator plant

In February, Volvo Construction Equipment (Volvo CE) announced an investment into battery pack production at its excavator plant in Changwon, South Korea.

The Changwon plant specializes in the production of excavators and is the biggest excavator production site in Volvo CE.

The SEK 80 M investment will enable the plant to begin manufacturing a wide range of battery pack solutions for the Volvo Group and become a core competence center for electric excavators. This will enable Volvo Group to offer more sustainable solutions to its APAC markets in a more flexible, cost-effective and agile way and will include supply chain, manufacturing and logistics. The battery pack production is expected to commence in June 2024.

Mack Trucks | Introduction of the medium-duty Mack MD Electric

In March, Mack Trucks revealed its Mack MD Electric, the company's first electric vehicle in the medium-duty segment of the trucking industry. The MD Electric will complement its highly efficient, diesel-powered MD model sibling, which has experienced growing customer demand since its introduction in 2020. The addition of a zero-tailpipe emissions battery-electric vehicle to the Mack medium-duty lineup also supports the company's long-term sustainability goals. The trucks were available for order from June.

Volvo Buses | Change of business model in Europe and decision to close the bodybuilding factory in Wroclaw

In March, it was announced that Volvo Buses would change its business model in Europe and that they would apply the same successful model as it has on several other markets. This means that Volvo Buses in Europe will focus its production on chassis and together with external bodybuilders offer customers in Europe a complete range of city and intercity buses as well as coaches for the premium segment. Consequently, Volvo Buses decided to close its bodybuilding factory in Wroclaw, Poland during the first quarter of 2024. As a consequence, a restructuring provision of SEK 1.3 billion negatively impacted operating income in the first quarter of 2023.

Volvo Trucks and Boliden | Collaboration on underground electric trucks for mining

In March, Volvo Trucks and mining company Boliden joined forces to implement electric truck transport in underground environments, where the electric trucks can deliver several big advantages – including no exhaust emissions, a safer workplace, and quieter working conditions.

The mining industry is today going through a period of rapid change, with many players shifting to more sustainable production methods to provide metals with a lower climate footprint. Just like in many other mines, exhaust gases from diesel vehicles are responsible for the majority of the carbon dioxide emissions from Boliden's mines. Boliden is committed to reducing its CO_2 emissions by 40% by 2030, and to achieve its climate goals, electrification of transport will play a critical role.

Volvo Penta | Investment in Utility Innovation Group to accelerate electric grid innovation

In April, Volvo Penta acquired a minority stake in Utility Innovation Group (UIG). The strategic investment accelerates entry into the utility sector to further develop Volvo Penta's battery energy storage subsystem and power generation portfolio as part of its road to net zero. UIG is a US-based specialist in resilient, innovative utility systems and decentralized energy solutions. Through the investment, UIG and Volvo Penta have the potential to enhance their collective capabilities, while jointly creating innovative solutions and new market opportunities to advance electric grid infrastructure.

CampX by Volvo Group | Accelerating innovation for sustainable mobility

Since the start in 2019, more than 80 startups have further developed their products and services at CampX, the global collaboration hub for innovations in Volvo Group. CampX accelerates partnerships with startups and internal business ideas using a lean process.

In 2023, Volvo Group took the next step by adding a new track called Incubator where startups are invited to be located in the CampX building, where they work side by side with Volvo Group experts, giving the startups vital access to mentoring, industry networks and insights on industry needs. The CampX Incubator program is inviting early-stage startups with promising cutting-edge technologies to collaborate with Volvo experts to bring their new innovations to life. It continues to mark Volvo Group's commitment to supporting startups in developing viable and impactful innovations with focus on sustainable mobility.

About CampX
CampX by Volvo Group is all about accelerating innovations through partnerships. Startups run proof-of-value projects together with Volvo Group expert teams to validate their product-market fit. Volvo Group product and business owners are at the core of the CampX concept, and by focusing on their "problems to be solved," CampX is accelerating startup innovations to market collaboratively. CampX coordinates three programs tailormade for startups: the Incubator, the Accelerator, and the Venture Builder. CampX by Volvo Group started in Gothenburg, Sweden in 2019 and has since expanded its concept to include a network of hubs in Sweden, France, India, and North America, all connected to Volvo Group's main R&D facilities.

Volvo Trucks | Premiere for tests of hydrogen-powered electric trucks on public roads

In 2022, Volvo Trucks showcased its fuel cell electric trucks for the first time. These zero exhaust emission trucks use hydrogen to produce their own electricity on board, can travel long distances, making them suitable for longer transport assignments.

In May 2023, the trucks were tested on public roads for the first time. But not just any public road. To make it extra challenging, the tests were conducted above the Arctic Circle in the north of Sweden – in an extremely cold climate.

Fuel cell electric trucks powered by hydrogen will be especially suitable for longer distances and when using only batteries is not an option: for example, in areas with insufficient charging infrastructure. The fuel cell electric trucks will be available in the second half of this decade. To speed up the development, Volvo Group has joined forces with Daimler Truck to develop and produce fuel cell systems that are tailor-made for heavy-duty vehicles.

Volvo Buses | Two orders totaling 189 electric buses for Stagecoach in the UK

In May, Volvo Buses secured two orders for a total of 189 new electric buses from Stagecoach, one of the UK's largest coach and bus operators. One order for 170 electric buses was the Volvo brand's biggest electric bus order to date.

Nova Bus | Won two large electric bus contracts

In May, Nova Bus, won two large electric bus contracts in Canada. The first contract encompasses a base order of 339 LFSe+, with 890 units in option, by the Société de transport de Montréal acting as agent in collaboration with the Association du transport urbain du Québec. The LFSe+ is the long-range battery electric bus model of Nova Bus. The buses will be delivered over a 3-year period starting in 2025. This represents one of the most significant single orders of electric buses in history in North America.

Nova Bus was also awarded a base order of 124 LFSe+, with a potential additional order of 12 buses and up to 405 units in option, by the Toronto Transit Commission (TTC). The buses from the base order will be delivered over a two-year period starting in 2024. This was the first order of Nova Bus LFSe+ buses by the TTC. In addition, the order also includes an adoption process for other agencies in Ontario to enter into their own agreements with Nova Bus for up to 550 buses over four years.

Volvo Trucks | Discontinued acquisition of heavy-duty truck manufacturing operation in China

Volvo Trucks and Jiangling Motors Co., Ltd announced in May that they would not pursue the previously announced transaction involving Volvo Trucks acquisition of JMC Heavy Duty Vehicle Co., Ltd, and its manufacturing site in Taiyuan, Shanxi province, China. Volvo Trucks will continue to export trucks to customers in China.

"Volvo Trucks has a long history of successful business activities in China. We have great opportunities on the Chinese market and we will continue the efforts to develop our presence. Our long-term ambition is to grow our business and continue delivering our high-quality trucks to customers in China, together with our dealer partners in the country," commented Roger Alm, President Volvo Trucks.

Volvo Group | Partnership with Vattenfall to secure renewable electricity

Amid increasing demand for clean energy, Volvo Group in May signed a long-term agreement with Vattenfall, the largest producer of renewable electricity in Sweden. Volvo Group commits to buying 50% (~230GWh/year) of the renewable electricity produced at Bruzaholm wind park in Sweden, over a 10-year period starting in the last quarter of 2025.

This partnership with Vattenfall is a step forward in the Group's commitment to reach a net-zero greenhouse gas emissions (GHG) value chain by 2040 and achieve the aims of the Paris Climate Agreement. Containing 21 wind turbines with associated facilities, the Bruzaholm wind park is scheduled to be ready for commission by the autumn of 2025 when the agreement begins.

Volvo Trucks | Letter of Intent with Holcim for up to 1,000 electric trucks

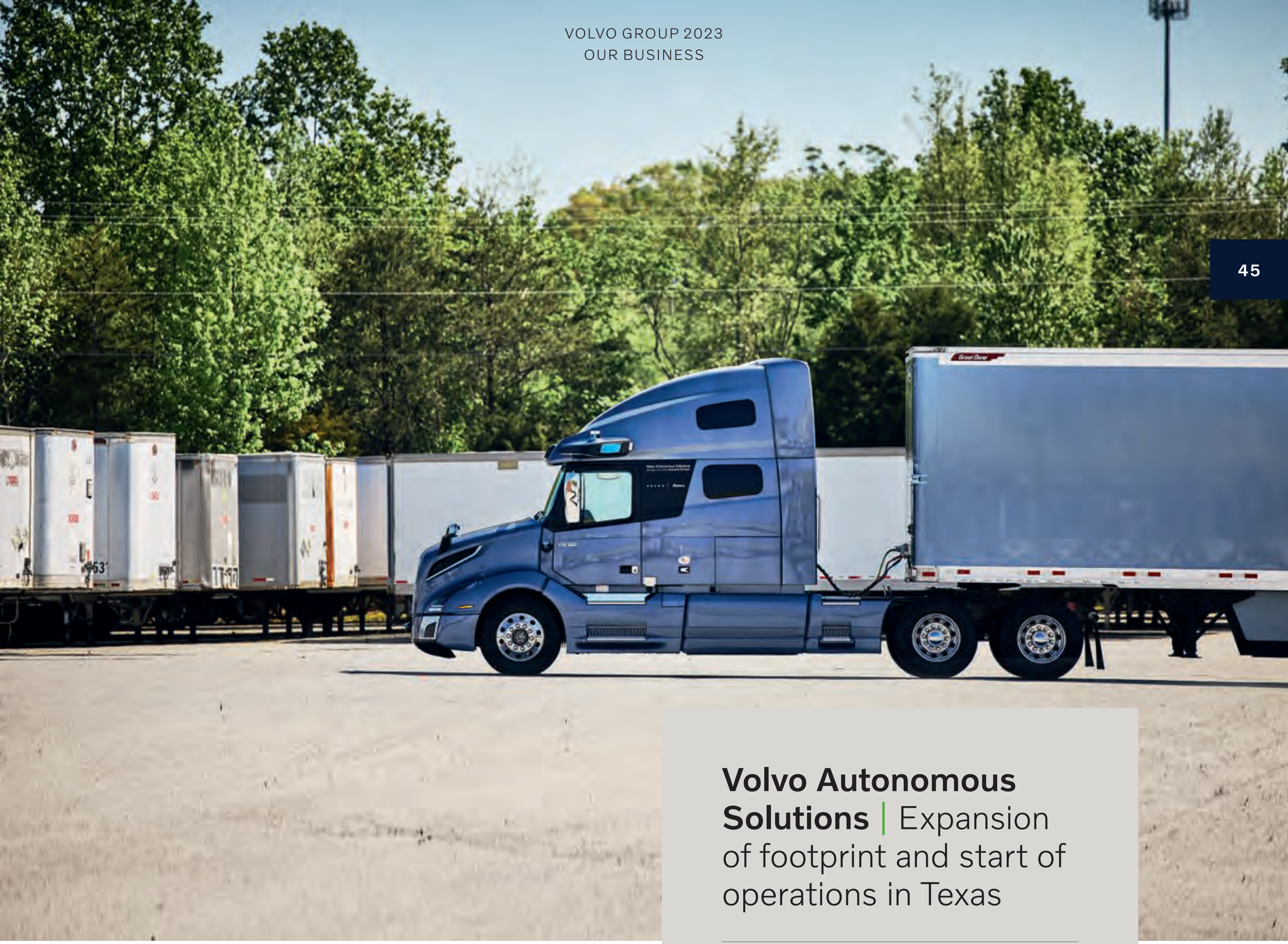
In May, Volvo Trucks signed a letter of intent to sell 1,000 electric trucks until 2030 to Holcim, one of the world's largest building solution providers. The deal is the largest to date for Volvo electric trucks, and the first 130 trucks will be delivered in 2023 and 2024. The agreement is a result of a wider partnership between Holcim and Volvo Group.

"Long-term collaboration and a strong commitment to really make a difference are essential for making big CO_2 reductions a reality. I'm very proud of the partnership we have developed with Holcim, and the results we are achieving together," said Martin Lundstedt, President & CEO Volvo Group.

Both companies are committed to the Science Based Targets initiative, which drives ambitious climate action in the private sector, and both are also founding members of First Movers Coalition.

FACTS

- Holcim is a global leader in innovative and sustainable building solutions, headquartered in Switzerland. It has a presence in more than 60 countries and around 60,000 employees.
- The First Movers Coalition is a coalition of companies that use their purchasing power to create early markets for innovative clean technologies across eight hard-to-abate sectors.
- The Science Based Targets initiative (SBTi) drives ambitious climate action in the private sector by enabling organizations to set science-based emissions reduction targets. Targets are considered science-based if they are in line with what the latest climate science says is necessary to meet the goals of the Paris Agreement – limiting global warming to 1.5°C above pre-industrial levels.



Volvo Autonomous Solutions | Expansion of footprint and start of operations in Texas

In June, Volvo Autonomous Solutions (V.A.S.) expanded its footprint in North America.

V.A.S. opened an office in Fort Worth, Texas dedicated to driving activities to set up its first autonomous freight corridors that will run from Dallas Forth Worth to El Paso and from Dallas to Houston.

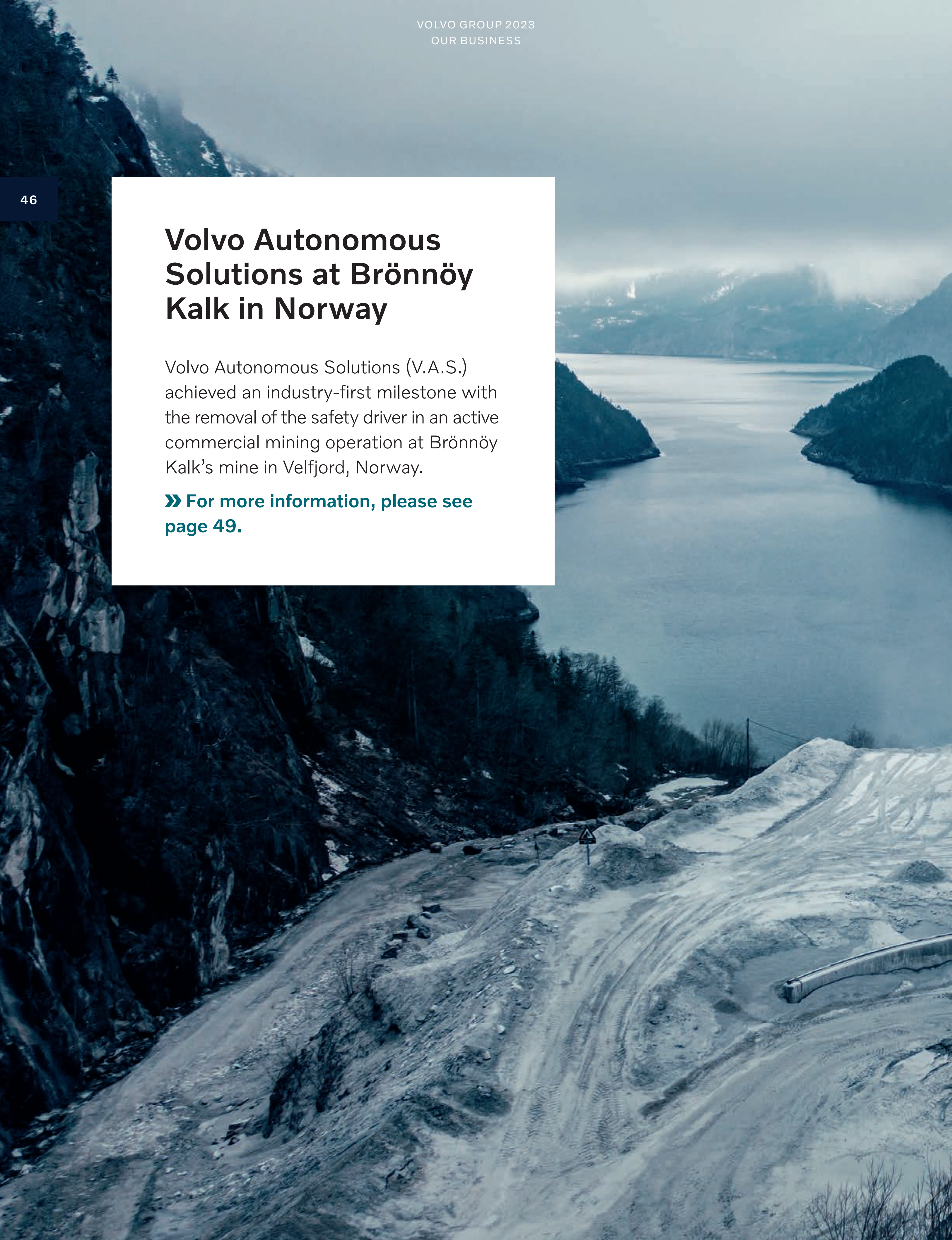
To prepare for commercial launch, V.A.S. also started to haul loads with trucks using drivers for key customers like DHL and Uber Freight to test aspects of the transport solution and establish frameworks and procedures for safe and reliable operations.

About Volvo Autonomous Solutions
The autonomous transport solution offered by Volvo Autonomous Solutions is based on Transport as a Service (TaaS) and includes a vehicle purpose-built for autonomous driving, a virtual driver, required infrastructure, operations and uptime support as well as a cloud solution that controls the transport system and manages logistics flows.

The solutions developed by Volvo Autonomous Solutions are tailor-made for each customers' needs and intended to make their operations safer, productive and sustainable.

Volvo Penta | Modular electric systems in FTMH partnership

In May, Volvo Penta and Italian heavy equipment manufacturer FTMH (Fantuzzi Team Material Handling) expanded their partnership to include electric forklifts. This collaboration highlights the trust in Volvo Penta's modularized electric platform and its full system supplier approach of the latest electromobility technology.



Volvo Autonomous Solutions at Brönnöy Kalk in Norway

Volvo Autonomous Solutions (V.A.S.) achieved an industry-first milestone with the removal of the safety driver in an active commercial mining operation at Brönnöy Kalk's mine in Velfjord, Norway.

» **For more information, please see page 49.**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AUTONOMOUS

Volvo Group | Partnership with Heidelberg Materials to reduce emissions in the construction industry

In June, Volvo Group signed an agreement to collaborate with Heidelberg Materials, one of the largest building materials companies in the world. The aim is to reduce carbon emissions in the construction sector by jointly investigating and developing how loading and hauling needs can be solved with the help of electrified vehicles and related services.

The partnership will see several of Volvo Group's customized electric product and service solutions put to work across much of Heidelberg Materials' Northern European operations. The purpose is to support the adoption of emission-free transport and loading equipment solutions in the industry.

The cement and concrete industries account for around 8% of the planet's carbon emissions, according to the International Energy Agency. Finding ways to reduce its climate impact is vital for Heidelberg Materials to reach net-zero carbon emissions across its value chain.

Volvo Group | Investment in Trucksters, manager of innovative relay trucking in Europe

In June, Volvo Group Venture Capital invested in the Madrid-based company Trucksters, a transport operator focused on providing long-distance transportation through an innovative truck relay system based on big data and artificial intelligence. With a growing need for freight transportation, relay systems can provide a solid structure for electrification of long-haul transportation as well as for autonomous solutions in the future.

Nova Bus | Will exit bus production in the US

In June, it was announced that Nova Bus will exit bus production in the US market. Consequently, the company has decided to close its Plattsburgh manufacturing and delivery facility by 2025. Production in North America will be focused to its Canadian facilities located in Saint-Eustache and Saint-François-du-Lac (Quebec) and Nova Bus will continue its successful Canadian business, where it is the market leader. A restructuring provision of SEK 1.3 billion negatively impacted the Volvo Group's operating income in the second quarter 2023.

Volvo Group | Joint venture with Westport

In July, Volvo Group and Westport signed a letter of intent to establish a joint venture for high-pressure gas injection fuel systems (HPDI) with a 45/55 ownership split. Westport will contribute with current HPDI assets, activities, including fixed assets, intellectual property, and business into the joint venture. Volvo will acquire 45% in the joint venture for approximately SEK 300 M (USD 28 M) plus up to an additional approximately SEK 500 M (USD 45 M) depending on the performance of the joint venture.

Volvo Autonomous Solutions | Removal of safety driver at Brönnöy Kalk

In August, Volvo Autonomous Solutions (V.A.S.) achieved an industry-first milestone with the removal of the safety driver in an active commercial mining operation at Brönnöy Kalk mine in Velfjord, Norway.

The autonomous transport solution developed for Brönnöy Kalk consists of seven fully autonomous Volvo FH trucks and V.A.S.'s in-house developed virtual driver. Operating in challenging conditions that include steep inclination, extreme weather and long stretches of dark tunnels, the trucks haul limestone from the mine to the crusher.

"A long-held vision is now a reality. Removing the safety driver in an active commercial transport operation in some of the world's most challenging conditions is a major leap for the industry," said Nils Jaeger, President of Volvo Autonomous Solutions. "With this milestone we are underlining our leadership in autonomous driving and paving the way for safer and more efficient future for the mining and quarrying industries."

Volvo Autonomous Solutions | Long-term collaboration with Boliden to deploy autonomous solutions

In September, V.A.S. and Boliden entered into a long-term collaboration to implement autonomous transport solutions as a part of Boliden's operations. The collaboration will cover numerous projects, the first of which will be the implementation of an autonomous transport solution at Garpenberg, Sweden that will be used to move rock fill from an on-site quarry.

Volvo Group | Ensuring increased volumes of near zero emissions steel through collaboration with H2 Green Steel

In September, it was announced that the Volvo Group's collaboration with H2 Green Steel for near zero emission steel had taken another step forward. Under the long-term agreement, Volvo Group will purchase near zero emission steel from H2 Green Steel's new plant in Boden in Northern Sweden. Start of production is planned for end of 2025 with deliveries to Volvo Group starting mid-2026.

Volvo Trucks | Serial production of electric trucks in Ghent, Belgium started

In September, Volvo Trucks ramped up electric truck volumes and started serial production of heavy battery-electric trucks at the Ghent factory in Belgium. This means that electric Volvo trucks are now built in four factories – three in Europe and one in the US.

Three different electric models are built in Ghent – the Volvo FH, the Volvo FM and the Volvo FMX Electric. These trucks can operate at a total weight of 44 tonnes and can be adapted for a wide range of transport needs.

Volvo Group, Renault Group and CMA CGM Group | Join forces to address the growing needs of decarbonized and efficient logistics with an all-new generation of electric vans

In October, Volvo Group and Renault Group announced that they will join forces to address the growing needs of decarbonized and efficient logistics by creating a new company managing the development of an all-new generation of electrified vans.

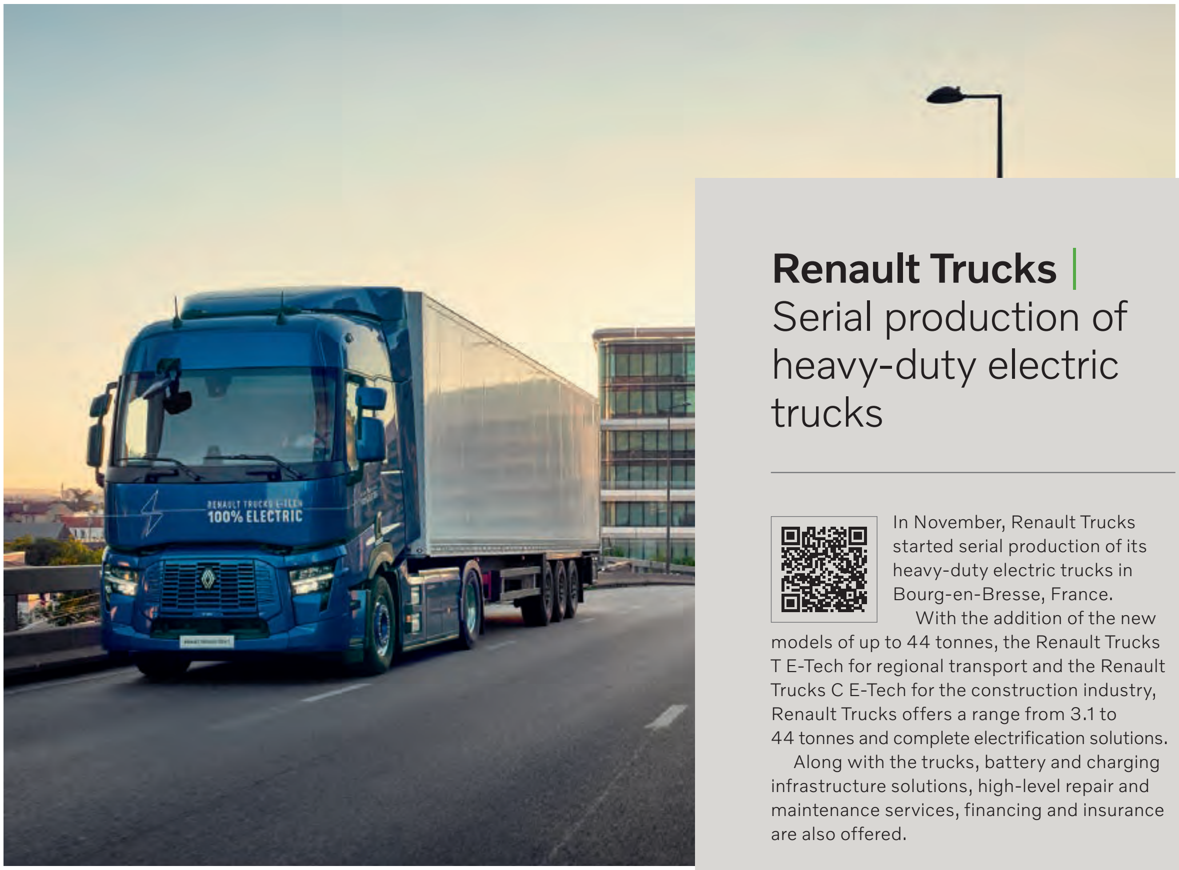
- Climate change accelerates the need of electrification transition, future CO_2 regulations on transport of goods and access to cities are drastically transforming the logistic ecosystem.
- The professional customers already face increasing pressure on cost of usage, need for electrification, and safer and fully connected vehicles in their business.
- According to some estimates, the European market for electrified vans is expected to triple by 2030, promising an opportunity for a brand-new LCV offer, particularly addressing e-commerce and rental businesses.
- Volvo Group and Renault Group has signed binding agreements to launch a new company where they will initially hold respective 50-50 equity stakes, are planning to invest EUR 300 M each over the course of the next three years. CMA CGM Group signs a non-binding letter of intent with Renault Group and Volvo Group to join the new company, investing EUR 120 M through PULSE, its Energy Fund dedicated to accelerating the decarbonization of transport and logistics sectors.
- The creation of the new company is expected early 2024 and remains subject to the completion of all regulatory approval processes. The future company is planned to operate under its own corporate identity and will be based in France.

Volvo Trucks | Breakthrough for fast charging of electric trucks – launch of new service

In October, it was announced that a national network of public fast chargers for heavy electric trucks is opening in Sweden. The charging network is powered by renewable energy. A new service from Volvo Trucks makes it easy for haulers to find and access the charging stations.

A network for fast charging of electric trucks is a key part of the transition to more sustainable heavy transportation. In Sweden, some 130 charging stations in total are planned to open in 2023 and 2024. The stations are operated by several different companies, and Volvo Trucks is one of the partners involved.

Volvo Trucks also launched a new service that lets haulers find and access the charging stations. The service will first be launched in Sweden. The charging service will in the first wave provide seamless access to the 29 charging stations that are operated by OKQ8. The charging stations will be powered by green electricity. Other markets in Europe and other parts of the world are to follow.



Renault Trucks | Serial production of heavy-duty electric trucks

In November, Renault Trucks started serial production of its heavy-duty electric trucks in Bourg-en-Bresse, France.

With the addition of the new models of up to 44 tonnes, the Renault Trucks T E-Tech for regional transport and the Renault Trucks C E-Tech for the construction industry, Renault Trucks offers a range from 3.1 to 44 tonnes and complete electrification solutions.

Along with the trucks, battery and charging infrastructure solutions, high-level repair and maintenance services, financing and insurance are also offered.

Volvo Group | Acquires battery business from Proterra

In November, Volvo Group was selected as the winning bidder in an auction for the business and assets of the Proterra Powered business unit at a price of USD 210 M. The assets to be acquired include a development center for battery modules and packs in California and an assembly factory in South Carolina. With this acquisition, Volvo Group will complement the current, and accelerate its future, battery-electric road map. The transaction was completed in February 2024.

Volvo Trucks | Updated electric trucks for zero-emission city transports

In November, Volvo Trucks presented updated electric medium-duty trucks – the Volvo FL and FE Electric. With a range up to 450 km, 50% shorter charging time and new active safety features, the updated trucks are designed for the urban environment – enabling safe zero emission city transport and logistics. With cities introducing clean city zones and companies stepping up their sustainability ambitions, zero emission trucks that can meet all needs for city transports and logistics are more relevant than ever before.

Volvo Trucks | Volvo FH Electric awarded International Truck of the Year 2024

In November, Volvo Trucks scooped the prestigious industry award International Truck of the Year 2024 for its Volvo FH Electric. It was the first time ever that an electric truck won the award. In explaining their decision, the jury praised the electric truck's performance, seamless acceleration, quietness, and vibration-free behavior.

This was the fourth time that Volvo's iconic FH model was named Truck of the Year. The Volvo FH is one of the industry's most successful models ever with a total of nearly 1.4 million trucks sold all over the world.

Volvo Trucks started series production of electric trucks already in 2019, and today it has a broad electric line-up with a total of six electric trucks designed to handle a wide variety of transport assignments. Production of the Volvo FH Electric started in 2022 in Volvo's assembly plant in Gothenburg, Sweden, and production at the plant in Ghent, Belgium began in 2023.

Pictured above are Gianenrico Griffini, Chairman International Truck of the Year, and Roger Alm, President Volvo Trucks.

Volvo Group | Partnership with CRH to accelerate decarbonization

In November, Volvo Group and CRH, the leader in building materials solutions in Europe and North America, signed a Memorandum of Understanding (MoU) to accelerate net-zero innovations in the design and deployment of on-road vehicles and off-road equipment used in construction with a focus on next generation technology deployment, scaling cutting-edge technology, and operational efficiency.

Volvo Construction Equipment | To divest the ABG Paver business

In December, Volvo Construction Equipment (Volvo CE) and the Ammann Group reached an agreement whereby Ammann will acquire Volvo CE's global ABG Paver business. As a result of the planned transaction, the Volvo Group's operating income was negatively impacted by SEK 610 M in the fourth quarter of 2023.

Volvo Group | Option agreement to divest Arquus

In January 2024, Volvo Group announced that it had signed an option agreement with John Cockerill Defense which gives the Volvo Group the right to sell Arquus after mandatory consultations with staff representative bodies. The consultations are expected to be finalized in Q1 2024. As a result of the option agreement, the Volvo Group's operating income was negatively impacted by SEK 880 M in Q4 2023.

Volvo Trucks | Unveils all-new Volvo VNL in North America

In January 2024, Volvo Trucks launched a completely new Volvo VNL in North America to set new industry standards in heavy-duty trucking. Optimized aerodynamics and new technologies have improved fuel efficiency by up to 10%. This all-new truck features the next generation of enhancements to improve customer value, driver productivity, safety, and sustainability.

The new Volvo VNL is based on an all-new platform for all upcoming technologies, including battery-electric, fuel cell and internal combustion engines running on renewable fuels including hydrogen. The first 24-volt electrical infrastructure in the North American trucking industry and active safety features that are introduced in this new generation of Volvo trucks will be the standard for the future commercialization of fully autonomous trucks.

The Volvo FH Aero is here | A new benchmark for energy efficient heavy-duty trucks

In January 2024, Volvo Trucks' iconic FH truck range got a new family member with the Volvo FH Aero. With aerodynamic design and innovative features, the FH Aero offers energy efficiency at a new level, available in four variants including biofuel and the award-winning electric version. With its improved aerodynamics and new technologies such as Volvo's new Camera Monitor System, the new FH Aero can cut up to 5% in energy consumption and emissions.

Regardless of which powertrain customers choose – electric, gas or diesel – all variants of the new FH Aero will benefit from lower energy consumption, longer range and a superior level of safety and driving experience.

The front of the Volvo FH Aero cab has been extended by 24 centimeters versus the regular Volvo FH. This extension has been instrumental in creating a more aerodynamic truck cab. Not only does the better aerodynamics give lower fuel consumption – it also provides better driving stability in windy conditions.

The new Aero truck models will be rolled out step by step to markets during 2024 and 2025 in four versions – the FH Aero, FH Aero Electric, gas-powered FH Aero and FH16 Aero. The Volvo FH will continue to be offered also with a standard non-extended cab depending on market needs.


ELECTRIC
6.5

Volvo FMX Electric – fit for urban construction

Volvo FMX Electric can transport heavy material and machines, with as little disturbance to the surrounding city as possible. This picture was taken during the construction of World of Volvo: a one-of-a-kind experience hub with a unique Scandinavian architecture. A joint venture between Volvo Group and Volvo Cars, World of Volvo aims to be a premier destination and meeting place for people and ideas. World of Volvo opens in April 2024.

» Learn more at worldofvolvo.com

BOARD OF DIRECTORS' REPORT

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 in 18 countries and sell its products in almost 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 2021) 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 163–193 together with all other relevant sustainability disclosures in this Annual Report, see:

- Strategy and business model, pages 14–36
- Policies, assessments and results, pages 163–193
- Material risks and mitigation, pages 82–88 and 165–193
- Key performance indicators, pages 165–193
- Taxonomy regulation disclosures, pages 175–178.

Events after the balance sheet date
No material events have occurred after the end of the financial year that are expected to have a material effect on the Volvo Group's financial statements.

Financial performance

Higher sales and improved operating income

For the Volvo Group, 2023 was a year with a strong increase in net sales and an improved operating income, despite challenges created by geopolitical turmoil, supply chain constraints and high inflationary pressure. Mitigation of cost inflation was done successfully with price management.

CONSOLIDATED INCOME STATEMENT

		Industrial Operations		Financial Services		Eliminations		Volvo Group	
SEK M	Note	**2023**	2022	**2023**	2022	**2023**	2022	**2023**	2022
Net sales	6, 7	**533,269**	**459,703**	**24,012**	**17,355**	**–4,518**	**–3,579**	**552,764**	**473,479**
Cost of sales		–391,576	–354,682	–16,385	–10,641	4,518	3,581	–403,443	–361,741
Gross income		**141,693**	**105,021**	**7,627**	**6,714**	**–**	**2**	**149,321**	**111,737**
Research and development expenses		–26,645	–22,526	–	–	–	–	–26,645	–22,526
Selling expenses		–30,380	–26,066	–3,295	–2,978	–	–	–33,675	–29,044
Administrative expenses		–7,342	–5,867	–14	–13	–	–	–7,356	–5,880
Other operating income and expenses	8	–11,687	–4,498	–594	–2,876	2	–	–12,280	–7,374
Income/loss from investments in joint ventures and associated companies	5, 6	–2,568	–1,333	–	–	–	–	–2,568	–1,333
Income/loss from other investments		–9	132	–5	–	–	–	–14	132
Operating income		**63,063**	**44,862**	**3,719**	**848**	**2**	**2**	**66,784**	**45,712**
Interest income and similar credits		3,207	1,315	1	–	–518	–307	2,690	1,008
Interest expenses and similar charges		–1,685	–1,512	–	–	518	307	–1,167	–1,205
Other financial income and expenses	9	–1,581	–437	–	–	–	–	–1,581	–437
Income after financial items		**63,005**	**44,228**	**3,720**	**848**	**2**	**2**	**66,726**	**45,077**
Income taxes	10	–15,770	–11,207	–1,024	–901	–	–	–16,794	–12,108
Income for the period		**47,235**	**33,021**	**2,695**	**–53**	**2**	**1**	**49,932**	**32,969**
Attributable to:									
Owners of AB Volvo								49,825	32,722
Non-controlling interest								107	247
Basic earnings per share, SEK	19							24.50	16.09
Diluted earnings per share, SEK	19							24.50	16.09

OTHER COMPREHENSIVE INCOME

SEK M	Note	**2023**	2022
Income for the period		**49,932**	**32,969**
Items that will not be reclassified to income statement:			
Remeasurements of defined benefit plans	20	–2,400	3,817
Remeasurements of holding of shares at fair value	19	15	–45
Items that may be reclassified subsequently to income statement:			
Exchange rate changes on translation of foreign operations		–2,905	10,544
Share of other comprehensive income related to joint ventures and associated companies		–678	1,279
Accumulated exchange rate changes reversed to income		–318	–
Other comprehensive income for the period, net of income tax		**–6,285**	**15,596**
Total comprehensive income for the period		**43,647**	**48,565**
Attributable to:			
Owners of AB Volvo		43,731	48,140
Non-controlling interest		–84	425

Net sales

During 2023, net sales increased by 17% to SEK 553 billion (474). Adjusted for currency movements, the sales increase was 11%, of which vehicle sales increased by 12% due to successful price management, higher deliveries and reduction of the backlog that had been extended since the pandemic, and service sales increased by 10%, as good utilization of vehicles and machines drove demand for spare parts and services.

The Truck business' net sales increased by 14% adjusted for currency movements, driven by higher deliveries for both new and used trucks as well as services combined with price realization in most markets. For Construction Equipment, net sales increased by 1%, adjusted for currency movements, overall lower volumes, specifically in China, offset by a favorable brand and market mix and price realization. Buses' net sales increased by 15% adjusted for currency movements, primarily driven by a recovery in demand for coaches. Net sales for Volvo Penta increased by 10%, adjusted for currency movements, as both the marine and industrial engine market continued their positive development for most of the year.

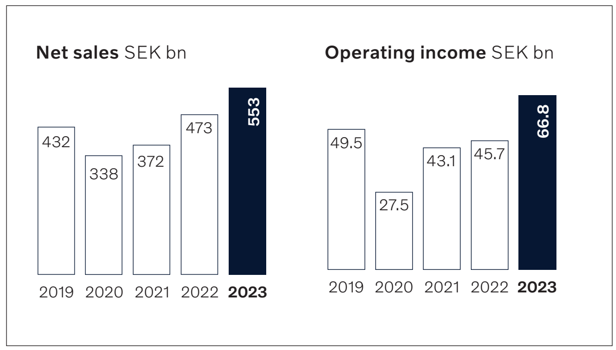
The Volvo Group's sales of defense material, as defined in the Swedish Military Equipment Ordinance (1992:1303) section A, amounted in 2023 to 0.70% (0.72) of net sales.

Operating income

In 2023, the Volvo Group's adjusted operating income amounted to SEK 77.6 billion (50.5), excluding a total negative effect of SEK 10.9 billion relating to items of a one-time character, not directly linked to the underlying business operations. Adjusted operating income in 2022 excluded a total negative impact of SEK 4.8 billion. For information on adjustments, see Key Ratios on page 218. The adjusted operating margin amounted to 14.0% (10.7).

Profitability was good in yet another challenging year with geopolitical turmoil, supply chain constraints and high inflation pressure. Compared with 2022, the increased adjusted operating income is mainly due to successful mitigation of cost inflation with price management and a favorable brand and product mix, partly offset by higher material costs despite efficient handling of disturbances in the supply chain.

Reported operating income amounted to SEK 66.8 billion (45.7).



Net sales by operating segment, SEK M	**2023**	2022	%
Trucks	373,048	310,536	20
Construction Equipment	104,981	100,261	5
Buses	22,423	18,583	21
Volvo Penta	21,006	18,102	16
Group Functions & Other	16,809	16,376	3
Eliminations	–4,998	–4,155	–
Industrial Operations	**533,269**	**459,703**	**16**
Financial Services	24,012	17,355	38
Reclassifications and eliminations	–4,518	–3,579	–
Volvo Group[1]	**522,764**	**473,479**	**17**

1 Adjusted for changes in currency rates, net sales increased by 11%.

Net sales by geographical region, SEK M	**2023**	2022	%
Europe	236,613	191,165	24
North America	164,825	137,154	20
South America	49,165	51,734	–5
Asia	66,105	64,392	3
Africa and Oceania	36,056	29,033	24
Volvo Group	**552,764**	**473,479**	**17**
Of which:			
Vehicles	425,301	363,659	17
Services	127,463	109,820	16

Adjusted operating income by operating segment, SEK M	**2023**	2022
Trucks	55,394	33,821
Construction Equipment	16,993	13,244
Buses	1,059	353
Volvo Penta	3,230	2,530
Group Functions & Other	–2,950	–2,911
Eliminations	55	12
Industrial Operations	**73,782**	**47,049**
Financial Services	3,855	3,416
Reclassifications and eliminations	2	2
Volvo Group adjusted operating income	**77,638**	**50,467**
Adjustments[1]	–10,854	–4,755
Volvo Group operating income	**66,784**	**45,712**

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

Adjusted operating margin, %	**2023**	2022
Trucks	14.8	10.9
Construction Equipment	16.2	13.2
Buses	4.7	1.9
Volvo Penta	15.4	14.0
Industrial Operations	**13.8**	**10.2**
Volvo Group adjusted operating margin	**14.0**	**10.7**
Volvo Group operating margin	**12.1**	**9.7**

Change in operating income, Volvo Group SEK bn	Change (excluding currency)	Currency impact	Total
Operating income 2022			**45.7**
Change in gross income Industrial Operations	30.4	6.3	36.7
Change in gross income Financial Services	0.6	0.3	0.9
Lower expected credit losses[1]	2.8	–	2.8
Sale of tangible and intangible assets	0.9	–	0.9
Divestment of group companies[2]	–0.8	–	–0.8
Financial impact related to the planned divestment of Arquus and the ABG paver business	–1.5	–	–1.5
Higher research and development expenditures	–3.9	–0.2	–4.1
Higher selling and administrative expenses	–4.5	–1.6	–6.1
Loss from investments in joint ventures and associated companies	–1.4	–	–1.4
Higher damages and litigation expenses[3]	–4.4	–	–4.4
Restructuring costs[4]	–2.7	–	–2.7
Other	0.7	–	0.7
Operating income 2023	**16.3**	**4.8**	**66.8**

1 In 2022, a provision of assets related to Russia was included.

2 The Volvo Group divested the Russian entities. The divestment resulted in a negative impact on other operating income and expenses of SEK 0.8 billion.

3 For 2023, costs of SEK 6 billion are included for claims from the European Commission's 2016 antitrust settlement decision. For 2022, costs for a civil penalty from the National Highway Traffic Safety Administration in the US was included.

4 Includes restructuring charges of SEK 1.3 billion in Buses and SEK 1.3 billion in Group Functions & Other, which negatively impacted the operating income during 2023.

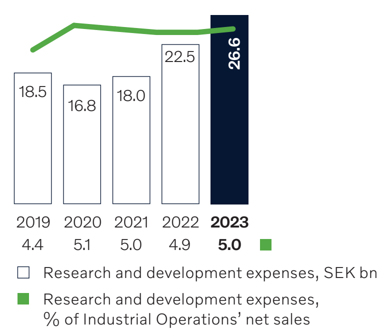
Impact of exchange rates on operating income, Volvo Group, Compared with preceding year, SEK M	
Net sales[1]	26,030
Cost of sales	–19,435
Research and development expenses	–262
Selling and administrative expenses	–1,577
Other	2
Total effect of changes in exchange rates on operating income	**4,758**

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

Key operating ratios, Industrial Operations, %	**2023**	2022
Gross margin	26.6	22.8
Research and development expenses as % of net sales	5.0	4.9
Selling expenses as % of net sales	5.7	5.7
Administrative expenses as % of net sales	1.4	1.3
Operating margin	11.8	9.8

Expenses by nature, SEK M	**2023**	2022
Material cost (freight, distribution, warranty) and purchased services	332,215	301,407
Personnel	75,364	65,480
Amortization/depreciation	21,227	20,729
Other	42,311	31,575
Total	**471,118**	**419,191**

Research and development expenses, Industrial Operations



Impact of exchange rates on operating income

In 2023, changes in exchange rates compared to last year impacted the Volvo Group's operating income positively by SEK 4.8 billion. The impact was related to translation of operating income in foreign subsidiaries by SEK 2.8 billion, net flows in foreign currency by SEK 1.1 billion and revaluation of receivables and liabilities of SEK 0.9 billion. The translation of operating income was mainly impacted by the appreciation of the EUR, BRL and USD. The net flows in foreign currency were positively impacted by an appreciation of the USD, PLN and GBP.

» **Read more in Note 4** Goals and policies in financial risk management regarding Volvo Groups transaction exposure from operating net flows, **graphs 4:5** and **4:7 and 4:8**, for currency impact on operating income and sales.

Net financial items

In 2023, interest income increased by SEK 1.7 billion as a consequence of higher interest on financial assets and amounted to SEK 2.7 billion (1.0). Interest expenses were on par with the previous year and amounted to SEK 1.2 billion (1.2). Other financial income and expenses amounted to SEK –1.6 billion (–0.4). The change compared with 2022 was primarily due to revaluation effects on financial assets and liabilities.

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

Income taxes

The tax expense for the year amounted to SEK 16.8 billion (12.1) corresponding to an effective tax rate of 25% (27).

Income for the period and earnings per share

In 2023, income for the period amounted to SEK 49.9 billion (33.0). Earnings per share and diluted earnings per share amounted to SEK 24.50 (16.09).

Financial position

Strengthened financial position

In 2023, the Volvo Group strengthened its financial position to continue to invest in transformational technologies and also distributed SEK 28.5 billion to its shareholders.

CONSOLIDATED BALANCE SHEET – ASSETS

		Industrial Operations		Financial Services		Eliminations		Volvo Group	
SEK M	Note	**Dec 31 2023**	Dec 31 2022	**Dec 31 2023**	Dec 31 2022	**Dec 31 2023**	Dec 31 2022	**Dec 31 2023**	Dec 31 2022
Non-current assets									
Intangible assets	12	42,378	41,471	135	73	–	–	42,512	41,544
Tangible assets	13								
Property, plant and equipment		68,340	63,058	56	50	–	–	68,396	63,108
Investment property		53	54	–	–	–	–	53	54
Assets under operating leases		35,154	34,109	21,318	21,372	–14,562	–11,963	41,910	43,518
Financial assets									
Investments in joint ventures and associated companies	5	19,158	21,583	–	–	–	–	19,158	21,583
Other shares and participations	5	862	587	18	18	–	–	881	605
Non-current customer-financing receivables	15	1,605	1,903	121,987	105,536	–1,954	–2,375	121,638	105,064
Net pension assets	20	2,039	2,722	–	5	–	–	2,039	2,727
Non-current interest-bearing receivables	16	3,405	7,227	950	1,153	–950	–6,578	3,405	1,803
Other non-current receivables	16	6,431	10,997	283	227	–197	–202	6,518	11,022
Deferred tax assets	10	14,142	12,219	2,044	1,969	–	–	16,186	14,189
Total non-current assets		**193,566**	**195,931**	**146,791**	**130,404**	**–17,662**	**–21,118**	**322,695**	**305,217**
Current assets									
Inventories	17	75,958	75,382	904	307	–	–	76,863	75,689
Current receivables									
Customer-financing receivables	15	1,027	1,128	110,822	89,145	–1,284	–1,409	110,565	88,864
Tax assets	16	1,329	1,489	895	570	–	–	2,223	2,059
Interest-bearing receivables	16	2,784	5,690	–	–	–19	–27	2,765	5,663
Internal funding[1]		10,680	7,991	–	–	–10,680	–7,991	–	–
Accounts receivables	16	41,383	46,672	1,827	1,548	–	–	43,210	48,220
Other receivables	16	22,173	21,390	3,283	3,302	–5,084	–5,319	20,372	19,373
Marketable securities	18	89	93	–	–	–	–	89	93
Cash and cash equivalents	18	78,858	76,005	5,785	9,688	–1,318	–1,806	83,326	83,886
Assets held for sale	3	11,960	–	–	–	–	–	11,960	–
Total current assets		**246,241**	**235,840**	**123,516**	**104,560**	**–18,384**	**–16,553**	**351,373**	**323,847**
Total assets		**439,807**	**431,771**	**270,307**	**234,964**	**–36,046**	**–37,671**	**674,068**	**629,064**

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

Balance sheet

In 2023, total assets in the Volvo Group increased by SEK 45.0 billion compared with year-end 2022. Adjusted for currency movements total assets increased by SEK 61.1 billion. The increase was mainly in customer financing receivables and inventories.

» **Read more in Note 15** Customer-financing receivables.
» **Read more in Note 17** Inventories.

The net value of assets and liabilities held for sale amounted to SEK 3.8 billion at year-end 2023 and relates to the planned divestment of Arquus to John Cockerill Defense, Volvo Construction Equipment's ABG paver business to Ammann Group, and property divestments.

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

Investments in joint ventures and associated companies amounted to SEK 19.2 billion as of December 31, 2023, a decrease of SEK 2.4 billion compared with year-end 2022.

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

CONSOLIDATED BALANCE SHEET – EQUITY AND LIABILITIES

		Industrial Operations		Financial Services		Eliminations		Volvo Group	
SEK M	Note	**Dec 31 2023**	Dec 31 2022	**Dec 31 2023**	Dec 31 2022	**Dec 31 2023**	Dec 31 2022	**Dec 31 2023**	Dec 31 2022
Equity									
Equity attributable to owners of AB Volvo	19	156,171	143,921	21,620	18,796	–	–	177,791	162,717
Non-controlling interest	11	2,948	3,519	–	–	–	–	2,948	3,519
Total equity		**159,119**	**147,439**	**21,620**	**18,796**	–	**–**	**180,739**	**166,236**
Non-current provisions									
Provisions for post-employment benefits	20	11,138	8,690	81	55	–	–	11,219	8,745
Other provisions	21	12,902	12,330	76	66	–	–	12,979	12,396
Total non-current provisions		**24,040**	**21,020**	**157**	**121**	–	**–**	**24,198**	**21,141**
Non-current liabilities									
Bond loans	22	96,970	102,887	–	–	–	–	96,970	102,887
Other loans	22	23,779	25,446	19,352	12,325	–1,599	–2,086	41,532	35,684
Internal funding[1]		–109,059	–110,254	112,231	98,310	–3,173	11,944	–	–
Deferred tax liabilities	10	2,486	3,060	2,238	2,412	–	–	4,725	5,472
Other liabilities	22	49,600	51,351	1,701	1,467	–9,759	–7,270	41,542	45,549
Total non-current liabilities		**63,776**	**72,490**	**135,522**	**114,514**	**–14,531**	**2,587**	**184,769**	**189,592**
Current provisions	21	**19,609**	**13,095**	**14**	**24**	–	**–**	**19,623**	**13,119**
Current liabilities									
Bond loans	22	46,641	37,794	–	–	–	–	46,641	37,794
Other loans	22	40,804	24,666	11,861	11,163	–1,017	–1,247	51,648	34,583
Internal funding[1]		–79,494	–50,804	89,985	79,677	–10,491	–28,873	–	–
Trade payables	22	81,883	89,174	1,103	1,003	–	–	82,987	90,177
Tax liabilities	22	4,140	6,147	947	760	–	–	5,087	6,907
Other liabilities	22	71,130	70,749	9,095	8,906	–10,007	–10,138	70,218	69,517
Liabilities held for sale	3	8,157	–	–	–	–	–	8,157	–
Total current liabilities		**173,261**	**177,726**	**112,991**	**101,510**	**–21,515**	**–40,258**	**264,738**	**238,977**
Total equity and liabilities		**439,807**	**431,771**	**270,307**	**234,964**	**–36,046**	**–37,671**	**674,068**	**629,064**

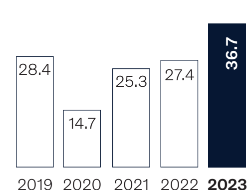
1 Internal funding is internal lending from Industrial Operations to Financial Services.

The net value of assets and liabilities related to pensions and similar obligations amounted to a liability of SEK 9.2 billion as of December 31, 2023, an increase of SEK 3.2 billion compared with year-end 2022.

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

On December 31, 2023, total equity for the Volvo Group amounted to SEK 180.7 billion compared with SEK 166.2 billion at year-end 2022. The equity ratio was 26.8% (26.4). On the same date the equity ratio in the Industrial Operations amounted to 36.2% (34.1). Return on capital employed in Industrial Operations amounted to 36.7% (27.4).

Return on capital employed, Industrial Operations %



Net financial position excl. post-employment benefits and lease liabilities	Industrial Operations		Volvo Group	
SEK M	**Dec 31 2023**	Dec 31 2022	**Dec 31 2023**	Dec 31 2022
Non-current interest-bearing assets				
Non-current customer-financing receivables	–	–	121,638	105,064
Non-current interest-bearing receivables	3,405	7,227	3,405	1,803
Current interest-bearing assets				
Customer-financing receivables	–	–	110,565	88,864
Interest-bearing receivables	2,784	5,690	2,765	5,663
Internal funding	10,680	7,991	–	–
Marketable securities	89	93	89	93
Cash and cash equivalents	78,858	76,005	83,326	83,886
Assets held for sale	10	–	10	–
Total interest-bearing financial assets	**95,825**	**97,006**	**321,798**	**285,372**
Non-current interest-bearing liabilities				
Bond loans	–96,970	–102,887	–96,970	–102,887
Other loans	–18,439	–20,611	–36,219	–30,878
Internal funding	109,059	110,254	–	–
Current interest-bearing liabilities				
Bond loans	–46,641	–37,794	–46,641	–37,794
Other loans	–38,920	–22,875	–49,771	–32,806
Internal funding	79,494	50,804	–	–
Liabilities held for sale	–	–	–	–
Total interest-bearing financial liabilities excl. post-employment benefits and lease liabilities	**–12,418**	**–23,109**	**–229,601**	**–204,365**
Net financial position excl. post-employment benefits and lease liabilities	**83,407**	**73,897**	**92,197**	**81,008**

Provisions for post-employment benefits and lease liabilities, net	Industrial Operations		Volvo Group	
SEK M	**Dec 31 2023**	Dec 31 2022	**Dec 31 2023**	Dec 31 2022
Non-current lease liabilities	–5,340	–4,835	–5,314	–4,806
Current lease liabilities	–1,884	–1,792	–1,877	–1,777
Provisions for post-employment benefits, net	–9,099	–5,968	–9,180	–6,018
Liabilities held for sale	–397	–	–397	–
Provisions for post-employment benefits and lease liabilities, net	**–16,720**	**–12,595**	**–16,768**	**–12,601**

Net financial position incl. post-employment benefits and lease liabilities	Industrial Operations		Volvo Group	
SEK M	**Dec 31 2023**	Dec 31 2022	**Dec 31 2023**	Dec 31 2022
Net financial position excl. post-employment benefits and lease liabilities	83,407	73,897	92,197	81,008
Provisions for post-employment benefits and lease liabilities, net	–16,720	–12,595	–16,768	–12,601
Net financial position incl. post-employment benefits and lease liabilities	**66,687**	**61,303**	**75,429**	**68,407**

Net financial position

In 2023, net financial assets in Industrial Operations, excluding provisions for post-employment benefits and lease liabilities, increased by SEK 9.5 billion resulting in a net financial asset position of SEK 83.4 billion on December 31, 2023. The change was mainly explained by a positive operating cash flow of SEK 45.8 billion offset by the dividend paid to AB Volvo shareholders of SEK 28.5 billion. Currency movements decreased net financial assets by SEK 1.2 billion.

Including provisions for post-employment benefits and lease liabilities, the Industrial Operations net financial assets amounted to SEK 66.7 billion on December 31, 2023. During 2023 provisions for post-employment benefits and lease liabilities increased by SEK 4.1 billion. This was mainly related to remeasurements of post-employment benefits of SEK 3.2 billion, partly offset by positive currency movements of SEK 0.3 billion. The negative remeasurements were primarily in Sweden and the US as an effect of significantly lower discount rates, which were partly offset by higher return on assets.

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

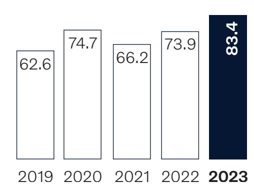
Changes in net financial position, Industrial Operations		
SEK bn	**2023**	2022
Net financial position excl. post-employment benefits and lease liabilities at the end of previous period	**73.9**	**66.2**
Operating cash flow	45.8	35.3
Investments and divestments of shares, net	–1.2	–0.9
Acquired and divested operations, net	–1.4	–0.1
Capital injections to/from Financial Services	–0.9	–2.1
Currency effect	–1.2	1.6
Dividend to owners of AB Volvo	–28.5	–26.4
Dividend to non-controlling interest	–0.5	–
Other changes	–2.7	0.3
Net financial position excl. post-employment benefits and lease liabilities at the end of period	**83.4**	**73.9**
Provisions for post-employment benefits and lease liabilities at the end of previous period	**–12.6**	**–15.9**
Pension payments, included in operating cash flow	1.3	1.5
Remeasurements of defined post-employment benefits	–3.2	4.8
Service costs and other pension costs	–1.3	–1.6
Investments, remeasurements and amortizations of lease contracts	–0.9	–
Currency effect	0.3	–1.2
Other changes	–0.3	–0.2
Provisions for post-employment benefits and lease liabilities at the end of period	**–16.7**	**–12.6**
Net financial position incl. post-employment benefits and lease liabilities at the end of period	**66.7**	**61.3**

The Volvo Group's cash and cash equivalents amounted to SEK 83.3 billion on December 31, 2023 compared with SEK 83.9 billion on December 31, 2022. In addition, granted but unutilized credit facilities amounted to SEK 52.8 billion (45.5) on December 31, 2023. Cash and cash equivalents included SEK 2.2 (2.3) billion that is not available to use by the Volvo Group and SEK 7.6 (14.5) billion 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

Increased operating cash flow

Industrial Operations generated a strong operating cash flow of SEK 45.8 billion, an increase by SEK 10.5 billion compared with previous year.

CONSOLIDATED CASH FLOW STATEMENT

		Industrial Operations		Financial Services		Eliminations		Volvo Group	
SEK M	Note	**2023**	2022	**2023**	2022	**2023**	2022	**2023**	2022
Operating activities									
Operating income		63,063	44,862	3,719	848	2	2	66,784	45,712
Amortization intangible assets	12	3,050	2,918	27	53	–	–	3,078	2,971
Depreciation tangible assets	13	8,681	8,601	22	25	–	–	8,703	8,626
Depreciation leasing vehicles	13	4,442	4,408	5,005	4,724	–	–	9,446	9,132
Other non-cash items	29	12,655	3,403	1,187	3,675	–	–114	13,842	6,964
Total change in working capital whereof		–10,240	–2,532	–45,097	–26,294	–417	152	–55,753	–28,674
Change in accounts receivables		*627*	*–5,600*	*–418*	*–170*	–	–	*209*	*–5,770*
Change in customer-financing receivables		*98*	*–169*	*–44,381*	*–26,330*	*–407*	*148*	*–44,690*	*–26,350*
Change in inventories		*–8,786*	*–5,804*	*–701*	*–106*	–	–	*–9,486*	*–5,911*
Change in trade payables		*–4,848*	*7,749*	*126*	*282*	–	–	*–4,722*	*8,031*
Other changes in working capital		*2,670*	*1,293*	*277*	*30*	*–9*	*4*	*2,937*	*1,327*
Dividends received from joint ventures and associated companies		110	70	–	–	–	–	110	70
Interest and similar items received		3,147	1,055	–	–	–518	56	2,629	1,111
Interest and similar items paid		–1,710	–1,147	–	–	552	290	–1,158	–856
Other financial items		–200	–199	–	–	–	–	–200	–199
Income taxes paid		–19,570	–10,019	–1,238	–1,596	–	–	–20,807	–11,614
Cash flow from operating activities		**63,430**	**51,423**	**–36,375**	**–18,565**	**–381**	**386**	**26,675**	**33,244**
Investing activities									
Investments in intangible assets		–5,207	–5,361	–71	–29	–	–	–5,278	–5,390
Investments in tangible assets		–13,091	–11,287	–29	–14	–	–	–13,120	–11,301
Investment in leasing vehicles		–	–1	–10,328	–9,173	61	19	–10,267	–9,155
Disposals of in-/tangible assets and leasing vehicles		689	553	5,005	5,026	–13	–21	5,680	5,558
Operating cash flow		**45,821**	**35,327**	**–41,796**	**–22,756**	**–334**	**384**	**3,691**	**12,956**
Investments of shares	5							–1,558	–1,085
Divestments of shares	5							323	157
Acquired operations	3							–77	–265
Divested operations	3							–2,268	153
Interest-bearing receivables incl marketable securities								–280	–158
Cash flow after net investments								**–169**	**11,758**
Financing activities									
New borrowings[1]	29							241,958	172,817
Repayment of borrowings[1]	29							–211,157	–138,836
Dividend to owners of AB Volvo								–28,468	–26,435
Dividend to non-controlling interest								–457	–19
Other								–55	–44
Change in cash and cash equivalents excl. exchange rate changes								**1,651**	**19,241**
Effect of exchange rate changes on cash and cash equivalents								–2,211	2,520
Change in cash and cash equivalents								**–560**	**21,761**
Cash and cash equivalents, beginning of year	18							**83,886**	**62,126**
Cash and cash equivalents, end of year	18							**83,326**	**83,886**

1 The comparative figures are restated due to a reclassification between new borrowings and repayments of borrowings.

Operating cash flow

In 2023, operating cash flow in the Industrial Operations amounted to SEK 45.8 billion (35.3). The higher operating cash flow compared with 2022 is primarily an effect of higher operating income, partly counterbalanced by higher increase in working capital and higher income taxes paid. Operating income was impacted by several expenses excluded from the adjusted operating income. Adjusted items without cash flow impact are mainly included in other non-cash items.

Operating cash flow in Financial Services was negative in an amount of SEK 41.8 billion (–22.8). The change compared with 2022 was mainly due to a significantly higher increase of new business volume in the credit portfolio.

» **Read more in Note 29** Cash flow regarding other non-cash items.

Investments and disposals

The Industrial Operations' investments in tangible and intangible assets during 2023 amounted to SEK 18.3 billion (16.6).

Trucks investments in tangible and intangible assets amounted to SEK 14.5 billion (13.4). The major investments were related to product upgrades such as the Volvo VNL in North America and the development of battery-electric and fuel cell-electric trucks with both product development activities and required adaptations in the plants and test facilities. Investments were also related to industrial replacements and efficiency measures such as the finalization of the casting process equipment in Skövde, Sweden, and the ongoing optimization and extension at the plant in Köping, Sweden. Investments in dealer networks and workshops were primarily made in Europe, mainly for upgrades and optimization.

Investments in Construction Equipment amounted to SEK 1.7 billion (1.4). The major investments in the plants were mainly related to industrial efficiency measures in Europe. The product-related investments during the year were mainly related to product upgrades and battery-electric machines with both product development activities and investments in adaptations in the plants.

The investments in Buses were SEK 0.3 billion (0.4) and in Volvo Penta SEK 1.0 billion (0.8).

The investment level for property, plant and equipment during 2023 increased by SEK 1.8 billion compared with previous year.

During 2024 investments in property, plant and equipment are expected to continue to increase. Product-related investments, replacements, and optimization of the industrial footprint, as well as dealer investments will continue to be the main areas.

Investments and divestments of shares

In 2023, investments and divestments of shares had a negative impact on cash flow of SEK 1.2 billion (–0.9), mainly due to capital injections in joint ventures, partly offset by the divestment of shares in WirelessCar Sweden AB.

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

Acquired and divested operations

In 2023, acquired and divested operations had a negative impact on cash flow of SEK 2.3 billion (–0.1), mainly due to the divestment of the Russian entities. The amount also included a recovered advance payment for the discontinued acquisition of a heavy-duty truck operation in China, and an advance payment for the acquisition of a battery business unit from Proterra Inc. and Proterra Operating Company.

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

Financing and dividend

In 2023, net borrowings increased by SEK 30.8 billion, mainly due to significantly higher new business volume in the credit portfolio. During 2023, a decision was made to call the final tranche (EUR 0.6 billion) of the hybrid bond with payment date on March 10, 2023.

During 2023, dividends of in total SEK 28.5 billion (26.4) were paid. These consisted of an ordinary dividend of SEK 7.00 per share, and an extra dividend of SEK 7.00 per share.

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

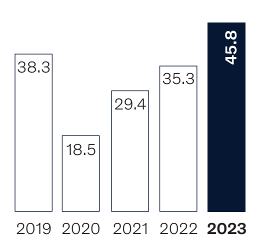
Change in cash and cash equivalents

In 2023, Cash and cash equivalents decreased by SEK 0.6 billion and amounted to SEK 83.3 billion on December 31, 2023.

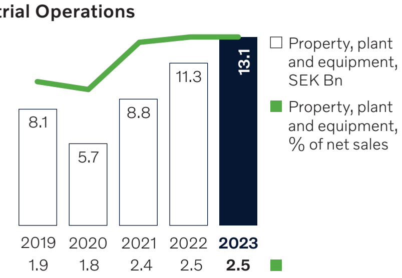
» **Read more in Note 18** Cash and cash equivalents regarding the accounting policy.

» **Read more in Note 29** Cash flow regarding principles for preparing the cash flow statement.

Operating cash flow, Industrial Operations SEK bn



Investments in property, plant and equipment, Industrial Operations



Changes in consolidated equity

		Equity attributable to owners of AB Volvo						
SEK M	Note	Share capital	Other reserves[1]	Translation reserve	Retained earnings	Total	Non-controlling interest	Total equity
Equity December 31, 2021		**2,562**	**8**	**2,301**	**136,174**	**141,045**	**3,073**	**144,118**
Income for the period		–	–	–	32,722	32,722	247	32,969
Other comprehensive income								
Remeasurements of defined benefit plans	20	–	–	–	3,817	3,817	–	3,817
Remeasurements of holding of shares at fair value	5, 19	–	–45	–	–	–45	–	–45
Exchange rate changes on translation of foreign operations		–	–	10,366	–	10,366	179	10,544
Share of other comprehensive income related to joint ventures and associated companies		–	–	–	1,279	1,279	–	1,279
Accumulated exchange rate changes reversed to income		–	–	–	–	–	–	–
Other comprehensive income for the period		–	–45	10,366	5,096	15,417	179	15,596
Total comprehensive income for the period		**–**	**–45**	**10,366**	**37,818**	**48,140**	**425**	**48,565**
Transactions with shareholders								
Dividend		–	–	–	–26,435	–26,435	–19	–26,454
Changes in non-controlling interests		–	–	–	–	–	40	40
Other changes		–	–	–	–33	–33	–	–33
Transactions with shareholders		–	–	–	–26,468	–26,468	20	–26,447
Equity December 31, 2022		**2,562**	**–37**	**12,667**	**147,524**	**162,717**	**3,519**	**166,236**
Income for the period		–	–	–	49,825	49,825	107	49,932
Other comprehensive income								
Remeasurements of defined benefit plans	20	–	–	–	–2,400	–2,400	–	–2,400
Remeasurements of holding of shares at fair value	5, 19	–	15	–	–	15	–	15
Exchange rate changes on translation of foreign operations		–	–	–2,713	–	–2,713	–191	–2,905
Share of other comprehensive income related to joint ventures and associated companies		–	–	–	–678	–678	–	–678
Accumulated exchange rate changes reversed to income		–	–	–318	–	–318	–	–318
Other comprehensive income for the period		–	15	–3,031	–3,078	–6,094	–191	–6,285
Total comprehensive income for the period		**–**	**15**	**–3,031**	**46,747**	**43,731**	**–84**	**43,647**
Transactions with shareholders								
Dividend		–	–	–	–28,468	–28,468	–457	–28,926
Changes in non-controlling interests		–	–	–	–	–	–29	–29
Other changes		–	–	–	–189	–189	–	–189
Transactions with shareholders		–	–	–	–28,658	–28,658	–486	–29,143
Equity December 31, 2023		**2,562**	**–21**	**9,636**	**165,614**	**177,791**	**2,948**	**180,739**

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

Financial management

Improved credit rating

The objectives of the financial management in the Volvo Group are 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.

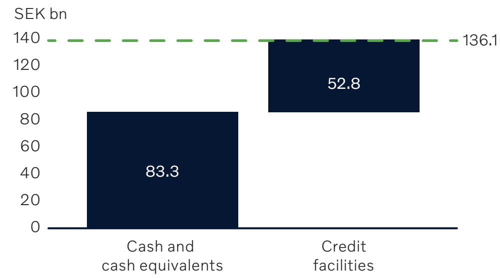
Diversified funding sources

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, 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. The framework, which is being updated, 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, 2023



Geographically diversified market programs

Credit rating, February 28, 2023	Short-term	Long-term
Moody's (Corporate Rating)	P-1	A2, stable
S&P (Corporate Rating)	A-2	A, stable
R&I (Japan)	a-1	AA–, 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), and one local agency, R&I (Rating & Investment Information) in Japan. In 2023, S&P raised its rating from A-, positive to A, stable while Moody's maintained its long-term rating of A2, stable. R&I raised its rating from A+, stable to AA-, stable.

Trucks

Increased sales and strong profitability improvement

In 2023, currency-adjusted net sales in the truck business increased by 14% to SEK 373,048 M. The increase was as a consequence of an overall continued good demand for both trucks and services in most markets around the world. The adjusted operating income amounted to SEK 55,394 M (33,821), corresponding to an adjusted operating margin of 14.8% (10.9).

Good demand in most markets

In 2023, demand normalized in both Europe and North America on the back of transport volumes and freight rates coming down from historically high levels. The pent-up demand situation which characterized 2022 and the first half of 2023 was in the main absorbed by the transport industry and lead times, particularly in Europe, went back to more normal levels. Fleet utilization come down somewhat compared with the previous year, but continued to be on good levels.

In South America, the total market volume declined due to the prebuy of Euro 5 trucks in 2022. However, after the Euro 6 introduction on January 1, the market gradually recovered, primarily driven by the agricultural and mining segments.

The Indian market continued to grow with the support of increased economic activity and good consumer spending.

The truck market in China continued to rebound from low levels, but growth was limited due to the overcapacity in the Chinese transport industry.

Orders and deliveries

In 2023, net order intake to the Group's wholly-owned truck operations decreased by 6% to 204,897 (217,779) trucks. Order intake increased in North America, whereas it decreased in Europe, South America and Asia as well as in Africa and Oceania.

Customers in many markets continued to both replace old trucks and expand their fleets. However, this was not fully reflected in the order intake in the first half of the year, because the Group's truck brands were restrictive in slotting orders into production. This was done to manage the large order books, long delivery times and cost inflation. In the second half of the year, customers in many markets became more cautious because of rising interest rates, lower economic growth and somewhat lower freight activity.

During the year, a total of 246,272 trucks were delivered from the Group's wholly-owned operations, an increase of 6% compared with 232,558 trucks in 2022. Deliveries were on a record level, despite being hampered by continued supply chain disturbances.

Offering

Volvo Group is one of the world's largest manufacturers of heavy-duty trucks. The product offer stretches from heavy-duty trucks for long-haulage and construction work to light-duty trucks for distribution. The offer also includes maintenance and repair services, financing and leasing.

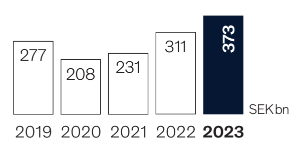
Brands

Volvo Renault Trucks Mack Eicher Dongfeng Trucks

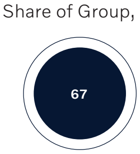
Number of employees

55,607 (54,046).

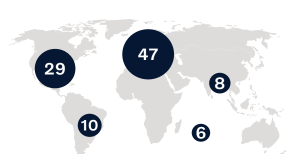
Net sales



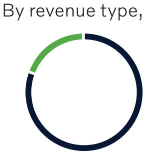
Share of Group, %



By market, %

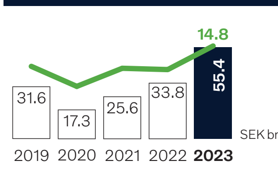


By revenue type, %



- Vehicles, **81**
- Services, **19**

Adjusted operating income[1] and adjusted operating margin



1 For information on adjusted operating income, see Key Ratios on page 218.

Market development heavy-duty trucks, thousands

	2019	2020	2021	2022	**2023**
Europe 30	321	231	277	298	342
North America	336	235	270	310	331
Brazil	75	67	98	98	82
India	194	87	154	230	268
China	1,174	1,619	1,395	672	635

Deliveries by market

Number of trucks	**2023**	2022
Deliveries		
Europe	129,016	113,245
North America	60,782	56,535
South America	22,036	31,958
Asia	21,991	19,066
Africa and Oceania	12,447	11,754
Total	**246,272**	**232,558**
Deliveries		
Heavy duty (>16 tons)	198,383	197,249
Medium duty (7–16 tons)	18,863	15,475
Light duty (<7 tons)	29,026	19,834
Total	**246,272**	**232,558**
Volvo	145,395	145,195
Renault Trucks	69,859	58,967
Mack	29,830	26,801
Other brands	1,188	1,595
Total	**246,272**	**232,558**
Non-consolidated operations		
VE Commercial Vehicles (Eicher)	67,509	61,119
Dongfeng Commercial Vehicle Company (Dongfeng Trucks)	98,397	86,920

Strong positions globally

Market shares heavy-duty trucks, %

1 The EU, Norway and Switzerland.
2 Volvo Group holds 45.6% in VECV, which produces Eicher trucks, and 45.0% in DFCV, which produces Dongfeng trucks.

The Volvo Group is rapidly expanding its offer of fully-electric light-, medium- and heavy-duty trucks. Total order intake for fully-electric trucks increased by 2% to 3,698 (3,633) vehicles while deliveries of fully-electric trucks increased by 191% to 3,523 (1,211) vehicles.

Strong performance

In 2023, net sales in the truck operations increased by 20% to SEK 373,048 M (310,536). Adjusted for currency movements, net sales increased by 14%, of which vehicle sales increased by 16% and service sales by 6%.

Adjusted operating income increased to SEK 55,394 M (33,821), corresponding to an adjusted operating margin of 14.8% (10.9). Adjusted operating income in 2023 excludes negative effects of SEK 6,501 M (1,845), primarily from a SEK 640 M loss on the divestment of the Russian entities and SEK 6,000 M relating to costs for claims arising from the European Commission's 2016 antitrust settlement decision. For more information on the latter, please see Legal Proceedings in Note 24. For information on adjustments, please see Key Ratios on page 218.

The higher earnings were mainly an effect of price realization on both vehicles and services supported by increased deliveries. This was partly offset by increased material costs and higher manufacturing costs related to disturbances in the supply chain.

Reported operating income amounted to SEK 48,893 M (31,976). Currency movements had a positive impact of SEK 3,204 M compared with 2022.

Important events

In the first quarter, Volvo Trucks started production of heavy-duty, rigid electric trucks in the Tuve plant in Sweden. Volvo Trucks and mining company Boliden started a collaboration project around the usage of electric trucks for underground mining. Mack Trucks launched fully electric medium-duty trucks for North America. Also in the first quarter, the existing technology cooperation with Isuzu Motors was extended to also include Isuzu branded vehicles.

In the second quarter, Volvo Trucks signed a letter of intent to sell 1,000 electric trucks until 2030 to Holcim, one of the world's largest building solution providers. The deal is the largest commercial order to date for Volvo electric trucks. The first 130 trucks will be delivered in 2023 and 2024. In the second quarter it was also announced that Volvo Trucks and Jiangling Motors Co., Ltd would not pursue the previously announced transaction which involved the acquisition of JMC Heavy Duty Vehicle Co., Ltd, and its manufacturing site in Taiyuan, Shanxi province, China. Volvo Trucks continues to export trucks to customers in China.

In the third quarter, Renault Trucks started taking orders for heavy-duty electric trucks and serial production will begin in Bourg-en-Bresse, France in November. Volvo Autonomous Solutions entered a long-term collaboration with Boliden to deploy autonomous solutions in Boliden's mining operations. Volvo Defense entered a 7-year framework agreement for delivery and service of logistics trucks to Estonia and Latvia. Also in the third quarter, it was announced that Volvo Group, Renault Group and CMA CGM Group will join forces to address the growing needs of decarbonized and efficient logistics with an all-new generation of fully electric vans. For this purpose, a new company is planned to be established in the beginning of 2024 with a planned start of production in 2026.

Fully electric trucks

	Net order intake		Deliveries	
	2023	2022	**2023**	2022
Volvo	2,057	1,846	1,863	554
Renault Trucks	1,517	1,743	1,636	647
Heavy- and medium-duty	821	804	624	379
Light-duty	696	939	1,012	268
Mack	124	44	24	10
Total	**3,698**	**3,633**	**3,523**	**1,211**

Net sales and operating income

SEK M	**2023**	2022
Net sales		
Europe	175,203	137,177
North America	107,975	92,582
South America	36,897	38,254
Asia	30,617	23,988
Africa and Oceania	22,356	18,535
Total net sales	**373,048**	**310,536**
Of which		
Vehicles	300,516	245,681
Services	72,532	64,855
Total net sales	**373,048**	**310,536**
Adjusted operating income[1]	**55,394**	**33,821**
Adjustments[1]	–6,501	–1,845
Operating income	**48,893**	**31,976**
Adjusted operating margin, %	14.8	10.9
Operating margin, %	13.1	10.3

1 For information on adjusted operating income, please see Key Ratios on page 218.

In the fourth quarter, Volvo FH Electric was awarded International Truck of the Year 2024. This was the fourth time that Volvo's iconic FH model won and the first time an electric truck was awarded. The Volvo FH is one of the industry's most successful models ever with nearly 1.4 million trucks sold all over the world. In the fourth quarter, Volvo Trucks delivered its first electric trucks in South America to customers in Brazil, Chile and Uruguay. Many haulers in South America have high ambitions regarding zero-emission truck transport and Volvo Trucks support their electrification journey.

In January 2024, Volvo Trucks launched an all-new heavy-duty truck platform in North America for all coming technologies such as battery-electric, fuel cell-electric and internal combustion engines running on renewable fuels including hydrogen. First out is a new version of the best-selling Volvo VNL, a long-haul truck with a sleeper cab. This new VNL has class-leading fuel efficiency for higher productivity and reduced carbon emissions, which drives productivity and profitability for our customers.

In January 2024, Volvo Trucks' iconic FH truck range got a new family member with the Volvo FH Aero. With aerodynamic design and innovative features, the FH Aero offers energy efficiency at a new level, available in four variants including biofuel and the award-winning electric version.


GLOBETROTTER

Construction Equipment

Solid financial performance in 2023

Volvo Construction Equipment (Volvo CE) enjoyed a strong start to 2023 with a boost in sales in the first quarter followed by record earnings in the second. A solid sales performance was maintained as the global market began to soften during the latter part of the year. Volvo CE's currency-adjusted net sales increased by 1% to SEK 104,981 M. Adjusted operating income amounted to SEK 16,993 M (13,244), corresponding to an adjusted operating margin of 16.2% (13.2).

Global markets produce steady earnings

Overall, demand outside of China remained stable during the first half of 2023 but weakened towards the end of the year.

Rental fleet replacements supported the European market early in the year, but demand weakened during the course of the year in line with a weaker macroeconomic outlook, elevated inflation and increasing interest rates.

The North American market was supported by continued execution of large infrastructure projects and good commercial construction but softened in the fourth quarter, due to deferral of fleet replacement because of high interest rates and inflation.

In South America, the market was impacted by investment levels remaining low in Brazil due to low business confidence among customers. The Chinese market continued to weaken (for more information on the exposure to China, see Note 16). Later in the year a slowdown in other Asian markets was also visible.

Continued good profitability

In 2023, net sales increased by 4% to SEK 104,981 M (100,261). Adjusted for currency movements, net sales increased by 1%, of which machine sales were flat and service sales increased by 4%.

Adjusted operating income amounted to SEK 16,993 M (13,244), corresponding to an adjusted operating margin of 16.2% (13.2). Adjusted operating income excludes negative effects of SEK 610 M (–338) related to the planned divestment of the ABG Paver Business. For information on adjustments, please see Key Ratios on page 218.

Compared with 2022, the improved earnings is a result of price realization and positive market and brand mix, which were partly offset by increased material and production costs.

Reported operating income amounted to SEK 16,383 M (12,907). Currency movements had a positive impact of SEK 866 M compared with 2022.

Continuing investment in sustainable change

While maintaining a solid sales performance during a challenging economic environment, Volvo CE is continuing to make progress in its transformation journey towards more sustainable solutions.

Offering

Volvo CE is one of the world leaders in the development of products and services for the construction, extraction, waste processing and materials handling sectors. Volvo CE manufactures haulers, wheel loaders, excavators, road construction machines and compact equipment. The offering also includes services such as customer support agreements, machine control systems, attachments, financing and leasing.

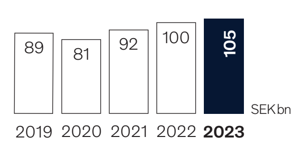
Brands

Volvo SDLG Rokbak

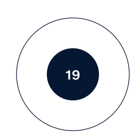
Number of employees

15,028 (14,797).

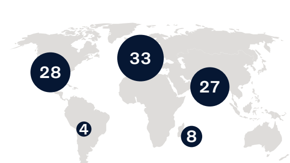
Net sales



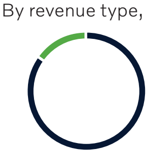
Share of Group, %



By market, %



By revenue type, %



Construction equipment, **85**
Services, **15**

Adjusted operating income[1] and adjusted operating margin

1 For information on adjusted operating income, see Key Ratios on page 218.

With 'perform and transform' at the center of its actions, it has accelerated the global rollout of its wide portfolio of electric machines and ramped up smart solutions for the benefit of customers everywhere. At the same time, Volvo CE is investing in the future with pioneering partnerships and milestone investments in the sustainable and digital transformation.

Important events

Volvo CE continued the shift to electric with the introduction of electric products of different sizes into new markets. Among these were the unveiling of the 20-ton L120H Electric Conversion wheel loader to Europe and the expansion of the 23-ton EC230 Electric excavator to the Netherlands, Sweden, Germany, UK and France. Meanwhile the fully electric EC55 excavator arrived in India and the global rollout of other electric compact machines continued in Singapore, China and Japan.

Volvo CE also launched a range of new service offerings in North America, including Connected Map, Task Manager and Global Load Out solutions, all designed to increase connectivity, productivity and sustainability in work site operations. The ConExpo show marked the handover of the first articulated hauler made with fossil-free steel in North America to a customer.

Volvo CE continued to roll out its Equipment as a Service (EaaS) offering to customers around the world. The EaaS offering is a model focusing on use rather than ownership of construction equipment that helps Volvo customers to invest more capital in growing their core business operations profitably, whilst boosting Volvo CE's ambition of increasing revenues from services.

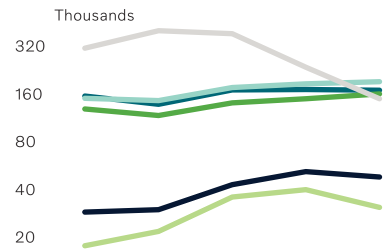
Volvo CE also announced a SEK 80 M investment in battery pack production at its excavator plant in Changwon, South Korea. This was followed by the creation of a new dedicated business unit for compact machines and solutions, with the aim of driving growth and profitability in this important and growing segment.

Further signposting its dedication to the electromobility shift, Volvo CE delivered its first electric power unit to a customer in Sweden. It allows for high power charging of electric machines in remote locations where access to stable power sources is limited.

In North America, Volvo CE inaugurated a new innovation center to provide training for technicians on both diesel and electric heavy equipment, machine control technology, connectivity and productivity services.

In December, Volvo CE and the Ammann Group reached an agreement whereby the Ammann Group will acquire Volvo CE's global ABG Paver Business including ABG in Hameln, Germany. The deal is subject to regulatory approval, which is expected in the first half of 2024.

Market development in Volvo CE's product ranges



2019	2020	2021	2022	**2023**	Year
156	138	171	172	**170**	Europe
129	117	141	150	**161**	North America
17	21	35	39	**30**	South America
151	146	177	187	**193**	Asia (excl. China)
317	411	393	239	**150**	China
28	29	42	51	**47**	Africa & Oceania

Deliveries by market

Number of machines	**2023**	2022
Europe	16,278	16,767
North America	9,549	7,663
South America	2,271	4,875
Asia	28,073	48,153
Africa and Oceania	3,893	3,451
Total deliveries	**60,064**	**80,909**
Large and medium construction equipment[1]	45,494	58,110
Compact construction equipment[2]	14,570	22,799
Of which		
Fully electric	895	598
Total deliveries	**60,064**	**80,909**
Of which		
Volvo	38,287	39,327
SDLG	21,462	41,339
Of which in China	15,790	34,545

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.

Net sales and operating income

SEK M	**2023**	2022
Europe	34,228	30,194
North America	29,590	22,294
South America	4,101	6,491
Asia	28,150	34,228
Africa and Oceania	8,912	7,054
Total net sales	**104,981**	**100,261**
Of which		
Construction Equipment	89,009	85,465
Services	15,973	14,796
Adjusted operating income[1]	**16,993**	**13,244**
Adjustments[1]	–610	–338
Operating income	**16,383**	**12,907**
Adjusted operating margin, %	16.2	13.2
Operating margin, %	15.6	12.9

1 For information on adjusted operating income, see Key Ratios on page 218.

Buses

Continued profitability improvement

Demand for coaches remained strong in 2023, while the market for city buses improved. Volvo Buses' order intake increased by 11% while deliveries decreased by 1%, affected by disturbances in the supply chain. Currency-adjusted net sales rose by 15% to SEK 22,423 M and the adjusted operating income improved to SEK 1,059 M (353), which corresponds to an adjusted operating margin of 4.7% (1.9). The operating income and operating margin are Volvo Buses' highest since 2019.

Strong demand for coaches

Demand for coaches remained strong during the year, above all in North America but also in Europe. Volvo Buses' subsidiary Prevost launched a brand new bus in the next generation of the H3-45 series in North America. The new long-distance bus has a number of new features that provide increased fuel efficiency by up to 12%, a better driver experience and higher passenger comfort.

Within coaches, local launches of the Volvo B13R platform continued in Latin America, as well as in selected markets in Asia and Europe. With the new platform launched in 2022, fuel consumption is reduced by up to 9% and thus also the total emissions.

The city bus market was stable with an increase in requests for electrified buses.

Volvo Buses' total order intake increased by 11% to 7,156 units (6,459) while deliveries decreased by 1% to 5,773 units (5,815).

Continued electrification

The strategic investment in accelerating the electrification of city buses continued. Demand for fully electric buses remained strong above all in Europe and South America. The fully electric chassis, Volvo BZL Electric, which was launched globally in 2021, has resulted in several orders, especially in the UK. An order for 170 electric buses for Stagecoach in the UK is Volvo Buses' largest order for electric buses to date. The UK market was strong and overall customers there placed orders for 436 Volvo BZL Electric. In South America, the first demo drive of the Volvo BZL Electric began in Curitiba, Brazil. Further demonstrations of the Volvo BZL Electric will be/were carried out in São Paulo, Bogotá in Colombia and Santiago in Chile.

In Mexico, a fully electric city bus, LUMINUS, was launched. With the new electric bus, Volvo Buses guarantees operation, best total cost and support. In addition, Volvo Buses is the only bus manufacturer in Mexico that has developed a circular model that allows the bus batteries to be used for other purposes when they are no longer useful in the buses.

Offering

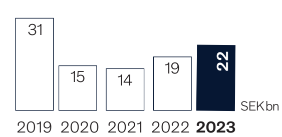
Volvo Buses is one of the world's largest manufacturers of premium buses and coaches and a leader in the development of sustainable people transport solutions. The offering includes premium city and intercity buses, coaches, and chassis as well as services for increased productivity, uptime and safety. 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.

Brands

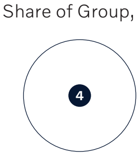
Number of employees

5,637 (5,325).

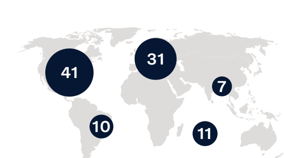
Net sales



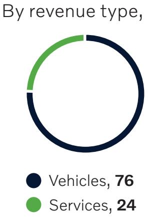
Share of Group, %



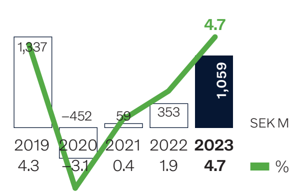
By market, %



By revenue type, %



Adjusted operating income[1] and adjusted operating margin



1 For information on adjusted operating income, see Key Ratios on page 218.

In the European market, Opérateur de Transport de Wallonie (OTW), which operates public transport in Belgium, ordered 97 Volvo 7900 S-Charge. The order follows Volvo Buses' previous deliveries of hybrid buses that have been very operationally reliable.

Total order intake for fully electric buses increased by 101% to 611 units (304), while deliveries increased by 51% to 363 units (240).

New business model in Europe

During the year, Volvo Buses prepared a change of the business model in Europe, which means that the company's own production is focused on chassis in order to offer customers in Europe a complete range of city and intercity buses as well as coaches together with external bodybuilders. The business model has previously been successfully applied to other markets. As a result of the introduction of the new business model, the decision was made to close the bodybuilding factory in Poland during the first quarter of 2024. The change is aimed at improving profitability and securing the long-term competitiveness of Volvo Buses.

In order to be able to offer customers in Europe complete buses, an agreement was signed with MCV for the license to manufacture bodies for Volvo's electric buses for the city and intercity segments and with Sunsundegui for the license to manufacture bodies for the models in the coach segment. Volvo Buses will also use other bodybuilders to have a customer- and market-tailored offer. Volvo Buses continues to provide full service and support to the existing and future fleet of Volvo buses as well as being the point of contact for new customers.

Continued improved profitability

Volvo Buses' net sales increased by 21% to SEK 22,423 M (18,583). Adjusted for currency movements, net sales increased by 15%, of which vehicle sales increased by 14%. The focus on service contributed to an improvement in service sales by 18% to SEK 5,416 M (4,398).

The adjusted operating income was Volvo Buses' best since 2019 and amounted to SEK 1,059 M (353), which corresponds to an adjusted operating margin of 4.7% (1.9). Adjusted operating income excludes negative effects of SEK 1,439 M (0), primarily from restructuring costs in connection with the closure of the bodybuilding factory in Poland. For information on adjustments, please see Key Ratios on page 218.

The improved result was primarily an effect of increased vehicle and service sales. Price realization largely offset increased material and transport costs.

Reported operating income amounted to SEK –380 M (353). Currency movements had a positive impact of SEK 370 M compared with 2022.

Sustainability. Everywhere

Volvo Buses' ambition is to become the world's most sustainable supplier of buses. Both Volvo Buses' factories in Borås and Uddevalla, Sweden are entirely powered by renewable energy, and the factory in Mexico is 60% powered by renewable energy. The factory in Uddevalla was also certified as "100% landfill free", which means that all waste from the factory is recycled. The goal for Volvo Buses is to reduce emissions from its own production by 50% by 2030 and to reduce emissions per vehicle kilometer from its buses by 40% by 2030.

Net sales and operating income[1]

SEK M	2023	2022
Europe	7,007	6,034
North America	9,200	6,521
South America	2,207	3,154
Asia	1,601	1,372
Africa and Oceania	2,408	1,502
Total net sales	**22,423**	**18,583**
Of which		
Vehicles	17,007	14,185
Services	5,416	4,398
Adjusted operating income[1]	**1,059**	**353**
Adjustments[2]	–1,439	0
Operating income	**–380**	**353**
Adjusted operating margin, %	4.7	1.9
Operating margin, %	–1.7	1.9

1 For information on adjusted operating income, see Key Ratios on page 218.

Deliveries by market

Number of buses	2023	2022
Europe	1,476	1,424
North America	1,590	1,134
South America	1,043	1,957
Asia	875	819
Africa and Oceania	789	481
Total deliveries	**5,773**	**5,815**
Of which		
Fully electric	363	240
Hybrids	165	127

Volvo Penta

Solid financial performance

In 2023, Volvo Penta's currency-adjusted net sales increased by 10% to SEK 21,006 M driven by good market demand and increased utilization of Volvo Penta products for most of the year. However, demand in some segments weakened towards the end of the year. Adjusted operating income amounted to SEK 3,230 M (2,530), with an adjusted operating margin of 15.4% (14.0).

Customer success in focus

Volvo Penta operates in two key businesses: Marine (leisure and commercial) and Industrial (off-highway and power generation, including battery energy storage sub-systems). The strategy revolves around ensuring customer success in each segment by providing innovative power solutions and services that increase productivity and efficiency. Volvo Penta is committed to achieving net-zero greenhouse gas emissions in its value chain by 2040.

Volvo Penta is on a fast-track transformation journey, exploring and introducing combustion engines with renewable fuels, and electric drivelines including battery and fuel cell electric solutions. Volvo Penta leverages Volvo Group solutions, in-house development, and partnerships. The transformation also extends to services and digital experiences.

A year of market fluctuations and uncertainty

In the marine leisure segment, Volvo Penta faced fluctuating demand, with a notable decline in smaller boat sales throughout the year. The commitment to innovation remained unwavering, with the introduction of the award-winning Joystick Docking system and enhancements to the boating experience. The marine commercial segment demonstrated resilience, with sustained demand for supply and patrol vessel propulsion, contributing to the overall positive performance.

In the industrial segments, demand for power generation solutions remained very high. The off-highway market cooled off towards the end of the year, due to the general global economic situation. Volvo Penta's dedication to innovation, strategic partnerships and expanding the industrial product portfolio remained at the forefront, positioning Volvo Penta for continued growth and adaptation to changing market conditions, exemplified by the market introduction of the battery energy storage sub-system.

Continued good performance

Volvo Penta's net sales increased by 16% to SEK 21,006 M (18,102). Adjusted for currency movements, net sales increased by 10%, of which engine sales increased by 11% and service sales by 8%.

Offering

Volvo Penta is one of the world's largest producers of power systems for leisure boats and a leading provider of power systems for industrial off-highway and power generation segments. The aim is to be the most forward-thinking and customer-focused supplier of sustainable power solutions. The offering includes engines, power solutions and services for leisure and commercial vessels, as well as for power generation and industrial off-highway applications.

Core businesses


Marine engines

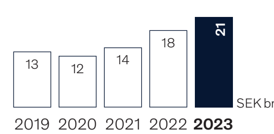

Industrial engines


Battery energy storage sub-systems

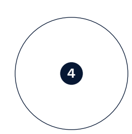
Number of employees

2,167 (2,022).

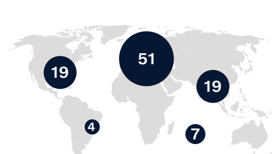
Net sales



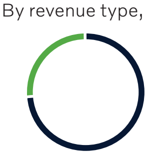
Share of Group, %



By market, %

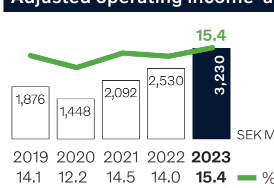


By revenue type, %



- Vehicles, **74**
- Services, **26**

Adjusted operating income[1] and adjusted operating margin



1 For information on adjusted operating income, see Key Ratios on page 218.

Also in 2023, supply chain disturbances affected lead times negatively and beginning in the second quarter, net order intake decreased due to market uncertainty.

Adjusted operating income amounted to SEK 3,230 M (2,530), corresponding to an adjusted operating margin of 15.4% (14.0). There were no adjustments in 2023 (–3). For information on adjustments, please see Key Ratios on page 218.

Earnings were positively influenced by price realization and a favorable product mix. This was partly offset by increased material and production costs.

Reported operating income amounted to SEK 3,230 M (2,527). Currency movements had a positive impact of SEK 578 M compared with 2022.

Pioneering innovation towards a fossil-free future

For its marine customers, Volvo Penta introduced the Innovation Award-winning Joystick Docking and revealed the IPS professional platform, expanding the successful Inboard Performance System to larger vessels like super yachts and passenger ferries.

On the industrial side, Volvo Penta expanded its portfolio by venturing into battery energy storage solutions, and expanded into more OEM applications in the material handling and construction segments. Volvo Penta also launched its first industrial pilot for a dual fuel solution for diesel and hydrogen as well as revealed its ambition to expand into productivity solutions for industrial off-highway applications in a collaboration with Volvo Penta subsidiary CPAC Systems.

Net sales and operating income

SEK M	2023	2022
Europe	10,787	9,417
North America	4,070	3,695
South America	783	635
Asia	3,950	3,302
Africa and Oceania	1,417	1,054
Total net sales	**21,006**	**18,102**
Of which		
Engines	15,507	13,221
Services	5,499	4,881
Adjusted operating income[1]	**3,230**	**2,530**
Adjustments[1]	–	–3
Operating income	**3,230**	**2,527**
Adjusted operating margin, %	15.4	14.0
Operating margin, %	15.4	14.0

1 For information on adjusted operating income, see Key Ratios on page 218.

Deliveries by segment

Number of units	2023	2022
Marine engines	16,858	17,924
Industrial engines	27,479	27,360
Total deliveries	**44,337**	**45,284**
Of which		
Fully electric	104	24

Financial Services

Good portfolio growth and performance

Volvo Financial Services (VFS) continued to deliver good results in 2023, achieving record new financing volumes, continued growth in managed assets and good portfolio performance, while also continuing its transformation journey.

New business volume increased by 14% and adjusted operating income increased to SEK 3,855 M (3,416). Return on equity, excluding operations in Russia and Belarus, amounted to 13.9% (15.4).

Good growth and portfolio performance

For 2023, VFS achieved new financing volumes of SEK 118.0 billion (103.6), an increase of 14%. Adjusted for currency the volume increase was 9%. The number of Volvo Group vehicles and machines financed was 68,027 (68,658).

The volatile interest rate environment and strong competition from banks continued to have an impact on penetration. Even with these headwinds, VFS maintained stable penetration of 27% (28).

VFS increased its net credit portfolio by 21% to SEK 254,126 M (216,053) on a currency-adjusted basis compared to 2022. 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 increased to SEK 3,855 M (3,416), excluding a loss on the divestment of the Russian entities of SEK 136 M. In 2022, adjustments amounted to SEK –2,568 M from provisioning of assets related to Russia. For information on adjustments, please see Key Ratios on page 218.

VFS reported operating income of SEK 3,719 M (848), while currency movements had a positive impact of SEK 160 M compared with 2022.

Return on shareholders' equity amounted to 13.0% (–0.3). Excluding the results related to operations in Russia and Belarus, return on shareholders' equity stabilized during the year at 13.9% (15.4), while the equity ratio was 8.0% (8.0) at the conclusion of the year.

Credit provision expenses, excluding the activity related to Russia and Belarus, amounted to SEK 643 M (297), while write-offs of SEK 406 M (96) were recorded. In 2023, the write-off ratio was 0.17% (0.05). Excluding Russia and Belarus, credit reserves were 1.37% (1.60) of the credit portfolio.

Transforming for today; innovating for the future

Thanks to good growth and financial performance, VFS is operating from a position of strength and stability, enabling VFS to continue to make investments in transformative offers aligned with its Transforming Together strategy.

Offering

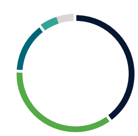
VFS works with Group brands, customers and dealers to provide a broad range of services and financial solutions that promote long term relationships, loyalty and customer success. Offering customer financing in 47 markets around the world, VFS covers over 90% of all Group branded deliveries. VFS manages a retail portfolio of more than 292,000 vehicles and machines.

Number of employees

1,599 (1,596).

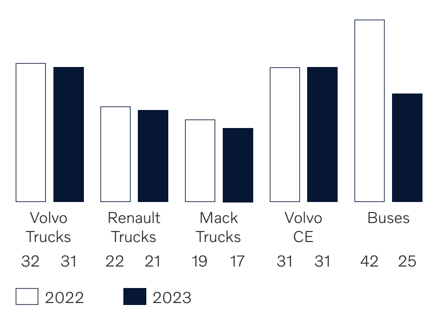
Distribution of credit portfolio %

- Volvo Trucks, **55** (54)
- Volvo CE, **20** (21)
- Mack Trucks, **10** (11)
- Renault Trucks, **11** (10)
- Buses, **4** (4)



- Europe, **40** (40)
- North America, **36** (37)
- South America, **14** (14)
- Asia, **5** (5)
- Africa and Oceania, **5** (4)

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.

In the area of pay-per-use, VFS expanded its offer for Mack Trucks customers by launching ElectriFi Subscription, an offer that allows customers to pay as they go for miles driven in the medium-duty Mack MD Electric model. ElectriFi Subscription combines the cost of the truck and body, charging, applicable incentives, physical damage insurance and maintenance into a single monthly payment for simplification. This reduces the upfront investment while providing the customer greater flexibility.

To further develop usage-based business models, accelerate the adoption of EVs, and deliver peace-of-mind to customers, VFS committed to adding more than 200 electric trucks to its portfolio in 2023. These trucks will be made available to customers through long-term rental and pay-per-use-related programs around the world, giving VFS an opportunity to further enhance its comprehensive solutions offering to customers.

VFS is also forging partnerships inside and outside the Volvo Group to find innovative new solutions. In collaboration with CampX by Volvo Group, financial technology (fintech) was added to the CampX innovation focus areas. This addition provides VFS with an opportunity to cultivate new capabilities for services that will facilitate the transition to sustainable, fossil-free transport, creating value for both customers and the Volvo Group.

The partnership also led to the launch of iLabX 2.0, a new generation of VFS' accelerator program that provides startups with the opportunity to develop and implement fintech and insurtech innovations together with VFS. Running through 2023 and into 2024, iLabX 2.0 is currently focused on creating an exceptional experience for Equipment-as-a-Service (EaaS) customers.

Key ratios, Financial Services

	2023	2022
Number of financed units	68,027	68,658
Total penetration rate[1], %	27	28
New financing volume, SEK billion	118.0	103.6
Credit portfolio net, SEK billion	254	216
Credit portfolio net excluding Russian and Belarus operations, SEK billion	254	215
Credit provision expenses, SEK M	612	3,332
Credit provision expenses excluding Russian and Belarus operations, SEK M	643	297
Adjusted operating income[2]	3,855	3,416
Adjustments[2]	–136	–2,568
Operating income, SEK M	3,719	848
Credit reserves, % of credit portfolio	1.37	3.00
Credit reserves, % of credit portfolio excluding Russian and Belarus operations	1.37	1.60
Return on shareholders' equity, %	13.0	–0.3
Return on shareholders' equity excluding Russian and Belarus operations, %	13.9	15.4

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 218.

Income statement Financial Service

SEK M	**2023**	2022
Finance and lease income	24,012	17,355
Finance and lease expenses	–16,385	–10,641
Gross income	**7,627**	**6,714**
Selling and administrative expenses	–3,309	–2,991
Credit provision expenses[1]	–610	–3,355
Other operating income and expenses	10	479
Operating income	**3,719**	**848**
Interest income & similar credits	1	–
Income after financial items	**3,720**	**848**
Income taxes	–1,024	–901
Income for the period	**2,695**	**–53**

1 Credit provisions for operating leases of SEK 2 M is included in finance and lease expenses within gross income.

The share

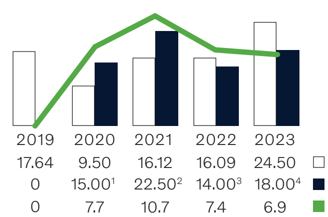
Total shareholder return ahead of index in 2023

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?

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

Earnings and dividend per share, dividend yield



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

2 Ordinary dividend of SEK 6.50, an extra dividend of SEK 6.50 and SEK 9.50 relating to the proceeds from the sale of UD Trucks.

3 Ordinary dividend of SEK 7.00 and an extra dividend of SEK 7.00.

4 Ordinary dividend of SEK 7.50 and an extra dividend of SEK 10.50 proposed by the Board of Directors to the AGM 2024.

The Volvo share development

On Nasdaq Stockholm the broad OMXSPI index rose by 15% after having fallen by 25% in 2022. The share price for the Volvo A share increased by 35%, and at year-end the price was SEK 267.00 (198.10). The lowest closing price was SEK 198.30 on April 5 and the highest was SEK 267.00 on December 29. The share price for the Volvo B share increased by 39% and at year-end the price was SEK 261.70 (188.48). The lowest closing price was SEK 190.24 on April 5 and the highest was SEK 261.90 on December 27. Total return was 42% for the A share and 46% for the B share compared with 19% for the OMX Stockholm Benchmark GI index.

In 2023, a total of 0.9 billion (1.0) Volvo shares valued at SEK 187 billion (180) were traded on Nasdaq Stockholm, with a daily average of 3.4 million shares (4.0). In terms of value, the Volvo shares were the third most traded on Nasdaq Stockholm in 2023. At year-end, Volvo's market capitalization was SEK 534 billion (388).

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. At the end of 2022, there were 444,987,875 A shares outstanding. During 2023, a total of 1,725 A shares were converted to B shares. Further information on the conversion procedure is available on volvogroup.com

Dividend

The Board proposes an ordinary dividend of SEK 7.50 per share and an extra dividend of SEK 10.50 per share for the financial year 2023. If the AGM approves the Board's proposal, a total of SEK 36,602 M will be transferred to the shareholders. For the preceding year a dividend of SEK 7.00 per share and an extra dividend of SEK 7.00 per share were distributed, in total SEK 28,468 M.

Policy for remuneration to senior executives

See Note 27 on page 141 for the current policy for remuneration to senior executives.

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.

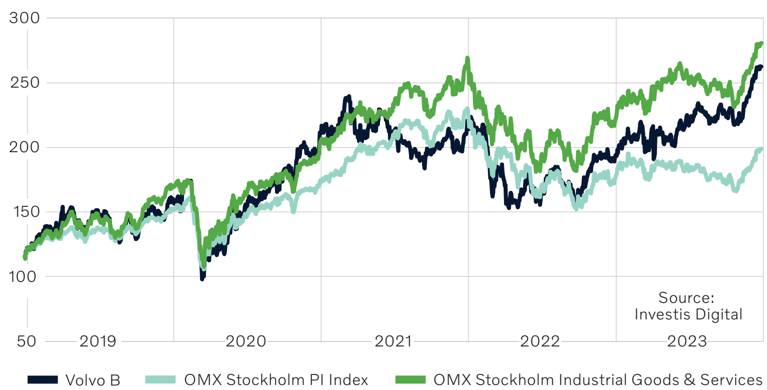
Volvo has decided to present its Corporate Governance Report as a separate document to the Annual Report in accordance with Chapter 6 § 8 of the Swedish Annual Accounts Act and the report is available on pages 194–211.

Contractual conditions related to takeover bids

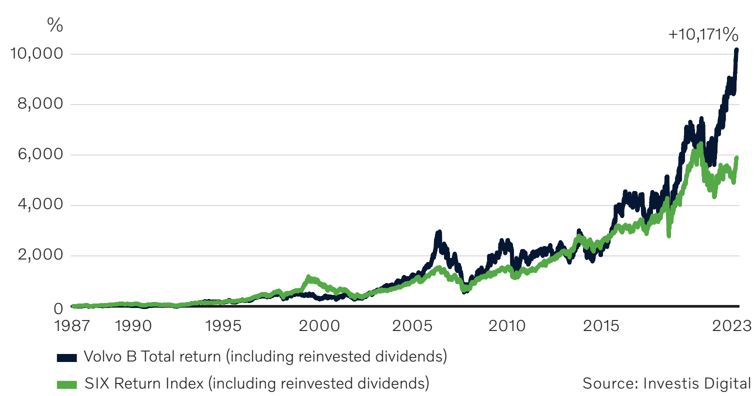
Provisions stipulating that an agreement can be changed or terminated if the control of the company is changed, so called change of control clauses, are included in some of the agreements whereby Renault Trucks has been given the right to sell Renault s.a.s. and Nissan Motor Co. Ltd's light-duty trucks 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, 2019–2023 SEK



Accumulated total return for 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 102,710 at the end of 2023, 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, 2023

	Voting rights, %	Capital, %
Industrivärden	27.9	9.1
Geely Holding	15.5	6.8
AMF Insurance & Funds	5.5	3.3
Alecta	4.0	2.7
AFA Insurance	2.3	0.8
BlackRock	2.1	3.2
Vanguard	2.1	3.2
Swedbank Robur Funds	1.8	4.4
AP4 Fund	1.6	0.5
Norges Bank Investment Management	1.6	2.3

Source: Modular Finance.

Share capital, December 31, 2023

Number of shares	2,033,452,084
of which, Series A shares[1]	444,986,150
of which, Series B shares[2]	1,588,465,934
Share capital, SEK M	2,562
Quota value, SEK	1.26
Number of shareholders	382,200
Private persons	364,225
Legal entities	17,975

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 category[1], %

- Non-Swedish owners **40**
- Other Swedish institutions **32**
- Swedish mutual funds **15**
- Swedish private shareholders **13**

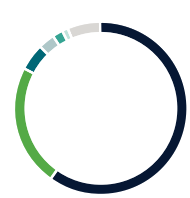
More details on the Volvo shares are provided in Note 19 to the financial statements and in the Eleven-year summary.

Employee ownership of shares in Volvo through Group pension foundations is insignificant.

Source: Euroclear

1 Share of capital

Ownership by country[1], %



- Sweden **60**
- USA **23**
- United Kingdom **5**
- Luxembourg **3**
- Belgium **2**
- Switzerland **1**
- Others **6**

Source: Euroclear

1 Share of capital

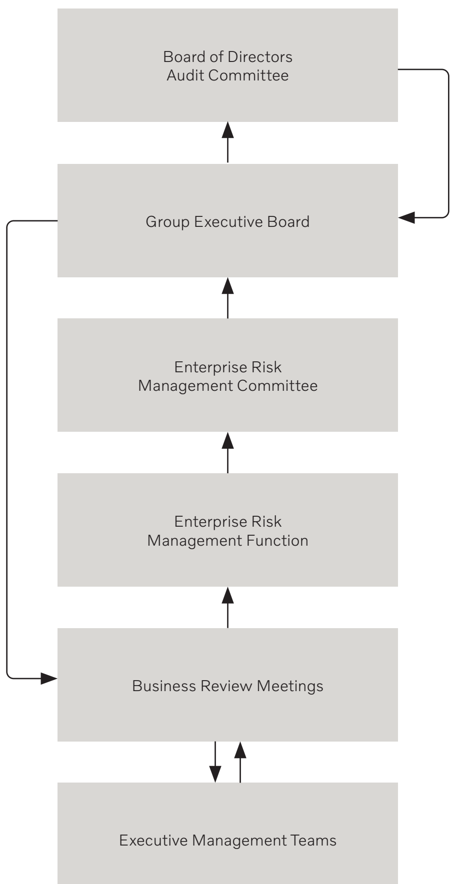
Risks and uncertainties

Managed risk-taking

Each of the Volvo Group's Business Areas, Truck Divisions and some Group Functions 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.

Volvo Group Enterprise Risk Management Process

For the governance model of the Volvo Group, please see page 195.



The Board of Directors monitors risks and mitigation activities annually and the Audit Committee regularly reviews the consolidated ERM report.

The Group Executive Board analyzes accuracy of reported risks and mitigation activities as well as ensures alignment to strategic and operational agendas.

The ERM Committee reviews, analyzes and challenges compiled risks and mitigation activities, ensuring a first alignment with the Group's operational agenda. The committee consists of the Executive Vice President Group Finance, Executive Vice President Legal & Compliance, Senior Vice President Group Treasury & Corporate Finance, the Senior Vice President Group Financial Reporting and Business Control, and the Senior Vice President Risk Management and Internal Audit.

Each Business Area and Truck Division and some Group Functions reports its largest risks and mitigation activities to the ERM function, which reviews and combines reported risks into the Group ERM report.

Business review meetings in each Business Area and Truck Division identify, analyze, mitigate and monitor its largest risks. This forms the basis for the ERM reporting.

Executive Management Teams in each Business Area and Truck Division and in some Group Functions are fully responsible for risk and mitigation management in their respective areas. Risks are identified, mitigation activities are established, and monitoring and reporting of progress is part of daily operations.

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.

The following pages present principal risks and uncertainties the Volvo Group is 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.

For short-term risks, please also see the segment reporting in the Board of Directors report, and Note 2 in the most recent quarterly report.

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 geopolitical, economic, regulatory, digital, technological, resource availability, 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 as well as 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, cash flows 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. This could result in e.g. reduced profit margins, loss of market share or a need to accelerate research and development investments and/or sales and marketing expenses, which each could adversely affect the Group's business, results of operations, market share and financial position.

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 reputation damage. A failure to meet applicable laws and regulations in this area could also imply a failure to assure a timely, updated and compliant product and service range, which could have a material adverse effect on the Volvo Group's business, operating results, financial position and brand equities.

In addition, safety regulations are 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 images of the Group's brands and possible earnings. An incident in the industry could also lead to quickly adjusted or additional regulations.

Political and social uncertainty

The Volvo Group is active in almost 190 countries across the world. Our business is subject to the political, economic and other risks that are inherent in operating in a global environment, including,

- public health crises, including the spread of a contagious disease, such as COVID-19, and other disastrous events;
- security threats, including acts of war, terrorism, sabotage and other criminal or malicious acts directed towards our or our business partners' people, information systems, products, production systems or facilities;
- new or amended export controls, including licensing requirements, trade policies, taxes, treaties, government regulations and tariffs in different parts of the world (including the Group's joint ventures); and
- changes in general economic or political conditions, including political instability, conflicts, and decoupling economies.

There can be no assurance that the consequences of these and other factors relating to our multinational operations will not materially adversely impact our competitive position, results of operations or financial position.

OPERATIONAL RISKS

Transformation and technology

The ongoing and accelerating transformation of the transport and vehicle industry towards low-carbon 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, energy-efficient, and profitable 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 (battery-electric and fuel cell-electric), new fuel technologies 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, capital allocation and sentiment are more and more influenced by environmental, social and corporate governance (ESG) considerations. Material 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.

The transformation to electric solutions also depends on external factors such as the availability of battery cells and technology or existence of a functioning charging infrastructure and access to renewable energy sources to power battery-electric and fuel cell-electric products. If the expansion of charging infrastructure or the availability and cost of renewable energy sources, alone or in combination, are inadequate, customers' investments into the Volvo Group's electrified products may happen at a slower pace than anticipated, which could negatively impact the Group's operating income and financial position and the Group's sustainability goals. 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 widespread 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 position and cash flows. Last, if the Volvo Group positions itself unsuccessfully in this technology shift (timing and/or technology selection), earnings capacity and financial position could be severely affected.

New business models

The transport and vehicle industry is facing new technologies, business models, competitors and global trends such as digital transformation 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 is likely to continue to emerge and 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 position 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.

Industrial operations including supply chain

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. Our industrial system and supply chain have continued to be strained in many areas during 2023 due to e.g. shortages of materials and components, shortages of transport services, etc. Further disturbances in the supply chain and industrial system can arise from a variety of factors, including continued or additional shortages of material, single sourcing, supplier insolvency, shortages of labor and components, strikes, pandemics, cybersecurity breaches or climate hazards such as extreme weather, which each or in combination could result in quality issues, stoppages and other interferences in production and deliveries, which may impair our ability to meet our customers' orders, and thus materially negatively affect the Volvo Group's business and results from operations.

Suppliers and materials
The ongoing technology shift into electrification and other new customer offerings, combined with required investments in traditional technologies, is likely to 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. Non-adherence of new suppliers to the Volvo Group's code of conduct may pose a reputation risk. 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
During recent years the Group experienced higher input costs from increased prices on e.g. purchased material, freight and energy as well as higher labor costs. These inflationary trends could continue with potential further impact from energy cost and occur for additional commodities and materials which the Group purchases 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. If the Group is unable to compensate for the higher input costs through increased prices on products and services sold, this could have a negative impact on the Group's financial performance.

Information security and digital 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. research and development, production, logistics and sales, as well as products and services using connectivity and automation features, where the Group relies on its ability to expand and update technologies and infrastructure to meet the changing needs of the Group's business. The Group also relies on third parties where significant parts of maintenance and operations of the IT systems has been outsourced. If the Group experiences a problem with important digital technology, the resulting disruptions could have adverse effects on operations. Further, as the Group implement new digital technologies, they may not perform as expected. The Group also face the challenge of supporting its older digital technologies and implementing necessary upgrades.

Threat actors seeking to exploit vulnerabilities in the Group's and its third-party service providers' systems, processes or personnel could result in security incidents that may impact the confidentiality, availability or integrity of information assets, technology or products and services. These cybersecurity incidents may include ransomware or other malware attacks, intrusions, exploitation of system vulnerabilities, data privacy infringements, leakage of confidential or sensitive data and unauthorized usage or modification of data.

The Group's systems and applications, and those of its third-party service providers have been and are expected to be subject to cybersecurity incidents. Such incidents could cause severe harm to the Group and could adversely affect the Group's business, financial performance, business partner relationships, credit rating and reputation, and may result in litigation or regulatory investigations or actions, increased costs for remediation and compliance.

Mergers and acquisitions, partnerships and divestments
In addition to the Volvo Group's inhouse 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 are repurchased and the fair market value of the vehicles is below the 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

Climate

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 key risks, as they will be particular to local and customer specific circumstances.

The Volvo Group has identified a number of climate-related transitional risks, which are incorporated into the Group's Enterprise Risk Management process. These risks, including their potential financial impact, are assessed as part of macro and market developments as found in the risk descriptions for "Regulations", "Transformation and technology", "New business models" and "Suppliers and materials". Physical climate hazards can potentially also impact Volvo Group's operations and supply chain as mentioned in the "Industrial operations" risk description.

People and culture

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. Furthermore, Volvo Group strives to increase health and safety in its operations, and targets to significantly reduce both the accident rate and the risks associated with our activities. The Volvo Group counts on leveraging the full diversity of its workforce to fulfill 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 health and safety, leadership, empowerment, employee engagement, working conditions, inclusive 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 health, safety and well-being of our personnel, on the Volvo Group's reputation, as well as on its image as an employer. Moreover, it can impair the Group's ability to recruit, retain and develop the knowledge and skills 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 and relevant global frameworks such as the United Nations Guiding Principles on Business and Human Rights (UNGP).

The regulatory landscape addressing corporate conduct in relation to human rights is rapidly evolving. New legislation, imposing more stringent due diligence and reporting requirements has already been adopted, and further legislation is emerging. The Volvo Group attempts to monitor its compliance with applicable laws, policies and guidelines and strives for continuous improvements, but there can be no assurances that future adverse human rights impacts will not materialize in the Group's own organization, or in the Group's business relationships or in the value chain. The Group seeks to address adverse human rights impacts with which it may be involved, however, such events may adversely affect the Group, financially as well as reputationally.

COMPLIANCE RISKS

Data protection laws

Focus on Data Protection is increasing from authorities around the globe resulting in new Data Protection laws entering into force and increased activities by Data Protection Authorities in terms of sanctions, audits, and court rulings. It becomes even more relevant with Volvo Group operations and products being more data driven (e.g. connected vehicles). 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 reputation damage and adverse effect on the Group's earnings and financial position.

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 individual brand's and corporate 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 trademarks for its products and services according to a license agreement. Similarly, Volvo Car Corporation has the exclusive right to use the Volvo name and trademarks 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. More partnerships and JVs are established involving intellectual property arrangements.

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. For information about certain legal proceedings involving entities within the Volvo Group, see Note 21 Other Provisions and in Note 24 Contingent Liabilities.

Corruption and 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 reputation 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 cybersecurity incidents or 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, 2023 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 instruments that are exposed to market risks which do not fully match the characteristics of the pension obligation. 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
The Volvo Group is exposed to interest-rate risk mainly through net financial items in the Industrial Operations and borrowing and lending in the Financial Services operations. Interest-rate risk refers to the risk that changed interest rates will affect the Volvo Group's net income and cash flow or the fair value of financial assets and liabilities. Fluctuations in interest-rates may lead to stronger competition and reduce demand for the Group's products, increase borrowing costs and potentially reduce interest margins. The Volvo Group's efforts to match interest-rate fixings on financial assets and liabilities and to reduce the effects of interest-rate fluctuations through hedging activities may not always be successful or sufficient, which could result in adverse impacts on the Volvo Group's net income, cash flow and the value of financial assets and liabilities.

Currency risk
The Volvo Group's global operations expose the Group to various currency regions. Currency risks in the Volvo Group's operations are related to changes in the value of contracted and expected future payment flows, changes in the value of loans and investments and changes in the value of assets and liabilities in foreign subsidiaries. More than 95% of the Group's revenues are generated in countries other than Sweden while a significant part of the Group's costs is generated in SEK. The Volvo Group presently has a net revenue exposure in foreign currencies, which means that a stronger SEK exchange rate would generally have a negative effect on the Volvo Group's reported results. To the extent the Volvo Group is unable to match revenues and profits received in one currency with costs and expenses paid in the same currency, exchange rate fluctuations could have a negative impact on the Volvo Group's cash flow, profitability, and balance sheet. The Volvo Group's efforts to reduce the effects of exchange rate fluctuations through hedging activities may not always be sufficient or successful, which could result in an adverse impact on the Volvo Group's results and financial position.

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 (in particular for the Financial Services operations), 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 or involve fines and penalties. 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 amortized, 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.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NOTES TO THE FINANCIAL STATEMENTS

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1 Accounting policies

The consolidated financial statements for AB Volvo (publ) 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 Sustainability and Financial Reporting Board. Amounts in SEK M unless otherwise specified. The amounts within parentheses refer to the preceding year.

1:1

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
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 financial commitments	24	Contingent liabilities and financial commitments	IAS 37
Transactions with related parties	25	Transactions with related parties	IAS 24
Government grants	26	Government grants	IAS 20
Incentive programs	27	Personnel	IFRS 2, 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

VOLVO GROUP'S ACCOUNTING POLICIES

The Volvo Group describes the most material 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 rate changes are recognized in other comprehensive income and accumulated in equity.

Accumulated exchange rate changes 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.

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 changes arising from operating assets and liabilities impact operating income while exchange rate changes 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).

» **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**.

1:2

Exchange rates		Average rate		Closing rate, Dec 31	
Country	Currency	**2023**	2022	**2023**	2022
Australia	AUD	7.0474	7.0136	6.8178	7.0892
Brazil	BRL	2.1263	1.9616	2.0572	1.9746
Canada	CAD	7.8644	7.7712	7.5401	7.7060
China	CNY	1.4983	1.5018	1.4075	1.5017
Euro Zone	EUR	11.4770	10.6300	11.0542	11.1283
Great Britain	GBP	13.1980	12.4672	12.7286	12.5811
Norway	NOK	1.0054	1.0523	0.9803	1.0572
South Africa	ZAR	0.5757	0.6182	0.5383	0.6146
South Korea	KRW	0.0081	0.0078	0.0077	0.0083
United States	USD	10.6134	10.1245	9.9830	10.4371

New accounting policies 2023

International Tax Reform - Pillar Two Model Rules

As from January 1, 2023, the Volvo Group applies the amendments to IAS 12 Income Taxes related to the International Tax Reform - Pillar Two Model Rules. The amendments include disclosure requirements of the tax exposure and an exception to recognize and disclose deferred taxes related to Pillar Two Model Rules, which are disclosed in Note 10 Income Taxes.

No other new or revised accounting standards or interpretations effective from January 1, 2023 have materially affected the Volvo Group's financial statements.

New long-term incentive plan

In 2023, a new long-term incentive plan was adopted by the Annual General Meeting. The plan is partly accounted for in accordance with IFRS 2 Share-based payments. More information of the new long-term incentive plan is disclosed in Note 27 Personnel.

New accounting policies 2024 and later

Supplier Finance Arrangements

As from January 1, 2024, IAS 7 and IFRS 7 is amended by adding disclosure requirements, both qualitative and quantitative, regarding supplier finance arrangements.

No other new and revised accounting standards and interpretations that have been published and are effective from 2024 and later are considered to have a material impact on the Volvo Group's financial statements.

2 Key sources of estimation uncertainty, critical judgments and climate-related risks and opportunities

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.

The Volvo Group is targeting to reach net-zero greenhouse gas emissions by 2040. This will enable the Group's customers to have net-zero rolling fleets by 2050 as it takes approximately ten years to renew a rolling fleet. The path to decarbonization includes a gradual shift into battery-electric vehicles, fuel cell-electric vehicles and vehicles with internal combustion engines running on lower carbon fuels. The transition brings risks such as transitional and physical risks as well as opportunities. The financial impact in relation to the transition occurs gradually and has not had a material effect on the financial statements as of December 31, 2023.

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 and climate-related risks and opportunities, if applicable.

2:1

Source of estimation uncertainty and critical judgments	Note		Climate-related risks and opportunities
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	●

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. A 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.

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.

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 assets and liabilities held for sale are fulfilled and the asset or group of assets are of material 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 12** Investments in shares and participations in the parent company, about AB Volvo's holding of shares in subsidiaries as of December 31, 2023.

Acquisitions during the period
The Volvo Group has not made any acquisitions of operations during 2023 and 2022, which solely or jointly had a material impact on the Volvo Group's financial statements.

The total impact on the Volvo Group's balance sheet and cash flow statement in connection with all acquisitions of operations are included in **table 3:1**.

3:1

Acquisitions	2023	2022
Acquired net assets	**126**	**153**
Non-controlling interest	–	–25
Goodwill	74	146
Purchase price	–198	–274
Outstanding purchase price	–	9
Advance payment[1]	121	–
Effect on Volvo Group cash and cash equivalents	**–77**	**–265**

1 2023 includes an advance payment for the acquisition of a battery business unit from Proterra Inc. and Proterra Operating Company, and a recovered advance payment for the discontinued acquisition of a heavy-duty truck manufacturing operation in China.

Divestments during the period
In 2023, the Volvo Group divested its Russian entities. The divestment resulted in a negative impact on the operating income of SEK 794 M and a total negative cash flow effect of SEK 2,499 M. In 2022, assets related to Russia amounting to SEK 4,125 M were provisioned for with a negative impact on operating income. The Volvo Group has not made any other divestments of operations during 2023 that have had a material impact on the financial statements. The Volvo Group received SEK 196 M in 2023 related to the earnout for the divestment of UD Trucks to Isuzu Motors in 2021.

During 2022, the Volvo Group did not make any divestments which solely or jointly had a impact on the Volvo Group's financial statements. The Volvo Group received SEK 145 M in 2022 related to the earnout for the divestment of UD Trucks to Isuzu Motors in 2021.

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

3:2

Divestments	2023	2022
Divested net assets	**–4,448**	**–**
Whereof cash and cash equivalents	–5,830	–

Cash flow and net financial position	2023	2022
Cash and cash equivalents, received	3,562	153
Loan repayment	–	–
Cash and cash equivalents, divested operations	–5,830	–
Effect on Volvo Group cash and cash equivalents	**–2,268**	**153**
Effect on Volvo Group net financial position	**–1,108**	**–**

Details on divestments	2023	2022
Consideration received or receivable:		
Cash	3,562	–
Fair value of contingent consideration	–	–
Total disposal consideration	**3,562**	**–**
Carrying amount of divested net assets	–4,448	–
Exchange rate changes reversed to income	318	–
Net gain/loss	**–569**	**–**
Transaction costs related to divestments amounted to:	*–25*	–

Assets and liabilities held for sale
Assets and liabilities held for sale amounted to net SEK 3,803 M (-) as of December 31, 2023. It relates to the planned divestments of Arquus to John Cockerill Defense, Volvo Construction Equipment's ABG paver business to Ammann Group, and property divestments. The write-down of assets to fair value mainly relate to the planned divestments of Arquus and the paver business, and impacted the Volvo Group's operating income negatively by SEK 880 M and SEK 610 M respectively 2023. As of December 31, 2023, the total exchange rate changes to be recycled amounted to SEK 343 M.

3:3

Assets and liabilities held for sale	Dec 31, 2023	Dec 31, 2022
Intangible assets	899	–
Tangible assets	1,202	–
Financial assets	1,858	–
Inventories	3,871	–
Accounts receivable	3,502	–
Other current receivables	2,085	–
Total assets before write-down of assets to fair value	**13,417**	**–**
Write-down of assets to fair value	–1,457	–
B/S **Total assets after writedown**	**11,960**	**–**
Provisions	503	–
Other non-current liabilities	2,891	–
Trade payables	1,279	–
Other current liabilities	3,484	–
B/S **Total liabilities**	**8,157**	**–**

Acquisitions and divestments after the end of the period
On February 1, 2024, the Volvo Group completed the previously announced transaction whereby the Volvo Group acquired the net assets related to the battery business from Proterra Inc. and Proterra Operating Company Inc., which includes a development center for battery modules and battery packs in California and an assembly factory in Greer, South Carolina, USA. With this acquisition, Volvo Group will complement the current, and accelerate its future, battery-electric road map.

The acquisition was made at a purchase price of USD 210 M before adjustment for inventory level at closing. In connection with the acquisition, the Volvo Group made a preliminary purchase price allocation of identified assets and liabilities, which is expected to be finalized within 12 months from the acquisition date. The purchase price largely corresponds to the acquired net assets at fair value, mainly consisting of machinery and equipment (USD 80 M), inventory (USD 120 M), and surplus values related to technology (USD 20 M). Acquisition-related costs amounted to SEK 85 M and was recognized in other operating income and expense.

As of February 1, 2024, the acquired operation is recognized in the segment Trucks in the Volvo Group financial statements.

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

4 Goals and policies in financial risk management

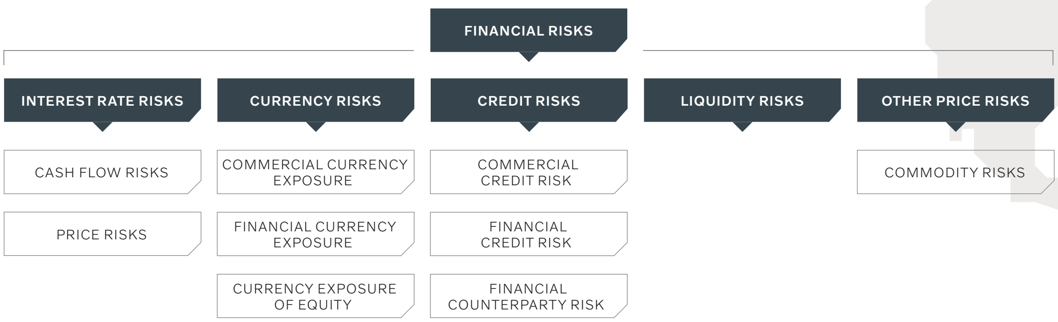
The Volvo Group's global operations expose the Group to financial risks in the form of interest rate risks, currency risks, credit risks, liquidity risks and other price risks. The board of AB Volvo has adopted a financial risk policy that regulates how these risks should be controlled and governed and 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's 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 2023 the volatility in the financial markets has decreased significantly although it's historically still on an elevated level. Market rates have increased and long market rates are now on higher levels than for many years. The Volvo Group has continued to perform financial activities and managed risk in accordance with the financial risk policy, without any policy breaches.

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

» **Read more** in sections financial management and risks and uncertainties about financial risk management.



USD 21.2

BRL 10.1

INTEREST RATE RISKS

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). Following the interest rate benchmark reform USD LIBOR was replaced by SOFR during 2023. At the point of cessation the Volvo Group had a number of outstanding interest rate derivative contracts linked to USD LIBOR which were converted to SOFR with no material effect in the income statement. Currently no other major IBOR rates, where the Volvo Group have outstanding contracts, are scheduled for cessation.

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.

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 2023, the degree of such matching ratio was 101% (100) 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 at year-end 2023 consisted primarily of cash and cash equivalents. On December 31, 2023, the average interest on Industrial Operations financial assets was 4.6% (3.2). The increase relates to significantly higher underlying interest rates in most regions during the year.

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 rate on Industrial Operations financial liabilities at year end amounted to 5.7% (5.2), including the Volvo Group's credit costs, also affected by the increase in underlying interest rates.

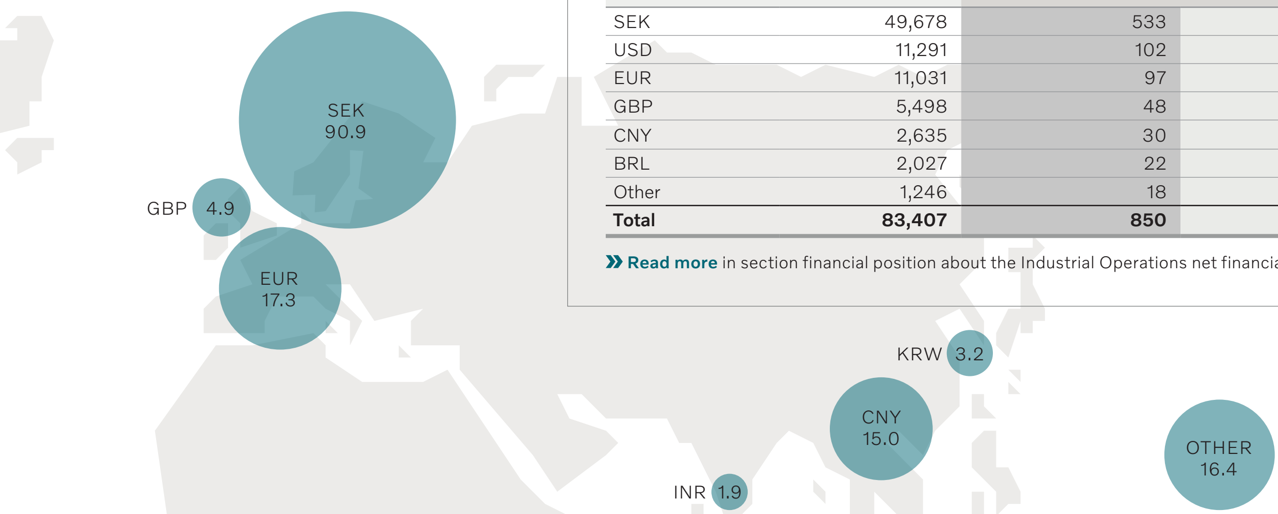
Table 4:1 shows the impact on income after financial items in Industrial Operations' net financial position, excluding lease liabilities and post-employment benefits, if interest rates were to increase by 1 percentage point, assuming an average interest rate fixed term of three months on the liability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



4:1

Risk net financial position Dec 31, 2023 SEK M	Net financial position excl. post-employment benefits and lease liabilities	Impact on income after financial items if interest rate rises 1% (Interest rate risks)	Impact on net financial position if SEK appreciates against other currencies 10% (Currency risks)
SEK	49,678	533	–
USD	11,291	102	–1,129
EUR	11,031	97	–1,103
GBP	5,498	48	–550
CNY	2,635	30	–264
BRL	2,027	22	–203
Other	1,246	18	–125
Total	**83,407**	**850**	**–3,373**

» **Read more** in section financial position about the Industrial Operations net financial position.

Price risks

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, 2023, the VaR usage was SEK 20.6 M (40.8). VaR usage for 2022 was excluding assets related to Russia which were risk measured separately.

CURRENCY RISKS

CURRENCY RISKS

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.

4:2
Volvo Group's outstanding derivatives hedging commercial currency risks December 31, 2023

Nominal amount, millions	GBP/SEK
Due date 2024	111
Due date 2025	10
Total local currency	**121**
Average contract rate	13.51
Market value of outstanding derivatives, SEK M	105

» **Read more in Note 30** Financial instruments, about derivatives used for hedging currency risk arising from future cashflow and the impact in the income statement.

4:3
Sensitivity analysis[1]

Risk currency exposure 2023 SEK bn	Transaction exposure from operating net flows	Impact on operating income if currency rate appreciates against all other currencies by 10% (Currency risks)
SEK	–63	–6.3
KRW	–9	–0.9
GBP	15	1.5
USD	12	1.2
CAD	10	1.0

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

Commercial currency exposure

Transaction exposure from commercial flows

The Volvo Group conducts manufacturing in 18 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 4:5**. 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 GBP is mainly generated from internal and external sales to Great Britain. The surplus in USD is mainly generated from internal and external sales to entities in USA and emerging markets around the globe. The surplus in CAD is mainly generated from internal and external sales to Canada. The transaction exposure in Financial Service is limited as the lending is done in local currency and the currency risk is managed through the matching in lending and borrowing.

The hedging of the Volvo Group's commercial currency exposure is executed centrally. The Volvo Group's consolidated currency exposure is the value of forecasted flows in foreign currency. The Volvo Group may hedge the part of the forecasted currency exposure that is considered highly probable to occur, however during 2023 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. **Table 4:2** shows outstanding derivatives for the hedging of commercial currency risks.

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 4:7** shows the translation effect in key currencies when consolidating operating income for 2023 in foreign subsidiaries in the Volvo Group.

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

Sensitivity analysis for transaction exposure[1]

The **table 4:3** illustrates the impact on operating income if key currencies for the Volvo Group appreciate by 10% against all other currencies. Hedge accounting is not applied on hedging commercial cash flows in foreign currency, hence the impact on equity equals the impact on operating income.

Volvo Group currency review

The **table** and **graphs 4:4** to **4:8** 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, excl. post-employment benefits and lease libilities, 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 2023 to SEK 90 billion (98). 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 the Volvo Group's policy choice on hedge accounting. Information on gain and losses regarding hedging of internal dividends, refer to **table 30:3.**

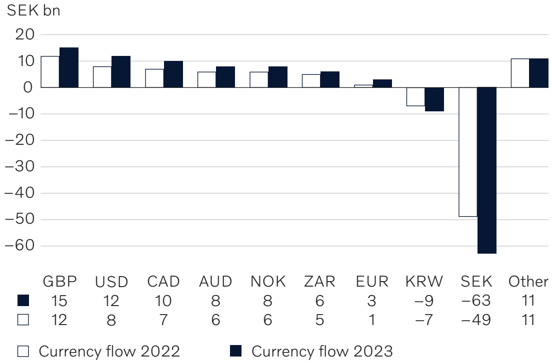
1 The sensitivity analysis on currency rate risks is based on simplified assumptions. It is not unlikely for a currency to appreciate by 10% in relation to other currencies. In reality however, all currencies usually do not change in the same direction at any given time, so the actual effect of exchange rate changes may differ from the sensitivity analysis. Please refer to **table 4:3**.

4:4
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 million	**2023**	2022	Change
Net flows in foreign currency			1,093
Realized and unrealized gains and losses on currency hedging contracts	–16	–44	29
Unrealized gains and losses on receivables and liabilities in foreign currency	94	–738	832
Translation effect on operating income in foreign subsidiaries			2,805
Total currency impact on operating income, Volvo Group			**4,758**

Currency impact on net flows in foreign currency is detailed in **graph 4:6** and translation effect on operating income in foreign subsidiaries is detailed in **graph 4:7** in key currencies.

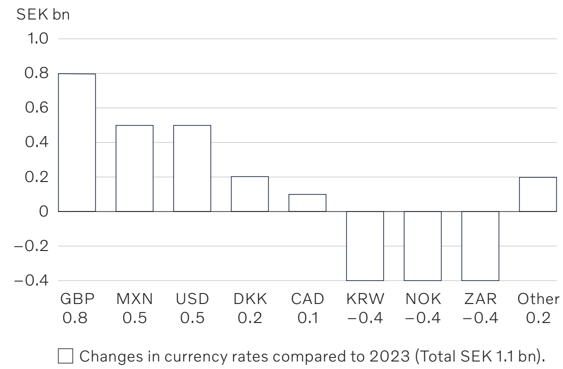
4:5
Transaction exposure from commercial net flows in 2023 and 2022



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.

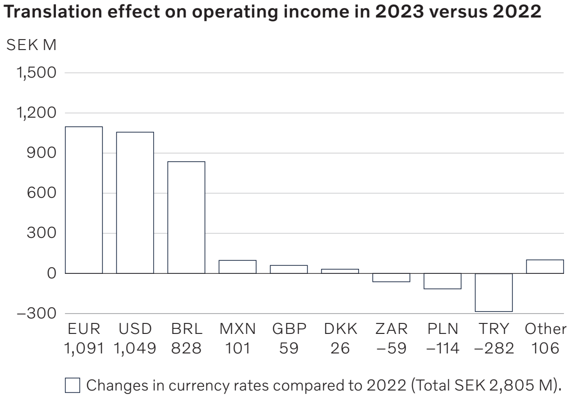
» **Read more** in section commercial currency exposure.

4:6
Currency impact on operating income from net flows in foreign currency 2023 versus 2022



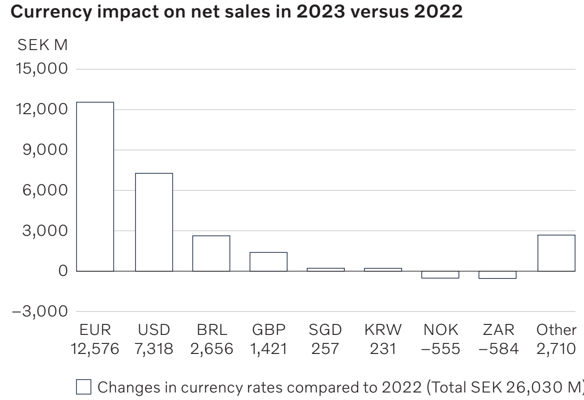
Currency effect on operating income from net flows in foreign currency in Volvo Group is presented in the graph above.

4:7
Translation effect on operating income in 2023 versus 2022



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

4:8
Currency impact on net sales in 2023 versus 2022



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.

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. In addition to this, regular monitoring ensures that necessary allowances are made for expected credit losses on financial assets. Risk management practices 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 while note 16 includes gross exposure for accounts receivables by past due status in relation to allowance for expected credit losses.

The customer-financing receivables in the Volvo Group amounted to net SEK 232 billion (194) on December 31, 2023. 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 made in order to reduce concentration risk.

The Volvo Group's accounts receivables as of December 31, 2023 amounted to net SEK 43 billion (48).

» **Read more in Note 15** Customer-financing receivables, about the 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, 2023 amounted to SEK 83 billion (84) 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 4:9** 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, 2023.

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

4:9
The impact from netting agreements and cash transfers on the Volvo Group's gross exposure from derivatives, Dec 31, 2023

	Gross amount	Netting agreements	Cash transfers	Net position	Change
Interest and currency risk derivatives reported as assets	6,293	–3,486	–1,773	1,034	84%
Interest and currency risk derivatives reported as liabilities	5,779	–3,486	–2,110	183	97%

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 83 billion (84) on December 31, 2023. In addition to this, granted but unutilized credit facilities amounted to SEK 53 billion (46). **Graph 4:10** discloses expected future cash flows related to financial liabilities. Capital flow refers to expected payments of loans, lease liabilities and derivatives. 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 Liabilities, in **table 22:3**. The predominant part of expected future cash flows that will occur in 2024 and 2025 is an effect of the Volvo Group's normal business cycle, with shorter duration in the portfolio within Financial Services compared to Industrial Operations.

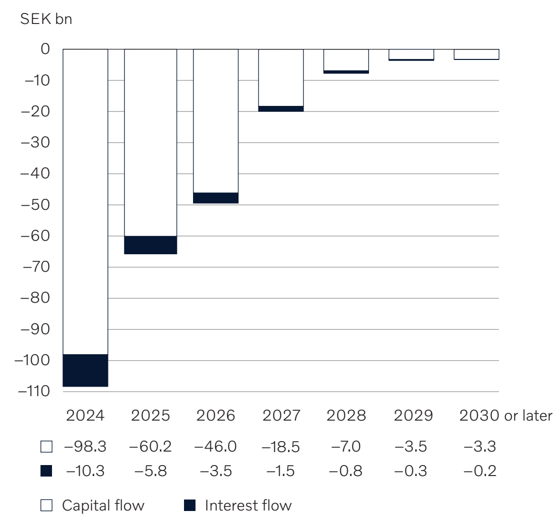
Financial Services measure the degree to which the duration of borrowing and lending matches. The calculation of the matching degree excludes equity, which amounted to 8% in Financial Services. At year-end 2023, the degree of such matching was 101% (100) for the segment Financial Services, which was 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 2023, the matching ratio was 91% (103). 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 by the Volvo Group in 2014. The final tranche of this bond (EUR 0.6 billion) was repaid in March, 2023.

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

» **Read more in Note 22** Liabilities, about the maturity for non-current loans in **table 22:3**

4:10
Future cash flow including lease liabilities and derivatives related to non-current and current financial liabilities[1]



1 In addition to derivatives included in **graph 4:10** there are also derivatives in the Volvo Group related to financial liabilities recognized as assets, which are expected to give a future capital flow of SEK 2.9 billion (1.7) and a future interest flow of SEK 2.0 billion (2.9).

OTHER PRICE RISKS

Commodity risks
Commodity risk refers to the risk that changed commodity prices may affect the income for the period 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 Volvo Group's product cost calculation. Increased commodity prices are therefore reflected in the sales price of the 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 material 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. cellcentric will develop, produce, and commercialize fuel-cell systems for use in heavy-duty trucks as the primary focus. Both investments 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. During 2023, the Volvo Group divested its shares in the associated companies WirelessCar Sweden AB and Imatech Marin & Industri AB.

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. 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 exchange rate changes 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. The Volvo Group's share of losses is 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 recognize 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.

5:1

Investments in joint ventures	**Dec 31, 2023 Percentage holding**	**Dec 31, 2023 Carrying value**	Dec 31, 2022 Percentage holding	Dec 31, 2022 Carrying value
cellcentric	50.0	7,786	50.0	7,622
VE Commercial Vehicles, Ltd., (VECV)	45.6	3,131	45.6	2,860
Other holdings in joint ventures[1]		483		179
Investments in joint ventures		**11,400**		**10,661**

1 Other holdings in joint ventures include investments in World of Volvo AB, Force Réseau and Milence.

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

5:2

Summarized income statements	**2023**				2022			
	VECV	cellcentric	Other joint ventures	**Total**	VECV	cellcentric	Other joint ventures	**Total**
Net sales	27,737	204	617	28,558	21,900	119	653	22,671
Operating income[1]	1,581	−1,121	−280	180	640	−1,164	−49	−573
Interest income and similar credits	230	–	–	230	99	–	–	99
Interest expense and similar charges	−61	–	−59	−120	−29	–	−12	−41
Other financial income and expenses	7	−3	–	4	−1	−7	–	−8
Income taxes	−614	–	–	−614	−251	–	4	−247
Income for the period[2]	**1,143**	**−1,124**	**−339**	**−319**	**458**	**−1,172**	**−56**	**−770**
Other comprehensive income[3]	**−3**	**−5**	**–**	**−8**	**−6**	**7**	**–**	**1**
Total comprehensive income	**1,141**	**−1,129**	**−339**	**−327**	**452**	**−1,164**	**−56**	**−768**

1 Depreciation and amortization of SEK 1,325 M (1,205) 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. Exchange rate changes from translating joint ventures' equity in the Volvo Group are excluded.

5:3

Summarized balance sheets	**Dec 31, 2023**				Dec 31, 2022			
	VECV	cellcentric	Other joint ventures	**Total**	VECV	cellcentric	Other joint ventures	**Total**
Non-current assets	6,172	15,114	1,688	22,975	5,871	14,571	1,077	21,519
Marketable securities, cash and cash equivalents	2,908	675	–	3,583	2,236	883	–	3,119
Other current assets	8,976	737	1,206	10,920	7,419	561	271	8,250
Total assets	**18,057**	**16,527**	**2,894**	**37,477**	**15,526**	**16,014**	**1,347**	**32,888**
Equity[1]	6,868	15,537	1,313	23,719	6,272	15,210	361	21,844
Non-current financial liabilities	705	287	1,391	2,383	133	317	801	1,251
Other non-current liabilities	390	64	22	476	512	57	8	577
Current financial liabilities	7,181	11	–	7,191	6,192	7	–	6,199
Other current liabilities	2,913	627	168	3,709	2,417	423	177	3,017
Total equity and liabilities	**18,057**	**16,527**	**2,894**	**37,477**	**15,526**	**16,014**	**1,347**	**32,888**

1 Including exchange rate changes from translating joint ventures' equity in the Volvo Group.

As of December 31, 2023, the net financial position (excluding post-employment benefits) for the joint ventures amounted to SEK 2,664 M (1,833), and Volvo Group's share of contingent liabilities in its joint ventures amounted to SEK 105 M (110). Dividends received during 2023 from VECV amounted to SEK 100 M (44).

Associated companies

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

5:4

Investments in associated companies	**Dec 31, 2023 Percentage holding**	**Dec 31, 2023 Carrying value**	Dec 31, 2022 Percentage holding	Dec 31, 2022 Carrying value
Dongfeng Commercial Vehicles Co., Ltd (DFCV)	45.0	7,256	45.0	9,929
Other holdings in associated companies[1]		501		992
Investments in associated companies		**7,757**		**10,922**

1 Other holdings in associated companies mainly relates to the investment in Blue Chip Jet II HB.

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

5:5

Summarized income statements	**2023**			2022		
	DFCV	Other associated companies	**Total**	DFCV	Other associated companies	**Total**
Net sales	40,847	4,364	45,211	33,211	3,892	37,103
Operating income	–3,993	86	–3,907	–2,998	78	–2,920
Income for the period[1]	**–4,723**	**13**	**–4,710**	**–1,952**	**57**	**–1,895**
Other comprehensive income[2]	**–1**	**–**	**–1**	**–5**	**–**	**–5**
Total comprehensive income	**–4,724**	**13**	**–4,711**	**–1,957**	**57**	**–1,900**

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. Exchange rate changes from translating the associated companies' equity in the Volvo Group are excluded.

5:6

Summarized balance sheets	**Dec 31, 2023**			Dec 31, 2022		
	DFCV	Other associated companies	**Total**	DFCV	Other associated companies	**Total**
Non-current assets	18,364	1,261	19,625	21,474	1,327	22,801
Current assets	37,182	1,627	38,809	30,651	1,743	32,394
Total assets	**55,546**	**2,887**	**58,434**	**52,124**	**3,070**	**55,195**
Equity[1]	15,367	904	16,271	20,957	1,390	22,348
Non-current liabilities	3,575	616	4,191	4,701	545	5,245
Current liabilities	36,604	1,368	37,972	26,467	1,135	27,602
Total equity and liabilities	**55,546**	**2,887**	**58,434**	**52,124**	**3,070**	**55,195**

1 Including the exchange rate changes from translating associated companies' equity in the Volvo Group.

During 2023 no dividend was received from DFCV (–).

5:7

Income/loss from investments in joint ventures and associated companies	**2023**	2022
Income/loss joint ventures		
VECV	525	212
cellcentric	–575	–572
Other companies	–124	–15
Subtotal	**–174**	**–374**
Income/loss associated companies		
DFCV[1]	–2,240	–969
Other companies	46	10
Subtotal	**–2,194**	**–959**
Revaluation, write-down and gain on divestment of shares		
Other companies[2]	–200	–
Subtotal	**–200**	**–**
I/S **Income/loss from investments in joint ventures and associated companies[3]**	**–2,568**	**–1,333**

1 Income/loss from DFCV includes an internal profit elimination of net SEK 36 M (37) and an adjustment to Volvo Group Accounting policies of SEK –130 M (–99).

2 During 2023, the Volvo Group divested the remaining shares of WirelessCar Sweden AB and Imatech Marin & Industri AB, with a write-down and a loss of SEK 132 M and SEK 68 M respectively.

3 Includes the Volvo Group's share of depreciation of surplus values of SEK 36 M (37) in associated companies.

Other shares and participations

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

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

5:8

Holding of shares in listed and non-listed companies	**Dec 31, 2023 Carrying value**	Dec 31, 2022 Carrying value
Holdings in listed companies[1]	22	6
Holdings in non-listed companies	859	599
B/S **Other shares and participations**	**881**	**605**

1 Changes in fair value is measured through other comprehensive income and amounted to SEK 15 M (–45).

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 of ten business areas: Volvo Trucks, Mack Trucks, Renault Trucks, Volvo Autonomous Solutions, Volvo Energy, Volvo Construction Equipment, Volvo Buses, Volvo Penta, Arquus and Volvo Financial Services.

Each business area is seen as a separate segment, except for the truck business areas, Volvo Autonomous Solutions and Volvo Energy which are included in the segment Trucks. This segment also comprises the associated companies and joint ventures Dongfeng Commercial Vehicles, VE Commercial Vehicles, cellcentric and Milence. The truck segment has shared operations for product development, purchasing and manufacturing which are highly integrated, and strategic allocation of resources is done to the total segment.

The segment Group functions & Other includes Arquus, Nova Bus and common business support functions such as Volvo Group Digital & IT and Volvo Group Real Estate. The costs of these business support functions are shared between the different business areas based on utilization according to principles set by the Volvo Group.

6:1

2023	Trucks	Construction Equipment	Buses	Volvo Penta	Group functions & Other incl. eliminations	Industrial Operations	Financial Services	Eliminations	Volvo Group
Net sales, external customers	368,701	104,245	21,116	20,023	15,102	529,188	23,576	–	552,764
Net sales, internal	4,347	736	1,307	983	–3,292	4,081	437	–4,518	–
I/S **Net sales**	**373,048**	**104,981**	**22,423**	**21,006**	**11,811**	**533,269**	**24,012**	**–4,518**	**552,764**
Expenses	–321,792	–88,599	–22,810	–17,731	–16,706	–467,639	–20,293	4,520	–483,413
I/S Income from investments in joint ventures and associated companies	–2,363	–	7	–46	–167	–2,568	–	–	–2,568
I/S **Operating income**	**48,893**	**16,383**	**–380**	**3,230**	**–5,062**	**63,063**	**3,719**	**2**	**66,784**
I/S Interest income and similar credits						3,207	1	–518	2,690
I/S Interest expense and similar charges						–1,685	–	518	–1,167
I/S Other financial income and expense						–1,581	–	–	–1,581
I/S **Income after financial items**						**63,005**	**3,720**	**2**	**66,726**
Other segment information									
Depreciation, amortization and impairment	–15,180	–2,162	–699	–599	2,467	–16,173	–5,054	–	–21,227
Restructuring costs	–46	31	–1,300	–	–1,328	–2,643	–	–	–2,643
Gains/losses from divestments	–558	–607	–	–	–898	–2,063	–136	–	–2,199
Additions to in-/tangible assets	28,450	4,125	534	1,061	–5,950	28,219	10,460	–	38,680
B/S Investments in joint ventures and associated companies	18,716	–	93	1	347	19,158	–	–	19,158
B/S Assets held for sale	–	357	–	–	11,603	11,960	–	–	11,960
B/S Liabilities held for sale	–	–218	–	–	–7,939	–8,157	–	–	–8,157

6:2

2022	Trucks	Con-struction Equipment	Buses	Volvo Penta	Group functions & Other incl. eliminations	Industrial Operations	Financial Services	Elimina-tions	Volvo Group
Net sales, external customers	307,344	99,786	17,387	17,108	14,888	456,513	16,966	–	473,479
Net sales, internal	3,192	475	1,196	994	–2,667	3,190	389	–3,579	–
I/S **Net sales**	**310,536**	**100,261**	**18,583**	**18,102**	**12,221**	**459,703**	**17,355**	**–3,579**	**473,479**
Expenses	–277,235	–87,354	–18,235	–15,584	–15,100	–413,507	–16,508	3,581	–426,433
I/S Income from investments in joint ventures and associated companies	–1,325	–	5	8	–21	–1,333	–	–	–1,333
I/S **Operating income**	**31,976**	**12,907**	**353**	**2,527**	**–2,900**	**44,862**	**848**	**2**	**45,712**
I/S Interest income and similar credits						1,315	–	–307	1,008
I/S Interest expense and similar charges						–1,512	–	307	–1,205
I/S Other financial income and expense						–437	–	–	–437
I/S **Income after financial items**						**44,228**	**848**	**2**	**45,077**
Other segment information									
Depreciation, amortization and impairment	–14,914	–2,119	–687	–549	2,341	–15,928	–4,802	–	–20,729
Restructuring costs	33	49	–6	1	–	77	–	–	77
Gains/losses from divestments	–	–	–	–	–	–	–	–	–
Additions to in-/tangible assets	25,577	3,317	979	900	–3,808	26,965	9,229	–	36,195
B/S Investments in joint ventures and associated companies	20,599	–	100	46	837	21,583	–	–	21,583
B/S Assets held for sale						–	–	–	–
B/S Liabilities held for sale						–	–	–	–

6:3

Reporting by geographical region	Net sales[1]		Non-current assets[2]	
	2023	2022	**2023**	2022
Europe	236,613	191,165	88,083	83,351
of which Sweden	*13,896*	*12,793*	*31,941*	*26,899*
of which France	*46,061*	*36,252*	*14,262*	*14,435*
of which the UK	*28,091*	*23,641*	*6,485*	*7,281*
North America	164,825	137,154	27,403	27,472
of which USA	*137,856*	*115,499*	*25,474*	*25,371*
South America	49,165	51,734	3,996	2,780
of which Brazil	*35,986*	*37,196*	*3,464*	*2,226*
Asia	66,105	64,392	5,474	5,729
of which China	*14,487*	*22,429*	*1,987*	*2,381*
Africa and Oceania	36,056	29,033	3,054	3,256
I/S B/S **Total**	**552,764**	**473,479**	**128,010**	**122,589**

1 The reporting of net sales by geographical region 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 trucks, buses, machines and engines as well as sales of used trucks, buses, machines, trailers, superstructures and special vehicles. A contractual warranty is included as part of the sales. 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.

» **Read more in Note 21** Other provisions, about product warranty.

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 recognized at one point in time, normally 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 include sales in Financial Services related to finance lease, installment credits and operating leases. During 2023, revenue from Financial Services amounted to SEK 24,012 M (17,355).

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

» **Read more in Note 14** Leasing, about lease income on assets under operating lease and finance income on 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 the 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. The gradual shift into battery electric and fuel cell electric products, as well as supply chain and production disturbances 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. 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.

7:1

Disaggregation of revenue 2023	Trucks	Construction Equipment	Buses	Volvo Penta	Group functions & Other incl. eliminations	Industrial Operations	Financial Services	Elimina-tions	Volvo Group
Net sales per geographical region									
Europe	175,203	34,228	7,007	10,787	4,955	232,180	8,727	–4,294	236,613
North America	107,975	29,590	9,200	4,070	6,280	157,115	7,775	–66	164,825
South America	36,897	4,101	2,207	783	–144	43,844	5,374	–54	49,165
Asia	30,617	28,150	1,601	3,950	760	65,078	1,027	–	66,105
Africa and Oceania	22,356	8,912	2,408	1,417	–40	35,052	1,108	–104	36,056
I/S **Net sales**	**373,048**	**104,981**	**22,423**	**21,006**	**11,811**	**533,269**	**24,012**	**–4,518**	**552,764**
Net sales per product group									
Vehicles	300,516	89,009	17,007	15,507	7,767	429,805	–	–4,505	425,301
Services	72,532	15,973	5,416	5,499	4,044	103,464	24,012	–14	127,463
I/S **Net sales**	**373,048**	**104,981**	**22,423**	**21,006**	**11,811**	**533,269**	**24,012**	**–4,518**	**552,764**
Timing of revenue recognition									
Revenue of vehicles and services recognized at the point of delivery	350,696	101,845	21,503	20,971	7,909	502,924	–	–1,116	501,808
Revenue of vehicles and services recognized over contract period	22,352	3,136	920	35	3,902	30,345	24,012	–3,402	50,955
I/S **Net sales**	**373,048**	**104,981**	**22,423**	**21,006**	**11,811**	**533,269**	**24,012**	**–4,518**	**552,764**

7:2

Disaggregation of revenue 2022	Trucks	Construction Equipment	Buses	Volvo Penta	Group functions & Other incl. eliminations	Industrial Operations	Financial Services	Elimina-tions	Volvo Group
Net sales per geographical region									
Europe	137,177	30,194	6,034	9,417	4,893	187,715	6,705	–3,255	191,165
North America	92,582	22,294	6,521	3,695	6,540	131,632	5,752	–229	137,154
South America	38,254	6,491	3,154	635	–133	48,400	3,338	–5	51,734
Asia	23,988	34,228	1,372	3,302	714	63,604	788	–	64,392
Africa and Oceania	18,535	7,054	1,502	1,054	207	28,352	772	–90	29,033
I/S **Net sales**	**310,536**	**100,261**	**18,583**	**18,102**	**12,221**	**459,703**	**17,355**	**–3,579**	**473,479**
Net sales per product group									
Vehicles	245,681	85,465	14,185	13,221	8,682	367,234	–	–3,575	363,659
Services	64,855	14,796	4,398	4,881	3,539	92,469	17,355	–4	109,820
I/S **Net sales**	**310,536**	**100,261**	**18,583**	**18,102**	**12,221**	**459,703**	**17,355**	**–3,579**	**473,479**
Timing of revenue recognition									
Revenue of vehicles and services recognized at the point of delivery	291,639	97,555	17,826	18,102	9,522	434,644	–	–839	433,805
Revenue of vehicles and services recognized over contract period	18,897	2,706	757	–	2,699	25,059	17,355	–2,740	39,674
I/S **Net sales**	**310,536**	**100,261**	**18,583**	**18,102**	**12,221**	**459,703**	**17,355**	**–3,579**	**473,479**

7:3

Contract and right of return assets	Dec 31, 2023	Of which due within 12 months	Of which due after 12 months	Dec 31, 2022	Dec 31, 2021
Contract assets[1]	14	–	14	3,800	3,779
Right of return assets	1,535	184	1,351	1,857	1,889
Parts return assets	154	104	49	201	167
Total	**1,702**	**288**	**1,414**	**5,858**	**5,835**

1 Current and non-current contract assets of SEK 3,721 M (–) have been reclassified to assets held for sale.
» **Read more in Note 3** Acquisitions and divestment of operations.

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.

7:4

Contract and refund liabilities	Dec 31, 2023	Of which due within 12 months	Of which due after 12 months	Dec 31, 2022	Dec 31, 2021
Contract liabilities					
Deferred service revenue	24,916	4,557	20,359	21,939	18,155
Advances from customers	3,623	3,611	12	8,985	7,435
Other deferred income	1,460	1,383	76	2,237	1,928
Accrued expenses for dealer bonuses and rebates	6,952	6,940	12	5,789	5,009
Refund liabilities	2,054	518	1,536	2,483	2,435
Total	**39,006**	**17,010**	**21,995**	**41,433**	**34,962**

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 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 34,262 M (28,187) as of December 31, 2023. Approximately 34% are expected to be recognized as revenue during 2024 and the remaining 66% as revenue during 2025–2027. The change in contract and refund liabilities are mainly due to decreased advances from customer. During 2023, revenue has been recognized with SEK 26,023 M (19,745) that was included in the contract liabilities at the beginning of the period.

8 Other operating income and expenses

8:1

Other operating income and expenses	2023	2022
Gains/losses on divestment of group companies[1]	–2,199	–
Change in allowances and write-offs for doubtful customer-financing receivables[2]	–795	–3,412
Change in allowances and write-offs for other doubtful receivables[3]	–671	–842
Damages and litigations[4]	–7,139	–2,733
Other income and expenses[5]	–1,477	–387
I/S **Total**	**–12,280**	**–7,374**

1 In 2023, the Volvo Group divested its Russian entities. The divestment resulted in a negative impact on operating income of SEK 794 M. The planned divestments of the ABG paver business and Arquus had a negative impact on operating income of SEK 1,490 M.
» **Read more in Note 3** Acquisitions and divestments of operations.

2 In 2022, a provision regarding assets related to Russia was included.
» **Read more in Note 15** Customer-financing receivables.

3 » **Read more in Note 16** Receivables.

4 For 2023, costs of SEK 6,000 M are included for claims arising from the European Commission's 2016 antitrust settlement decision. For 2022, costs for a civil penalty from the National Highway Traffic Safety Administration in the US was included.
» **Read more in Note 21** Other provisions.

5 Includes restructuring charges of SEK 1,300 M in Buses and SEK 1,270 M in Group Functions & Other, which negatively impacted Volvo Group's operating income during 2023.
» **Read more in Note 21** Other provisions.

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 is mainly related to the debt portfolio within Industrial Operations and customer-financing portfolio within Financial Services where fluctuating interest rate levels has a major impact.

» **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.

9:1

Other financial income and expenses	2023	2022
Unrealized revaluation of derivatives used to hedge interest rate exposure	–736	18
Realized result and unrealized revaluation on derivatives used to hedge future cash flow exposure in foreign currency	105	1
Financial instruments at fair value through income statement	**-631**	**19**
Exchange rate gains and losses on financial assets and liabilities	–956	–332
Financial income and expenses related to taxes	27	107
Costs for Treasury function, credit facilities, etc.	–20	–231
I/S **Total**[1]	**–1,581**	**–437**

1 Other financial income and expenses attributable to financial instruments amounted to SEK –1,587 M (–313). 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 tax 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 financial commitments.

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 an 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.

The Volvo Group is within the scope of the OECD Pillar Two model rules, an international tax reform which aims to ensure that large multinational groups pay a minimum tax on income arising in each jurisdiction in which they operate. Thus, Volvo Group becomes liable to pay top-up taxes on profits in each jurisdiction where the effective tax rate calculated according to the GloBE rules is below the minimum tax rate of 15%. Pillar Two legislation has been enacted in Sweden and will start to apply as from financial year 2024. Since the legislation was not applicable on financial year 2023 there is no related current tax exposure. The Volvo Group applies the exception to recognizing and disclosing information about deferred tax assets and liabilities related to Pillar Two income taxes, provided in the amendments to IAS 12. Potential exposure arising from the new legislation is not expected to have any material impact on the Volvo Group's tax expense.

10:1

Distribution of income taxes	2023	2022
Current taxes relating to the period	–19,294	–15,081
Adjustment of current taxes for prior periods	238	12
Deferred taxes originated or reversed during the period	2,209	2,712
Remeasurements of deferred tax assets	53	249
I/S **Total income taxes**	**–16,794**	**–12,108**

The Swedish corporate income tax rate amounted to 20.6% (20.6) in 2023. **Table 10:2** 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.

10:2

Reconciliation of effective tax rate %	2023	2022
Swedish corporate income tax rate	**20.6**	**20.6**
Difference between corporate tax rate in Sweden and other countries	2.9	4.1
Non-taxable income	–1.6	–1.4
Non-deductible expenses	2.3	3.5
Current taxes related to prior years	–0.4	–0.1
Remeasurement of deferred taxes	0.6	–0.8
Other differences	0.7	0.9
Effective tax rate for the Volvo Group	**25.2**	**26.8**

The effective tax rate for the Volvo Group, as of December 31, 2023, was mainly impacted by the country mix in the Volvo Group's earnings.

10:3

Specification of deferred tax assets and liabilities	Dec 31, 2023	Dec 31, 2022
Deferred tax assets:		
Unused tax-loss carryforwards	1,676	1,208
Other unused tax credits	705	633
Intercompany profit in inventories	1,986	1,473
Write down of inventories	590	574
Valuation allowance for doubtful receivables	1,512	1,618
Provisions for warranties	4,177	3,941
Provisions for residual value risks	512	428
Lease liabilities	1,336	1,300
Provisions for post-employment benefits	3,109	2,415
Provisions for restructuring measures	300	29
Other deductible temporary differences	9,221	8,915
Deferred tax assets before deduction for valuation allowance	**25,125**	**22,533**
Valuation allowance	–1,199	–692
Deferred tax assets after deduction for valuation allowance	**23,926**	**21,841**
Netting of deferred tax assets and liabilities	–7,740	–7,652
B/S **Deferred tax assets, net**	**16,186**	**14,189**
Deferred tax liabilities:		
Accelerated depreciation on property, plant and equipment	2,042	2,148
Accelerated depreciation on leasing assets	2,359	2,362
Right-of-use assets, leased	1,280	1,243
LIFO valuation of inventories	587	552
Capitalized product and software development	2,892	2,557
Untaxed reserves	929	1,693
Other taxable temporary differences	2,377	2,581
Deferred tax liabilities	**12,465**	**13,137**
Netting of deferred tax assets and liabilities	–7,740	–7,664
B/S **Deferred tax liabilities, net**	**4,725**	**5,472**
Deferred tax assets and liabilities, net[1]	**11,461**	**8,717**

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 1,199 M (692) as of December 31, 2023, whereof SEK 643 M (559) consisted of an allowance for a tax credit in Brazil.

As of December 31, 2023, the Volvo Group's gross unused tax-loss carryforwards amounted to SEK 6,398 M (4,638) pertaining to deferred tax assets of SEK 1,676 M (1,208) recognized in the balance sheet. Out of the total deferred tax assets attributable to unused tax-loss carryforwards, SEK 466 M (505) pertained to France and SEK 711 M (338) to Canada.

The gross unused tax-loss carryforwards will expire according to table 10:4.

10:4

Due date, unused tax-loss carryforwards, gross	Dec 31, 2023	Dec 31, 2022
after 1 year	24	–
after 2 years	52	–
after 3 years	–	30
after 4 years	207	14
after 5 years	521	297
after 6 years or more[1]	5,594	4,297
Total	**6,398**	**4,638**

1 Tax-loss carryforwards with long or indefinite periods of utilization were mainly related to France and Canada. Tax-loss carryforwards with indefinite periods of utilization amounted to SEK 2,740 M (2,904) which corresponded to 43% (63) of the total unused tax-losses carryforward.

10:5

Changes in deferred tax assets and liabilities, net	2023	2022
Deferred tax assets and liabilities, net, opening balance	**8,717**	**6,021**
Recognized in income statement	2,262	2,961
Recognized in other comprehensive income:		
Remeasurements of defined-benefit pension plans	657	–1,109
Exchange rate changes	–351	1,224
Reclassification to assets and liabilities held for sale	74	–
Reclassifications	103	–380
Deferred tax assets and liabilities, net, December 31	**11,461**	**8,717**

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 19 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, 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, and 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 2023, the profit allocated to the non-controlling interest in Lingong amounted to SEK 86 M (214). The accumulated amount allocated to the non-controlling interest within equity of Lingong amounts to SEK 2,838 M (3,390).

The following tables present summarized financial information for Lingong.

11:1

Summarized income statement	2023	2022
Net sales	11,971	19,838
Operating income	223	731
Income for the period	**286**	**715**
Other comprehensive income[1]	–628	586
Total comprehensive income for the period[1]	**–342**	**1,301**
Dividend to non-controlling interest	450	–

11:2

Summarized balance sheet	Dec 31, 2023	Dec 31, 2022
Non-current assets	2,242	2,794
Marketable securities, cash and cash equivalents	3,567	4,933
Other current assets	13,567	16,679
Total assets	**19,375**	**24,406**
Non-current liabilities	1,398	2,311
Current liabilities	8,518	10,794
Total liabilities	**9,916**	**13,105**
Equity attributable to:		
Owners of AB Volvo[1]	6,621	7,910
Non-controlling interest[1]	2,838	3,390

1 Includes exchange rate changes 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 three cash-generating units, Nova Bus, Designwerk and Arquus 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. The ongoing transition of the transport sector towards new technologies and new service-based business models bring business opportunities but also transitional risks for the Volvo Group, which have been integrated into the strategy and business plans. 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 , the transition towards electrification and other low-carbon transport solutions, expenses and level of capital expenditures. Macroeconomic risks and opportunites are reflected in the estimated future cash flows for each cash-generating unit. The Volvo Group uses a discount rate at 10% (10) before tax for 2023.

In 2023, 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 economic 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 feasibility of completing the new product or software, so that it will be available for use or sale, before its development expenditure is 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 and software development projects. The product and software development process has six phases (including waterfall method and to some extent an agile approach) 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 substantial part of investments is directed towards zero tailpipe emissions technology, which is expected to increase over time. As the transition will take place gradually, the running fleets in the transportation sector are likely to include different technologies for vehicle and machinery propulsion that can be powered by renewable energy such as battery-electric, fuel cell-electric or internal combustion engines running on lower carbon fuels. Existing products is therefore expected to generate economic benefits during the transition period and be used during its remaining useful life.

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.

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 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.

12:1

Intangible assets, Dec 31, 2023	Goodwill	Product and software development	Other intangible assets	Total
Acquisition cost				
Opening balance 2023	**25,636**	**54,753**	**7,872**	**88,261**
Additions	–	4,845	433	**5,278**
Additions through acquired operations[1]	74	–	15	**89**
Disposals[1,2]	–138	–23	–24	**–185**
Exchange rate changes	–266	–28	–69	**–362**
Reclassifications to assets held for sale[1]	–445	–1,327	–868	**–2,641**
Reclassifications and other	–	28	2	**29**
Acquisition cost, Dec 31, 2023	**24,861**	**58,248**	**7,360**	**90,469**
Accumulated amortization and impairment				
Opening balance 2023	**–**	**–41,361**	**–5,356**	**–46,717**
Amortization	–	–2,874	–150	**–3,024**
Impairment	–	–43	–11	**–53**
Disposals[1]	–	17	22	**39**
Exchange rate changes	–	25	43	**67**
Reclassifications to assets held for sale[1]	–	996	734	**1,730**
Reclassifications and other	–	–	–	–
Accumulated amortization and impairment, Dec 31, 2023	**–**	**–43,240**	**–4,717**	**–47,957**
B/S **Carrying amount, Dec 31, 2023**	**24,861**	**15,008**	**2,643**	**42,512**

12:2

Intangible assets, Dec 31, 2022	Goodwill	Product and software development	Other intangible assets	Total
Acquisition cost				
Opening balance 2022	**23,924**	**49,723**	**6,833**	**80,480**
Additions	–	4,786	604	**5,390**
Additions through acquired operations[1]	146	7	98	**251**
Disposals[1]	–	–34	–67	**–102**
Exchange rate changes	1,567	250	379	**2,196**
Reclassifications to assets held for sale[1]	–	–	–	**–**
Reclassifications and other	–	20	25	**45**
Acquisition cost, Dec 31, 2022	**25,636**	**54,753**	**7,872**	**88,261**
Accumulated amortization and impairment				
Opening balance 2022	**–**	**–38,325**	**–5,086**	**–43,411**
Amortization	–	–2,852	–118	**–2,970**
Impairment	–	–	–1	**–1**
Disposals[1]	–	21	67	**88**
Exchange rate changes	–	–204	–218	**–422**
Reclassifications to assets held for sale[1]	–	–	–	**–**
Reclassifications and other	–	–	–	**–**
Accumulated amortization and impairment, Dec 31, 2022	**–**	**–41,361**	**–5,356**	**–46,717**
B/S **Carrying amount, Dec 31, 2022**	**25,636**	**13,393**	**2,516**	**41,544**

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 Nova Bus is exiting bus production in the US market whereof disposal of goodwill amounting to SEK 0.1 billion was part of the restructuring costs.

12:3

Goodwill per cash-generating unit	Dec 31,2023	Dec 31, 2022
Trucks	13,203	13,237
Construction Equipment	9,620	9,814
Buses	853	865
Volvo Penta	371	382
Other cash-generating units[1]	814	1,337
Total	**24,861**	**25,636**

1 As of December 31, 2023 Arquus has been reclassified to assets held for sale.
» **Read more in Note 3** Acquisitions and divestments of operations.

12:4

Estimated useful life	
Trademarks	Max 5 years
Distribution networks	10 years
Product and software development	3–8 years
Other intangible assets	3–5 years

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 includes land and land improvements. Machinery and equipment consist of production related assets such as machinery, type-bound tools and other equipment. A substantial part of investments is directed towards zero tailpipe emissions technology, which is expected to increase over time. However, 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. 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. The net realizable value is impacted by value of optional equipment, mileage, current condition, expected future price development, change of market conditions, the transition towards electrification and other low-carbon transport solutions, alternative distribution channels, inventory lead-time, repair and reconditioning costs, handling costs, indirect costs associated with the sale of used vehicles and legislative demands. Some of the locations may also be subject to increased risks from physical weather events depending on climate developments. These risks are monitored and are not expected to materially impact the estimated useful life. The 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.

13:1

Estimated useful life	
Type-bound tools	3–8 years
Operating leases, rental fleet	3–5 years
Sales with residual value commitments	3–5 years
Machinery and equipment	5–20 years
Buildings and investment properties	20–50 years
Land improvements	20 years

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 electrified and other lower emission technology vehicles bring uncertainties regarding current and future investments in production facilities as well as estimated useful life. Also, some of the production sites are located in areas with physical climate risks and may in the long run be subject to increased stress from physical weather events. Physical risks bring uncertainties when estimating useful life and indication of 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) and a declined value 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. The estimated future net realizable value of the vehicles at the end of the contract period is monitored individually on a continuing basis. In monitoring the estimated net realizable value of each vehicle, management considers current price level of the used vehicle, supply chain and production disturbances and the transition to electrified and other lower emission technology vehicles which imply to some extent uncertainties in the assessment.

Reclassifications

Reclassifications of construction in progress and assets under operating lease are presented in the **tables 13:2** and **13:3.**

For construction in progress, reclassifications occurs when the asset is available for use by transferring the assets to the respective category within property, plant and equipment. The transfer is reported within reclassifications and other.

For operating leases, rental fleet and sales with residual value commitments (buyback and trade backs), reclassifications occur when vehicles are sold or rented out to customers. The vehicle is transferred from inventory to assets under operating leases and reported as additions. If the vehicle is returned by the end of the residual value commitment period or the leasing period, the vehicle is transferred back to inventory and reported as disposals.

Investment properties

The acquisition value of investment properties at year-end amounted to SEK 95 M (93). Reclassifications amounted to SEK 0 M (0). Accumulated depreciation amounted to SEK 43 M (39) at year-end, of which SEK 4 M (3) refers to 2023. The net carrying value amounted to SEK 53 M (54). The estimated fair value of investment properties amounted to SEK 117 M (102) 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 12 M (11) and direct costs that amounted to SEK 6 M (1).

13:2

Tangible assets, Dec 31, 2023	Property, plant, equipment and investment property					Assets under operating leases[1]			
	Buildings	Land and land improvements	Machinery and equipment	Construction in progress	Right-of-use assets[1]	Operating leases[2]	Rental fleet	Sales w. residual value commitments[3]	**Total**
Acquisition cost									
Opening balance 2023	**39,685**	**7,906**	**91,455**	**12,273**	**13,504**	**31,740**	**4,744**	**27,442**	**228,749**
Additions	961	104	2,420	9,634	1,832	10,267	3,131	4,826	**33,176**
Additions through acquired operations[4]	50	26	16	–	45	–	–	–	**137**
Disposals[4]	–1,088	–92	–3,032	–7	–1,183	–10,576	–1,816	–6,125	**–23,918**
Exchange rate changes	–832	–165	–1,390	–281	–330	–617	–116	–326	**–4,059**
Reclassifications to assets held for sale[4]	–1,253	–232	–1,508	–17	–391	–	–	–	**–3,401**
Reclassifications and other	2,017	217	3,058	–5,345	1,461	30	–95	–1,105	**238**
Acquisition costs, Dec 31, 2023	**39,539**	**7,764**	**91,020**	**16,257**	**14,938**	**30,843**	**5,848**	**24,712**	**230,922**
Accumulated depreciation and impairments									
Opening balance 2023	**–21,691**	**–1,638**	**–71,224**	**–3**	**–7,105**	**–10,348**	**–1,553**	**–8,506**	**–122,068**
Depreciation	–1,448	–130	–4,600	–	–2,363	–4,973	–791	–3,018	**–17,323**
Impairment	–10	–	–95	–58	–	–3	–	–662	**–827**
Disposals[4]	1,135	56	2,956	–	1,130	5,591	760	3,131	**14,757**
Exchange rate changes	474	26	1,082	–	167	175	17	112	**2,054**
Reclassifications to assets held for sale[4]	654	84	1,195	–	254	–	–	–	**2,187**
Reclassifications and other	52	1	–5	–	35	9	17	548	**658**
Accumulated depreciation and impairments, Dec 31, 2023	**–20,834**	**–1,602**	**–70,691**	**–61**	**–7,882**	**–9,549**	**–1,549**	**–8,395**	**–120,562**
B/S **Carrying amount, Dec 31, 2023**	**18,706**	**6,162**	**20,329**	**16,196**	**7,056**	**21,295**	**4,299**	**16,317**	**110,359**

1 **Read more in Note 14** Leasing, about right-of-use assets and assets under operating leases.

2 Operating leases mainly consists of contractual operating lease agreements with customers within Financial Services.

3 **Read more in Note 7** Revenue, about sales with residual value commitments.

4 **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.

13:3

Tangible assets, Dec 31, 2022	Property, plant, equipment and investment property					Assets under operating leases[1]			
	Buildings	Land and land improve-ments	Machinery and equip-ment	Construc-tion in progress	Right-of-use assets[1]	Operating leases[2]	Rental fleet	Sales w. residual value commit-ments[3]	Total
Acquisition cost									
Opening balance 2022	**34,705**	**7,107**	**82,209**	**8,792**	**10,965**	**28,770**	**4,660**	**25,095**	**202,304**
Additions	498	103	2,575	8,125	1,475	9,155	2,048	6,521	**30,498**
Additions through acquired operations[4]	–	–	35	11	1	–	8	–	**56**
Disposals[4]	–173	–91	–1,917	–47	–523	–9,540	–1,779	–6,500	**–20,571**
Exchange rate changes	2,880	583	5,150	710	907	2,699	433	2,042	**15,403**
Reclassifications to assets held for sale[4]	–	–	–	–	–	–	–	–	**–**
Reclassifications and other	1,775	205	3,403	–5,318	679	657	–626	284	**1,059**
Acquisition costs, Dec 31, 2022	**39,685**	**7,906**	**91,455**	**12,273**	**13,504**	**31,740**	**4,744**	**27,442**	**228,749**
Accumulated depreciation and impairments									
Opening balance 2022	**–18,516**	**–1,406**	**–64,446**	**–**	**–5,006**	**–9,131**	**–1,568**	**–7,856**	**–107,930**
Depreciation	–1,333	–112	–4,376	–	–2,144	–4,741	–677	–3,039	**–16,423**
Impairment	–448	–30	–165	–3	–14	20	–4	–691	**–1,336**
Disposals[4]	130	21	1,761	–	451	4,588	591	3,510	**11,051**
Exchange rate changes	–1,527	–109	–4,011	–	–425	–843	–145	–642	**–7,701**
Reclassifications to assets held for sale[4]	–	–	–	–	–	–	–	–	**–**
Reclassifications and other	4	–2	14	–	34	–241	250	212	**271**
Accumulated depreciation and impairments, Dec 31, 2022	**–21,691**	**–1,638**	**–71,224**	**–3**	**–7,105**	**–10,348**	**–1,553**	**–8,506**	**–122,068**
B/S **Carrying amount, Dec 31, 2022**	**17,994**	**6,268**	**20,231**	**12,270**	**6,399**	**21,392**	**3,191**	**18,936**	**106,681**

1 » **Read more in Note 14** Leasing, about right-of-use assets and assets under operating leases.

2 Operating leases mainly consists of contractual operating lease agreements with customers within Financial Services.

3 » **Read more in Note 7** Revenue, about sales with residual value commitments.

4 » **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.

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 and 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 mainly 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.

» **Read more in Note 15** Customer-financing receivables, about allowance for expected credit losses.

Volvo Group as the lessor

14:1

Lease income	Dec 31, 2023	Dec 31, 2022
Finance leases		
Interest income on customer-financing receivables	3,842	2,766
Total	**3,842**	**2,766**
Operating leases		
Lease income on assets under operating lease	12,771	11,317
Total	**12,771**	**11,317**

During 2023, the profit from sale of vehicles subject to finance leases amounted to SEK 8,713 M (6,280) and was recognized within Industrial Operations.

As of December 31, 2023, future lease income from non-cancellable finance and operating leases (minimum lease fees excluding sales with residual value commitments) amounted to SEK 96,596 M (89,441).

» **Read more in Note 15** Customer-financing receivables about finance leases.

14:2

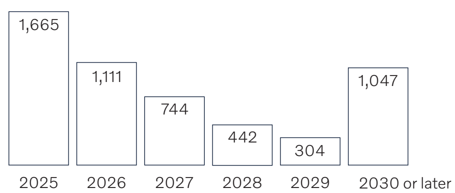
Maturity analysis of lease payments receivable	Finance leases	Operating leases
2024	24,883	8,350
2025	19,424	6,074
2026	14,678	3,882
2027	9,414	2,139
2028	4,342	1,155
2029 or later	1,865	391
Total undiscounted lease payments	**74,605**	**21,991**
Unguaranteed residual value	1,417	
Unearned interest income	–7,500	
Allowance for expected credit losses	–1,491	
Customer-financing receivables (current and non-current)	**67,030**	

Volvo Group as the lessee

14:3

Lease liabilities	Dec 31, 2023	Dec 31, 2022
Non-current lease liabilities	5,314	4,806
Current lease liabilities	1,877	1,777
Total lease liabilities	**7,191**	**6,583**

14:4
Non-current lease liabilities maturities, SEK M



During 2023, total cash outflow related to leases amounted to SEK 3,454 M (3,162), with a distribution of SEK 1,085 M (888) within operating cash flow and SEK 2,369 M (2,274) within financing activities.

14:5

Right-of-use assets, Dec 31, 2023	Buildings	Land and land improvements	Machinery and equipment	Company cars	Asset under operating lease and rental fleet[1]	Total
Acquisition cost						
Opening balance 2023	9,929	711	1,307	1,557	434	**13,938**
Additions to right-of-use assets[2]	1,268	–32	–12	209	–10	**1,424**
Acquisition cost, Dec 31, 2023	**11,197**	**679**	**1,295**	**1,766**	**424**	**15,362**
Accumulated depreciation and impairments						
Opening balance 2023	–5,134	–162	–739	–1,070	–182	**–7,287**
Depreciation and impairment	–1,644	–37	–249	–432	–86	**–2,449**
Other changes	875	33	201	477	96	**1,682**
Accumulated depreciation and impairments, Dec 31, 2023	**–5,904**	**–167**	**–787**	**–1,024**	**–172**	**–8,054**
Carrying amount, Dec 31, 2023	**5,294**	**513**	**508**	**742**	**252**	**7,308**

Right-of-use assets, Dec 31, 2022	Buildings	Land and land improvements	Machinery and equipment	Company cars	Asset under operating lease and rental fleet[1]	Total
Acquisition cost						
Opening balance 2022	8,048	674	967	1,276	423	**11,388**
Additions to right-of-use assets[2]	1,881	37	340	281	11	**2,550**
Acquisition cost, Dec 31, 2022	**9,929**	**711**	**1,307**	**1,557**	**434**	**13,938**
Accumulated depreciation and impairments						
Opening balance 2022	–3,550	–125	–510	–821	–157	**–5,163**
Depreciation and impairment	–1,494	–39	–232	–393	–63	**–2,221**
Other changes	–90	2	3	144	38	**97**
Accumulated depreciation and impairments, Dec 31, 2022	**–5,134**	**–162**	**–739**	**–1,070**	**–182**	**–7,287**
Carrying amount, Dec 31, 2022	**4,795**	**549**	**568**	**487**	**252**	**6,651**

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.

14:6

Recognized in the income statement	2023	2022
Interest expense on lease liabilities within Financial Services	–4	–3
Depreciation and impairment of right-of-use assets	–2,449	–2,221
Short term lease expense	–670	–528
Low value asset expense	–35	–66
Variable lease expense	–53	–41
Income from sub-leasing right-of-use assets	157	168
Gains or losses arising from sale and leaseback transactions	–	–
Gains or losses on right-of-use assets	9	–2
Recognized in operating income	**–3,045**	**–2,693**
Interest expense on lease liabilities within Industrial Operations	–335	–252
Recognized in net financial items	**–335**	**–252**

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.

» **Read more in Note 14** Leasing, for further information on recognition and classification of finance leases.

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 by using a vintage layer analysis. It is based on historical loss experience within a homogenous pool of assets that are collectively assessed. 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. The historical loss experience is used to forecast future losses, adjusted for current and expected conditions in the different markets based on management's evaluation of macro-level and portfolio-level factors, such as GDP, oil prices, unemployment rates etc. Climate-related risk, such as the transition to electric vehicles, are closely monitored, and reflected in management's evaluation of current and forecasted conditions in assessing expected credit losses. Volvo Group has not identified material credit impairment related to transitional and physical climate risks that would require a significant adjustment to the credit reserves.

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, 2023, the total allowances for impairment in Financial Services amounted to 1.37% (3.00) of the total credit portfolio in the segment. The total allowances for impairment excluding Russia and Belarus amounted to 1.37% (1.60). 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 decreased since the beginning of the year from SEK 6,930 M to SEK 3,635 M primarily due to the divestment of the Russian entities. Excluding the divestment, higher volume in the credit portfolio increased expected credit losses, which was partly offset by a mix in the portfolio and decreased volumes in low performing markets.

» **Read more in Note 3** Acquisitions and divestments of operations, for further information on the divestment.

During 2023, customers continued to perform well and were able to make payments on time in most markets. However, the uncertainties in the geopolitical and macroeconomic environment including the effects of higher inflation and higher interest rates are continuing to impact our customers' ability to manage their obligations.

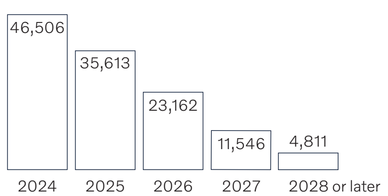
» **Read more in Note 30** Financial instruments, for information on the gain or loss recognized in the operating income arising from derecognition of customer-financing receivables in **table 30:3**.

15:1

Non-current customer-financing receivables	Dec 31, 2023	Dec 31, 2022
Installment credits	74,934	64,600
Finance leases	44,289	38,122
Other receivables	2,415	2,342
B/S Non-current customer-financing receivables	**121,638**	**105,064**

The weighted average interest rate for non-current customer-financing receivables amounted to 6.99% (5.90) as of December 31, 2023.

15:2
Non-current customer-financing receivables maturities, SEK M



15:3

Current customer-financing receivables	Dec 31, 2023	Dec 31, 2022
Installment credits	40,814	35,677
Finance leases	22,741	21,278
Dealer financing	43,659	28,863
Other receivables	3,350	3,046
B/S Current customer-financing receivables	**110,565**	**88,864**

The weighted average interest rate for current customer-financing receivables amounted to 6.36% (5.88) as of December 31, 2023.

15:4

Credit risk in customer-financing receivables	Dec 31, 2023	Dec 31, 2022
Customer-financing receivables gross	235,838	200,858
Allowance for expected credit losses for customer-financing receivables	–3,635	–6,930
Whereof allowance for credit impaired	*–587*	*–573*
Whereof allowance for not credit impaired	*–3,048*	*–6,357*
Customer-financing receivables, net of allowance	**232,203**	**193,928**

15:5

Change of allowance for expected credit losses for customer-financing receivables	**2023**		2022	
	Not credit impaired	Credit impaired	Not credit impaired	Credit impaired
Opening balance	**6,357**	**573**	**2,691**	**617**
New allowance charged to income	775	189	3,574	103
Reversal of allowance charged to income	–81	–87	–115	–80
Utilization of allowance related to actual losses	–	–779	–	–125
Movements between not credit impaired/credit impaired[1]	–727	727	24	–24
Exchange rate changes	–121	–10	327	82
Syndication transactions and other	–92	–	–144	–
Divestment of the Russian entities	–3,064	–26	–	–
Allowance for expected credit losses for customer-financing receivables, Dec 31	**3,048**	**587**	**6,357**	**573**

1 When a receivable becomes credit impaired a transfer of allowance is made to allowance for credit impaired receivables.

15:6

Customer-financing receivables, gross exposure	**Dec 31, 2023**					Dec 31, 2022				
	Not due	1–30 days	31–90 days	>90 days	**Total**	Not due	1–30 days	31–90 days	>90 days	**Total**
Customer-financing receivables, gross	216,311	14,483	3,715	1,329	**235,838**	186,755	10,090	2,999	1,014	**200,858**
Whereof not credit impaired	*215,128*	*13,975*	*2,847*	*314*	*232,265*	*185,958*	*9,767*	*2,455*	*326*	*198,506*
Whereof credit impaired	*1,183*	*508*	*868*	*1,015*	*3,574*	*797*	*323*	*544*	*688*	*2,352*

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 3,048 M (6,357) and allowance for customer-financing receivables credit impaired amounted to SEK 587 M (573), 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 397 M (202) as of December 31, 2023.

Concentration of credit risk

Customer concentration

The ten largest customers within Financial Services account for 6.8% (6.5) 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 2023 SEK 8.8 billion (12.2) of customer financing receivables were syndicated in order to reduce concentration risks.

Concentration by geographical market

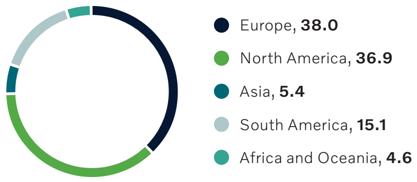
Graph 15:7 discloses the concentration of Financial Services portfolio divided into geographical markets.

» **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.

15:7

Geographic market, percentage of customer-financing portfolio (%)



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. 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 expected conditions. An individual assessment is made on credit impaired accounts receivables based on the financial condition of the customer.

The past years have been affected by uncertainties in the geopolitical environment, high inflationary pressure, increased interest rates in many regions as well as the weakened Chinese construction equipment market which might impact the Volvo Group's customers' ability to fulfill their obligations and increase the risk for customer default. Based on this the assessment process for valuation allowances for expected credit losses for accounts receivables continues to be in focus in order to ensure allowances are in alignment with the current market conditions.

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.

Due to the prevailing business model in the construction equipment industry in China, with longer payment terms to customers, a substantial part of the Volvo Groups accounts receivable is related to customers in this market. The weakened Chinese construction equipment market is currently impacting customers' and dealers' profitability negatively. This might affect their ability to honor their obligations to the Volvo Group and may consequently have a material adverse effect on the Volvo Group's financial result and position.

Renegotiated receivables are on a slightly lower level than last year, with a substantial part 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, 2023, the total allowance for expected credit losses for accounts receivables amounted to 3.95% (3.02) of total accounts receivables. The increase in allowances is primarily due to the weaker construction equipment market in China this year compared to last year.

» **Read more in Note 4** Goals and policies in financial risk management, regarding credit risk.

16:1

Non-current receivables	**Dec 31, 2023**	Dec 31, 2022
Other interest-bearing receivables[1]	902	676
Interest and currency risk derivatives[2]	4,833	4,991
Contract and right of return assets[3]	1,414	4,036
Other receivables	2,773	3,122
Non-current receivables	**9,923**	**12,825**

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 Non-current contract and right of return assets of SEK 1,678 M (–) have been reclassified to assets held for sale. » **Read more in Note 3** Acquisitions and divestments of shares and operations and » **Read more in Note 7** Revenue, about contract and right of return assets.

16:2

Current receivables	**Dec 31, 2023**	Dec 31, 2022
Other interest-bearing receivables[1]	2,331	5,062
Tax assets	2,223	2,059
Accounts receivables[2]	43,210	48,220
Prepaid expenses and accrued income	3,837	3,624
VAT receivables	5,777	5,917
Interest and currency risk derivatives[3]	1,460	760
Contract and right of return assets[2,4]	288	1,822
Other receivables	9,444	7,852
Current receivables, after deduction of allowance for expected credit losses on receivables	**68,570**	**75,316**

1 The amount is the current part of other interest-bearing receivables in note 30 Financial instruments, **table 30:1**.

2 Accounts receivables of SEK 3,502 M (–) and current contract and right of return assets of SEK 2,043 M (–) have been reclassified to assets held for sale. » **Read more in Note 3** Acquisitions and divestments of shares and operations.

3 The amount is the current part of interest and currency risk derivatives in note 30 Financial instruments, **table 30:1**.

4 » **Read more in Note 7** Revenue, about contract and right of return assets.

16:3

Change of allowance for expected credit losses for accounts receivables	**2023**	2022
Opening balance	**1,501**	**846**
New allowance charged to income	564	991
Reversal of allowance charged to income	–422	–162
Utilization of allowance related to actual losses	–61	–94
Exchange rate changes	–73	53
Reclassifications, etc.[1]	270	–133
Allowance for expected credit losses for accounts receivables, Dec 31	**1,778**	**1,501**

1 Whereof reclassification from other non-current receivables of SEK 288 M (–127).

16:4

Age analysis of accounts receivables	**Dec 31, 2023**					Dec 31, 2022				
	Not Due	1–30	31–90	>90	**Total**	Not Due	1–30	31–90	>90	**Total**
Accounts receivables, gross	39,758	1,630	1,046	2,554	**44,988**	43,023	2,279	2,086	2,334	**49,721**
Allowance for expected credit losses on accounts receivables	–355	–63	–68	–1,292	**–1,778**	–678	–65	–54	–704	**–1,501**
B/S **Accounts receivables, net**	**39,403**	**1,567**	**978**	**1,262**	**43,210**	**42,345**	**2,214**	**2,032**	**1,630**	**48,220**

17 Inventories

ACCOUNTING POLICY

Inventories are measured at the lower of cost and net realizable value. If the estimated net realizable value is lower than cost, a write down of inventories is made.

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 is based on an estimation of a future sales price, which is dependent on several parameters, such as market demand, model changes and development of used products prices.

17:1

Inventories	Dec 31, 2023	Dec 31, 2022
Finished products	41,129	37,854
Production materials etc.	35,734	37,835
B/S **Inventories[1]**	**76,863**	**75,689**

1 Inventories amounting to SEK 3,871 M (–) have been reclassified to assets held for sale. » **Read more in Note 3** Acquisitions and divestments of operations.

The total value of inventories, net after write-downs, was SEK 76,863 M (75,689) as of December 31, 2023. Inventories recognized as cost of sold products during the period amounted to SEK 375,176 M (346,539).

17:2

Change in write-down of inventories	2023	2022
Opening balance	**4,021**	**3,581**
Change in write-down of inventories charged to income	903	380
Scrapping	–241	–259
Exchange rate changes	–93	322
Reclassifications etc.	–671	–3
Write-down of inventories, December 31	**3,918**	**4,021**

18 Cash and cash equivalents

ACCOUNTING POLICY

Cash and cash equivalents include highly liquid interest-bearing securities that are considered easily convertible to cash, including marketable securities, with a date of maturity less than 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.

18:1

Cash and cash equivalents	**Dec 31, 2023**	Dec 31, 2022
Cash in banks	51,576	54,636
Marketable securities with original duration less than 3 months[1]	3,735	5,109
Time deposits in banks	28,015	24,141
B/S **Cash and cash equivalents**	**83,326**	**83,886**

1 Additionally the Volvo Group recognized outstanding marketable securities with original duration exceeding three months of SEK 89 M (93) in government securities as of December 31, 2023.

Cash and cash equivalents as of December 31, 2023, included SEK 2.2 billion (2.3) that is not available for use by the Volvo Group and SEK 7.6 billion (14.5) 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

Dividend resolutions are approved at the annual general meeting or, in certain cases, during an extraordinary general meeting. When the decision has been approved, equity is reduced and the dividend is reported as a liability to the shareholders in the balance sheet until the payment has taken place.

The Annual General Meeting, held on April 4, 2023, resolved that an ordinary dividend of SEK 7.00 (6.50) per share and an extraordinary dividend of SEK 7.00 (6.50) per share, totaling SEK 14.00 (13.00) per share should be paid to shareholders. During 2023, the Volvo Group distributed SEK 28.5 billion (26.4) to the shareholders.

The share capital of the Parent company amounted to SEK 2,562 M (2,562) on December 31, 2023 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 2023 AB Volvo converted a total of 1,725 Series A shares to Series B shares. Unrestricted equity in the Parent company as of December 31, 2023 amounted to SEK 75,848 M (59,504).

For the year 2023, the Board of Directors proposes an ordinary dividend of SEK 7.50 per share and an extraordinary dividend of SEK 10.50 per share, a total of SEK 18.00 per share amounting to SEK 36.6 billion.

» **Read more in** Changes in equity in the Parent company about AB Volvo's share capital.

19:1

Change in other reserves	Holding of shares at fair value
Other reserves, Dec 31, 2022	**–37**
Remeasurements of holdings of shares at fair value	15
Disposal	–
Other reserves, Dec 31, 2023	**–21**

19:2

Information regarding number of shares	**Dec 31, 2023**	Dec 31, 2022
Own Series A shares	–	–
Own Series B shares	–	–
Total own shares	**–**	**–**
Own shares in % of total registered shares	–	–
Outstanding Series A shares	444,986,150	444,987,875
Outstanding Series B shares	1,588,465,934	1,588,464,209
Total outstanding shares	**2,033,452,084**	**2,033,452,084**
Total registered Series A shares	444,986,150	444,987,875
Total registered Series B shares	1,588,465,934	1,588,464,209
Total registered shares	**2,033,452,084**	**2,033,452,084**
Average number of outstanding shares	2,033,452,084	2,033,452,084

19:3

	Series A shares		Series B shares		Total	
Outstanding shares	**2023**	2022	**2023**	2022	**2023**	2022
Outstanding shares opening balance	444,987,875	444,987,946	1,588,464,209	1,588,464,138	2,033,452,084	2,033,452,084
Converting Series A shares to Series B shares	–1,725	–71	1,725	71	–	–
Outstanding shares, Dec 31	**444,986,150**	**444,987,875**	**1,588,465,934**	**1,588,464,209**	**2,033,452,084**	**2,033,452,084**

19:4

Information regarding shares	**2023**	2022
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	218,70	179,32
Net income attributable to owners of AB Volvo, SEK M	49,825	32,722
Basic earnings per share, SEK	24.50	16.09
Diluted earnings per share, SEK	24.50	16.09

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. For defined contribution plans, expenses for premiums are recognized in the income statement as incurred.

Part of the post-employment benefits are defined benefit plans where the obligations remain within the Volvo Group and are secured primarily by proprietary pension foundations. The Volvo Group's largest defined benefit plans relate 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 Great Britain, Belgium and France.

Actuarial calculations are made for all defined benefit plans, subject to materiality, 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. The fair value of buy-In contracts are set equal to the defined benefit obligations for the specific group of members the contract covers. 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 for pension plans in Sweden and Belgium.

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 generally set as a long term assumption 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.

Actual inflation continued above long term assumptions and previous central bank projections during the year resulting in additional monetary policy tightening globally. Expectations of higher interest rates for longer period have led to a general increase in long term interest rates, while risk assets have experienced a volatile and fragmented performance during the year. Funding levels for the Volvo Group's funded pensions plans remains strong despite challenging financial conditions.

The following tables disclose information about defined benefit plans. The Volvo Group recognizes the difference between the obligations and the plan assets, adjusted for potential asset ceilings, 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.

20:1

Assumptions applied for actuarial calculations	Dec 31, 2023	Dec 31, 2022
Sweden		
Discount rate, %[1]	3.45	3.95
Inflation, %[2]	2.00	2.00
Expected salary increase, %	2.65	2.65
Assumed life expectancy on retirement at age 65 (Male/Female)		
Retiring today (member age 65), year	22.3/23.3	22.2/24.4
Retiring in 25 years (member age 40 today), year	25.2/26.2	24.6/26.8
USA		
Discount rate, %[1]	4.80–5.02	5.00–5.35
Inflation, %	2.50	2.50
Expected salary increase, %	3.89	3.68
Assumed life expectancy on retirement at age 65 (Male/Female)		
Retiring today (member age 65), year	20.6/22.4	20.5/22.4
Retiring in 25 years (member age 40 today), year	22.5/24.2	22.4/24.2
Great Britain		
Discount rate, %[1]	4.75	4.95
Inflation, %	3.05	3.15
Expected salary increase, %	0.00	0.00
Assumed life expectancy on retirement at age 65 (Male/Female)		
Retiring today (member age 65), year	22.3/24.3	22.2/23.9
Retiring in 25 years (member age 40 today), year	22.4/25.6	24.3/26.7
Belgium		
Discount rate, %[1]	3.50	4.17
Inflation, %	2.00	2.00
Expected salary increase, %	2.89	2.86
France		
Discount rate, %[1]	3.49	4.19
Inflation, %	2.00	2.00
Expected salary increase, %	3.01	3.01

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 The long term inflation assumption is 2.00%. The pension obligations in Sweden have been adjusted for short-term inflation for the year 2024.

20:2

Summary of provisions for post-employment benefits	Dec 31, 2023	Dec 31, 2022
Obligations	–57,097	–52,862
Fair value of plan assets	47,917	46,844
Net provisions for post-employment benefits	**–9,180**	**–6,018**

20:3

Pension costs	2023	2022
Current year service costs	1,112	1,553
Interest costs	2,176	1,325
Interest income	–2,102	–1,255
Past service costs	131	13
Gain/loss on settlements	–	–22
Pension costs for the period, defined benefit plans	**1,317**	**1,614**
Pension costs for defined contribution plans	4,136	3,653
Total pension costs for the period	**5,453**	**5,267**

20:4

Costs for the period, post-employment benefits other than pensions	2023	2022
Current year service costs	96	106
Interest costs	205	134
Interest income	–34	–31
Past service costs	1	–
Gain/loss on settlements	–	–
Remeasurements	161	99
Total costs for the period	**428**	**308**

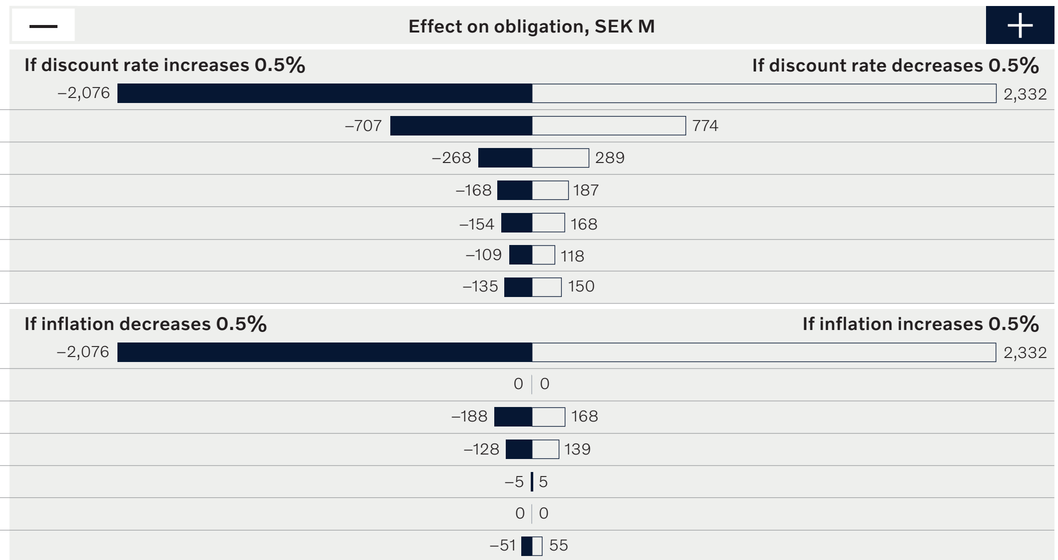
20:5

	Sweden Pensions	USA Pensions	Great Britain Pensions	Belgium Pensions	France Pensions	USA Other benefits
Average duration of the obligations, years	19.3	9.7	10.2	10.6	12.3	8.6

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 for the discount rate is based on a change in the assumption while holding all other assumptions constant. In practice, this is not probable, and a change in the assumption may be correlated. The sensitivity analysis for a change in long-term inflation correlates with other inflation linked assumptions. Depending on specific plan and benefit design, the sensitivity effect on the obligation differs for the respective assumptions.

20:6

SENSITIVITY ANALYSIS 2023



20:7

Obligations in defined benefit plans	Sweden Pensions	USA Pensions	Great Britain Pensions	Belgium Pensions	France Pensions	USA Other benefits	Other plans	Total
Obligations opening balance 2022	**23,948**	**19,819**	**7,934**	**3,607**	**2,600**	**3,480**	**3,735**	**65,122**
Acquisitions, divestments and other changes	–	–	–	–	–	–	–6	**–5**
Current year service costs	819	225	–	205	167	39	203	**1,659**
Interest costs	475	581	144	44	32	95	89	**1,460**
Past service costs	25	–	–	–	–	–	–12	**12**
Settlements	–	–934	–	–	–	–	–143	**–1,077**
Employee contributions	–	–	–	–	–	20	58	**79**
Remeasurements[1]:								
– Effect of changes in demographic assumptions	602	–	–	–	17	–20	–	**598**
– Effect of changes in financial assumptions	–6,516	–5,034	–3,027	–1,002	–810	–777	–800	**–17,967**
– Effect of experience adjustments	590	–209	426	165	106	136	20	**1,234**
Exchange rate changes	–	3,047	276	316	225	524	312	**4,701**
Benefits paid	–587	–1,306	–287	–132	–73	–364	–203	**–2,953**
Obligations, Dec 31, 2022	**19,357**	**16,190**	**5,465**	**3,203**	**2,264**	**3,132**	**3,252**	**52,862**
of which								
Funded defined benefit plans	–18,984	–15,542	–5,465	–3,203	–12	–	–2,268	**–45,475**
Acquisitions, divestments and other changes[2]	–	–6	–	–	–223	17	–84	**–296**
Current year service costs	513	169	–	173	139	27	188	**1,209**
Interest costs	755	821	276	131	97	152	149	**2,381**
Past service costs	16	103	4	–	–	–	8	**132**
Settlements	–	–	–	–	–	–	–	**–**
Employee contributions	–	–	–	–	–	21	69	**90**
Remeasurements[1]:								
– Effect of changes in demographic assumptions	192	–	–148	–	–134	–7	–5	**–103**
– Effect of changes in financial assumptions	3,737	437	79	228	220	74	173	**4,950**
– Effect of experience adjustments	–280	–59	–80	–51	81	149	20	**–221**
Exchange rate changes	–	–746	64	–29	–21	–136	–91	**–960**
Benefits paid	–644	–1,137	–289	–221	–78	–377	–199	**–2,947**
Obligations, Dec 31, 2023	**23,645**	**15,772**	**5,370**	**3,434**	**2,345**	**3,051**	**3,479**	**57,097**
of which								
Funded defined benefit plans	–23,246	–15,137	–5,370	–3,434	–8	–	–2,408	**–49,604**

1 Out of the total remeasurement of the defined benefit obligation, SEK –4,462 M (16,227) has been recognized in Other Comprehensive Income, and SEK –164 M (–92) in the Income Statement.
2 A reclassification has been made to asset held for sale of SEK 265 M (–). » **Read more in Note 3** Acquisitions and divestments of operations.

20:8

Fair value of plan assets in funded plans	Sweden Pensions	USA Pensions	Great Britain Pensions	Belgium Pensions	France Pensions	USA Other benefits	Other plans	Total
Plan assets opening balance 2022	**20,845**	**21,013**	**8,024**	**3,113**	**14**	**37**	**2,271**	**55,317**
Acquisitions, divestments and other changes	–	–	–	–	1	–	–	**2**
Interest income	417	617	146	39	–	–	67	**1,286**
Settlements	–	–901	–	–	–	–	–154	**–1,055**
Remeasurements[1]	–2,274	–5,484	–3,349	–480	–	–	–239	**–11,826**
Asset ceiling	–	–	481	–	–	–	14	**495**
Employer contributions	–156	16	66	158	–	–	328	**411**
Employee contributions	–	34	–	–	–	–	58	**93**
Exchange rate changes	–	3,225	281	275	1	5	202	**3,989**
Benefits paid	–1	–1,302	–287	–132	–1	–	–144	**–1,867**
Plan assets, Dec 31, 2022	**18,831**	**17,218**	**5,362**	**2,972**	**15**	**42**	**2,403**	**46,844**
Acquisitions, divestments and other changes	–	–6	–	–	–	16	–39	**–28**
Interest income	744	877	272	125	1	–	118	**2,136**
Settlements	–	–	–	–	–	–	–	**–**
Remeasurements[1]	1,116	211	257	57	–	–	7	**1,648**
Asset ceiling	–	–	–293	–	–	–	–	**–293**
Employer contributions	–245	–	59	203	–	–	120	**136**
Employee contributions	–	34	–	–	–	–	69	**103**
Exchange rate changes	–	–775	58	–29	–	–2	–91	**–839**
Benefits paid	–2	–1,131	–289	–221	–1	–	–146	**–1,791**
Plan assets, Dec 31, 2023	**20,445**	**16,428**	**5,426**	**3,107**	**14**	**56**	**2,440**	**47,917**

1 Out of the total remeasurement of the plan assets, SEK 1,356 M (–11,331) has been recognized in Other Comprehensive Income.

20:9

Net provisions for post-employment benefits	Sweden Pensions	USA Pensions	Great Britain Pensions	Belgium Pensions	France Pensions	USA Other benefits	Other plans	Total
Net provisions for post-employment benefits, Dec 31, 2022	**–525**	**1,029**	**–103**	**–231**	**–2,249**	**–3,089**	**–849**	**–6,018**
of which reported as:								
B/S Net pension assets	389	2,005	25	–	–	42	266	**2,727**
B/S Provisions for post-employment benefits	–914	–976	–128	–231	–2,249	–3,132	–1,115	**–8,745**
Net provisions for post-employment benefits, Dec 31, 2023	**–3,201**	**656**	**56**	**–327**	**–2,330**	**–2,995**	**–1,038**	**–9,180**
of which reported as:								
B/S Net pension assets	107	1,689	16	–	7	56	162	**2,039**
B/S Provisions for post-employment benefits	–3,308	–1,033	39	–327	–2,338	–3,051	–1,201	**–11,219**

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. The plan assets in the Volvo Group's Swedish pension foundation are mainly invested in interest-bearing securities and in alternative assets, in accordance with a strategic allocation that is determined by the foundation's Board of Directors. As of December 31, 2023, the fair value of the foundation's plan assets amounted to SEK 20,425 M (18,810), of which 6% (6) was invested in equity instruments. At the same point in time, retirement pension obligations attributable to the ITP plan amounted to SEK 23,231 M (18,970).

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 Sustainability and Financial Reporting Board, this is a multi-employer defined benefit plan. For the fiscal year 2023, 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 203 M to Alecta in 2024. 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 157% (172). 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, 2023 amounted to 0.25% (0.23) and the share of the total number of active policy holders amounted to 1.90% (1.77).

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.

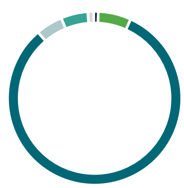
USA

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. During 2023, the US Retirement Trust entered into a contract regarding a buy-in insurance with an insurance company. The contract entails elimination of risks related to investment and longevity for a significant portion of the US pension obligations. As of December 31, 2023, the total value of pension obligations secured by pension plans of this type amounted to SEK 15,137 M (15,542). At the same point in time, the total value of the plan assets in these plans amounted to SEK 16,428 M (17,218), of which 6% (8) 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 2023 no contributions were made by the Volvo Group to the USA pension plans.

20:10

Plan assets by category, December 31, 2022[1]

Plan assets by category, December 31, 2023[1]



20:11

Fair value of plan assets	**Dec 31, 2023**	Dec 31, 2022
Cash and cash equivalents	1,090	509
With a quoted market price		
Equity instruments	624	553
Debt instruments	33,698	38,013
Derivatives	10	13
Assets held by insurance company	6,037	569
Other	364	523
With an unquoted market price		
Other	6,434	6,717
Total[1]	**48,255**	**46,898**

1 Excluding asset ceiling of SEK 340 M (54).

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, 2023, the total value of pension obligations amounted to SEK 5,370 M (5,465). At the same point in time, the total value of the plan assets in these plans amounted to SEK 5,426 M (5,362), of which 3% (4) was invested in equity instruments. During 2023, the Volvo Group contributed SEK 59 M (66) 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 plans 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, 2023, the total value of pension obligations amounted to SEK 3,434 M (3,203). At the same point in time, the plan assets of these plans amounted to SEK 3,107 M (2,972), of which 10% (9) was invested in equity instruments. During 2023, the Volvo Group contributed SEK 203 M (158) to the Belgium pension plans.

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, 2023, the total value of pension obligations amounted to SEK 2,345 M (2,264).

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 represents 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 time frame. 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 2024, the Volvo Group estimates to transfer less than SEK 500 M to defined benefit 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. Long-term provisions are mainly expected to be settled within 2 to 3 years.

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 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 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. The potential residual value risks related to these assets are not recognized as provisions, but are reflected as a reduction of the assets through accelerated depreciation and/or write-downs.

» **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 financial commitments.

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 include provisions for legal disputes, provisions for externally issued credit guarantees and other provisions, unless separately specified.

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, 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 financial commitments.

21:1

	Carrying value, Dec 31, 2022	Provisions	Reversals	Utilizations	Acquired and divested operations[2]	Exchange rate changes	Other reclassi-fications[2]	**Carrying value, Dec 31, 2023**	Of which due within 12 months	Of which due after 12 months
Provisions for product warranty[1]	16,841	11,427	–1,963	–8,729	–32	–407	194	17,331	8,575	8,756
Provisions for extended coverage	692	568	–116	–479	–	–20	–	645	237	408
Provisions in insurance operations	848	350	–109	–25	–	–27	–	1,037	–	1,037
Provisions for restructuring costs[3]	212	2,345	–126	–135	–	–89	–52	2,155	1,771	384
Provisions for residual value risks	259	186	–88	–152	–	1	–6	200	100	100
Provisions for service contracts	558	367	–180	–158	–	–10	–17	560	255	305
Other provisions[4]	6,105	11,016	–1,194	–4,818	–16	–169	–250	10,674	8,685	1,989
B/S **Total**	**25,515**	**26,259**	**–3,776**	**–14,496**	**–48**	**–721**	**–131**	**32,602**	**19,623**	**12,979**

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.

3 For more information see below.

4 Includes costs of SEK 6 billion, for claims arising from the European Commission's 2016 antitrust settlement decision, recognized in the second quarter of 2023.
Read more in Note 24 Contingent liabilities and financial commitments about the European Commission's 2016 antitrust settlement decision.

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. The negative cash flow effect started in 2019 and will continue in the coming years. As of year-end 2023, approximately half of the initial provision had been utilized. The Volvo Group will continuously assess the size of the provision as the matter develops.

Volvo Buses has decided to close its bodybuilding factory in Wroclaw, Poland, during the first quarter of 2024. Restructuring costs of SEK 1.3 billion impacted operating income negatively in 2023 whereof restructuring provision SEK 1.2 billion and write down of assets SEK 0.1 billion.

Nova Bus is exiting bus production in the US market. Consequently, the company has decided to close its Plattsburgh manufacturing and delivery facility by 2025. Restructuring costs of SEK 1.3 billion impacted the Volvo Group's operating income negatively in 2023, whereof restructuring provision SEK 1.0 billion, disposal of goodwill SEK 0.1 billion and write down of assets SEK 0.2 billion.

22 Liabilities

ACCOUNTING POLICY

Loans are measured at amortized cost using the effective interest rate method.

» Read more in Note 30 Financial instruments for accounting policies related to financial instruments.

» Read more in Note 14 Leasing, for accounting policies related to lease liabilities.

Bond loans and other loans

The Volvo Group's non-current and current loans are disclosed in tables 22:1 and 22:2 below, with the issued bond 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.

22:1

Non-current bond loans and other loans Currency	Weighted average interest rate Dec 31, 2023, %	Dec 31, 2023	Dec 31, 2022
Bond loans			
EUR	2.65	67,219	78,319
SEK	4.55	21,440	18,054
GBP	5.47	7,614	3,125
USD	2.72	698	730
NOK		–	1,691
HKD		–	969
B/S **Bond loans**[1]		**96,970**	**102,887**
Other loans			
Other loans[1]		33,983	26,699
Lease liabilities		5,314	4,806
Revaluation of outstanding derivatives to SEK[2]		2,236	4,179
B/S **Other loans**		**41,532**	**35,684**

1 Non-current loans of SEK 1,900 M (1,093) were secured by assets pledged.
» Read more in Note 23 Assets pledged
2 » Read more in Note 30 Financial instruments, table 30:1 regarding non-current part of outstanding interest and currency risk derivatives.

22:2

Current bond loans and other loans Currency	Weighted average interest rate Dec 31, 2023, %	Dec 31, 2023	Dec 31, 2022
Bond loans			
EUR	2.61	38,137	21,762
SEK	3.51	6,011	13,890
NOK	6.09	1,568	1,216
HKD	2.31	925	–
JPY		–	926
B/S **Bond loans**[1]		**46,641**	**37,794**
Other loans			
Other loans[1]		48,731	31,084
Lease liabilities		1,877	1,777
Revaluation of outstanding derivatives to SEK[2]		1,040	1,722
B/S **Other loans**		**51,648**	**34,583**

1 Current loans of SEK 4,694 M (1,994) were secured by assets pledged.
» Read more in Note 23 Assets pledged.
2 » Read more in Note 30 Financial instruments, table 30:1 regarding current part of outstanding interest and currency risk derivatives.

22:3

Maturity Year	Bond loans and other loans	Not utilized non-current credit facilities
2025	60,224	7,553
2026	46,043	23,108
2027	18,466	–
2028	6,975	22,108
2029	3,534	–
2030 or later	3,260	–
Total	**138,502**	**52,770**

» Read more in Note 14 Leasing, table 14:4 for maturities of non-current lease liabilities.

A total of SEK 142,108 M (133,905) in bond loans and SEK 76,020 M (51,770) in other loans in tables 22:1 and 22:2 were borrowed to finance the credit portfolio in Financial services. 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 average interest rate on Industrial Operations financial liabilities at year end amounted to 5.7% (5.2), including the Volvo Group's credit costs.

» 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.

A hybrid bond amounting to EUR 1.5 billion was issued in the Volvo Group in 2014. The final tranche of this bond (EUR 0.6 billion) was repaid in March, 2023 without any impact on the net financial position of the Volvo Group.

The predominant part of loans that mature in 2025 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.

Other liabilities

22:4

Non-current other liabilities	Dec 31, 2023	Dec 31, 2022
Deferred leasing income[1]	6,251	6,928
Residual value liabilities[1]	7,408	9,747
Deferred service revenue[1]	20,359	17,493
Refund liabilities[1]	1,536	1,700
Advances from customers[1, 2]	12	3,093
interest and currency risk derivatives[3]	2,100	3,011
Other liabilities	3,876	3,577
B/S **Other liabilities**	**41,542**	**45,549**

1 » **Read more in Note 7** Revenue regarding contract and refund liabilities, and sales with residual value commitments.

2 Non-current advances from customers of SEK 2,605 M (–) have been reclassified to liabilities held for sale. » **Read more in Note 3** Acquisitions and divestments of shares and operations.

3 » **Read more in Note 30** Financial instruments, **table 30:1** regarding non-current part of interest and currency risk derivatives.

22:5

Current other liabilities	Dec 31, 2023	Dec 31, 2022
Trade payables[1]	82,987	90,177
Tax liabilities	5,087	6,907
Advances from customers[1, 2]	3,611	5,892
Wages, salaries and withholding taxes	16,939	14,805
VAT liabilities	6,167	5,717
Accrued expenses for dealer bonuses and rebates[2]	6,940	5,767
Other accrued expenses	14,917	15,071
Deferred leasing income[2]	3,739	3,852
Deferred service revenue[2]	4,557	4,446
Other deferred income[2]	1,383	1,829
Residual value liabilities[2]	4,545	4,559
Refund liabilities[2]	519	783
Other financial liabilities	249	330
Interest and currency risk derivatives[3]	404	64
Other liabilities	6,248	6,403
Other liabilities	**158,292**	**166,601**

1 Trade payables of SEK 1,279 M (–) and current advances from customers of SEK 1,974 M (–) have been reclassified to liabilities held for sale. » **Read more in Note 3** Acquisitions and divestments of shares and operations.

2 » **Read more in Note 7** Revenue, regarding contract and refund liabilities, and sales with residual value commitments.

3 » **Read more in Note 30** Financial instruments, **table 30:1** regarding current part of interest and currency risk derivatives.

Non interest-bearing current liabilities, including liabilities held for sale, amounted to SEK 166,052 M (166,601), or 63% (70) of the Volvo Group's total current liabilities.

23 Assets pledged

23:1

Assets pledged	Dec 31, 2023	Dec 31, 2022
Property, plant and equipment mortgages	–	60
Assets under operating leases	44	249
Customer-financing receivables	7,605	3,273
Cash and cash equivalents[1]	274	565
Total assets pledged	**7,924**	**4,147**

1 » **Read more in Note 18** Cash and cash equivalents regarding cash not available for use.

Non-current and current loans of SEK 6,594 M (3,087) were secured by assets pledged to an amount of SEK 7,924 M (4,147).

Under the terms of asset-backed securitizations, securities were issued, whereof SEK 598 M (2,783) is outstanding. These are secured by customer-financing receivables of SEK 1,016 M (3,273) with trucks and construction equipments as collaterals and cash and cash equivalents of SEK 274 (565) not available for use.

A warehouse facility is used to fund customer-financing receivables in preparation for asset-backed securitizations. At December 31, 2023, SEK 5,975 M (–) was outstanding under this facility which is secured by SEK 6,589 M (–) of customer-financing receivables.

» **Read more in Note 22** Liabilities.

24 Contingent liabilities and financial commitments

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.

Financial commitments are contractual commitments to a possible expense at a future date and is not reported as liabilities on the balance sheet date.

24:1

Contingent liabilities	**Dec 31, 2023**	Dec 31, 2022
Credit guarantees issued for customers and others	3,806	5,947
Tax claims	6,041	5,661
Residual value commitments	152	342
Other contingent liabilities	5,907	6,251
Total contingent liabilities	**15,907**	**18,201**

Total contingent liabilities at December 31, 2023, amounted to SEK 15,907 M (18,201).

Credit guarantees issued amounted to SEK 3,806 M (5,947). 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 6,041 M (5,661) and pertain to charges or expected claims 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 reliably estimated, the required provision is made. Of total tax claims, SEK 1.4 billion (1.7) is related to a transfer price audit in Brazil and SEK 2.5 billion (2.5) are related to two custom duties audits in India.

Residual value commitments amounted to SEK 152 M (342) 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 5,907 M (6,251) 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 adopted 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 relate primarily to Volvo Group trucks sold during the 14-year period of the infringement and, in some cases, to trucks sold in certain periods after the infringement ended. Some claims have also been made against the Volvo Group that relate to trucks sold by other manufacturers. The truck manufacturers subject to the 2016 settlement decision are, in most countries, jointly and severally liable for any losses arising from the infringement.

In the region of 3,000 claims are being brought in over 20 countries (including EU Member States, the United Kingdom, Norway and Israel) by large numbers of claimants either acting individually or as part of a wider group or class of claimants. Further claims may be commenced. The litigation in many countries can be expected to run for several years.

Several hundred thousand trucks sold by the Volvo Group are currently subject to claims against it or other truck manufacturers, with claimants alleging that the infringement resulted in an increase in the prices paid for Volvo Group trucks which directly or indirectly caused them loss.

The Volvo Group maintains its firm view that no damage was caused to its customers or any third party by the conduct set out in the settlement decision, and in fact, the European Commission did not assess any potential effects of the infringement on the market. The Volvo Group considers that transaction prices our customers paid for their trucks were unaffected by the infringement and were the outcome of individual negotiations across all elements of their purchasing requirements, including not only the prices for new trucks but also (where relevant) associated products and services sold together with new trucks such as service contracts, financing, buy-back guarantees etc.

Litigation developments so far have been mixed with some adverse outcomes, although uncertainty regarding ultimate exposure to the litigation remains high and it is inherent in complex litigation that outlooks and risks fluctuate over time.

At this stage it is not possible to make a reliable estimate of the total liability that could arise from such proceedings given the complexity of the claims and the different (and in some cases relatively early) stages to which national proceedings have progressed. However, the litigation is substantial in scale and any 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. In light of progress in litigations and current risks, the Volvo Group has in Q2 2023 recognized a cost of SEK 6 billion, besides legal fees to advisors, which relate to aspects of the litigation that are currently possible to estimate and where an outflow of resources is probable. This is Volvo Group's current assessment, which may change as the litigation progresses.

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.

» **Read more in Note 21** Other provisions.

Financial commitments

In 2023, Volvo Group and Westport signed a letter of intent to establish a joint venture for high-pressure gas injection fuel systems (HPDI). Volvo will acquire 45% of the shares for approximately SEK 300 M (USD 28 M) plus up to an additional approximately SEK 500 M (USD 45 M) depending on the performance of the joint venture.

Volvo Group, Renault Group and CMA CGM Group will join forces to address the growing needs of decarbonized and efficient logistics with an all-new generation of fully electric vans. A new company is expected to be established in the beginning of 2024 and remains subject to the completion of all regulatory approval processes. The Volvo Group is planning to invest EUR 300 M over the course of the next three years.

In 2022, the Volvo Group, Daimler Truck and the Traton Group established the joint venture Milence for charging infrastructure in Europe. The Volvo Group is committing to invest EUR 167 M within a few years from the establishment of the joint venture, whereof EUR 123 M remains as of December 31, 2023.

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**.

25:1

	Sales of goods, services and other income		Purchases of goods, services and other expense	
	2023	2022	**2023**	2022
Associated companies	2,549	1,557	213	145
Joint ventures	3,541	2,336	1,380	1,260

25:2

	Receivables		Payables	
	Dec 31, 2023	Dec 31, 2022	**Dec 31, 2023**	Dec 31, 2022
Associated companies	259	113	106	63
Joint ventures	535	472	85	122

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 usually reported as deferred income in the balance sheet. Government grants related to income are reported as 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 2023, government grants of SEK 1,057 M (689) were received, and SEK 618 M (701) were recognized in the income statement.

Government grants includes tax credits of SEK 373 M (312) 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 which are cash-settled.

The LTI Program 2023-2025 (as defined below) has a performance period of three-years and includes two performance measures, relative total shareholder return (relative TSR) and return on capital employed (ROCE). The relative TSR includes a fair value component, hence this part of the program is accounted for as a share-based payment program. A liability is recognized and measured at fair value using a Monte Carlo simulation at each reporting date. Changes in the fair value are recognized in the income statement for each period until the liability is settled by a cash payment. To estimate the fair value, the Monte Carlo simulation uses several inputs where assumptions are made such as vesting period, risk free annual interest rate, expected share price volatility and TSR-price.

The LTI Transition Program 2023 (as defined below) has a performance period of one-year and includes two performance measures, operating income and ROCE.

The short-term incentive program has a performance period of one-year and includes performance measures which for example may relate to operating income, operating cash flow, ROCE or similar ratios, or sustainability targets.

Performance measures included in the programs such as ROCE, operating income and operating cash flow or similar ratios are based on best estimate and are accounted for as employee benefits.

During the vesting period, the total remuneration expenses for the incentive programs are recognized as an expense in the income statement and as other non-current or current liabilities depending on when in time the liability will be settled. The liability at the end of the vesting period corresponds to the actual payout in cash.

Guidelines for remuneration to the Volvo Group Executive Board, approved by the Annual General Meeting on 4 April 2023
The Annual General Meeting 2023 decided upon the following guidelines for 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 2023 annual general meeting. These guidelines do not apply to any remuneration separately decided or approved by the general meeting.

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 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% of the base salary and, for other Executives, a maximum of 80% of the base salary.

Long-term incentives may, for the President and CEO, amount to a maximum of 150% of the base salary and, for other Executives, a maximum of 80% of the base salary. Current and proposed long-term incentives are described and addressed separately by the 2023 general meeting.

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% 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% 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% 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 requires 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% 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% 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 remuneration, etc.
Plans for long-term and short-term incentives shall be linked to predetermined and measurable criteria, to be determined by the Board of Directors. 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 satisfaction of the criteria shall be measured over periods of one or multiple years, depending on the type of incentive plan.

To which extent the criteria for awarding incentives has been satisfied shall be determined when the relevant measurement period has ended. The Board of Directors is responsible for the determination of the incentives to be paid, if any, to all Executives.

Claw-back and adjustments
Executives participating in the Volvo Group's 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, 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 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.
During 2022, the company has carefully considered feedback received from shareholders and proxy advisors in connection with the general meeting 2022 and otherwise during the year. As a result of this dialogue, the Board and the Remuneration Committee have during 2022 performed a review of the design of the Group's long-term incentives. As a result of this review, the Board proposes the adoption of a new long-term incentive plan with a three-year performance period, to be implemented starting 2023. It is proposed that the transition into a new long-term incentive plan with a three-year performance period will be made in parallel with a two-year phasing out of the current long-term incentive plan. For further information, please refer to the Board's separate proposal for a new long-term incentive plan.

For further information about the dialogue with shareholders and proxy advisors, please refer to the Remuneration Report 2022.

Fees paid to the Board of Directors
According to a resolution adopted at the Annual General Meeting 2023, fees to the Board of Directors appointed at the Annual General Meeting for the period until the close of the Annual General Meeting 2024 shall be paid as follows: The Chairman of the Board should be awarded SEK 3,925,000 (3,850,000) and each of the other members elected by the Annual General Meeting SEK 1,175,000 (1,150,000) with exception of the President and CEO of AB Volvo, who does not receive a director's fee. In addition, SEK 445,000 (405,000) should be awarded to the Chairman of the Audit Committee and SEK 250,000 (190,000) to each of the other members of the Audit Committee, and SEK 175,000 (170,000) to the Chairman of the Remuneration Committee and SEK 130,000 (125,000) to each of the other members of the Remuneration Committee, and SEK 300,000 (200,000) to the Chairman of the Volvo CE Transformation Committee and SEK 200,000 (170,000) to each of the other members of the Volvo CE Transformation Committee.

Long-term incentive plans
Long-term incentive plan valid from 2016
In 2016, the Board of Directors approved a long-term cash-based incentive plan comprising the top 300 persons from senior management, including Executives, in the Volvo Group. During 2022, it was decided to increase the plan size with an additional 100 slots to accommodate attraction and retention of employees with rare and/or deep expertise and skills that are hard to find in the external market and are key to the Volvo Group's transformation journey. For more information, please refer to *Types of remuneration* on page 141.

Long-term incentive plan valid from 2023
In 2023, the Annual General Meeting adopted a new long-term incentive plan comprising a maximum number of 600 participants from senior management, including Executives and employees in certain business-critical positions within the Volvo Group. The new plan will replace the current long-term incentive plan adopted in 2016. The replacement will, due to increased performance period under the new plan, take place during a two-year phase out of the current plan via two long-term transition programs for 2023 and 2024, respectively. Hence, in 2023 the Board of Directors approved a long-term incentive program for 2023 to 2025 (the "LTI Program 2023-2025) issued under the long-term incentive plan adopted in 2023. In addition, as part of the two-year phase out of the current long-term incentive plan, the Board of Directors also approved a long-term incentive transition program for 2023 (the "LTI Transition Program 2023") based on the terms of the long-term incentive plan adopted in 2016. The LTI Transition Program 2023 only applies to participants who were also enrolled in the long-term incentive program decided by the Board of Directors in 2022. Measures have been taken to ensure that parallel application of the long-term programs do not lead to annual pay-outs exceeding the annual maximum percentage for long-term incentives.

27:1

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	18,072,526	239,119	17,271,313	26,699,958	–	6,229,991
Other members of the Group Executive Board[3]	101,003,684	4,625,316	77,198,042	80,206,754	–	33,749,987
Total 2023	**119,076,210**	**4,864,435**	**94,469,355**	**106,906,712**	–	**39,979,978**
Total 2022	**122,676,039**	**15,054,935**	**71,552,876**	**76,663,918**	**3,165,174**	**39,289,073**

1 Other benefits mainly pertain to company cars, housing and, various insurance costs.

2 Other remunerations include payments in 2022 to Swedish individuals in the Group Executive Board in connection to a change in their pension benefits.

3 The Group Executive Board comprised, except the President and CEO, of 13 (13) members at the end of the year.

The new plan has a three-year performance period followed by a one-year lock-in period for the AB Volvo shares that the participants are required to acquire. At the end of the lock-in period, participants may sell their shares. However, Executives may only do so if they meet the requirement for owning AB Volvo shares at a value of at least two years of gross base salary for the President and CEO and one year of the gross base salary for the other Executives. The holding requirements for participants shall cease upon termination of a participant's employment, and the Board may grant such other exceptions to the requirements as the Board deems appropriate.

Participants in the long-term incentive programs must be employed on December 31 of the final year of the performance period in order to qualify for a pay-out. Participants who terminate their employment before this date lose entitlements to a (pro-rated) pay-out, unless they leave the Volvo Group in certain predefined situations (pension, disability, divestiture, etc.). These so-called "good leaver" situations are subject to approval by the Remuneration Committee.

The long-term incentive plan is linked to two predetermined performance measures:

- AB Volvo's three-year average ROCE with a linear scale (0% at minimum, 100% at maximum of the scale; relative weighting 70%) and
- The relative three-year average Volvo B total shareholder return vs. MSCI World Machinery Index with a linear scale (20% at minimum, 100% at maximum of the scale; relative weighting 30%) (relative TSR)

The result on each of these two performance measures is determined after the relevant three-year measurement period has ended.

The total remuneration expenses including social security charges for the LTI Program 2023-2025 affecting the income statement for 2023 amounts to SEK 170 M (-) and the total liability as of December 31, 2023, amounts to SEK 170 M (-). The income statement effect is an estimate of the outcome and will during the three-year period be continuously adjusted to reflect the outcome at the end of the program. The final outcome of the LTI Program 2023-2025 will be presented in the annual report for 2025.

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 2023, the short-term incentive program is based on operating income, operating cash flow and electric vehicle volume for the Volvo Group; the LTI Program 2023-2025 is based on relative TSR and three-year average ROCE; the LTI Transition Program 2023 is based on operating income and one-year ROCE. The short-term incentive program amounts to a maximum of 100% of the annual base salary, the LTI Program 2023-2025 (to be paid out in 2026) and the LTI Transition Program 2023 (to, subject to dividend pay-out, be paid out in 2024) amounts to a maximum of 150% of the annual base salary (measures have been taken to ensure that parallel application of the long-term programs do not lead to annual pay-outs exceeding the annual maximum percentage for long-term incentives).

For the financial year 2023, the President and CEO received a fixed salary including vacation payment of SEK 18,072,526 (17,496,875) and a short-term incentive of SEK 17,271,313 (13,910,861). The short-term incentive was 97.0% (80.7) of the annual base salary. Other benefits, mainly pertaining to a company car and insurance benefits, amounted to SEK 239,119 (279,057).

The President and CEO also participated in the LTI Program 2023-2025 and the LTI Transition Program 2023. During the financial year 2023, the outcome of the LTI Transition Program 2023 amounted to SEK 26,699,958 (19,183,651), which was 150.0% (111.3) of the annual base salary. The full net amount shall be invested in Volvo B shares, which will be subject to a lock-in period of three years. There is to be no pay-out of the amount if the Annual General Meeting held in 2024 decides not to distribute any dividends to the shareholders for 2023. As the outcome of the LTI Program 2023-2025 is measured over a period of three years (i.e. determined as of 31 December 2025) no amounts has been paid out during 2023 (for the CEO).

Pensions

The President and CEO was covered by a pension benefit in the form of a defined contribution 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 6,229,991 (6,035,732) in 2023.

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.

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 2023, the short-term incentive program is based on operating income, operating cash flow and electric vehicle volume for the Volvo Group; the LTI Program 2023-2025 is based on relative TSR and three-year average ROCE; the LTI Transition Program 2023 is based on operating income and one-year ROCE. The short-term incentive program, the LTI Program 2023-2025 (to be paid out in 2026) and the LTI Transition Program 2023 (to, subject to dividend pay-out, be paid out in 2024) for Group Executive Board members excluding the President and CEO, in 2023, could each amount to a maximum of 80% of the annual base salary (measures have been taken to ensure that parallel application of the long-term programs do not lead to annual pay-outs exceeding the annual maximum percentage for long-term incentives).

For the financial year 2023, fixed salaries including vacation payment amounted to SEK 101,003,684 (95,635,834) for the Group Executive Board members excluding the President and CEO. The short-term incentive amounted to SEK 77,198,042 (51,590,551) for the Group Executive Board members excluding the President and CEO. Short-term incentive was in average 77.0% (59.0) of the annual base salary. Other benefits, including company cars, housing, and insurance benefits, amounted to SEK 4,625,316 (14,565,147).

The Group Executive Board also participated in the LTI Program 2023-2025 and the (to the extent they participated in the long-term incentive program decided by the Board of Directors in 2022) LTI Transition Program 2023. During the financial year 2023, the outcome of the LTI Transition Program 2023 amounted to SEK 80,206,754 (51,916,788) for the Group Executive Board members, excluding the President and CEO, which was 80.0% (59.4) of the annual base salaries. The full net amount shall be invested in Volvo B shares, which will be subject to a lock-in period of three years. There is to be no pay-out of the amount if the Annual General Meeting held in 2024 decides not to distribute any dividends to the shareholders for 2023. As the outcome of the LTI Program 2023-2025 is measured over a period of three years (i.e. determined as of 31 December 2025) no amounts has been paid out during 2023 (for the Executive Board excl. the President and CEO).

Pensions

During 2023, the Group Executive Board members enrolled in the Swedish pension plan continued to participate in the collective bargain agreement (ITP), as well as the Volvo Executive Pension (VEP) plan. The VEP plan is a defined contribution plan with a contribution amounting to 35% of the annual base salary exceeding 30 income base amounts (SEK 2,229,000 in 2023). There were no commitments other than the payment of the contributions.

Pension premiums for the Group Executive Board, excluding the President and CEO, amounted to SEK 33,749,987 (30,022,143) in 2023.

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 493 M (411) 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. Out of the SEK 493 M, SEK 31 M pertains to the LTI Program 2023-2025 and is an estimate of the outcome which will be continuously adjusted to reflect the outcome at the end of the program.

27:2

Average number of employees	**2023**		2022	
	Number of employees	of which women, %	Number of employees	of which women, %
AB Volvo				
Sweden	297	49	282	50
Subsidiaries				
Sweden	23,247	25	22,013	25
Western Europe (excl. Sweden)	21,779	18	20,817	18
Eastern Europe	6,072	22	6,224	22
North America	17,908	22	17,459	21
South America	6,971	19	7,110	19
Asia	10,687	19	10,137	18
Other countries	2,321	20	2,275	19
Volvo Group	**89,282**	**21**	**86,316**	**21**

27:3

Board members and other senior executives	2023		2022	
	Number at year-end	of which women, %	Number at year-end	of which women, %
AB Volvo				
Board members[1]	11	36	11	45
CEO & other senior executives	14	29	15	33
Volvo Group				
Board members	532	24	561	25
Presidents and other senior executives	599	29	613	28

1 Board members elected by the Annual General meeting.

27:4

Wages, salaries and other remunerations SEK M	2023			2022		
	Board and Presidents	of which variable salaries	Other employees	Board and Presidents	of which variable salaries	Other employees
AB Volvo[1]	84.4	49.6	513.1	88.0	41.8	399.9
Subsidiaries	1,049.9	334.7	55,372.4	816.4	216.3	48,226.6
Volvo Group	**1,134.3**	**384.3**	**55,885.5**	**904.4**	**258.0**	**48,626.4**

27:5

Wages, salaries and other remunerations and social costs SEK M	2023			2022		
	Wages, salaries remuneration	Social costs	Pension costs	Wages, salaries remuneration	Social costs	Pension costs
AB Volvo[2]	597.4	178.7	129.4	487.9	140.2	121.6
Subsidiaries	56,422.3	12,712.7	5,323.5	49,043.0	10,541.4	5,145.9
Volvo Group[3]	**57,019.8**	**12,891.4**	**5,452.9**	**49,530.9**	**10,681.6**	**5,267.5**

1 Including current and former Board members and the President and CEO.

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 106 M (93) pertain to Board members and Presidents, including current and former Board members, Presidents and CEO, and other senior executives. The Volvo Group's outstanding pension obligations to these individuals amount to SEK 618 M (567). The cost for non-monetary benefits in the Volvo Group amounted to SEK 4,092 M (3,409) of which SEK 41 M (33) pertained to Board members and Presidents. The cost for non-monetary benefits in the parent company amounted to SEK 4.9 M (7.4) of which SEK 0.2 M (0.4) to Board members and President.

28 Fees to the auditors

28:1

Fees to the auditors	2023	2022
Deloitte		
– Audit assignment	140	122
whereof to Deloitte AB	*45*	*41*
– Audit-related assignments	9	8
whereof to Deloitte AB	*3*	*3*
– Tax advisory services	1	–
whereof to Deloitte AB	–	–
– Other services	52	5
whereof to Deloitte AB	–	–
Total Deloitte	**202**	**135**
Audit fees to others	3	2
Total fees to the auditors	**205**	**137**

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 advisory services include both tax consultancy and tax compliance services. All other tasks are defined as other services.

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 and are included in cash flow from investing activities, in the items acquired operations and divested operations.

Operating cash flow
The operating cash flow is a measure of the amount of cash generated by the Volvo Group's regular business operations. The operating cash flow also includes investments and disposals of intangible and tangible assets, which are part of the investing activities.

» **Read more in Note 18** Cash and cash equivalents.

29:1

Other non-cash items	2023	2022
Allowance for expected credit losses on receivables/customer-financing receivables[1]	1,398	4,260
Gains/losses on divested operations[2]	710	–
Unrealized exchange rate gains/losses on accounts receivables and payables	–150	455
Unrealized exchange rate gains/losses on other operating assets and liabilities	55	283
Provision for incentive programs	2,619	1,761
Gains/losses on disposals of in-/tangible assets	–422	–232
Gains/losses on divestments of shares and participations	231	–109
Results from investments in joint ventures	2,368	1,333
Service cost related to pensions	1,209	1,659
Deferred sales with residual value commitments	–4,316	–3,957
Provisions for restructuring charges related to the US bus production for Nova Bus and the European bus operation	2,336	–
Financial impact related to the planned divestment of Arquus and the ABG paver business	1,490	–
Other changes[3]	6,313	1,512
Total other non-cash items	**13,842**	**6,964**

1 The increase in 2022 was mainly referred to the financial impact related to Russia.
2 Includes financial impact related to the divestment of the Russian entities.
3 Includes costs for claims arising from the European Commission's 2016 antitrust settlement decision. The comparative figures also includes costs for a civil penalty from the National Highway Traffic Safety Administration in the US.

29:2

Changes in loans 2023		Cash flows		Non-cash items			
	December 31, 2022	New borrowings	Repayment of borrowings	Reclassi-fications and other changes[1]	Unrealized currency effects	Exchange rate changes	December 31, 2023
Current bond loans and other loans	72,377	160,207	–206,589	72,517	3,683	–3,906	98,289
Non-current bond loans and other loans	138,571	77,472	–153	–71,184	–1,943	–4,261	138,502
Interest and currency risk derivatives	–1,730	–	–	–	–1,320	7	–3,043
Realized derivatives	–	–	–967	–	–	–	–
Cash transfers[2]	–	6,111	–3,449	–	–	–	–
Other	–	–1,832[3]	–	–	–	–	–
Cash flow impact from changes in loans		**241,958**	**–211,157**				

Changes in loans 2022		Cash flows		Non-cash items			
	December 31, 2021	New borrowings	Repayment of borrowings	Reclassi-fications and other changes[1]	Unrealized currency effects	Exchange rate changes	December 31, 2022
Current bond loans and other loans	49,447	95,984[4]	–131,481[4]	51,763	131	6,532	72,377
Non-current bond loans and other loans	104,177	74,108	–1,970	–50,958	2,259	10,955	138,571
Interest and currency risk derivatives	–2,013	–	–	–	306	–23	–1,730
Realized derivatives	–	–	2,605	–	–	–	–
Cash transfers[2]	–	4,191	–7,990	–	–	–	–
Other	–	–1,466[3]	–	–	–	–	–
Cash flow impact from changes in loans		**172,817**	**–138,836**				

1 Includes remeasurements of lease liabilities which had no impact on cash flow.

2 Cash transfers for credit support annexes (CSA) are used to reduce the exposure from net open positions on interest and currency risk derivatives. Cash transfers for CSAs are also included in current bond loans and other loans, where the net cash flow amounted to SEK 1,702 M (1,059). The netting agreements have no effect on the financial performance or the net financial position of the Volvo Group.

3 During 2023, new lease liabilities of SEK 1.8 billion (1.5), included in non-current other loans, were adjusted as non-cash items.

4 The comparative figures are restated due to a reclassification between new borrowings and repayments of borrowings.

Net borrowings increased by SEK 30.8 billion (34.0), mainly due to significantly higher new business volume in the credit portfolio. During 2023, a decision was made to call the final tranche (EUR 0.6 billion) of the hybrid bond with payment date on March 10, 2023.

Syndications were performed in Financial Services to an amount of SEK 8.8 billion (12.2). All syndications have impacted cash flow this year.

» **Read more in Note 4** Goals and policies in financial risk management about credit support annexes (CSA).

» **Read more in Note 22** Liabilities regarding Bond loans and other loans.

30 Financial instruments

ACCOUNTING POLICY

Financial assets and liabilities are recognized on the transaction date according to the contractual terms of the instrument. Transaction costs 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 significant risks and rewards 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 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 category. Unrealized gains and losses from fluctuations in the fair value of the financial instruments are recognized in other financial income and expenses, with the exception of derivatives entered into by Financial Services, which are recognized in operating income. The Volvo Group intends to hold these derivatives to maturity, which is why, over time, the market valuation will have no impact on financial performance or cash flow.

Financial instruments used for hedging currency risks arising from future cash flows are also recognized in this category. When hedging future cash flows for specific orders, the classification in the income statement is decided on a case by case basis. In 2023, SEK 16 M (44) have been recognized in operating income and SEK 105 M (1) in finance net. The result from hedging future cash flows in foreign currency from dividends paid to group companies is included in operating income with an amount of SEK 27 M (177).

» **Read more in Note 4** Goals and policies in financial risk management.

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 15 M (–45).

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

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 has been analyzed and compared with an estimated fair value and 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.

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.

30:1

Carrying amounts and fair values on financial instruments		Dec 31, 2023 Carrying value	Dec 31, 2023 Fair value	Dec 31, 2022 Carrying value	Dec 31, 2022 Fair value
Assets					
Financial assets measured at fair value through the income statement					
Interest and currency risk derivatives[1]	Note 16	6,293	6,293	5,751	5,751
Other derivatives[2]		564	564	564	564
B/S Marketable securities	Note 18	89	89	93	93
		6,945	6,945	6,408	6,408
Financial assets measured at fair value through other comprehensive income					
Holding of shares in listed companies	Note 5	22	22	6	6
Financial assets measured at amortized cost					
B/S Accounts receivables	Note 16	43,210	43,210	48,220	48,220
Customer-financing receivables	Note 15	232,203	232,203	193,928	193,928
Holding of shares in non-listed companies	Note 5	859	859	599	599
Other interest-bearing receivables[3]	Note 16	3,233	3,233	5,738	5,738
		279,505	279,505	248,485	248,485
B/S **Cash and cash equivalents**	Note 18	83,326	83,326	83,886	83,886
Liabilities	Note 22				
Financial liabilities measured at fair value through the income statement					
Interest and currency risk derivatives[4]		5,779	5,779	8,975	8,975
Financial liabilities measured at amortized cost[5]					
Non-current bond loans and other loans		136,267	135,652	134,392	130,794
Current bond loans and other loans[3]		97,250	97,102	70,655	70,475
B/S Trade Payables		82,987	82,987	90,177	90,177
		316,503	315,741	295,224	291,446

1 The Volvo Group's gross exposure from derivatives reported as assets was reduced by 84% (79) by netting agreements and cash deposits to SEK 1,034 M (1,223).

2 The input data used in the valuation model for calculating the fair value has not changed during 2023.

3 The amount includes cash deposits for credit support annexes (CSA), where the receivable amounted to SEK 2,297 M (4,959) and the liability amounted to SEK –1,889 M (–187). The agreements have no effect on the financial performance or net financial position of the Volvo Group.

4 The Volvo Group's gross exposure from derivatives reported as liabilities was reduced by 97% (98) by netting agreements and cash deposits to SEK 183 M (189).

5 In the Volvo Group balance sheet, financial liabilities include loan-related derivatives amounting to SEK –3,275 M (–5,900). The credit risk is included in the fair value of loans.

» **Read more in Note 4** Goals and policies in financial risk management about credit support annexes (CSA).

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, 2023, 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 0.1 billion (0.2).

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 3.8 billion (5.9) 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 and financial commitments.

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.

30:2

Outstanding derivative instruments	**Dec 31, 2023**		Dec 31, 2022	
	Nominal amount	Carrying value	Nominal amount	Carrying value
Interest-rate swaps				
– receivable position	232,945	5,932	217,951	5,532
– payable position	142,572	–5,478	162,277	–8,616
Foreign exchange derivatives				
– receivable position	38,282	361	33,932	218
– payable position	21,108	–301	30,486	–359
Options purchased				
– receivable position	111	–	56	–
Options written				
– payable position	–	–	56	–
Total		**514**		**–3,224**

30:3

Recognized in operating income	2023			2022		
	Gain/ Loss	Interest income	Interest expense	Gain/ Loss	Interest income	Interest expense
Financial assets and liabilities at fair value through the income statement						
Interest and currency risk derivatives[1,2]	–89	–	8	133	–	–
Marketable securities	–1	–	–	16	–	–
Financial assets measured at amortized cost						
Accounts receivables/trade payables[3]	–785	–	–	–1,600	–	–
Cash and cash equivalents	–32	–	–	77	–	–
Customer-financing receivables[4]	287	15,829	–	145	10,005	–
Holding of shares in listed companies[5]	–	–	–	–	–	–
Holding of shares in non-listed companies	–14	–	–	132	–	–
Financial liabilities measured at amortized cost[6]	–	–	–9,837	–	–	–4,599
Impact on operating income	**–634**	**15,829**	**–9,829**	**–1,099**	**10,005**	**–4,599**

Recognized in net financial items[7,8]	2023			2022		
	Gain/ Loss	Interest income	Interest expense	Gain/ Loss	Interest income	Interest expense
Financial assets and liabilities at fair value through the income statement						
Marketable securities	–8	5	–	3	1	–
Interest and currency risk derivatives[1,2]	1,165	–	–1,411	–4,816	–35	–1,470
Financial assets measured at amortized cost						
Cash and cash equivalents	–744	2,685	–	–179	1,042	–
Financial liabilities measured at amortized cost	–2,000	–	483	4,678	–	432
Impact on net financial items[7,8]	**–1,587**	**2,690**	**–928**	**–313**	**1,008**	**–1,038**

1 Accrued 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.

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 –58 M (–199) 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 144 M (–11) is related to the sale of customer-financing receivables and SEK 143 M (155) 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 15 M (–45).

» **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, income and expenses related to financial instruments recognized in net financial items, SEK –1,587 M (–313) 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 –238 M (–167) are not included in this table.

PARENT COMPANY AB VOLVO

Parent company AB Volvo

Corporate registration number 556012-5790.
The amounts within parentheses refer to the preceding year.

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.

During the year the parent company has invoiced a higher share of group common costs to group companies which has increased the net sales.

Income from investments in group companies include dividends amounting to SEK 6,897 M (5,177).

The carrying value of shares and participations in group companies amounted to SEK 71,885 M (70,987), of which SEK 70,872 M (70,022) 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 160,688 M (158,195).

Investments in joint ventures and associated companies amounted to SEK 8,946 (8,946), whereof SEK 8,938 M (8,938) belongs to companies which are accounted for in accordance to the equity method in the consolidated accounts. The equity portion of these companies amounted to SEK 8,529 M (10,986).

Financial net debt amounted to SEK 34,147M (22,213).

AB Volvo's risk capital (equity plus untaxed reserves) amounted to SEK 89,748 M (76,903) corresponding to 69% (70) of total assets.

Income statement			
SEK M	Note	**2023**	2022
Net sales	2	**1,260**	**258**
Cost of sales	2	–1,260	–258
Gross income		**–**	**–**
Administrative expenses	2, 3	–1,016	–1,469
Other operating income and expenses	4	74	–132
Operating income		**–942**	**–1,601**
Income from investments in group companies	5	5,617	5,177
Income from investments in joint ventures and associated companies	6	76	34
Income from other investments	7	–1	–
Interest income and similar credits		38	52
Interest expenses and similar charges	8	–1,250	–750
Other financial income and expenses	9	–134	107
Income after financial items		**3,404**	**3,019**
Appropriations	10	48,763	26,798
Income taxes	11	–7,353	–5,188
Income for the period		**44,814**	**24,629**

Other comprehensive income		
Income for the period	**44,814**	**24,629**
Other comprehensive income, net of income taxes	**–**	**–**
Total comprehensive income for the period	**44,814**	**24,629**

Balance sheet			
SEK M	Note	**Dec 31, 2023**	Dec 31, 2022
Assets			
Non-current assets			
Tangible assets		7	7
Financial assets			
Shares and participations in group companies	12	71,885	70,987
Investments in joint ventures and associated companies	12	8,946	8,946
Other shares and participations	12	2	2
Other non-current receivables	13	690	593
Deferred tax assets	11	205	217
Total non-current assets		**81,735**	**80,752**
Current assets			
Current receivables			
Receivables group companies		47,762	29,316
Other receivables	14	305	251
Total current assets		**48,067**	**29,567**
Total assets		**129,802**	**110,319**
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		30,645	34,485
Income for the period		44,814	24,629
Total equity		**85,748**	**69,403**
Untaxed reserves	15	**4,000**	**7,500**
Provisions			
Provisions for post-employment benefits	16	251	259
Other provisions		–	–
Total provisions		**251**	**259**
Non-current liabilities	17		
Liabilities to group companies		690	400
Other liabilities		6	5
Total non-current liabilities		**696**	**405**
Current liabilities			
Trade payables		201	195
Other liabilities to group companies		35,889	28,819
Tax liabilities		2,254	3,235
Other liabilities	18	763	503
Total current liabilities		**39,107**	**32,752**
Total equity and liabilities		**129,802**	**110,319**

Cash flow statement			
SEK M	Note	**2023**	2022
Operating activities			
Operating income		–942	–1,601
Depreciation and amortization		–	–
Other non-cash items	20	–67	90
Total change in working capital whereof		–2,057	1,093
Change in accounts receivables		*–14*	*–3*
Change in trade payables		*18*	*71*
Other changes in working capital		*–2,061*	*1,025*
Interest and similar items received		35	50
Interest and similar items paid		–1,258	–749
Other financial items		–120	–37
Dividends received from group companies	5	6,967	37,380
Dividends received from joint ventures and associated companies	6	76	34
Group contributions received		24,298	15,813
Income taxes paid		–8,323	–3,764
Cash-flow from operating activities		**18,609**	**48,309**
Investing activities			
Disposals of in-/tangible assets		–	–
Investments of shares in group companies	12	–2,230	–1,604
Divestments of shares in group companies	5, 12	53	–
Investments of shares in non-group companies	12	–1	–1
Interest-bearing receivables	13	–94	–105
Cash-flow after net investments		**16,337**	**46,599**
Financing activities			
New borrowings	20	17,721	250
Repayment of borrowings	20	–5,589	–20,414
Dividends to owners AB Volvo		–28,468	–26,435
Other		–1	–
Change in cash and cash equivalents		**–**	**–**
Cash and cash equivalents, beginning of year		–	**–**
Cash and cash equivalents, end of year		–	**–**

Changes in equity

SEK M	Restricted equity		Unrestricted equity			
	Share capital	Statutory reserve	Share premium reserve	Retained earnings	Total	Total equity
Balance at December 31, 2021	**2,562**	**7,337**	**390**	**60,921**	**61,311**	**71,210**
Income for the period	–	–	–	24,629	24,629	24,629
Other comprehensive income						
Other comprehensive income for the period	–	–	–	–	–	–
Total comprehensive income for the period	**–**	**–**	**–**	**24,629**	**24,629**	**24,629**
Transactions with shareholders						
Dividends to owners of AB Volvo	–	–	–	–26,435	–26,435	–26,435
Share based payments	–	–	–	–1	–1	–1
Transactions with shareholders	–	–	–	–26,436	–26,436	–26,436
Balance at December 31, 2022	**2,562**	**7,337**	**390**	**59,114**	**59,504**	**69,403**
Income for the period	–	–	–	44,814	44,814	44,814
Other comprehensive income						
Other comprehensive income for the period	–	–	–	–	–	–
Total comprehensive income for the period	**–**	**–**	**–**	**44,814**	**44,814**	**44,814**
Transactions with shareholders						
Dividends to owners of AB Volvo	–	–	–	–28,468	–28,468	–28,468
Share based payments	–	–	–	–1	–1	–1
Transactions with shareholders	–	–	–	–28,469	–28,469	–28,469
Balance at December 31, 2023	**2,562**	**7,337**	**390**	**75,459**	**75,849**	**85,748**

» **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.

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.

As from January 1, 2023, the Volvo Group applies the amendments to IAS 12 Income taxes related to the international tax reform - Pillar Two Model Rules. The amendments include disclosure requirement of the tax exposure and an exception to recognize and disclose deferred taxes related to Pillar Two Model Rules.

There are no announced changes in RFR 2 applicable to the fiscal year beginning January 1, 2024 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 1,260 M (258) pertain mainly to revenues from sale of services to group companies SEK 1,246 M (242). 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 542 M (422).

3 Administrative expenses

Personnel

Wages, salaries and other remunerations amounted to SEK 597 M (488), social costs to SEK 179 M (140) and pension costs to SEK 82 M (61). Pension cost of SEK 8 M (12) pertained to Board Members and the President. The parent company has outstanding pension obligations of SEK 3 M (7) to these individuals.

The number of employees at year-end was 321 (279).

» **Read more in Volvo Group Note 27** Personnel about the average number of employees, wages, salaries and other remunerations including incentive program as well as Board members and senior executives by gender.

3:1

Fees to the auditors	2023	2022
Deloitte AB		
– Audit fees	29	27
– Audit-related fees	2	1
Total	**31**	**28**

» **Read more in Volvo Group Note 28** Fees to the Auditors for a description of the different categories of fees.

4 Other operating income and expenses

4:1

Other operating income and expenses	2023	2022
Royalties received	–	41
Write-offs of receivables	–	–184
Realized and unrealized exchange rates gains and losses	94	30
Donations and grants	–14	–17
Other income and expenses	–6	–2
I/S **Total**	**74**	**–132**

5 Income from investments in group companies

5:1

Income from investments in group companies	2023	2022
Dividends received		
VNA Holding Inc., USA	4,124	3,814
Volvo China Investment Co. Ltd, China	2,303	1,099
Volvo Automotive Finance (China) Limited, China	120	–
Volvo Danmark A/S, Denmark	103	63
Volvo Group UK Ltd., Great Britain	92	70
Volvo Norge A/S, Norway	65	52
Volvo Malaysia Sdn Bhd, Malaysia	58	62
Volvo Group Italia Spa, Italy	32	–
VFS Servizi Finanziari Spa, Italy	–	17
Subtotal	**6,897**	**5,177**
Impairment of shares		
Volvo Investment AB, Sweden	–1,380	–
Subtotal	**–1,380**	**–**
Reversal impairment of shares		
Volvo Group Italia Spa, Italy	225	–
Subtotal	**225**	**–**
Gains/losses from divestment of shares		
UD Trucks Corporation, Japan	49	–
Stokov Machinery JSC, Russia	–173	–
Subtotal	**–124**	**–**
I/S **Income from investments in group companies**	**5,617**	**5,177**

6 Income from investments in joint ventures and associated companies

Income from investments in joint ventures and associated companies includes dividend from VE Commercial Vehicles, Ltd. by SEK 76 M (34).

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 1,250 M (750) include interest of SEK 1,250 M (750) to group companies.

9 Other financial income and expenses

Other financial income and expenses include exchange rate gains and losses received by SEK 126 M (128) and costs for credit rating and stock exchange listing cost by SEK 25 M (18).

10 Appropriations

Appropriations include a net of group contributions of SEK 45,263 M (24,298) and reversal of tax allocation reserve of SEK 3,500 M (2,500).

11 Income taxes

Income taxes were distributed as follow:

11:1

Income taxes	2023	2022
Current taxes relating to the period	–9,778	–5,163
Adjustment of current taxes for prior period	2,437	–
Deferred taxes	–12	–25
I/S **Total income taxes**	**–7,353**	**–5,188**

The main reasons for the difference between the corporate income tax of 20.6% and the income tax for the period are disclosed in **table 11:2**.

Deferred taxes relate to estimated tax on temporary differences. The revaluation of deferred taxes is based on the tax rate that is expected for the period when the asset is realized or when the liability is adjusted.

The Volvo Group is within the scope of OECD Pillar Two Model Rules, an international tax reform. Pillar Two Legislation has been enacted in Sweden and will start as from financial year 2024.

» **Read more in Volvo Group Note 10** Income taxes about Pillar Two.

11:2

Income taxes for the period	2023	2022
Income before taxes	52,167	29,817
Income tax according to applicable tax rate	–10,746	–6,142
Capital gains/losses	–25	–
Non-taxable dividends	1,436	1,073
Other non-deductible expenses	–309	–29
Other non-taxable income	50	–
Withholding tax	–128	–58
Adjustment of current taxes for prior period	2,437	–
Other taxable not recorded income	–43	–31
Remeasurement of deferred tax assets	5	9
Current tax on standardized method	–30	–10
Income taxes for the period	**–7,353**	**–5,188**

11:3

Specification of deferred tax assets	Dec 31, 2023	Dec 31, 2022
Provisions for post-employment benefits	205	217
B/S **Deferred tax assets**	**205**	**217**

12 Investments in shares and participations

Shares and participations in group companies
During 2023 impairment of shares in Volvo Investment AB has been made by SEK 1,380 M. The Russian entity has been divested, which decreased the carrying value by SEK 177 M. Shareholder´s contribution has been provided to VFS Latvia SIA by SEK 90 M, to Volvo Autonomous Solutions AB by SEK 1,100 M, to Volvo Group Mexico SA by SEK 543 M and to Volvo Treasury AB by SEK 497 M.

During 2022 investment in VFS Renting Sociedade Unipessoal Lda. was made by SEK 3 M and in Rental Business Solution S.R.L by SEK 2 M. Shareholder´s contribution was provided to Volvo Treasury AB by SEK 1,700 M, to Volvo Autonomous Solutions AB by SEK 1,240 M, to Volvo Group Venture Capital AB by SEK 350 M and to VFS Renting Sociedade Unipessoal Lda. by SEK 9 M.

Investments in joint ventures and associated companies
No transactions have affected the value of investment in joint ventures and associated companies during 2023 and 2022.

Other shares and participations
No significant transactions have affected the value of other shares and participations during 2023 and 2022.

12:1

Changes in AB Volvo´s holding of shares and participations	Group companies		Joint ventures and associated companies		Other shares and participations	
	2023	2022	**2023**	2022	**2023**	2022
Opening balance	**70,987**	**67,683**	**8,946**	**8,946**	**2**	**1**
Acquisitions/New issue of shares	–	5	–	–	–	–
Divestments/Redemption of shares	–177	–	–	–	–	–
Shareholder’s contribution	2,230	3,299	–	–	1	1
Impairment of shares and participations	–1,380	–	–	–	–1	–
Reversal impairment of shares and participations	225	–	–	–	–	–
B/S **Carrying value, Dec 31**	**71,885**	**70,987**	**8,946**	**8,946**	**2**	**2**

12:2

Holding of shares in joint ventures, associated companies and other shares and participations	Registration number	**Dec 31, 2023** Percentage holding[1]	**Dec 31, 2023** Carrying value[2]	Dec 31, 2022 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	–		10	10
Total carrying value, joint ventures, associated companies and other shares and participations			**8,948**	**8,948**

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, 289 (290) legal entities. The direct owned entities are listed in below table.

12:3

Holding of shares in group companies	Registration number	**Dec 31, 2023** Percentage holding[1]	**Dec 31, 2023** Carrying value[2]	Dec 31, 2022 Carrying value[2]
Volvo Lastvagnar AB, Sweden	556013-9700	100	8,711	8,711
Volvo Business Services International AB, Sweden	556539-9853	100	8,134	8,134
Volvo Bussar AB, Sweden	556197-3826	100	3,033	3,033
Volvo Construction Equipment AB, Sweden	556021-9338	100	8,076	8,076
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	15,241	14,744
Volvo Investment AB, Sweden	556519-4494	100	2,888	4,268
Volvo Lastvagnar Sverige AB, Sweden	556531-8572	100	2,355	2,355
Volvo Fuel Cell Holding AB, Sweden	559275-6729	100	3,000	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	1,086	543
Volvo Group Venture Capital AB, Sweden	556542-4370	100	719	719
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
Stokov Machinery JSC, Russia	–	–	–	177
Volvo Group Italia Spa, Italy[5]	–	65	559	335
Volvo Logistics AB, Sweden	556197-9732	100	385	385
VFS Latvia SIA, Latvia	–	100	99	9
VFS Int Romania Leasing Operational, Romania	–	100	2	2
Volvo Energy AB, Sweden	559285-4169	100	200	200
VFS Renting Sociedade Unipessoal Lda., Portugal	–	100	12	12
Rental Business Solution S.R.L., Italy[4]	–	49	2	2
Volvo Autonomous Solutions AB, Sweden	559285-4219	100	2,340	1,240
Other holdings	–		–	–
Total carrying value group companies[6]			**71,885**	**70,987**

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 Renault Trucks (SAS), Volvo Lastvagnar AB, Volvo Bussar AB, AB Volvo Penta and AB Volvo is 100%.
6 AB Volvo´s share of shareholder´s equity in subsidiaries (including equity in untaxed reserves) was SEK 160,688 M (158,195).

13 Other non-current receivables

13:1

	Dec 31, 2023	Dec 31, 2022
Other non-interest bearing receivables	–	193
Other interest bearing receivables	690	400
B/S Total non-current receivables	**690**	**593**

14 Other receivables

14:1

	Dec 31, 2023	Dec 31, 2022
Accounts receivable	7	6
Prepaid expenses and accrued income	210	172
Other receivables	88	73
B/S Total other receivables	**305**	**251**

Prepaid expenses and accrued income include an amount of SEK 176 M (144) and refers to an earnout connected to the divestment of UD Trucks which was completed in 2021.

There is no valuation allowance for doubtful receivables at the end of the year. Fair value is not considered to differ from carrying value.

15 Untaxed reserves

Untaxed reserves include tax allocation reserve of SEK 4,000 M (7,500).

16 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 2.85% (2.85) for the ITP2 plan and 1% (0.2) 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.

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.

16:1

Obligations in defined benefit plans	Funded	Unfunded	Total
Obligations opening balance 2022	**759**	**275**	**1,034**
Service costs	134	–4	130
Interest costs	24	1	25
Benefits paid	–28	–13	–41
Obligations, Dec 31, 2022	**889**	**259**	**1,148**
Service costs	107	2	109
Interest costs	28	3	31
Benefits paid	–29	–14	–43
Obligations, Dec 31, 2023	**995**	**251**	**1,245**

16:2

Fair value of plan assets in funded plans	
Plan assets opening balance 2022	**1,210**
Actual return on plan assets	–130
Contributions and compensation to/from the fund	–
Plan assets, December 31, 2022	**1,080**
Actual return on plan assets	65
Contributions and compensation to/from the fund	–
Plan assets, December 31, 2023	**1,145**

16:3

Provisions for post-employment benefits	Dec 31, 2023	Dec 31, 2022
Obligations[1]	–1,245	–1,148
Fair value of plan assets	1,145	1,080
Surplus (+) / deficit (–)	**–100**	**–68**
Limitation on assets in accordance with RFR2 (when plan assets exceed corresponding obligations)	–151	–191
B/S **Net provisions for post-employment benefits[2]**	**–251**	**–259**

1 The ITP2 obligations amount to SEK –980 M (–874).
2 ITP2 obligations, net, amount to SEK – M (–).

16:4

Pension costs	2023	2022
Service costs	109	130
Interest costs[1]	31	25
Interest income[1]	–104	–132
Pension costs for defined benefit plans	**36**	**23**
Pension costs for defined contribution plans	**22**	**32**
Special payroll tax/yield tax[2]	22	6
Cost for credit insurance FPG	2	–
Total costs for the period	**82**	**61**

1 Interest income, net of SEK 28 M (24) is included in financial items.
2 Special payroll tax/yield tax are calculated according to Swedish Tax law and accrued for in current liabilities.

17 Non-current liabilities

17:1

Maturity	
2025–2029	692
2030 or later	4
B/S **Total non-current liabilities**	**696**

18 Other liabilities

18:1

	Dec 31, 2023	Dec 31, 2022
VAT	84	–
Wages, salaries and withholding taxes	427	327
Accrued expenses and prepaid income	244	169
Other liabilities	8	7
B/S **Total other liabilities**	**763**	**503**

No collateral is provided for current liabilities.

19 Contingent liabilities

Contingent liabilities as of December 31, 2023, amounted to SEK 365,193 M (332,755) of which SEK 365,154 M (332,694) pertained to group companies.

Credit guarantees are included to an amount corresponding to the credit limits. Credit guarantees amounted to SEK 348,080 M (317,482). The total amount pertained to group companies.

The utilized portion at year-end amounted to SEK 205,255 M (187,824), of which SEK 205,236 M (187,807) pertained to group companies.

20 Cash flow

20:1

Other non-cash items	2023	2022
Transfer price adjustments	17	–35
Realized currency effect related to dividends	–70	152
Other changes	–14	–27
Total other non-cash items	**–67**	**90**

20:2

Change in loans	Non-current liabilities to group companies	Current liabilities to group companies
	Loan Volvo Treasury AB	Loan/Cashpool Volvo Treasury AB
December 31, 2021	**5,739**	**37,013**
Cash flows new borrowings	250	–
Cash flows repayments of borrowing	–	–20,414
Reclassification	–5,589	5,589
Other	–	–144
December 31, 2022	**400**	**22,044**
Cash flows new borrowings	290	17,432
Cash flows repayments of borrowings	–	–5,589
Other	–	13
December 31, 2023	**690**	**33,900**

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 disclosures relevant for sustainability are found in other parts of the Annual Report and included by reference.

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 2021. GRI is complemented by other relevant frameworks where stated, including the recommendations from the Task Force on Climate related Financial Disclosures (TCFD).

Topics related to this report
Complementary information is available on volvogroup.com/report2023. This includes:
- GRI index 2023
- TCFD index
- SASB index, Industrial Goods and Machinery
- Locations of major operations
- Membership in associations
- Code of Conduct and related policies

Impacts, stakeholders and material topics

Business context
The Volvo Group is headquartered in Gothenburg, Sweden, employs 104,000 people and serves customers in almost 190 markets. In 2023, net sales amounted to SEK 553 billion (EUR 48 billion).

Customers and end-users
The Volvo Group's Business Areas support customers in the main segments of Trucks, Buses, Construction Equipment, Marine drive systems and industrial motors. Customers and end users are active in a wide range of industries. Direct customers are found in the key industries:

- Road freight transport: Typically operating smaller or larger transport vehicles. Main customers are transport buyers and freight companies.
- Construction and infrastructure sectors: Operating for example construction sites, quarries, and mining sites.
- Public transportation industry: Municipalities and passenger transport companies and operating machinery fleets, public transportation, or individual vehicles.

Products, services and markets
We provide a range of products and services to customer in almost 190 markets. Our product offering includes new trucks, buses, machines and engines as well as sales of used trucks, buses, machines, trailers, superstructures and special vehicles. Services include sale of spare parts, maintenance services, repairs, extended coverage, connectivity solutions and other aftermarket products. Services also include sales in Financial Services related to finance lease, installment credits and operating leases.

An overview of products delivered over 11 years are available on page 226.

The Volvo Group's main brands are Volvo, Volvo Penta, Rokbak, Renault Trucks, Prevost, Nova Bus, Mack and Arquus. We also operate in joint ventures and partnerships. Our main joint ventures with the SDLG, Milence, Eicher, Dongfeng and cellcentric brands.

The Group's main operating segments are presented on pages 7 and 68–79. Further information and of these operating segments and distribution of sales across markets are found on the following pages:

- Trucks, page 68
- Construction equipment, page 72
- Buses, page 74
- Volvo Penta, page 76
- Financial Services, page 78

The Group's business model is further explained on page 32.

Operations and supply chain
Volvo Group operates manufacturing and assembly plants in 18 countries on 5 continents. The most significant manufacturing operations are located in Sweden, the US, Brazil, India, France and China. Our own operations consist of around 60 larger manufacturing plants across the world, see further details on volvogroup.com. In addition, Volvo Group also operates logistics centers and R&D facilities and distribution hubs. In total, the Volvo Group's sites span over 500 individual addresses across the world.

The Group also relies on global and local supply chains to deliver components, parts and complete services and systems. Approximately 12,000 supply partners support the Volvo Group's series production and in total the Group's supply network is made up of more than 50,000 supplier locations globally. Important supply chains related to sustainability impacts include materials such as steel, aluminum and polymers, and components such as batteries and electronics.

The manufacturing operations also depend on assembly partners and suppliers who sub-assemble parts and systems. In addition, the Volvo Group utilize truck assembly partners and bus body builders to carry out certain assembly processes for the final product.

Strategic framework for sustainable development
The Volvo Group's framework to drive sustainability and performance revolves around people, climate and resources, and is aligned with the Sustainable Development Goals and Targets from the United Nations. Our sustainability priorities have been established 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.

As described in the CEO letter on pages 8–11 and further outlined in the Group's strategy section and explained in detail in these sustainability statements, the Volvo Group is determined to drive the transition to sustainable transport and infrastructure solutions.

Materiality
The Volvo Group's strategy responds to a range of sustainability-related issues. This means considering the impact on the world around us as an integral part of the long-term success of our business. We continuously assess impacts and associated risks and opportunities for each sustainability topic in this report. As part of this, we have assessed scope and scale for relevant sustainability impacts, and possibility to remediate negative impacts. The overall result of the materiality assessment has been used to determine the report content. There are no significant changes in the report content between 2022 and 2023.

Risks and mitigation
Risk are gathered from the Group's Enterprise Risk process. The results are used as an overall indicator of materiality.

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 82–88. These Sustainability notes include more details on mitigation activities and complementary information also where a specific topic has not yet been qualified as a principal Group-wide risk, but have been identified as material from other perspectives.

Stakeholder feedback
As input to the materiality review, we use internal and external knowledge and experience from e.g. life-cycle assessments and GHG emissions inventory, external risk mapping on environmental and social impacts, human rights reviews, supplier self-assessment and audit finding.

Stakeholder input has been gathered from affected stakeholders as well as users of the Volvo Group's report.

The main affected stakeholders identified are direct employees, suppliers and people working in the value chain. Employee input has been collected from on-site audits and formal dialogues with employee representatives. An open survey focusing on sustainability topics was also made available to some employees during the year to track anonymized feedback on material issues. Input from value chain workers is collected during on-site audits at suppliers.

Affected stakeholder perspectives are considered in strategy updates. The approach is to have an open dialogue with relevant stakeholders, prior to e.g., organization changes or establishment of new sites, to ensure relevant views are considered.

We also engage in dialogue with stakeholders using the information in the Volvo Group's sustainability report in their decision-making, such as customers, investors and regulators.

Customer feedback has been gathered via the Volvo Group's Business Areas who respond to a range of sustainability-related matters. Business Areas also follow up specific sustainability issues with selected accounts. In addition, questionnaires from customers to Volvo Group via third parties have become more widely used. This type of feedback is used as relevant proxy for customer requirements in our main sectors.

Shareholder and investor feedback has been gathered from direct dialogues, and events coordinated by the Group's Investor Relations function. During the year, many dialogues have focused directly on sustainability impacts. We have also reviewed external reports on the Group's and peers' sustainability performance as a proxy for the expectations from the perspective of report users. Such reports include risk assessments, comparison with industry peers and materiality heat maps.

Supply partners' feedback is sought in direct contact via Volvo Group's procurement staff, this can include assessments of sustainability risks conducted by Volvo Group, but also expectations from suppliers on Volvo Group. Conferences and summits with supply partners are also organized to formalize joint strategies and ways of working.

Other report-users and stakeholders in civil society are often represented by authorities and other organizations and to some extent media. Topic-specific feedback from such stakeholders and individuals is also gathered by functions within Group, Divisions and Business Areas to inform a more detailed management approach to our material sustainability topics, as explained in topic-specific disclosures on pages 166–192. This includes input through projects, collaboration, memberships of associations and surveillance of public policy development.

The most material matters are reported in accordance with the GRI Standards, while some are more briefly described. See GRI-index on volvogroup.com/report2023 for details.

Report content

The Volvo Group applies GRI's reporting principles on stakeholder inclusiveness, sustainability context, materiality and completeness and works to implement the recommendations of the TCFD. Sustainability topics have been structured in six main areas with a number of sub-topics – Climate, Environment, Employees and workforce, Customer health and safety, Human rights across the value chain, and Business ethics and compliance, reflecting our priorities and ways of working.

Area	Comment on content, boundaries, and impacts
Climate	Climate-related impacts, risks and opportunities are deemed to be the most important environmental matter. The transition to a low carbon economy relies on reduced environmental impacts from customer use phase, production and supply chain.
Environment	We work to maintain high environmental performance in a range of areas. These include less material or indirect impacts related to pollution, resource use, water and biodiversity.
Employees and workforce	A number of employee-related topics are key to deliver on the Group's strategy, mission and vision, to create engaging work environments and to avoid negative impacts. This includes health and safety, diversity and equal opportunities, social dialogue for better workplaces, and continued competency development.
Customer health and safety	Safety is a key matter also for customers and end-users. In our work we focus on product safety via our quality management and traffic safety efforts seeking to further improve safety performance during the use phase.
Human rights across the value chain	We are committed to respecting internationally recognized human rights. Human rights impacts may materialize not only within our own organization, but also through our business relationships and in the value chain. This includes workers in the value chain and impacts in the use phase of our products.
Business ethics and compliance	We believe in treating others with respect and in fair competition, because in transparent markets without corruption, the best solutions win and companies dare to invest for the future. This includes compliance with laws and regulations, as well as the standards and ambitions that we set for our work.

Climate

GOVERNANCE AND STRATEGY

The Volvo Group supports the implementation of the recommendation of the Task Force on Climate-Related Financial Disclosures (TCFD). 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 the recommendations of the TCFD and international reporting standards being developed in this area. Activities are gradually being initiated to further develop these disclosures.

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. To this end, the Group believes the most meaningful effort it can make in the global climate transition is to drive decarbonization of the transport- and other sectors of society where the Group is active.

The Group's longer-term goal is to help customers reach net-zero greenhouse gas (GHG) emissions by 2050. Given that the average lifetime of the Group's products is approximately ten years, the Group is targeting net-zero value chain emissions by 2040. The Group has committed to the SBTi Business Ambition for 1.5 °C and has set science-based targets in relation to its emissions in pursuit of its net-zero targets. The Group has also set milestone targets along the way. Please see pages 172–174 for details on the 2030 GHG targets and other Group metrics applied.

The ambition to drive decarbonization affects all aspects of Group operations, including sourcing, logistics, research and product development, production, sales and cooperations. A key driver for achieving targets is to put electric trucks, buses, construction equipment and drivelines in use, but the Group believes transition will also include different technologies that can be powered by renewable energy. These solutions can be battery-electric, fuel cell-electric or vehicles propelled with energy sources with low GHG intensity for combustion engine drivelines. The picture on the next page illustrates a possible transition path for these driveline technologies.

The Group expects electrification and other transitional activities towards decarbonization to happen segment by segment, market by market and region by region. The possibility to successfully introduce transitionary products and services will depend on the competitiveness of the Group's offer, but also on several external factors, such as customers' climate ambitions, regulatory developments, public subsidies to different sectors of the economy and availability of low-carbon energy. It is currently not possible to make reliable predictions of transition pace or technology preferences in the longer term in a particular market or region, however, the Group aims to drive transformation in business segments where it is active, regardless of whether it will happen at a faster or slower pace than expected. Overall, significant effects on GHG emissions of fully electric vehicles are expected during the second half of this decade.

As part of the Group's science-based targets and business plan, we advocate for a transition in line with the Paris Agreement, read more in the section Public Policy on page 192.

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 197 in the Corporate Governance Report.

A number of cross-functional working groups consolidate and prepare information for consideration in strategic decision-making at the Board of Directors and Executive Board level. Groups with representation from executive management meet regularly during the year, focusing on the Group's climate goals and on sustainability disclosures. The Volvo Group follows up on revenues and investments related to fully electric vehicles monthly, and every quarter the Executive Board reviews the Group's progress on science-based targets. The Executive Board reports this progress to the AB Volvo Board regularly.

Remuneration

A key driver for achieving our science-based targets is to put electric trucks, buses, construction equipment and drivelines in use. Sales volume of fully electric vehicles and machines has therefore been included in the Volvo Group's short-term incentive program to drive a rapid climate transition. More information can be found in the Remuneration report, which is made available on volvogroup.com for the Annual General Meeting each year.

Climate-related risks

The transition of the transport sector offers significant challenges for the Volvo Group. Climate-related risks 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. The Volvo Group is exposed to a number of climate-related risks, as set out below.

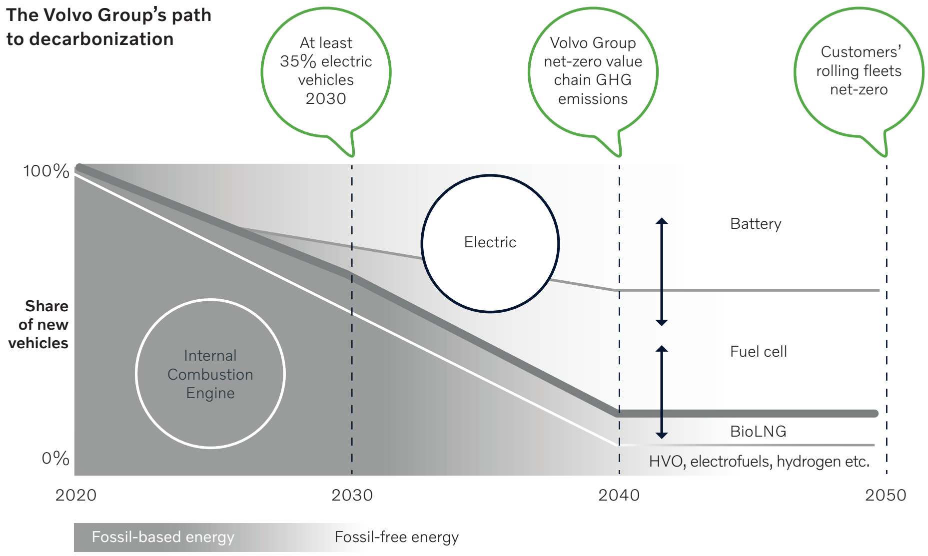
A normative scenario analysis was conducted in the establishment of the Group's science-based targets. As part of establishing strategies and plans in line with the Group's net-zero commitment, analyses have been performed to understand the level of emission reductions needed to follow the pathways aligned with the ambitions in the Paris Agreement. The analyses provide input 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.

Transitional risks

A number of climate-related transitional risks have been identified, which are incorporated in 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 82–88 under the following risk categories:

- Regulations, page 83
- Transformation and technology, page 84
- New business models, page 84
- Suppliers and materials, page 85

The Volvo Group's path to decarbonization



Our approach to decarbonizing the value chain in line with the Paris Agreement includes our customers' use phase. This is where approximately 95% of product lifecycle emissions are accounted for. Our roadmap includes battery-electric, fuel cell-electric and internal combustion engine technology running on fossil free fuels. The black vertical arrows illustrate an uncertainty in future preferences and viability of propulsion alternatives. In addition to the technology development and Volvo Group offer, the needed decarbonization of the energy system, which is one of the more important dependencies for the transformation of our industries, is illustrated in the background.

Metrics and targets

This section summarizes the main relevant climate related metrics and targets for the Volvo Group. More context and details are found in additional parts of this reports according to GRI standards and reporting on the EU Taxonomy regulation.

Greenhouse gas emissions, scope 3
A key element to achieve the ambition of net-zero greenhouse gas emissions by 2040, is to develop products that help reduce our customers' emissions – as over 95% of life-cycle emissions occur during the use of sold products. Developing products and solutions that reduce the GHG footprint of our customers is a significant priority in the Volvo Group's strategy, and science-based targets have been set per operating segment.

Targets *(relative to baseline 2019)*
- Trucks: reduce emissions per vehicle-km by 40% by 2030
- Buses: reduce emissions per vehicle-km by 40% by 2030
- Construction equipment: reduce absolute emissions 30% by 2030
- Volvo Penta: reduce absolute emissions by 37.5% by 2034

» **Read more** Targets and results 2023, page 171

Greenhouse gas emissions, Scope 1 and 2
Emissions from own operations and from purchased energy make up a relatively low proportion of the total life-cycle emissions – less than 1% – yet they are important due to the direct operational control. Targets are set to increase energy efficiency in operations and to reduce the carbon intensity of the energy used.

Targets *(relative to baseline 2019)*
- Own operations: reduce absolute GHG emission by 50% by 2030

» **Read more** Targets and results 2023, page 171

Electric vehicle sales
The Volvo Group is introducing electric and other solutions helping to decarbonize customers' operations. The ambition is illustrated above.

Targets
- Increase fully electric sales to at least 35% by 2030

» **Read more** Volvo Group strategy, page 24

Other climate and environmental metrics
A range of environmental and efficiency metrics are followed up as part of the Group's operational performance. These include energy conservation, waste and water.

» **Read more.** Detailed environmental metrics, pages 172-174

Capital deployment
Share of research and development to low-carbon products and services.

» **Read more** R&D metrics, page 169

Internal carbon pricing
The Volvo Group is exploring different application areas and approaches to internal carbon pricing with a number of pilot trials to determine how internal carbon pricing can be used in a suitable way.

Physical risks

Physical risks, including climate risks, in relation to main sites where the Group is operating are reviewed on a regular basis as part of the Group's property management and insurance programs. In addition, we have analyzed climate hazards and related risks for each of the Group's significant locations based on different representative concentration pathway (RCP) scenarios* developed by the IPCC. In this work, RCP 2.6, RCP 4.5 and RCP 8.5 were used.

Different physical risks are an inherent part of operations at all Group sites. Some of the locations may also be subject to increased risks from physical weather events in the longer term, depending e.g. on climate developments. The Group intends to continue monitoring these risks, and take actions to seek to mitigate them when considered to be appropriate. Reporting on physical risks will also be expanded, if such risks were to emerge as material from a Group perspective in the future.

* RCP Scenarios are a set of different scenarios developed by the Intergovernmental Panel on Climate Change to model possible development of the earth's climate based on greenhouse gas concentrations in the atmosphere. RCP 2.6 is a lower emission scenario and RCP 8.5 the higher scenario. In our work to assess transition risks and opportunities, we are seeking to fulfil the highest ambitions of the Paris Climate agreement, which is approximately in line with RCP 1.9.

Climate-related 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. We aim to continue to providing high quality products and services to our customers, while at the same time enabling our customers to reduce their environmental impact. To this end, the Volvo Group is broadening its offer of products that can be powered by renewable energy through the introduction of battery-electric vehicles as described on page 24. 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 and continues to offer products that can be powered by renewable liquid and gaseous fuels like HVO (hydrogenated vegetable oil) and biogas. 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 costs are in general reduced. At the same time, the capital cost increases. This rebalancing can represent an increasingly more attractive use case for fully electric vehicles in several segments. More and more companies, with transport emissions making up a significant part of their total GHG emissions, are establishing net-zero commitment and science-based targets. This presents an opportunity for the Volvo Group in providing solutions that enable the reduction of such emissions (read more on page 23). The Volvo Group estimates that there is a potential to increase revenues by over 50% over the lifecycle when comparing an electric vehicle to a conventional version. This is primarily based on the higher sales value of an electric vehicle but also on increased revenues from autonomous solutions, new digital services and services connected energy solutions. Other factors expected to drive growth are increased service contract penetration and an increase in the duration of the contracts.

These opportunities are associated with investment costs, both in R&D as well as property, plant and equipment in the short to medium term. Volvo Group also engages in partnerships and collaboration with other companies, whose core competencies are needed to develop new technology for transport and infrastructure solutions.

In relation to suppliers and new materials, the Volvo Group's approach is to collaborate in strategic partnerships to secure deliveries and to be able to use different types of materials and technologies. We have also engaged in joint ventures and taken steps for scalable manufacturing of components and solutions needed for the transition, most notably in battery assembly and manufacturing.

External dependencies and collaborations

The transition to net-zero emissions in the transport sector depends on a variety of factors, but we believe the main long-term solutions are electrification and development of other zero emission technologies. Electrification depends not only on the product and service offering but also 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 also dependent on factors such as availability of the necessary infrastructure and energy, governmental incentives for green technologies and the price of fossil fuel.

Recognizing the need for collaboration on a system-wide basis, the Volvo Group has taken part in a number of multi-stakeholder initiatives. One such initiative is the First Movers' Coalition, which assembles cross-industry purchasing commitments to drive development of low-carbon technologies. The Volvo Group is also investing in joint ventures and strategic partnerships in adjoining sectors, such as energy, steel, charging infrastructure and energy storage, which seek to develop, or facilitate the use of, transitionary technologies and products. Read more about such partnerships on page 27.

Risk management

In accordance with the decentralized Volvo Group governance model, each Business Area and Truck Division is accountable for its own risk management. 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, including climate and other sustainability related risks.

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. See page 82–88 for more information.

In addition to the ERM process, climate risks are also considered and managed in other Group processes, such as the scenario analysis work (see above) and in the business continuity and risk mitigation planning for the Group's operational sites.

Financial planning

The Volvo Group's investment plan includes a technology roadmap to increase zero-emission vehicles and low-emission vehicles that can enable net-zero transport solutions. These include solutions based on electric and renewable liquid and gaseous fuels.

Investments in property, plant and equipment will increase in connection with the Group building up capacity for the above activities. However, thanks to the Group's modular product architecture CAST (read more on page 26) both electric trucks and trucks with combustion engines can be produced on the same assembly lines, thus limiting the investments needed for this transition of the industrial system.

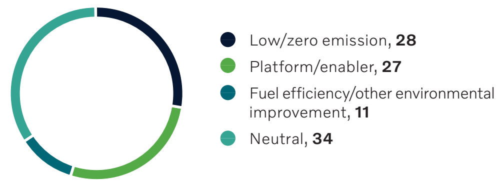
Part of the investments in R&D, as well as in property plant and equipment, is directly invested in the Group's current industrial system and in tools at suppliers. Beyond this, the Volvo Group is collaborating in joint ventures and strategic partnerships where additional significant investments are made.

DISCLOSURES ON RESEARCH AND DEVELOPMENT INVESTMENTS

The Volvo Group's total investments in R&D, excluding the effects from the net of capitalized and amortized R&D, amounted to SEK 28.7 billion. The Group's R&D project portfolio has been categorized into four main categories to provide a more transparent overview of the Group's R&D investments during the year. The classification of R&D expenses in this section is based on a Group internal categorization of investments. Hence it does not align directly with the EU Taxonomy or other external standard.

- **Low- and zero-emission projects** – directly associated with products with low or zero tailpipe emissions, following the definitions of the substantial contribution criteria in the EU Taxonomy.
- **Platform and enabler projects** – associated with the development of technology common to both conventional products as well as low or zero emission vehicles based on the Group's modular architecture (CAST). This includes development of technologies such as common electrical architecture, cabs, aerodynamics, connectivity and safety features.
- **Fuel efficiency and other environmental improvement projects** – associated with the improvement of the environmental performance of internal combustion engine vehicles, e.g. fuel efficiency, emissions reduction, bio-LNG and other low-carbon fuel projects. These investments are important for the transition to lower GHG emissions in addition to electrification.
- **Neutral projects** – all the remaining projects. Some of these investments may result in certain environmental benefits, but they have not been assessed as significant, for example a quality update to an existing asset or product.

R&D expenses, %



In 2023, approximately 28% of the Volvo Group's gross R&D expenses[1] were considered low- and zero-emission, an additional 38% were related to fuel efficiency and pollution prevention, or projects in shared technology projects.

1 Excluding effects from capitalization and amortization.

The Volvo Group's emissions metrics, targets and disclosures are based on the Greenhouse Gas (GHG) Protocol corporate standard. Emissions from use of sold products – scope 3.11 of the GHG protocol – are identified as the main 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.

In addition to product development and technology roadmaps that are compatible with a low carbon economy, the Group has identified key external factors described on page 168, on which we are dependent for the fulfillment of our climate targets.

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 validated its set targets 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 ten years, this should allow the Group's customers to achieve net-zero value chain greenhouse gas emissions by 2050.

The targets are set in different ways for the Group's different segments. What they have in common is that they are all contributing to the ambitions of the Paris Agreement.

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 0.5% of the total emission inventory 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 include 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.). For product annual usage, data is in six months arrear for trucks and buses to due to a time lag in obtaining logged usage data.

In absence of a standardized test procedure for trucks, as well as other Volvo Group products, 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.

Part of value chain	Scope 1, 2 or 3	Approximate share based on baseline GHG inventory	2019 Baseline	2023
			Mton	
Production, technical centers, warehouses and dealerships	**Scope 1** Direct emissions	<0.5%	0.255	0.228
	Scope 2 Indirect emissions from purchased energy	<0.5%	0.126	0.066
Use of sold products	**Scope 3.11 use phase** Indirect emissions from use of sold products	~95%	323	266
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.			

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 goods transportation.

Furthermore, the calculations do not take into account all aspects of e.g. the efficiency improvements in increased load in metric tons 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 traveled 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 based on 2019 baseline inventory 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. Read more on actions to reduce greenhouse gas intensity of purchased goods and services on page 172.

Targets and results 2023
Own operations scope 1 and 2
The main ways to reduce these emissions are continuous work with energy efficiency improvements and sourcing of more renewable energy where possible. Initiatives to reduce energy use by 14 GWh were implemented during 2023 and the target is to implement savings of up to 150 GWh between 2021 and 2025. From 2021 to 2023 energy saving resulting in 47 GWh per year have been implemented. Volvo Group's operations in Lehigh Valley, Hagerstown and New River Valley in the US have obtained certification for energy management according to ISO 50001 and also been Superior Energy Performance (SEP) Certified by the US Department of Energy.

SBTi approved targets, from baseline 2019

Scope 1–2 **OWN OPERATIONS**	Target 2030 **–50%** absolute emissions	**Status 2023 –23%**
Scope 3 use phase **TRUCKS**	Target 2030 **–40%** emissions per vehicle-km	**Status 2023 –6%**
Scope 3 use phase **BUSES**	Target 2030 **–40%** emissions per vehicle-km	**Status 2023 –5%**
Scope 3use phase **CONSTRUCTION EQUIPMENT**	Target 2030 **–30%** absolute emissions	**Status 2023 –40%**
Scope 3 use phase **VOLVO PENTA**	Target 2034 **–37.5%** absolute emissions	**Status 2023 +11%**

The GHG emission from own operations were 23% lower 2023 compared to 2019. Direct emissions (scope 1) have been reduced by approximately 10% compared to 2019, of which the most important contribution comes from a higher proportion of renewable fuels used at sites with direct combustion for testing and heating. The indirect emissions from own operations (scope 2) were almost 50% lower 2023 compared to 2019, of which the most important factor is a higher share of energy from renewable sources.

Use phase, scope 3
Calculated GHG emissions from use of sold products amounted to approximately 266 million tons 2023 compared with 323 million tons in 2019. The calculated reduction in total GHG emissions is a combination of impacts from energy efficiency measures, changes in sales volumes and product mix. In addition, reduced GHG intensity for fuels and energy in several markets have had a positive effect. For construction equipment, lower sales volumes in China compared to baseline is the most important factor to the significant lower emissions.

Trucks
The reduction in 2023 amounted to –6% vs 2019 baseline for the –40% intensity target. In addition to the lower GHG intensity in fuels, the result is explained by overall improved energy efficiency across several truck models.

Buses
The result for buses in 2023 was –5% vs 2019 baseline for the –40% intensity target. The reduction is mainly due to product mix effects with more products with relatively low GHG intensity being placed on the market.

Construction equipment
For construction equipment, the result was –40% vs 2019 baseline on the absolute emissions target. This significant reduction is mainly explained by lower sales volumes of machines in China. In total, the Group delivered just over 60,000 machines in 2023, compared to almost 87,000 in 2019. Emissions may increase with increased sales volumes before a more sustainable reduction can be seen.

Volvo Penta
The result for Volvo Penta was +11% vs 2019 baseline on the absolute emissions target. The result is mainly driven by product mix and volumes, with increased volume demands particularly on engines and solutions with higher displacement and power.

Overall, different regulatory requirements, availability of low GHG energy sources and associated infrastructure impacts the market conditions and customer demands. These market factors have significant impact on average GHG intensity of products sold and used in different countries and regions. At the same time, since the Volvo Group is operating in cyclical industries which are linked to economic activity and GDP development, sales volumes and mix can vary considerably from one year to the next. Together, these factors can significantly impact the result in the total calculated GHG emissions.

Detailed energy and emission performance

Historical data points related to energy and GHG have been restated for acquisitions and divestments in line with GHG protocol to include the same scope over the years 2019-2023. These restatements are marked with an asterisk (*) for the years and tables where this apply. The baseline 2019 is included in tables where relevant for tracking on established Group targets. Longer time series are found on page 226.

Calculated scope 3 emissions, category 11, use of sold products

Metric tons x1,000,000 CO_2e	2023	2022	2019
Trucks total	194	198	219
Buses total	8	6	14
Construction Equipment	42	62	70
Volvo Penta	22	21	20
Total, use of sold products	**266**	**287**	**323**

Scope 1 and 2 GHG emissions and sources of emissions

Metric tons x1,000 CO_2e		2023	2022*	2019*
Natural gas	Scope 1	95	104	116
Diesel	Scope 1	73	79	86
Other	Scope 1	60	61	52
Total scope 1	**Scope 1**	**228**	**244**	**255**
Electricity	Scope 2	57	70	108
District heating	Scope 2	9	12	18
Total scope 2, market based	**Scope 2**	**66**	**79**	**126**
Total scope 2, location based	Scope 2	170	180	220
Total Scope 1 and 2		**294**	**323**	**381**

Scope 1 and 2 GHG emissions intensity

Scope 1 and 2	2023	2022	2019
Net sales, Industrial operations, SEK M	533	460	418
Products delivered, (x1,000)	312	319	329
CO_2 (scope 1 and 2) by net sales	0.55	0.70	0.90
CO_2 (scope 1 and 2) by products delivered	0.94	1.02	1.14

Out of scope CO_2 emissions

Metric tons x1,000	2023	2022	2019
Biogenic CO_2	13	9	3

Energy use within the organization

(Connected to scope 1 and 2 emissions)

Energy GWh		2023	2022*	2019*
Natural gas	Scope 1	469	515	566
Diesel	Scope 1	277	309	328
Other	Scope 1	244	223	197
Electricity	Scope 2	1,103	1,098	1,100
District heating	Scope 2	252	234	216
Total		**2,345**	**2,379**	**2,406**
Of which renewable energy %		53%	48%	35%

Relative energy use		2023	2022	2019
Net sales, Industrial operations,	SEK bn	533	460	418
Energy / net sales	MWh / SEK M	4.4	5.1	5.7

Energy saving initiatives

The target is to implement energy saving initiatives 2021–2025 that together save 150 GWh per year from 2025.

Energy savings		2023	2022	2021
Annual implemented initiatives	GWh	14	18	15

GHG emissions embedded in purchased goods and services
The Volvo Group has a clear ambition for net-zero value chain and greenhouse gas emissions by 2040. GHG emission from goods and services (scope 3.1) is relatively low in our current greenhouse gas inventory compared to the use phase. Over time this share is, however, expected to become increasingly important and is addressed as part of our net-zero commitment. Metrics and targets are not yet consolidated for the full Volvo Group GHG scope 3.1. We have identified components and materials making up the majority of 3.1 emissions in steel, aluminum, batteries, polymers, and electronics. The main levers to decarbonize these supply chains have also been identified and include shifting to fossil-free materials, increasing recycled input materials, and increasing the share of renewable energy in the process and production of materials.

During 2023 we met with supply partners to our truck brands, Volvo Buses, Volvo Penta, Volvo Construction Equipment, and Volvo Merchandise, to create a common view and action plans. As part of this, we have updated and expanded our Supply Partner Code of Conduct, hosted supplier events and touchpoints to share the Group's decarbonization targets, developed a decarbonization handbook and trained our teams on carbon accounting.

The First Movers Coalition
Climate transition needs systemic change of many aspects outside the scope of our direct influence. One aspect is to build early market demand for low-carbon technology technologies not yet available at scale. The First Movers Coalition (FMC) is an alliance of companies formed under the World Economic Forum using their combined purchasing power to create early markets for innovative clean technologies across eight of the hard to abate sectors – aluminum, aviation, chemicals, carbon removal, concrete, shipping, steel and trucking. These sectors are responsible for 30% of global emissions—a proportion expected to rise to over 50% by mid-century without urgent progress on clean technology innovation. The Volvo Group is one of the founding members of the FMC, which by the end of 2023 consists of 90 companies. As a member, Volvo Group has pledged, e.g., that by 2030 at least 10% of the primary aluminum purchases will have near-zero carbon emissions. A similar target is placed on steel. These pledges can only be achieved by purchasing advanced technology that in many cases is not yet commercially available. Commitments such as these will create a market tipping point that accelerates the affordability of clean technologies and drives long-term transformation.

Environment

The Volvo Group's Environmental Policy is the steering document for managing risks in areas such as emissions, resource use, chemical use and waste management.

The Volvo Group management system sets out our minimum requirements but also identifies our most important opportunities. Our 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.

Lifecycle assessments are used to identify impacts over the lifecycle of the products we develop and sell. This influences the strategic priorities of the Group. In this work we have identified climate impact related to greenhouse gas emissions as the most material environmental topic for the Volvo Group. The Group's work to manage climate related impacts, risks and opportunities is reported on the previous section on pages 166–172. A range of additional topics are also identified as important to manage and control based on our environmental impact assessments, which are described in this section.

Within our own operations, our local units and Truck Divisions and Business Areas identify individual priorities based on their specific type of activities. An annual assessment is carried out to review performance against Volvo Group's internal minimum requirements, which can lead to improvement activities. Priorities in the upstream value chain are based on supplier assessments and the use of proxy data on materials and commodities with higher environmental impacts.

Resource use

Circularity includes a range of issues relating to product design, manufacturing and ways of doing business. It has been recognized that circularity and moving upwards in the waste hierarchy is challenging. Where relevant, environmental design tools are used that further outline ways to support the transition towards a circular economy. This includes evaluations of design criteria for durability, recyclability and remanufacturing as well as avoiding certain substances that would hinder reuse and recycling at the end of the use phase. The environmental design tools used are furthering the Group's environmental policy.

The calculated recyclability and recovery rates have been assessed for our latest battery-electric medium and heavy trucks based on the ISO standard 22628 used for calculating the recyclability and recoverability of road vehicles. The rates presented below are theoretical based on the content in the vehicles, actual recycled rates depend on local prerequisites.

Volvo truck model	VNR Electric	FE Electric	FMX Electric	FM Electric	FL Electric	FH Electric
Recyclability rate	95%	92%	95%	95%	92%	93%
Recoverability rate	99%	97%	99%	99%	96%	98%

Although the recyclability rates are relatively high, and that the types of products have a significant inherent value that facilitates recycling and reuse of components at the end of their first life, we identify opportunities to increase upgradability, durability, serviceability and other measures to support the transition to a circular economy.

Waste and recycling

The Volvo Group owns and operates some 60 larger manufacturing and assembly plants and we have established waste reduction strategies with the long-term objective to become landfill free. 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. As part of this the Group's operating sites apply the waste hierarchy, which prioritizes reuse and recycling over disposal, but also minimization and prevention of waste.

Waste by type and disposal method

Metric tons	**2023**	2022	2021
Recycling, metal scrap from operations	113,663	113,781	111,260
Recycling, other metal scrap	18,482	23,877	16,865
Recycling, non-metal	171,517	153,932	158,776
% recycling of total	*86%*	*84%*	*86%*
Composting	3,006	2,624	2,433
Incineration with energy recovery	25,668	27.398*	23,269
% recycled, composted or energy recovery	*94%*	*93%*	*94%*
Incineration without energy recovery	1,680	1,774	2,027
Treatment by professional waste contractor	10,880	11,493	11,116
Landfill	8,806	6,705	5,858
Landfill, only inert material	191	4,827	470
Total residuals	**353,894**	**332.075***	**332,075**
Whereof hazardous wastes	**39,076**	**36,800**	**53,314**

* Incineration with energy recovery and Total residuals have been restated due to double counting of 1,880 tons in 2022.

Supplier environmental assessments

Volvo Group conducts environmental risk assessments during on-site audits at existing and potential new supply partners. In 2023, 221 such site audits were conducted. Some audits identified risks and deviations related to environmental management with the main risks related to hazardous waste management and lack of a documented environmental management system. Read more about the audit procedures and remediation in the Responsible Purchasing and social impact section on page 189–190.

Substances and materials of concern

Volvo Group is working actively to phase out substances of concern from materials, components and industrial operations. In our impact assessment we have concluded that the volumes of substances of concern used have low or limited impact. However, we are exposed to a range of existing and developing regulations related to materials and substances being part of the components in the vehicles and machines we produce and sell. In general, substances of concern have been used for reasons of securing the products' technical requirements, quality or safety and are therefore sometimes challenging to phase out.

The Group works to reduce dependencies on such materials and substances with the aim to protect both people and the environment. In collaboration with partners, we evaluate alternatives in the design and supply processes to minimize or if possible eliminate use of substances of concern.

Environmental compliance

No significant environmental incidents or spills were recorded during 2023. In 2023, the Volvo Group had 12 licensed facilities in Sweden. For some facilities the environmental permits are under review due to planned changes.

Water

Volvo Group uses certain amounts of water within its operations, although our type of operations are not deemed water intensive. The water used in our operations typically comes from municipal supply and is also released back to municipal systems. At certain sites we use surface or ground water for processes and cooling. In such cases the water is not consumed but used and returned into the same recipient. The Volvo Group management system sets certain minimum requirements related to water and effluents. Risks of pollution are mitigated through active environmental management and control in the Group's operations. Water use has not been deemed as a highly material topic in the Group's materiality assessment, however it is included in this report due to specific interest and tracking from certain stakeholders.

Water consumption in production

	2023	2022	2021
Total water withdrawal, megaliters	5,034	4,566	4,628
Relative water withdrawal, Cubic meters/SEK M net sales	9.4	9.9	12.8

At Group level, only total water withdrawal is available, not by source.

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, including biodiversity where relevant. The requirements are applicable for all operations in absence of more stringent regulatory requirements. The Group's operating sites are typically located in since long-established industrial areas. In the event of new establishments, procedures are followed to mitigate potential negative impacts on protected areas and species.

Upstream in the value chain, Group supply chain partners are evaluated with similar requirements.

It is also acknowledged that there are important connections between biodiversity and other environmental impacts. This presents indirect risks further upstream related to e.g. raw materials.

Downstream, we have identified a number of indirect impacts. One such impact is greenhouse gas emissions emitted from products and operations and related impacts on climate change, which can in turn impact biodiversity. Climate change mitigation is addressed in other parts of this report.

Another biodiversity aspect is related to energy demand for propulsion of vehicles and machines in the use phase, which can present both risks and opportunities related to the viability of the different technologies in Volvo Group's roadmap, illustrated on page 167.

Yet another aspect which could have a connection to biodiversity is related to the use of Volvo Group's products if they are used in activities associated with potential adverse impact on biodiversity. This is addressed in our process to evaluate sustainability in the sales process.

» **Read more** Responsible sales, page 188

EU TAXONOMY REGULATION DISCLOSURES

The EU Taxonomy Regulation EU 2020/852 ('the EU Taxonomy') is a classification system for sustainable economic activities in relation to the European Union's six environment objectives:

1. Climate change mitigation (CCM)
2. Climate change adaptation (CCA)
3. Sustainable use and protection of water and marine resources (WTR)
4. Transition to a circular economy (CE)
5. Pollution prevention and control (PPC)
6. Protection and restoration of biodiversity and ecosystems (BIO).

An activity is considered sustainable according to the EU Taxonomy when it contributes substantially to one or several of the objectives, without causing significant harm to the others, and at the same time meets certain defined minimum safeguards.

In absence of regulatory guidance in many respects, the Volvo Group has found that there is a large scope for interpretation in relation to several aspects of the EU Taxonomy. We have therefore deemed it necessary to develop our own internal considerations. Our disclosure is based on our current understanding of the rules and may be amended in the future to align with new regulatory guidance provided, as market practice develops and as the general knowledge of the EU Taxonomy requirements matures.

In contrast with the Volvo Group taxonomy reporting in 2022, the Volvo Group does not report any turnover, CapEx or OpEx as EU Taxonomy aligned in 2023. This is due to revisions having been made to the EU Taxonomy criteria during the course of 2023, in particular in relation to the so-called pollution prevention and control criteria, read more on pages 177–178.

Methodology to identify eligible activities

The Volvo Group has identified that a proportion of its economic activities qualify as eligible under the so called "Delegated Climate Act" and the so-called "Amended Delegated Climate Act".

- The Group develops and manufactures trucks and buses, which are eligible pursuant to section 3.3 Manufacture of low-carbon technologies for transport of the Delegated Climate Act (CCM 3.3).
- The Group develops and manufactures construction machines and engines, part of which are eligible pursuant to section 3.6 Manufacture of other low-carbon technologies of the Delegated Climate Act (CCM 3.6).
- In 2023, the Volvo Group has allocated part of its activities to the new category 3.18 Manufacture of automotive and mobility components of the Amended Delegated Climate Act (CCM 3.18), which were included in 3.3 in previous years' reporting.

TURNOVER KPI

Economic activities	Code	Turnover SEK M	Proportion of turnover 2023, %	Significant contribution: Climate change mitigation	Climate change adaption	Water	Circular economy	Pollution	Biodiversity	Do no significant harm: Climate change mitigation	Climate change adaption	Water	Circular economy	Pollution	Biodiversity	Minimum safeguards	Proportion of taxonomy-aligned or eligible turnover, 2022, %	Enabling	Transitional
A. TAXONOMY-ELIGIBLE ACTIVITIES																			
A.1. Environmentally sustainable activities (taxonomy-aligned)																			
Turnover of taxonomy- aligned (A.1)		**0**	**0%**	-	-	-	-	-	-	-	-	-	-	-	-	-	**1%**		
Of which Enabling		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**1%**	E	
Of which Transitional		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			T
A.2 Taxonomy-Eligible but not environmental sustainable activities (not Taxonomy-aligned activities)																			
Manufacture of low carbon technology for transportation	CCM 3.3	342,447	62%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								70%		
Manufacture of other low carbon technology*	CCM 3.6	1,240	0%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0%		
Manufactur of automotive parts and components	CCM 3.18	62,573	11%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								–		
Turnover of taxonomy-eligible (but not taxonomy-aligned activities) (A.2)		**406,224**	**73%**	**73%**	**0%**	**0%**	**0%**	**0%**	**0%**								**70%**		
A. Turnover of Taxonomy eligible activities (A.1+A.2)		**406,224**	**73%**	**73%**	**0%**	**0%**	**0%**	**0%**	**0%**								**71%**		
B. TAXONOMY-NON-ELIGIBLE ACTIVITIES																			
Turnover of Taxonomy-non-eligible activities (B)		146,540	27%																
Total (A + B)		**552,764**	**100%**																

Proportion of turnover/Total turnover

	Taxonomy-aligned per objective, %	Taxonomy-eligible per objective, %
CCM	0	73%
CCA	0	0
WTR	0	0
CE	0	0
PPC	0	0
BIO	0	0

CCM: Climate Change Mitigation - CCA: Climate Change Adaptation - WTR: Water and Marine Resource - CE: Circular Economy - PPC: Pollution Prevention and Control - BIO: Biodiversity and ecosystems

Qualitative information related to turnover
The total turnover reported covers the revenue recognized, as explained in Note 7, (page 108), and includes revenues from the Volvo Group's Industrial Operations as well as from financial and operating leases. The Taxonomy disclosures on eligible turnover includes net sales from vehicles and services, including repair, maintenance and spare parts. In 2023, eligible activities have been identified in the new category CCM 3.18. These were reported under 3.3 in 2022. The eligible activities under CCM 3.6 include net sales from low-carbon machines, i.e. only machines that enable zero tailpipe emission operation.

** Voluntary information for comparability*
Eligibility for CCM 3.3 and CCM 3.6 have significantly different definitions. For a full explanation, please refer to page 178. If the activities under 3.6 would be defined similar to those of 3.3, the proportion of total eligible turnover would be 96%.

All three activities are defined as enabling activities in relation to the climate change mitigation objective and are of strategic importance in the Volvo Group's transition towards a net-zero greenhouse gas emissions value chain.

Methodology to identify aligned activities

For an economic activity to be considered taxonomy-aligned – and hence environmentally sustainable – it needs to substantially contribute to at least one of the EU's six environmental objectives and not significantly harm any of the others. In addition, it needs to be carried out in adherence with certain minimum safeguards as regards social and governance aspects of sustainability.

Substantial contribution

The Volvo Group has identified a number of activities, by product, that fulfill the technical screening criteria of substantially contributing to climate change mitigation. These are referred to as potentially taxonomy-aligned and consist of trucks and buses with zero tailpipe emissions (CCM 3.3), machines and other zero tailpipe emission technology (CCM 3.6). Spare parts and components for zero tailpipe emission vehicles (CCM 3.18) are not yet assessed for taxonomy alignment but only assessed for eligibility in 2023.

Doing no significant harm

Potentially taxonomy-aligned products and relevant manufacturing sites have been assessed against each of the do no significant harm (DNSH) criteria, as further detailed below. As previously noted, in absence of regulatory guidance and market practice, we have found that there is a large scope for interpretation of the DNSH criteria and have therefore deemed it necessary to interpret and concretize the set-out criteria based on the specific context of the Group, thereby creating our own detailed guidance. The reporting of alignment with the DNSH criteria is thus, to a certain degree, based on an adopted interpretation of the DNSH criteria applicable to Volvo Group eligible activities.

Overall, there are challenges related to the global scope of the Group's operations and variances in the regulatory landscape of different jurisdictions. Activities within the EU have been prioritized when assessing alignment with the DNSH criteria. Activities outside the EU have been prioritized based on size of turnover and complexity in translating the demands to a local context. The methodology to assess alignment will be evaluated as regulatory guidance and general reporting practices evolve.

In conclusion, all potentially aligned activities in scope have been assessed to meet all DNSH criteria, but for the pollution prevention criteria. Consequently, no revenue or investments are reported aligned.

CAPEX KPI

				Significant contribution						Do no significant harm									
	Code	CapEx SEK M	Proportion of CapEx 2023, %	Climate change mitigation	Climate change adaption	Water	Circular economy	Pollution	Biodiversity	Climate change mitigation	Climate change adaption	Water	Circular economy	Pollution	Biodiversity	Minimum safeguards	Proportion of taxonomy-aligned or eligible CapEx, 2022, %	Enabling	Transitional
Economic activities																			
A. TAXONOMY-ELIGIBLE ACTIVITIES																			
A.1. Environmentally sustainable activities (taxonomy-aligned)																			
CapEx of taxonomy- aligned (A.1)		**0**	**0%**	-	-	-	-	-	-	-	-	-	-	-	-	-	**7%[1]**		
Of which Enabling		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**7%[1]**	E	
Of which Transitional		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			T
A.2 Taxonomy-Eligible but not environmental sustainable activities (not Taxonomy-aligned activities)																			
Manufacture of low carbon technology for transportation	CCM 3.3	32,415	84%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								79%		
Manufacture of other low carbon technology*	CCM 3.6	357	1%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0%		
Manufacture of automotive parts and components	CCM 3.18	323	1%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								–		
CapEx of taxonomy-eligible (but not taxonomy-aligned activities) (A.2)		**33,095**	**86%**	**86%**	**0%**	**0%**	**0%**	**0%**	**0%**								**79%**		
A. CapEx of Taxonomy eligible activities (A.1+A.2)		**33,095**	**86%**	**86%**	**0%**	**0%**	**0%**	**0%**	**0%**								**86%**		
B. TAXONOMY-NON-ELIGIBLE ACTIVITIES																			
CapEx of Taxonomy-non-eligible activities (B)		5,490	14%																
Total (A + B)		**38,584**	**100%**																

Proportion of CapEx/Total CapEx

	Taxonomy-aligned per objective, %	Taxonomy-eligible per objective, %
CCM	0	86%
CCA	0	0
WTR	0	0
CE	0	0
PPC	0	0
BIO	0	0

CCM: Climate Change Mitigation - CCA: Climate Change Adaptation - WTR: Water and Marine Resource - CE: Circular Economy - PPC: Pollution Prevention and Control - BIO: Biodiversity and ecosystems

Qualitative information related to capital expenditures

The taxonomy disclosure on eligible capital expenditures (CapEx) for activities in CCM 3.3 and CCM 3.18, includes additions to product and software development, additions to other intangible assets, additions to property, plant and equipment and additions to operating leases. As for CCM 3.6 the eligible CapEx only includes low-carbon machines. Capitalized product and software development, other intangible assets, and investments in property, plant and equipment are included in the information provided, see Note 12 and 13 (page 114-118 for details).

As a complement to this disclosure, we report the share of total R&D spend directed to low carbon activities, based on the significant contribution criteria, on page 169. That disclosure includes both capitalized and non-capitalized R&D, of which the latter is included in the OpEx KPI in the Taxonomy report.

** Voluntary information for comparability*

Eligibility for CCM 3.3 and CCM 3.6 have significantly different definitions. For a full explanation, please refer to page 178. If the activities in 3.6 would be defined similar to those of 3.3, the proportion of total eligible CapEx would be 96%.

1. Restated. The proportion of taxonomy aligned CapEx for 2022 has been restated from 14% to 7% due to a recalculation of the denominator. The reported denominator and eligibility indicator KPI in 2022 did not include all additions to operating leases, which have now been added.

Climate change adaptation
Physical risks are reviewed on a regular basis as part of the Group's property management and insurance programs. In our assessment of compliance with the DNSH criteria, relevant sites have carried out local risk assessments on relevant climate hazards. In addition, an overall inventory of potential climate hazards has been performed based on the geographical location of relevant Volvo Group sites and potential development in different climate scenarios as presented by the UN Intergovernmental Panel on Climate Change.

Sustainable use and protection of water and marine resources
With respect to the criteria for water, the Volvo Group has identified a limited number of activities with direct emissions of industrial wastewater or which are being subject to water stress, which have been deemed relevant for the alignment criteria. In such cases, environmental impact assessments and water management plans have been reviewed with respect to relevant sites.

Transition to a circular economy
As it relates to transition to a circular economy, the assessments made have identified several such practices implemented in the Group, where feasible. This includes applying the waste hierarchy and establishing waste reduction targets in manufacturing, as well as product design processes where considerations have been made on durability, recyclability and choice of materials and other strategies to facilitate transition to a circular economy.

Pollution prevention and control
The pollution prevention and control criteria both refers to and builds upon existing EU substance regulations. Further to referencing existing EU prohibitions and limitations on the use of certain substances, the EU Taxonomy sets out that the use of certain additional substances (substances on the EU REACH Candidate List and substances with similar characteristics), which are not currently restricted in EU substance regulations, are acceptable only if there are no suitable alternatives. During the course of the year, the requirements relating to the pollution prevention and control criteria have evolved (with the introduction of the Amended Delegated Climate Act) and as a result has added an additional layer of complexity to the EU Taxonomy.

Volvo Group has a phase-out plan for substances of concern and has put in significant efforts to assess usage of such substances in operations or that are included in parts and components.

OPEX KPI

				Significant contribution						Do no significant harm									
Economic activities	Code	OpEx SEK M	Proportion of OpEx 2023, %	Climate change mitigation	Climate change adaption	Water	Circular economy	Pollution	Biodiversity	Climate change mitigation	Climate change adaption	Water	Circular economy	Pollution	Biodiversity	Minimum safeguards	Proportion of taxonomy-aligned or eligible OpEx, 2022, %	Enabling	Transitional
A. TAXONOMY-ELIGIBLE ACTIVITIES																			
A.1. Environmentally sustainable activities (taxonomy-aligned)																			
OpEx of taxonomy- aligned (A.1)		**0**	**0%**	-	-	-	-	-	-	-	-	-	-	-	-	-	**21%**		
Of which Enabling		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**21%**	E	
Of which Transitional		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			T
A.2 Taxonomy-Eligible but not environmental sustainable activities (not Taxonomy-aligned activities)																			
Manufacture of low carbon technology for transportation	CCM 3.3	21,683	77%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								59%		
Manufacture of other low carbon technology*	CCM 3.6	1,175	4%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0%		
Manufacture of automotive parts and components	CCM 3.18	133	0%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								–		
OpEx of taxonomy-eligible (but not taxonomy-aligned activities) (A.2)		**22,992**	**81%**	**81%**	**0%**	**0%**	**0%**	**0%**	**0%**								**59%**		
A. OpEx of Taxonomy eligible activities (A.1+A.2)		**22,992**	**81%**	**81%**	**0%**	**0%**	**0%**	**0%**	**0%**								**80%**		
B. TAXONOMY-NON-ELIGIBLE ACTIVITIES																			
OpEx of Taxonomy-non-eligible activities (B)		5,224	19%																
Total (A + B)		**28,216**	**100%**																

Proportion of OpEx/Total OpEx

	Taxonomy-aligned per objective, %	Taxonomy-eligible per objective, %
CCM	0	81
CCA	0	0
WTR	0	0
CE	0	0
PPC	0	0
BIO	0	0

CCM: Climate Change Mitigation - CCA: Climate Change Adaptation - WTR: Water and Marine Resource - CE: Circular Economy - PPC: Pollution Prevention and Control - BIO: Biodiversity and ecosystems

Qualitative information related to operational expenses
The disclosure on eligible operating expenses (OpEx) includes non-capitalized R&D expenses for new product development, costs for the repair and maintenance of property, plant and equipment and short-term leases. For activities in CCM 3.3 and CCM 3.18, all expenses related to transport vehicles and components are included but for the activities eligible in CCM 3.6, only expenses related to low-carbon machines are included.

In this KPI, R&D is the material part of relevant expenses. Operational expenses related to R&D in 2023 amounted to almost SEK 24 billion. As a complement to this report, we disclose the share of total R&D spend directed to low-carbon activities, based on the significant contribution criteria, on page 169. The disclosure on page 169 includes both non-capitalized and capitalized R&D, of which the latter is included in the CapEx KPI in the Taxonomy report. The other part of OpEx, repair and maintenance related to the functioning of the plants and short-term leases, amounted to approximately SEK 4 billion.

** Voluntary information for comparability*
Eligibility for CCM 3.3 and CCM 3.6 have significantly different definitions. Please refer full explanation in page 178. If the activities in 3.6 would be defined similar to that of 3.3, the proportion of total eligible OpEx would be 99%.

Based on our current understanding of the pollution prevention and control criteria and usages in parts and components, and whether suitable alternatives exist, we do not conclude alignment in 2023.

Protection and restoration of biodiversity and ecosystems
With respect to the criteria for biodiversity, the Volvo Group has screened its activities at each relevant site based on the significance of impact on biodiversity and protected areas or species. The Volvo Group's manufacturing sites have not been deemed to have a significant direct impact and hence the further assessment regarding biodiversity has been limited to recently developed activities in exploration or activities located at such a distance that they could impact protected areas.

Minimum safeguards
It is understood that the minimum safeguard criteria mean that procedures are to be in place as regards anti-corruption, fair competition, taxation and human rights, and that the Group is not to be exposed to 'controversial weapons,' which refers to anti-personnel mines, cluster munitions, chemical weapons and biological weapons.

The minimum safeguard criteria have been assessed at Group level, and when doing so it has been concluded that all wholly-owned entities of the Group, and thus all economic activities identified as potentially taxonomy-aligned, are covered by our Group-wide policies and procedures. For more information on relevant policies and procedures, see Human Rights on page 185, Anti-Corruption on page 191, Competition Law on page 191.

Regarding tax, the Volvo Group shall comply with the tax laws and regulations in all countries where it operates and seeks to ensure that taxes are paid where value is created by adhering to applicable transfer pricing rules and guide-lines as developed by the OECD and other standard setting and regulatory bodies. The Group's average corporate tax rate for the last five years is 24% (23%). More information on the tax policy is available on volvogroup.com.

We have furthermore concluded that the Volvo Group does not manufature or sell any vehicles or attributes specifically designed to carry or otherwise deal with controversial weapons (as defined above).

Reporting
None of the activities of or Volvo Group investments in joint ventures and associated companies are included in this report, see Note 5 on page 102 for more information about joint ventures.

As the Volvo Group so far considers its eligible activities pursuant only to the climate change mitigation objective, and as CCM 3.3, CCM 3.6 and CCM 3.18 Activities are separately reported in the Group's financial consolidation system the Group, no activities should have been double counted when calculating the Taxonomy KPIs presented.

Mandatory and voluntary information
In relation to activities in 3.3, the Commission notice sets forth that the reference to "low carbon" should not be considered when determining Taxonomy-eligibility. This interpretation therefore takes into account that most of the Group's transport vehicles are Taxonomy-eligible. For activities in 3.6 Activities, eligibility depends on the objective of the activity, which should be aimed at substantial savings of life cycle greenhouse gas emissions in other sectors of the economy. The implication of this is that a truck or bus (3.3) with an internal combustion engine is in scope of eligibility, but an excavator or hauler (3.6) with the same type of combustion engine is not eligible. To enable a transparent view of all manufacturing activities in the Volvo Group, we are including information on voluntary basis indicating the share of eligible activities if activities in 3.6 and 3.3 would be eligible on the same basis. The voluntary information does not impact the alignment reporting, only eligibility.

Investment plan (CapEx plan)
The Volvo Group has an overall ambition to reduce greenhouse gas emissions in its value chain. Development of vehicles and machines with zero tailpipe emissions is a key driver in this overall strategy (read more on pages 166-169). A substantial part of investments is directed towards zero tailpipe emissions technology, which is expected to increase over time. Investment plans are subject to continuous evaluation, which may affect the share of investments in zero tailpipe and other potentially aligned technology in the future. In identifying investments that could potentially be aligned, all investments in R&D, property, plant and equipment made to enable and develop vehicles and machines fulfilling the technical screening are included. These are mainly related to vehicles and machines with zero tailpipe emissions. The DNSH criteria are assessed on product level, according to the technical screening criteria. As a complement to this report, we disclose the share of total R&D spend directed to zero and low emission activities, based on the significant contribution criteria on page 169. That disclosure includes both capitalized and non-capitalized R&D, the latter is also included in the OpEx KPI.

Mandatory disclosure on nuclear and fossil gas related activities

Nuclear energy related activities	
The undertaking carries out, funds or has exposures to research, development, demonstration and deployment of innovative electricity generation facilities that produce energy from nuclear processes with minimal waste from the fuel cycle.	NO
The undertaking carries out, funds or has exposures to construction and safe operation of new nuclear installations to produce electricity or process heat, including for the purposes of district heating or industrial processes such as hydrogen production, as well as their safety upgrades, using best available technologies.	NO
The undertaking carries out, funds or has exposures to safe operation of existing nuclear installations that produce electricity or process heat, including for the purposes of district heating or industrial processes such as hydrogen production from nuclear energy, as well as their safety upgrades.	NO

Fossil gas related activities	
The undertaking carries out, funds or has exposures to construction or operation of electricity generation facilities that produce electricity using fossil gaseous fuels.	NO
The undertaking carries out, funds or has exposures to construction, refurbishment, and operation of combined heat/cool and power generation facilities using fossil gaseous fuels.	NO
The undertaking carries out, funds or has exposures to construction, refurbishment and operation of heat generation facilities that produce heat/cool using fossil gaseous fuels.	NO

Employees and workforce

The Volvo Group Code of Conduct is the foundation for responsible business conduct that builds trust with stakeholders in societies where the Group operates. The Code of Conduct includes policy objectives around health and safety, mutual respect, non-discrimination, diversity, and respect for human rights. As regards human rights, the policy includes a range of work-related rights such as zero tolerance for modern slavery, including forced, bonded or compulsory labor, and human trafficking. The policy further explains how we respect children's right to personal development and education and that we prohibit the use of child labor. It outlines our respect for employees' right to freedom of association and collective bargaining as well as any employee's choice to refrain from joining a union.

Our commitment to human rights is further expressed in our human rights report on page 185.

Employees are free to seek guidance and support in all employment-related questions from several functions, including from recognized unions and employee representative bodies. The Group also has a complaint handling mechanism where any stakeholder can seek advice or report a concern in an anonymous way. Our Whistleblower and Investigations policy is externally available and describes who can report a concern, what kind of concerns should be reported, and how concerns should be reported.

» **Read more** volvogroup.com/code

As an integral part of daily operations, the leaders of Business Areas, Truck Divisions and Group Functions are accountable for all areas of the Code of Conduct. To do this effectively, they are supported by both local and central HR professionals, experts and leaders. In addition to the topics listed herein, different countries, regions and units may address specific areas in line with the local context and needs.

In our work, targets have been established in dialogue with employee representatives in areas where we believe Volvo Group can contribute to positive impacts and avoid negative impacts across global operations. The main ones being:

- Health and safety – to reduce lost time accident rate by 50% by 2030 from 2019, see page 182 for details.
- Diversity – to have at least 35% female employees in general and in leadership position by 2030, see page 181 for details.

EMPLOYEE RELATIONS AND DIALOGUE

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. For Volvo Group it is essential to secure a good dialogue with all employees. A fundamental element in this process is the 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 2023, the Volvo Global Dialogue meeting was conducted as a face-to-face meeting in Belgium, primary focusing on the ongoing Volvo Group transformation, including its effects on business and employees.

In addition, three ordinary and three deputy members appointed by employee organizations are part of the AB Volvo Board of Directors and thus involved in the strategic direction of the Group.

Prior to major organizational changes, employee representatives and relevant authorities are informed and consulted in accordance with legal and contractual requirements. In 2023, the Group conducted ten information meetings with the European Works Council as regards significant changes effecting employees in at least two European countries. In addition, the Group conducted several meetings with local employee representatives and unions in different countries to consult on proposed changes at the local level.

Volvo Group works in close dialogue with unions and 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 of restructuring and reorganizations. This can include utilizing time banks to reduce labor time, furlough, early retirement, financial compensation, internal mobility programs and outplacement via third parties.

Human rights disclosures related to 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.

In our own operations, we continue our work relating to fair living wages and our assessment of our current level at Volvo Group, also monitoring how the developing European Sustainability Reporting Standards will impact this work.

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. Varying country legislation on union independence means the approach to managing freedom of association and collective bargaining may differ from one country to another. In our human rights due diligence, we have identified potential risks in this area for a limited number of countries. Examples of actions to mitigate risks include awareness raising activities and developing alternative forms of representation, if in line with local legislation.

An estimated 41% of regular employees around the world are members of an independent trade union. Approximately 72% of employees globally are covered by a collective bargaining agreement. This shows a significantly higher union density rate and 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.

» **Read more** Human Rights across the value chain, page 185

WORKFORCE STATISTICS

Information on employees and other workers

Total number of employees by employment contract, by gender and region

	Permanent		**Temporary**		**Agency/consultants**	**Total workforce**
	Total employees	Of which women, %	Total employees	Of which women, %		
Europe	52,714	23%	1,630	36%	8,610	62,954
North America	18,624	22%	662	41%	773	20,059
South America	6,964	20%	58	34%	153	7175
Asia and Pacific	11,496	18%	686	33%	805	12,987
Africa	935	23%	30	40%	7	972
Group total	**90,733**	**22%**	**3,066**	**36%**	**10,348**	**104,147**

Total number of employees by employment type, by gender

	Full time		**Part time**		**Agency/consultants**	**Total workforce**
	Total employees	Of which women, %	Total employees	Of which women, %		
Group total	**89,715**	**21%**	**4,084**	**44%**	**10,348**	**104,147**

Employee turnover and new employee hires

Employee turnover[1], % Per age, gender and total	**2023**									2022								
	Total			Women			Men			Total			Women			Men		
	<40	40+	All	<40	40+	All	<40	40+	All	<40	40+	All	<40	40+	All	<40	40+	All
Europe	8	5	6	7	5	6	9	5	7	11	7	8	10	7	8	11	7	6
North America	16	8	11	16	8	11	16	8	11	20	11	14	20	12	15	20	10	14
South America	12	10	11	11	12	11	13	9	11	8	5	6	9	5	8	7	5	6
Asia/Pacific	10	7	6	10	8	8	9	7	5	14	8	8	16	8	11	13	8	7
Africa	11	7	9	6	10	7	13	7	10	9	6	8	4	8	6	10	6	8
Group total	**10**	**6**	**8**	**9**	**6**	**8**	**11**	**6**	**8**	**13**	**8**	**9**	**13**	**8**	**9**	**12**	**8**	**10**

1 The total employee turnover rate is the proportion of employees who left Volvo Group both voluntarily (such as retirements and resignations) and involuntarily (including due to redundancy).

New hires per age, gender and total	**2023** Age and total			2022 Age and total		
	<40	40+	All	<40	40+	All
Europe	3,829	1,368	5,197	4,513	1,735	6,248
Of which women	*32%*	*26%*	*30%*	*30%*	*28%*	*30%*
North America	2,085	999	3,084	2,413	1,218	3,631
Of which women	*26%*	*27%*	*26%*	*25%*	*28%*	*26%*
South America	509	104	613	689	166	855
Of which women	*25%*	*27%*	*25%*	*27%*	*25%*	*27%*
Asia/Pacific	1,094	205	1,299	1,651	212	1,863
Of which women	*31%*	*20%*	*30%*	*30%*	*22%*	*29%*
Africa	85	23	108	33	20	53
Of which women	*22%*	*22%*	*22%*	*36%*	*30%*	*34%*
Group total	**7,602**	**2,699**	**10,301**	**9,299**	**3,351**	**12,650**
Of which women	*29%*	*26%*	*28%*	*29%*	*27%*	*28%*

DIVERSITY AND EQUAL OPPORTUNITIES

Volvo Group considers diversity and inclusion as critical to its ability to perform in current operations and transform into a long-term sustainable business. The Group's work with diversity includes a wide range of aspects, such as culture, generations, competence, background, gender and sexuality. Recognizing that different regions and countries have individual challenges, the ambition is to actively work with locally relevant and authentic diversity vectors.

Globally, gender diversity has been identified as the main strategic vector. The Group's operations and main sectors served have traditionally been characterized by relatively low representation of women. This challenge has also been recognized in technology and engineering professions and education. Volvo Group has the target of reaching at least 35% women in the workforce, both in general and in management positions by 2030.

Actions to become more inclusive and by doing so increase diversity are integrated across our people processes and systems, including but not limited to in recruitment policies and principles, succession planning, and integrated into trainings for organization and teams across our global operations.

To further evolve inclusion in aspects that may be more locally or regionally important, the Group supports internal networks for, and best practice sharing across the organization, on diversity vectors such as women in engineering, LGBTQI+, diverse abilities, multiculturalism and young professionals.

Non-discrimination and fair treatment

At the Volvo Group, we do not tolerate harassment and or discrimination and aim to mitigate unconscious bias.

In 2023, 106 allegations perceived as related to discrimination or harassment were reported via the Volvo Group Whistle, included in the category Fair Workplace Management on page 192. All reports were investigated, with 26 being in progress at year-end. 28 of the closed reports were substantiated. Most cases resulted in corrective actions, such as training, coaching or changes to processes or routines. Moreover, 15 cases alleging sexual harassment were reported in 2023 which are included in the category Violations of privacy or private sphere. Of these, five were substantiated and followed with disciplinary measures, one was unsubstantiated with further corrective actions and six were in progress at year-end.

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.

Diversity of governance bodies and employees

Age diversity of the Volvo Group workforce, %	**2023 <40/40+**	2022 <40/40+	2021 <40/40+
Europe	38/62	37/63	36/64
North America	39/61	38/62	36/64
South America	57/43	60/40	61/39
Asia/Pacific	58/42	58/42	57/43
Africa	52/48	53/47	54/46
Group average	**42/58**	**41/59**	**40/60**

Gender diversity of the Volvo Group workforce, %	**2023 Women/ Men**	2022 Women/ Men	2021 Women/ Men
Europe	23/77	23/77	22/78
North America	22/78	22/78	21/79
South America	20/80	19/81	18/82
Asia/Pacific	19/81	22/78	17/83
Africa	24/76	24/76	26/74
Group average	**22/78**	**22/78**	**21/79**

Gender diversity over time, share of women, %

	2023	2022	2021	2020	2019
All employees	22	22	21	19	19
Manager (all levels)	25	24	23	20	20
Presidents and other senior executives	29	28	27	26	26
AB Volvo Board (Elected by the AGM)	36	45	45	36	40

TRAINING

Leadership, learning and development are vital contributors to the transformation of the Group and to employees' employability. Raised awareness about lifelong learning in the teams and organization helps bring forward both needs and tangible progress. Volvo Group University is focused on providing high quality training across business areas, divisions and functions. The ambition is to provide training and development opportunities for all employees in all locations, with a consistent and quality assured learning portfolio. In addition, business operations drive development of the competences specific to their needs and learning opportunities are made available on site.

The Volvo Group's approach to competency development is based on most of the learning being part of practice on the job. An important, but less time-consuming part, is captured informally through other people – in conversations, networking, and curiosity to learn. The final piece of the learning comes from formal training and courses. As a rule of thumb, this is referred to as 70:20:10 approach – 70 percent on the job, 20 percent through conversation, 10 percent through formal training.

To ensure access to training, a large part of instructor led programs are made available virtually. This allows employees outside the major sites to join training activities and build networks across the Group.

OCCUPATIONAL HEALTH AND SAFETY

Understanding that the Volvo Group's success depends on people moving the company ahead, we strive for a workplace where all colleagues come home safe – every day. The Volvo Group Health and Safety Policy gives direction on how workplace safety, health and well-being shall be handled within the Group. The policy covers both direct employees, consultants and other people working on Volvo Group sites.

We continue our efforts to develop a safety culture that takes us towards the Group's safety objectives including both physical as well as psychosocial health and safety.

Traditionally the Volvo Group's global health and safety work has focused on physical safety risks in our organization, tackling the highest risks, and raising the overall safety awareness. In recent years, we have identified a need to increase efforts in psychosocial risks at our workplaces. These efforts include establishing common and science-based ways of working across our global organization but adapt actions to local and unique needs and contexts. Volvo Group's approach to address mental health and well-being is based on training and awareness for managers and employees, surveys to understand current state in teams and dialogues around actions to be taken to progress further. Prior to roll-out in the global operations the approach has been tested in the Group's research and development organization with local teams in Sweden, the US and India.

Volvo Group also continues its efforts in physical health and safety. As part of this work, we continue to roll out common metrics to increase internal and external transparency on the most important safety aspects of the Group. During the year, we have started to implement global follow up and prevention of high-risks incidents.

The Volvo Group is in the process of defining the right metrics and targets to strengthen the health and safety culture. A key element is to address risks as early as possible. This work includes both physical and mental health and safety. This work is being adapted to align with international and European standardization on metrics.

The right leadership is acknowledged and a key component in a successful safety culture. Safety leadership is oriented towards learning and continuous improvement, spending time in the field, and on dialogue. Leaders are equipped to be on top of the health and safety matters in their teams.

The continuous development of our health and safety system and culture is supported by a global network of over 200 expert practitioners on occupational health and safety – including doctors, nurses, safety engineers, psychologists, and ergonomists who 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 well-being. Volvo Buses and Volvo Construction Equipment have continued to certify their parts of the management systems according to ISO 45001. By December 2023, 60 sites covering around 30% of Volvo Group's employees have chosen to certify their operations according to ISO 45001.

Other Business Areas have been developing internal safety management systems with regular assessments and coaching as an integral part the Volvo Group Management System (VGMS) and Volvo Performance 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 preventive 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 time spent commuting to and from work.

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 in these notes.

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 relevant 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. The Group is in the process of developing a more systematic approach to serious incidents with focus on the most significant risks.

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 preventive 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 are 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 whistleblower 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, as well as 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 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.

Participation, consultation and communication
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 workers 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.

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 program. 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 trainings are provided during working hours. The effectiveness of these trainings is assessed locally depending on each organization and country.

Health promotion
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. 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.

Accidents and accident rates
Volvo Group tracks the accidents and accident rates in all locations including plants, workshops and offices in all countries of operations. In 2023 the accident rate was 1.08 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 outcome oriented KPIs used on Group level. Work is ongoing to identify other global KPIs.

Measurements of high-consequence or serious work-related injuries and related hazards are used in many parts of the organization but without common definitions and consolidation systems so far. As such, they are not consolidated at Group level but are shared in health and safety networks for learning purposes and risk mitigation.

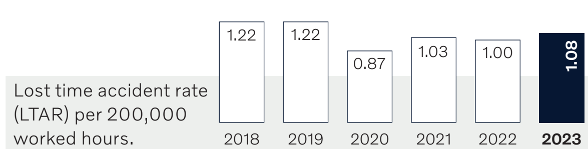
Health and safety impacts linked to business relationships
In accordance with the Volvo Group's Supply Partner Code of Conduct, on-site audits are performed at suppliers on a wide variety of sustainability topics. Health and safety are central elements to this process.

» **Read more** Responsible purchasing and social impact, page 189

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.

» **Read more** Customer and end-user safety, page 184.

Rates of injury and number of work-related fatalities 2018-2023



	2018	2019	2020	2021	2022	2023
Number of accidents with lost time	789	972	1,004	656	735	879
Number of fatalities Employees	3	1	0	0	0	0
Number of fatalities Contractors	0	2	0	0	0	0

Customer and end-user safety

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. Our Safety Policy defines our key areas related end user safety – product safety focusing to avoid negative impact from potential product defects and traffic safety to maximize our positive impact from safety systems, advocacy, communication and training.

Our vision is zero accidents with Volvo Group products and this work includes product safety where we systematically evaluate risks and take action to mitigate risks and implement improvements.

The most significant impacts, risks and opportunities are related to our operating segments Trucks and Buses, as these products are used at high speed or in areas occupied by vulnerable road users. 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.

The Volvo Group definition of safety not only includes the safety of the immediate user of our products, but also understanding the entire scope of potential impact of our products when in use.

The primary objective is to develop products that assist in preventing accidents from occurring or, in the event accidents do occur, to minimize the consequences for the drivers, operators and people around our vehicles and machines.

Quality and safety management

Product safety is the foundation for the Group's safety work. A safe product is free of safety-related defects, compliant with relevant regulations and industry standards, and safe to use during its normal life cycle. Our key processes – from development, through procurement, manufacturing and all the way to retail and service require systematic quality management. The aim is to secure safety and quality of our products over its lifecycle.

Proactively, all product lines are assessed for health and safety impacts with the purpose of securing that it is designed to be safe and to find quality improvements. Quality controls are established in all key development and production processes according to applicable automotive standards. Suppliers are required to adhere to the technical and safety demands we define for different products and components. Volvo Group uses a technical audit to evaluate the Safety Management Systems of supply partners.

Safety assessments continue also after products are released to the market including continuous audits in production as well as investigations of real accidents. Issues that are identified in the assessments are further investigated. Issues that after investigation are judged as safety-related defects lead to a recall of the product so that the issue can be rectified.

Traffic safety

In the use-phase, Volvo Group work 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. An example is the collision warning with emergency brakes for pedestrians and other vulnerable road users. This type of system will be a legal requirement in Europe toward the end of the decade and Volvo Trucks introduced this feature during 2023. 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.

Human rights across the value chain

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 fundamental conventions.
- UN Global Compact.
- UN Guiding Principles on Business and Human Rights.
- OECD Guidelines for Multinational Enterprises.
- Children's Rights and Business Principles.

This is an ongoing journey and the Volvo Group has adopted a risk-based approach where we prioritize and focus on the areas where we consider that we have the highest risks for adverse human rights impacts. We also recognize that a core tenet of many of these frameworks is tracking and monitoring performance to drive continuous improvement and using our experiences as a source of continuous learning. This report sets out our progress to date, but we acknowledge there is more to be done.

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 2023, we published Modern Slavery Statements for relevant companies within the Volvo Group in line with these legal disclosure requirements.

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, the Volvo Group Human Rights Program and specific policies, directives and guidelines developed by our Truck Divisions and Business Areas in several human rights-related areas. These include health and safety, responsible purchasing through our Supply Partner Code of Conduct, human resources, responsible sales, and whistleblowing.

Human rights governance and oversight

The Volvo Group's human rights governance follows our allocation of business accountability and includes several cross-functional governance forums across the company. At Group level, the strategic direction on human rights is overseen by the Volvo Group Human Rights Board composed of relevant members of the Executive Board.

Implementation of the Human Rights agenda is supported by a cross functional reference group and a working group with members from relevant Group Functions, Truck Divisions and Business Areas.

Human Rights program

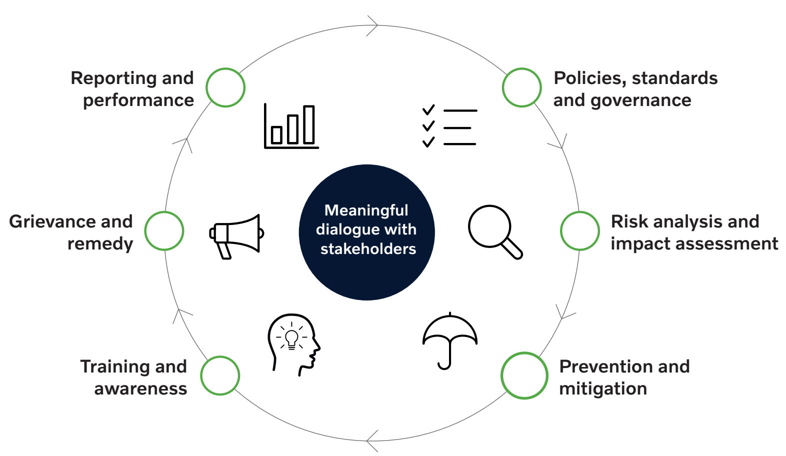
In 2022, the Volvo Group Executive Board adopted a Group-wide Human Rights Program. The Volvo Group Human Rights Program describes how we implement our commitment to respect human rights as set out in our Human Rights Policy. The purpose of the Human Rights Program is to ensure that Volvo Group can systematically identify, mitigate and address human rights risks and ensure continuous improvement in our processes. The program provides further clarity on the Volvo Group's ambition on human rights, applicable standards, salient human rights risks, human rights due diligence strategy, and human rights governance across various levels of the Volvo Group.

In the process of implementing the Human Rights Program, we initiated during late 2023 a groupwide Human Rights Risk and Maturity Assessment Project with the objectives to enable us (i) to deepen our understanding of our human rights risks across Volvo Group's value-chain, (ii) to better understand the maturity of our existing management systems to perform human rights due diligence, and (iii) to prepare the set-up and continuous integration of a robust, systematic, and coherent approach to the identification and management of human rights risks and impacts across the Volvo Group. The project will run continuously also during 2024.

Salient human rights risks

The Human Rights Policy is based on the Group's sustainability priorities and highlights risks related to people, climate and resources. Human rights risks may be associated with our activities and business relationships in all of these areas. The Human Rights Policy describes the Volvo Group's ten salient human rights risks across these three areas. Descriptions of these risks and references to specific disclosures are found on page 187.

VOLVO GROUP HUMAN RIGHTS PROGRAM – MAIN ELEMENTS



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. The most important risks for our divisions and business areas make up the Group's salient issues.

Human rights due diligence across the value chain
Our human rights work aims to identify, prevent, and mitigate potential or actual adverse human rights risks and impacts. The Volvo Group's scope of responsibility, influence, and leverage varies across different parts of the value chain and operational contexts. Therefore, our human rights related processes and activities should be adopted to reflect the context of our role within the respective parts of our value chain including own operations, the supply chain, business partners and sales deals.

Our own operations
At a Group level, one tool used by the Volvo Group when it comes to implementing human rights due diligence across our organization is country-by-country human rights reviews covering all operations, employees, and other personnel at our sites in the reviewed country. These reviews are conducted using a methodology developed in accordance with internationally recognized practices and includes the following main elements:

- Desktop analyses based on internal data such as workforce data, local policies, internal expert interviews, employee survey responses and collective bargaining agreement, and external sources such as country human rights reports and human and labor rights laws.
- Self-assessments by country management teams and local human resources departments.
- On-site visits with country management and human resources, and local internal subject matter experts, employees and third party personnel onsite. If appropriate also including external expert organizations.
- Corrective actions and follow-up after each review with agreed action plans and accountability within the local management and communication to relevant members of the Executive Board.

Human rights reviews are often overlapping with several other internal processes, such as those related to non-discrimination, health and safety, employee relations, quality and environmental management. Findings from reviews within the respective areas can highlight improvement areas in other processes, including human rights work.

Reviews in own operations have been performed in India (2017), South Africa (2018), and Mexico (2019). This type of review activities had to be paused in 2020 and 2021 due to the covid-19 pandemic. Following a revision of the process and methodology we restarted the review processes in 2022, and performed reviews in United Arab Emirates and Algeria during 2023. Human rights reviews as a due diligence tool, and a country prioritizing plan, is to be included for analysis in the Human Rights Risk and Maturity Project mentioned above.

Our supply network
Our supply network is vast, with some 50,000 unique entities in the first tier, and is continuously evolving. Primary data is therefore limited to supply partners closer to Volvo Group. Due diligence activities is also supported by proxy data, research and secondary information from supply partners to identify potential impacts in the value chain upstream. The Volvo Group's Supply Partner 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. While issues differ across the supply chain depending on countries and processes, a number of risks related to human rights has been identified, which are addressed through the Group's responsible purchasing program, read more on page 189.

The Volvo Group also collaborates with private business partners to assemble trucks and build bus bodies on our chassis in line with customer specific requirements. Some of these partners are located in countries with elevated human rights risks. Ongoing activities to secure that business partners operate in line with Group requirements include e.g. to implement social and environmental requirements in contractual agreements, requirements on self-assessments, on-site reviews and training initiatives.

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 as well as 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 with particular human rights risks. This sustainability assessment is further described in a separate section on Responsible sales on page 188.

Risks further downstream in the value chain
Risks have also been identified related to employment conditions for truck drivers in the road transport sector in Europe. Minimum requirements in the Volvo Group Supply Partner Code of Conduct apply also for logistics service providers. However, the varying regulations in Europe as regards drivers' employment conditions requires broader industry collaboration. Consequently, the Volvo Group is involved in CSR Europe's Responsible Trucking Initiative, which aims to improve employment and working conditions for truck drivers in the road transport sector across Europe. The initiative has released social guidelines for common expectations towards suppliers and sub-contractors on human rights, working conditions and business ethics, read more at www.csreurope.org/.

Human rights awareness training
Training and raising awareness for our colleagues and relevant business partners is a key element of our human rights work and an area where it is recognized that continued improvement is needed. In addition to the Group's overall Code of Conduct training which includes certain aspects of human rights, many parts of the organization have held human rights awareness and update sessions during the year. In total, some 2,000 individuals, many of which in sales areas and market management, have been trained in such human rights, including specific sessions directed to the AB Volvo Board of Directors, the Executive Board, and Business Areas and Truck Divisions management teams. In late 2023, a new introductory online training focusing on business and human rights was also made available in twelve languages to all Volvo Group employees and consultants. 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 and consultation related to human rights
Our human rights work includes ongoing dialogues with unions, and engagements with employees, customers and investors, as well as NGOs, and other societal actors on our human rights approach and performance. In 2023, our engagement with external stakeholders primarily related to our overall human rights governance and policy, and supply chain due diligence related to material sourcing. In addition, consultations have been held with affected stakeholders as part of reviews at own operations and due diligence activities at supply partners.

Grievance channels and access to remedy
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 192 for more information on our grievance channels and the types of concerns reported in 2023.

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 are actively working to reduce climate and negative environmental impacts in our operations and our value chain. » Read more Climate and Environment, pages 166-174

Hazardous materials and substances
The usage of substances of concern is managed as an environmental topic but its impact is also related to impacts on people. We have an objective to phase out potentially hazardous materials and substances, where possible, and if there are no suitable alternatives, to secure their safe and responsible handling throughout the value-chain. » Read more Environment - Substances of concern, page 173

Minerals and metals from conflict-affected and high-risk areas
We are aware of increased overall risk related to materials extraction. A dedicated Sustainable Minerals Program supports our efforts for supply chain transparency and to promote responsible sourcing, extraction, and handling of such materials.
» Read more Sustainable Minerals Program, page 190

Health and safety
Health and safety has been identified as a prioritized area at suppliers, in our own operations and for end-users. Read in more detail about the work to mitigate health and safety risks in the following sections:
» Read more Employees and workforce, page 182 » Read more End-users, page 184
» Read more Responsible purchasing and social impact, page 189-190

Fair employment and working conditions
We have identified some key areas with potential increased risks where we do deeper due diligence to prevent violations, for example identified concerns relating to upstream value chain workers in locations near migration corridors and sourced services, especially in countries where these jobs are generally low paid and performed by workers within vulnerable groups and/or workers with limited awareness on basic labor and human rights.
» Read more Employees and workforce, page 179 » Read more Responsible purchasing and social impact, page 189

Freedom of association and collective bargaining
Risks related to representation are by many stakeholders identified as a foundation for a range of other social impacts. We operate in countries where there are limitations to these rights, but our Code of Conduct and Supply Partner Code of Conduct sets out employees' rights to find ways of representation to avoid negative impacts in this area and other related topics. » Read more Employees and workforce page 179
This is part of our supply chain due diligence and disclosures related to working conditions. » Read more Responsible purchasing and social impact, page 189 Additional information on volvogroup.com/code

Non-discrimination and fair treatment
Fair treatment is a key area to feeling safe at work and our work related to diversity and inclusion. Volvo Group has a zero tolerance for harassment and discrimination. Negative impacts on people in this area are mainly identified through our internal whistleblower grievance mechanism.
» Read more Employees and workforce - Diversity and equal opportunities, page 181

Forced labor and modern slavery
We assess 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. Elevated risks are identified for vulnerable groups in the supply chain such as migrant workers.
» Read more Responsible purchasing and social impact, page 190

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. Risks in this area is identified as potential based on risk maps where we identify higher exposure to potential risks for certain markets and components with complex supply chains where traceability is virtually impossible. The most elevated risks in this area are concentrated to minerals extraction. » Read more Sustainable Minerals Program, page 190

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 make extended reviews of 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. » Read more Responsible sales, next page

RESPONSIBLE SALES

The Volvo Group has processes and policies in place 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 processes. These assessments are primarily carried out in connection with direct sales involving customer financing and support from export credit guarantees, 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 external risk databases and tools such as Verisk Maplecroft and RepRisk for risk identification. The findings are assessed, described, and escalated to relevant forums within our Business Areas or 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 2023, 265 such assessments were performed by the Group's Business areas, mainly related to 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.

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. Factors such as the existence of arms embargoes, armed conflicts, political instability, and human rights-related risks are considered in this assessment. 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.

In 2023, Volvo Group assessed 26 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.

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 2023, approximately 250 individuals have participated in online trainings and awareness sessions focusing specifically on responsible sales.

RESPONSIBLE PURCHASING AND SOCIAL IMPACT

Volvo Group supply partners play an integral role in realizing our sustainability strategy across the full value chain. Our supply base is built up by more than 50,000 tier one supply partners, of which approximately 12,000 deliver goods and services to support the Volvo Group's serial production. Working with a global supply network presents a range of impacts, risks and opportunities. Beyond the Group's direct supply partners, we also see opportunity for collective purchasing impact to influence the sustainability transformation throughout our extended supply network.

To ensure that our supply partners adhere to the Volvo Group expectations and values, we implement due diligence procedures through our Supply Partner Code of Conduct and our own risk assessments, incorporating international standards such as the OECD Due Diligence Guidance for Responsible Business Conduct and the UN Guiding Principles on Business and Human Rights.

Policy

The Volvo Group Supply Partner Code of Conduct is the policy and platform for our collaboration with supply partners in building sustainable supply networks. It is based on the Volvo Group's sustainability ambitions in the areas of people, resources, climate, and business ethics and compliance. Updated in 2023, it outlines how we do business in the Volvo Group and our mandatory sustainability requirements in each area. It also includes expectations to guide supply partners as they evolve to further advance sustainable performance and impact in the areas covered by the Code of Conduct.

The Supply Partner Code of Conduct defines the Volvo Group's sustainability commitments and gives guidance to Volvo Group supply partners on meeting those commitments. Among the topics covered are achieving a net-zero greenhouse gas emissions value chain by 2040, fulfilling the needs of transportation and infrastructure within the limitations of planetary boundaries, and investing in well-being, empowerment, business ethics and compliance, and respect for human rights. The document is guided by the Automotive Industry Guiding Principles of DRIVE Sustainability as well as frameworks such as the Organization for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises, the United Nations Guiding Principles of Business and Human Rights and other international frameworks as explained in the section on human rights on page 185.

This part of the report focuses on the social impacts, risks, and opportunities relating to the Volvo Group's supply network. Read more on page 172 and 173 about climate and environmental assessments of the supply network.

Assessment

Sustainability assessments focus primarily on tier one supply partners and are conducted through supply partners' self-assessments as well as targeted in-depth on-site audits. We prioritize audits based on sustainability risks by country, commodities, processes, or work areas. The risk assessment is based on external tools, bringing a comprehensive view of risks related to human and labor rights, environmental and business ethics across the globe. As a complement, risks can be flagged during any type of supplier audit, training, or visit as well as via Volvo Group's grievance mechanism.

The Volvo Group carries out most audits and reviews with internal resources. Procurement staff and specialized auditors share responsibility for ensuring that proper actions are taken to resolve identified gaps. Supply Partners and external stakeholders are encouraged to promptly report concerns of misconduct, violations of the law, and other unethical behaviors via a Volvo Group grievance mechanism.

Self-assessments

The Volvo Group uses a standardized questionnaire for the automotive industry focused on sustainability in the supply network. The Self-Assessment Questionnaire (SAQ), developed through the DRIVE Sustainability Automotive Partnership, considers sustainability performance within human rights and working conditions, as well as environmental and responsible supply chain management. Potential supply partners are invited to conduct the SAQ, and the result is used in the supply partner selection process. For a selected partner, the self-assessment result will lead to a corrective action plan if the supply partner falls below a risk threshold or if a selection of questions is not fulfilled. To drive continuous improvement, the rating is valid for three years, and thereafter a new assessment is required. The requirements for self-assessment approval are increasing to ensure continuous improvement of due diligence practices.

On-site audits

In the sourcing phase, we conduct additional risk analysis of potential supply partners of direct materials in high-risk countries through on-site audits. We audit potential indirect material supply partners located in high-risk countries with a contract value that exceeds a pre-defined threshold. The responsibility for improvements and corrective actions always lies with the potential supply partners. Non-compliance cases are managed by the responsible buyer, together with the auditor, until resolved. Auditing of existing supply partners follows the same procedures.

Overall, the sustainability assessment of supply partners focuses on developing a sustainable supply base and establishing a strong partnership. The results are used in the sourcing decisions, and violations of the requirements are expected to be resolved in a timely manner if the long-term partnership is to remain. Those who fail to address critical issues risk not being awarded a contract or having their contracts terminated.

As part of the due diligence program, the Volvo Group also invests in capacity building in the form of training. For broad implementation, this is done in collaboration with DRIVE Sustainability. In 2023, special focus was set on China and Brazil.

Metrics on social impact in the supply network

The Volvo Group has identified certain metrics followed up annually to assess the work deployed. So far we have not established any outcome-oriented targets.

Result of self-assessments

Following an update of the self-assessment in 2022, which includes more stringent demands in line with changing requirements, 2,020 sustainability self-assessments were performed in 2023. From a total Volvo Group direct material spend perspective, 93% of all supply partners have conducted the assessment. Of those conducting the assessment, 90% had a recorded approved rating. In high-risk areas, the corresponding result was 89% completion, out of which 86% had a recorded approved rating.

Result of on-site audits

In 2023, 221 audits were carried out, with 119 deviations found. The most common deviations were found within the areas of management commitment, working hours, supply chain management, and environmental management. In the area of management commitment, deviations related mainly to supply partners having codes of conduct that do not adequately address risk areas. In the area of working hours, the findings were related to excessive working hours for employees. Within the area of supply chain management, deviations were found when supply partners either did not set adequate social, environmental, or business requirements for their supply network or did not cascade their requirements proactively with their suppliers. In the area of environmental management, the deviations related mainly to management of hazardous waste as well as the lack of a documented environmental management system. The findings from the audits are communicated to the supply partners, who are expected to set up and implement a corrective action plan in a timely manner. Such corrective actions are then monitored by the buyer responsible in cooperation with the auditor.

Outsourced processes

In addition to our owned manufacturing operations, the Volvo Group collaborates with private business partners to assemble trucks and build bus bodies on our chassis in line with customer-specific requirements. Some of these partners are located in countries with elevated human rights risks. Ongoing activities to secure that business partners operate in line with Group requirements include e.g., to implement social and environmental requirements in contractual agreements, requirements on self-assessments, on-site reviews and training initiatives.

In several markets we also source services such as security, facilities management, and catering supporting our operations. While we have a transparent view of the day-to-day work environment of the people performing these services, we have identified potential risks related to fair employment and living conditions in some markets.

Based on our assessments, these risks have become more relevant for some workers with limited awareness of basic labor and human rights, in combination with markets with higher risks related to adequate wages. Migrant workers have been identified as such a vulnerable group also at risk of different types of bonded labor and arbitrary recruitment fees. When we source activities from external partners in relation to outsourced processes, we aim to further assess employment terms and recruitment practices for value chain workers.

Supply chain further upstream

Considering common supply network challenges in the Group's sector, we have identified some areas important to address in addition to the above to support supply partners in securing sustainable supply networks. This is especially relevant for certain minerals associated with elevated risks related to child labor, forced labor, and other human rights.

Sustainable Minerals Program

As part of the Supply Network Due Diligence program, the Volvo Group has a specific focus on a range of selected minerals and materials. The Sustainable Minerals Program is built on the five steps framework of the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas, as well as on the tools of the Responsible Minerals Initiative (RMI). The focus minerals of the Sustainable Minerals Program are tin, tantalum, tungsten, gold (3TG), and cobalt. These materials are part of our global supply chain and used in many components. We are continuously reviewing for additional critical raw materials and minerals to be in scope for the program. As part of this work, the Volvo Group is a member of RMI. See information on this organization below.

In 2023, 1,043 tier one supply partners were identified and included in the Volvo Group's Sustainable Minerals Program. With this as a base, 925 of them were identified as relevant for 3TG minerals, and 802 for cobalt. Most of the invited companies already collaborate, and all have been assessed on the parameters of (a) strength of their human rights due diligence programs and (b) association with smelters or refiners of concern in their supply network. As a result, 345 smelters or refiners (SORs) were identified to be included in the Volvo Group's supply network. Approximately 59% of them have been certified "conformant," 65 % for 3TG and 37 % for cobalt respectively, by the Responsible Minerals Assurance Process (RMAP), on behalf of the global organization RMI. The Volvo Group finances the RMAP and co-funds independent third-party audits of SORs due diligence practices through a partnership with RMI.

For 2023, the RMI audit program was adjusted and enhanced. Due to the war between Russia and Ukraine and the subsequent European and UK sanctions against Russia, all RMAP audits in Russia have been paused and all Russian smelters have automatically been rated as non-conformant compared to previous years. In addition, RMI has for the first time started to conduct audits of cobalt smelters or refiners. The ambition of the Volvo Group's Sustainable Minerals Program is to drive full transparency by 2025, when all supply partners in scope are to be compliant with our Responsible Purchasing standards and requirements.

Examples of industry collaborations for sustainable supply networks

The Responsible Minerals Initiative (RMI)

RMI is a collaborative platform addressing responsible mineral sourcing issues in global supply networks. The Volvo Group is working with RMI with the aim of ensuring 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

DRIVE Sustainability is a network of 16 leading automotive companies working toward 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. The Volvo Group is active in several working groups within the initiative to leverage a circular and sustainable automotive value chain.

Global Battery Allicance

The Global Battery Alliance is 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 and ensuring transparency of greenhouse gas emissions and their progressive reduction, to eliminating child and forced labor.

Business ethics and compliance

COMPLIANCE PROGRAMS

Our Code of Conduct states that we earn our business fairly and lawfully. Conducting business in line with applicable laws and regulations is the best basis for sustainable success and the best way to protect our reputation. A dedicated Group Compliance function oversees the implementation of a compliance management system approach for core compliance areas, such as competition and anti-corruption laws, export control regulations and data privacy. The different business areas have established compliance functions to manage the implementation of the compliance management system in their areas and cover additional compliance areas, such as anti-money laundering or emission compliance, to the extent needed. The Volvo Group's compliance management system amongst other things includes policies, guidelines and procedures, regular compliance communication and training, as well as assurance activities such as effectiveness testing and auditing. The Volvo Group has further implemented group-wide Whistleblowing channels that can be used by internal and external parties for all compliance areas. In 2023, no cases of non-compliance with material effects on the Volvo Group were identified.

ANTI-CORRUPTION

The Volvo Group firmly condemns all forms of corruption, including bribery. Not only is corruption illegal, it also distorts the market, disrupts fair competition, and hinders social development. Volvo Group employees, at all levels, are strictly forbidden from engaging in any form of corrupt practices, such as offering or accepting, directly or indirectly, bribes, inappropriate gifts or hospitality, or facilitation payments. The Volvo Group expects its business partners to uphold similar anti-corruption standards. Various risk factors expose the Volvo Group and its employees to corruption risks. For instance, the company has a global footprint with business operations in many countries, including high-risk countries from a corruption perspective. Our businesses engage in high-value contracts and participate directly and indirectly in private and public tender procedures. Additionally, our interactions with a broad range of business partners and other third parties, such as officials or representatives of government bodies or institutions, expose us to third-party risks.

To reinforce its internal and public anti-corruption commitment, the Volvo Group has expanded on its principles in the Code of Conduct with a global anti-corruption compliance framework. This includes a global anti-corruption policy, detailed instructions, and various procedures and controls. Key components are a requirement of accurate and fair books and records, a mandatory risk-based due diligence screening process for third party intermediaries, a prohibition on facilitation payments, and comprehensive rules and procedures regarding third party intermediary remuneration, gifts and hospitality, sponsorships and charitable donations. Where deemed necessary, we have further documentation in adjacent areas, such as anti-money laundering and fraud reporting.

Group Compliance designs and develops the Volvo Group anti-corruption compliance program and monitors implementation across the Group. The team works closely with a network of compliance officers in the business areas and divisions to ensure the implementation in their respective areas.

COMPETITION LAW

The Volvo Group strictly prohibits any conduct that would violate competition laws and regulations. The Volvo Group competes on the merit of its products and services and trusts that its products and services will succeed in a fair and competitive marketplace. Employees at all levels are prohibited from participating, or otherwise becoming involved, in any conduct that would violate competition laws, such as anti-competitive agreements with competitors. The Volvo Group also expects its business partners to adopt and enforce comparable competition law principles and includes these requirements in contractual agreements.

The Group's exposure to competition law risks stems from various factors. First, the Volvo Group has a global footprint with diverse business operations in multiple countries, most of which have competition law regimes in place. Second, Volvo Group employees interact with employees of competitors in a range of different contexts, including via trade associations, industry gatherings, trade fairs, publicly funded projects, benchmarking activities, M&A projects, etc. Each interaction carries inherent competition law risk in the form of collusion with competitors, for instance through exchange of commercially sensitive information. Third, relationships with third party business partners can expose the Volvo Group to competition law risk, e.g., in the form of anti-competitive agreements with customers or suppliers (vertical and horizontal restraints).

The Volvo Group has supplemented the principles of fair competition in the Code of Conduct with a dedicated competition law policy, as well as detailed instructions and best practice guidelines. These include guidelines on commercially sensitive information, trade associations, benchmarking, document creation and retention, private dealers, suppliers and body builders, and employment information, as well as a comprehensive handbook on collaborations with competitors.

Group Compliance is responsible for designing and developing the Volvo Group competition law 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 area.

Compliance communication and training

Volvo Group's top management, Group Compliance and other internal stakeholders regularly communicate the importance of compliance with all applicable laws in various forms. To ensure that all employees have the required knowledge, the Volvo Group has developed a compliance training strategy that tailors training to individual training needs in a risk-based manner. This includes e-Learning courses for competition law, anti-corruption, export control and data privacy for a broad basis of employees as well as targeted instructor-led training in these compliance areas for employees working in roles with elevated risk levels.

Until end of 2023, 59,951 Volvo Group employees have completed the annual Code of Conduct e-learning and more than 30,000 white collar employees have completed the compliance awareness curriculum consisting of e-learning courses on anti-corruption, competition law, export control and sanctions, and data privacy. In addition, Volvo Group further provided in-depth instructor-led training to white collar employees based on identified risk exposure. By end of 2023, 5,639 employees have completed the most recent in-depth anti-corruption training and 4,726 employees have completed the most recent in-depth competition law training.

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. We also believe in the open-door policy and encourage employees to report their concerns to their local organization first. We offer group-wide reporting channels, including the Volvo Group Whistle, 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. We regularly communicate about our whistleblowing channels internally and provide detailed information about our whistleblowing channels on our public website.

The Whistleblowing and Global Investigations function is an independent unit within Group Compliance. In 2023, Group Compliance received 332 concerns through several available reporting channels. All reports were investigated. Of the 36 reports related to Business conduct offences, 24 were categorized as suspected corruption or conflict of interest. Eight of these were closed substantiated, with appropriate disciplinary and remediation actions taken. Six investigations were in progress at year-end.

Matters related to discrimination and harassments are identified in Fair workplace violation and Violations or Privacy or private sphere. These are separately commented upon on page 181.

Whistleblower concerns escalated to Group Compliance

	2023		2022	
Type of concerns reported	No.	%	No.	%
Fair workplace violations	168	50	79	46
Offences against company assets	42	13	31	18
Business conduct offences	36	11	24	14
Offenses endangering the environment or health and safety	20	6	11	7
Violations of privacy or private sphere	16	5	9	5
Offenses against financial integrity	1	<1	1	1
Inquiries	49	15	16	9
	332	**100**	**171**	**100**

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 Volvo 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. In 2023, the cost reported for lobbying in the EU and the US was approximately SEK 15 M.

The Volvo Group observes neutrality with regards to political parties and their representatives. The Volvo Group Code of Conduct and related policies serve as the foundation for our positions on public policies.

The Volvo Group's advocacy efforts are based on the following guiding principles and yearly priorities, set by the Executive Board.

Guiding principles:

- In line with the Paris Climate Agreement
- Based on level playing field via fair and free trade
- Supporting technology neutrality and global standards
- With long term prerequisites for clarity and predictability

Yearly priorities are divided into three main areas - Geopolitical, Competitiveness and Decarbonization.

In the geopolitical area, the purpose was to provide our business areas and markets with guidance on e.g. security, defense, energy and energy infrastructure, critical raw materials and components.

As regards competitiveness, the ambition has been to promote a level playing field with harmonized regulatory and policy frameworks on matters related to vehicle standards, innovation and business development, and predictable state aid rules.

Within decarbonization we have promoted policies for Volvo Group's strategy by advocating for sustainable energy systems, energy supply and deployment of infrastructure for fuels and electricity.

Volvo Group holds a vast number of memberships in trade associations, other organizations and sponsorships providing possibilities to evaluate and provide input on proposed regulations and policies. The Group does not consider a membership being equal to aligning with all positions, but cares to secure that the views do not oppose the Volvo Group's ambition or hinder its development. Volvo Group continuously reviews and evaluates our memberships. A non-exhaustive list of memberships is available on volvogroup.com/report2023.

Complementary disclosures

Organizational details

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.

Ownership and legal form

AB Volvo (publ) is a publicly held company, and its shares are listed on the stock exchange Nasdaq Stockholm, Sweden.

Reporting

Entities included in the report

See pages 160, in the financial statements. The Volvo Group used the same scope for the sustainability reporting as for the audited consolidated financial statements. No specific entities categorically excluded. Some smaller sites may be excluded in emissions reporting due to materiality.

Reporting cycle and frequency

The reporting cycle is annual. No significant restatements have been made. The reporting period is January 1, 2023 to December 31, 2023. The date of the most recent report was February 28, 2023.

Contacts

See page 229.

Restatements

On page 172 the metrics for scope 1 and 2 GHG emissions have been restated due to changes in entities included in the organization.

On page 173 Incineration with energy recovery and Total residuals have been restated for 2022.

On page 176 in the taxonomy report, the KPI on aligned CapEx for 2022 was restated from 14% to 7%. The reason is that the denominator in 2022 did not include all additions to operating lease.

External assurance

The Volvo Group's sustainability disclosures has been subject to limited assurance in accordance with ISAE 3000. Refer to the Auditor's statement of the Limited assurance on page 217. The Group's auditors also issue a statutory opinion in accordance with the audit standard RevR 12.

Significant changes to the organization and its supply chain

In 2023, there were no significant changes.

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.

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 Business Area, Truck Division and 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, which is 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.

Governance

Policies and commitments

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. Policies are further supported by programs including due diligence procedures. In line with our decentralized model each business area is responsible for ensuring 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.

Corporate governance disclosures

The Volvo Group's reporting approach is to include disclosures related to governance in the Corporate Governance Report, which is based on the reporting requirements from the The Swedish Corporate Governance Code. Governance disclosures related to sustainability is mainly found on page 197 and 207.

Annual total compensation ratio

Thie disclosure on compentation ratio cannot be reported fully according to the definition in the GRI standard. The Group is in the process of updating systems to collect the data in a more effective way and the metric will be included in future reports. Until then, average annual compensation is used as an indicator for compensation ratio.

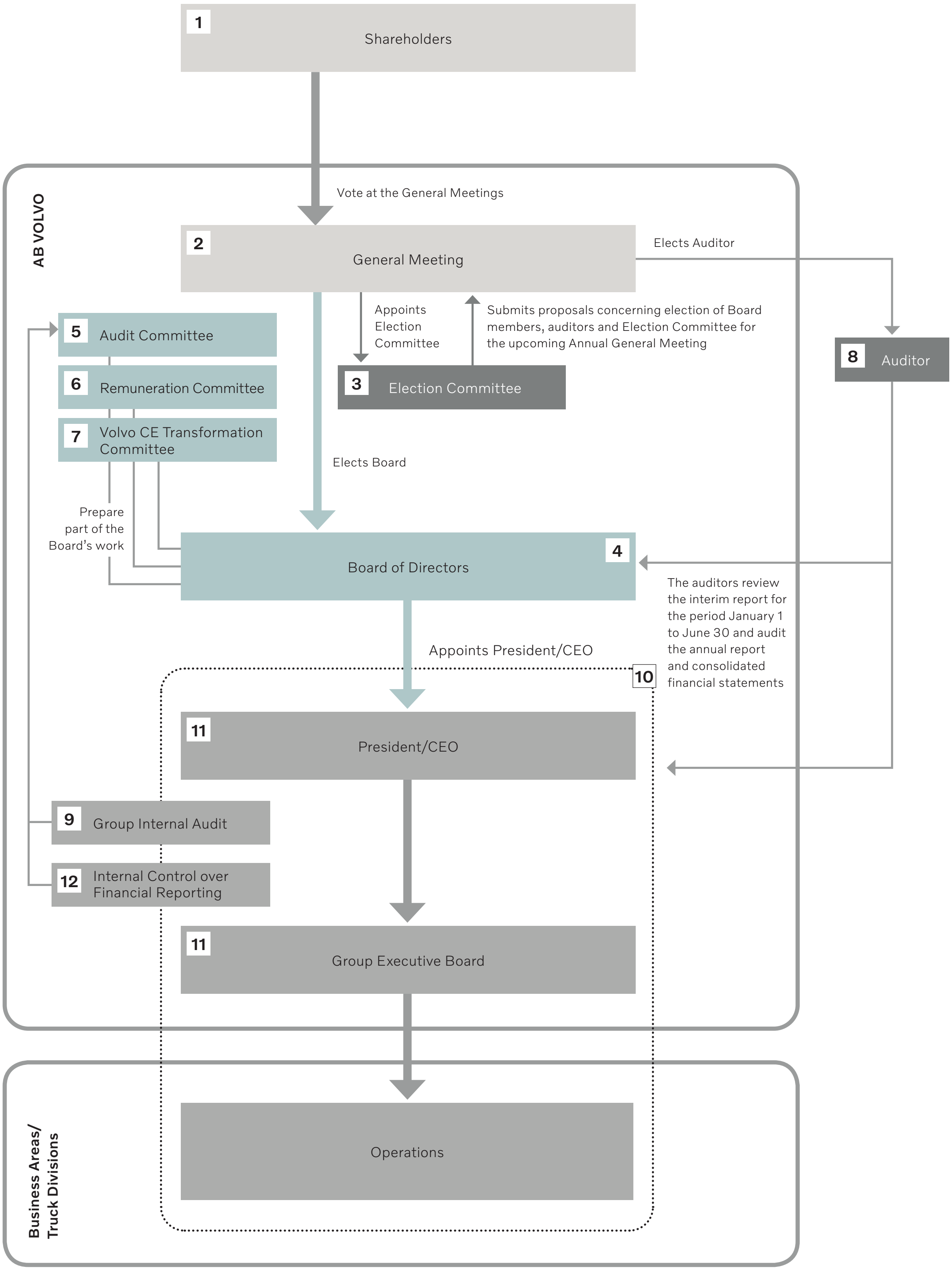
	2023	2022	2021
Wages, salaries & other remunerations, SEK M	62,473	54,798	47,518
Average number of employees	89,282	86,316	83,958
Average cost per employee, SEK	699,727	634,853	565,968
Total cost CEO, SEK M	68.5	58.1	49.3
Ratio of CEO to average employee	98	92	87

CORPORATE GOVERNANCE REPORT

The Volvo Group appreciates sound corporate governance as a fundamental base in promoting its long-term strategic objectives and in achieving a trustful relationship 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.

AB Volvo, the parent company of the Volvo Group, is a Swedish limited liability company, with its shares admitted to trading on Nasdaq Stockholm, and follows the Swedish Corporate Governance Code (the Code). The Code is published on www.corporategovernanceboard.se, where a description of the Swedish Corporate Governance model can be found.

This Corporate Governance Report has been prepared in accordance with the Swedish Annual Accounts Act and the Code and is separate from the Annual Report. The Corporate Governance Report has been reviewed by Volvo's auditor.


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
7
Volvo CE Transformation Committee
3
Election Committee
8
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
10
11
President/CEO
9
Group Internal Audit
12
Internal Control over Financial Reporting
11
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 AB Volvo decreases.

At year-end 2023, Volvo had 381,666 shareholders according to the share register maintained by Euroclear. Shareholdings in Volvo representing at least one tenth of the votes of all shares in the company are AB Industrivärden with 27.9 percent of the votes and Geely Holding with 15.5 percent of the votes.

For more information about the Volvo share and its shareholders, please refer to the Board of Directors' Report on pages 80–81 of the Annual Report.

2 GENERAL MEETING

Shareholders may exercise their voting rights at the General Meetings of AB Volvo. The General Meeting is Volvo's highest decision-making body.

Volvo's Annual General Meeting will be held on March 27, 2024 at Konserthuset, Gothenburg, Sweden, with the opportunity for shareholders to also exercise their voting rights by voting in advance, so called postal voting.

In addition to applicable laws on shareholders' right to participate at General Meetings, the Articles of Association of AB Volvo stipulates that shareholders must (i) give notice of their attendance (within the time stated in the convening notice) and (ii) notify the company of any intention to bring assistants. The documents from the General Meetings are published on Volvo's website.

3 ELECTION COMMITTEE

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 Code.

In accordance with the 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.

The following individuals are members of the Election Committee which should submit proposals to the Annual General Meeting 2024:

- Fredrik Persson, AB Industrivärden[1]
- Anders Oscarsson, AMF and AMF Funds
- Carina Silberg, Alecta[2]
- Anders Algotsson, AFA Insurance
- Carl-Henric Svanberg, Chairman of the Board

The Election Committee appointed Fredrik Persson[1] as Chairman of the Election Committee.

1 The Annual General Meeting 2023 elected Pär Boman as a member of the Election Committee. Following Pär Boman's resignation from this assignment, AB Industrivärden has appointed Fredrik Persson as new member.

2 The Annual General Meeting 2023 elected Magnus Billing as a member of the Election Committee. Since Magnus Billing's employment at Alecta has ended, Alecta appointed Carina Silberg as a new member.

4 BOARD OF DIRECTORS

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 and the Code.

Composition

In 2023, AB Volvo's Board consisted of eleven members elected by the Annual General Meeting and three members and three deputy members appointed by employee organizations.

Hanne de Mora left the Board in connection with the Annual General Meeting 2023 and Bo Annvik was elected as a new Board member. Mats Henning also left the Board in connection with the Annual General Meeting 2023 and the employee organizations have appointed Mari Larsson and Urban Spännar as new Board members. A detailed presentation of each Board member is set out in the "Board of Directors" section on pages 202–203.

Prior to the Annual General Meeting 2023, the Election Committee announced that it had applied the provisions of rule 4.1 of the Code as 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. 36 percent (four 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 2023, the Election Committee presented the following assessment of the independence of Board members elected at the Annual General Meeting 2023.

Carl-Henric Svanberg, Matti Alahuhta, Jan Carlson, Eric Elzvik, Martha Finn Brooks, Kurt Jofs, Kathryn V. Marinello, Martina Merz and Bo Annvik 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.

The Board´s work in 2023

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, sustainability matters and other items to the Board. The Board has also adopted specific instructions for the Board's respective committees, which are linked to the work procedures.

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 2023, there were eleven ordinary Board meetings, one extraordinary Board meeting and one statutory Board meeting. The attendance of the Board members at the Board meetings during 2023 is presented in the table on page 200. The company's auditor attended one Board meeting during the year.

During 2023, the Board's main focus has been transformation, especially in the realm of electrification. The industry is evolving rapidly, and Volvo remains committed to driving innovation and investments needed to lead this transformation. Hence, the Board has devoted considerable time to strategic considerations concerning electrification, digitalization and new productivity services. As a part of the ongoing technology shift, the Volvo Group continues to develop the strategic partnerships previously entered into with focus on autonomous solutions, electrification and charging infrastructure, in parallel to exploring new ventures and growth opportunities, such as the cooperation between the Volvo Group, Renault Group, and CMA CGM Group on electric vans announced in October 2023 and the acquisition of the battery business from Proterra Inc. and Proterra Operating Company, announced in November 2023.

The Board's ambition is to stay close to the business and the Board receives continuous up-dates on the development of the Group's performance as well as the work with the transformation and strategies in relation thereto. The Board has further discussed the changes in the Group's Bus footprint including the exit of Nova Bus production in the US market and the closure of Volvo Bus bodybuilding factory in Wroclaw, Poland. In addition the Board has decided to divest Volvo Construction Equipment's ABG Paver Business and, in January, it was announced that an option agreement with John Cockerill Defense had been entered into that gives the Volvo Group the right to sell the French defense business Arquus. In 2023, the Board also gave significant attention to several key areas and issues:

- Sustainability: The Volvo Group's sustainability work and objectives are an integrated part of the Board's work and the Group's climate targets under the Science Based Targets initiative (for further information, see pages 170–172) are followed-up regularly by the Board.
- Talent Review and Succession Planning: The Board carefully evaluates talent and succession planning within the organization.
- Quality oversight: Thorough review and follow-up of Volvo's quality work.
- External factors: The Board has been actively monitoring external factors, with a particular emphasis on the continuing impact of the war in Ukraine and other macroeconomic and geopolitical developments, ongoing supply chain challenges, the effects of higher inflation and rising interest rates on profitability, and proactive measures to address these issues.

The Board´s focus on decarbonization and the corresponding alignment of the product portfolio of the Volvo Group has continued during 2023, with a particular focus on strategic decisions for electromobility and acceleration of the sale of battery electric heavy-duty vehicles and machines. As part of this work, the Volvo Group has continued the processes to establish a large-scale production plant for battery cells in Mariestad, Sweden, and to produce battery modules in the Volvo Group's truck plant in Ghent, Belgium. At the Board meeting in December 2023, the Board spent time on the Group's work with human rights and sustainability, with particular focus on the ongoing work to implement the EU Taxonomy, the EU Corporate Sustainability Reporting Directive (CSRD) and other relevant legislation.

The Board usually makes regular visits to the company's operations throughout the world to meet with local management, customers and suppliers and learn more about the specific market conditions in the visited region. In 2023 the Board visited France and South Korea.

In 2023, the Board resolved 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. The Board proposed a distribution of an ordinary dividend of SEK 7 per share and an extraordinary dividend of SEK 7 per share, which was resolved by the Annual General Meeting 2023. 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 behavior in the current business environment.

During 2023, the Board proposed, and the Annual General Meeting 2023 adopted, a new long-term incentive plan with a three-year performance period and a one-year lock-in period instead of an annual performance period and a three-year lock-in period.

Evaluation of the Board

In 2024, 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. Further, the evaluation serves as input for the Election Committee's work with proposing Board members to the Annual General Meeting.

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 2023 included the Board's composition, the management and focus of Board meetings, Board support and committees and how the Board addresses issues related to strategy and strategic priorities, potential risks, succession planning and people oversight. The areas covered by the evaluation reflect the development of the Board's work and the Volvo Group and the priorities going forward.

Separate evaluations were conducted of the Board as a collective, the Audit Committee, the Remuneration Committee and the Volvo CE Transformation Committee. The result of the evaluation of the Board as a collective will be discussed by the Board. The results of the evaluations of the committees will be discussed by the relevant committee. In addition, the result of the evaluation of the Board as a collective is 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 further information about Board remuneration adopted by the Annual General Meeting 2023, please refer to Note 27 "Personnel" in the Group's notes in the Annual Report.

Remuneration of Board members, 2023 (from AGM on April 4, 2023)	SEK
Chairman of the Board	3,925,000
Board member[1]	1,175,000
Chairman of the Audit Committee	445,000
Member of the Audit Committee	250,000
Chairman of the Remuneration Committee	175,000
Member of the Remuneration Committee	130,000
Chairman of the Volvo CE Transformation Committee	300,000
Member of the Volvo CE Transformation Committee	200,000

1 With the exception of the President.

BOARD COMMITTES

The Board has formed Committees and the Board Committees are the Audit Committee, the Remuneration Committee and the Volvo CE Transformation Committee. The Election Committee's assessment of independence of the Committee' members is presented above under the "Independence requirements" section. The Committees' report the outcome of its work to all members of the Board on a regular basis.

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, among other things, preparing the Board's work to assure the quality of the Group's financial reporting by reviewing interim reports, the Annual Report and the consolidated accounts. The Audit Committee also has the task of reviewing and over-seeing the Group's legal and taxation matters including 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 regulatory and other developments of sustainability standards, and the Group's reporting in these areas.

Composition and work in 2023

At the statutory Board meeting following the Annual General Meeting 2023, the following Board members were appointed members of the Audit Committee:

- Eric Elzvik, Chairman of the Audit Committee
- Martha Finn Brooks
- Helena Stjernholm

The Audit Committee met with the external auditors without the presence of management on two occasions in 2023 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 Audit Committee and the external auditors, among other areas, discussed the external audit plan and the view of risk management. The Audit Committee held nine ordinary meetings and two extraordinary meetings during 2023. The attendance of Board members at the committee meetings is presented in the table on page 200.

6 REMUNERATION COMMITTEE

Duties

The Board has a Remuneration Committee for the purpose of preparing and resolving 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 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 guidelines 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 guidelines. 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 guidelines. The remuneration report also provides details on the remuneration of AB Volvo's President and CEO. The remuneration report shall be submitted to the Annual General Meeting for approval.

Composition and work in 2023

At the statutory Board meeting following the Annual General Meeting 2023, the following Board members were appointed members of the Remuneration Committee:

- Carl-Henric Svanberg, Chairman of the Remuneration Committee
- Matti Alahuhta
- Kurt Jofs

The Remuneration Committee held four ordinary meetings during 2023. The attendance of Board members at committee meetings is presented in the table on page 200.

7 VOLVO CE TRANSFORMATION COMMITTEE

Duties
The Board has a Volvo CE Transformation Committee that focuses on the strategic direction and transformation of the Volvo Construction Equipment business area. The main purpose of the Committee is to ensure that Volvo Construction Equipment is successful in the transformation.

Composition and work in 2023
At the statutory Board meeting following the Annual General Meeting 2023, the following Board members were appointed members of the Volvo CE Transformation Committee:

- Kurt Jofs, Chairman of the Volvo CE Transformation Committee
- Matti Alahuhta
- Lars Ask
- Mari Larsson
- Helena Stjernholm

The Volvo CE Transformation Committee held four ordinary meetings and one extraordinary meeting during 2023. The attendance of Board members at committee meetings is presented in the table below.

The Board's composition and attendance at meetings January 1, 2023 – December 31, 2023

Member	Board meetings (13 incl. statutory)[1]	Audit Committee (11)[1]	Remuneration Committee (4)	Volvo CE Transformation Committee (5)[1]
Carl-Henric Svanberg	13		4	
Martin Lundstedt	13			
Matti Alahuhta[2]	13		4	5
Bo Annvik[3]	9			
Jan Carlson	13			
Eric Elzvik	13	11		
Martha Finn Brooks[4]	13	11		
Kurt Jofs	13		4	5
Kathryn V. Marinello[5]	12			
Martina Merz[6]	13			
Hanne de Mora[7]	4			1
Helena Stjernholm	13	11		5
Total number of meetings	13	11	4	5

Member	Board meetings (13 incl. statutory)[1]	Audit Committee (11)[1]	Remuneration Committee (4)	Volvo CE Transformation Committee (5)[1]
Lars Ask, employee representative	13			4
Mats Henning, employee representative[7]	4			
Mari Larsson, employee representative	12			5
Urban Spännar, employee representative[3]	9			
Danny Bilger, employee representative[3]	9			
Camilla Johansson, employee representative	13			
Erik Svensson, employee representative[3]	9			
Total number of meetings	13	11	4	5

1 Whereof extraordinary meetings: one for the Board, two for the Audit Committee and one for the Volvo CE Transformation Committee.
2 Matti Alahuhta partly attended the ordinary Board meeting in December 2023.
3 Bo Annvik, Urban Spännar, Danny Bilger and Erik Svensson joined the Board in April 2023 and have since attended all Board meetings during 2023.
4 Martha Finn Brooks partly attended the ordinary Board meeting in December 2023.
5 Kathryn V. Marinello partly attended the ordinary Board meeting in September 2023.
6 Martina Merz partly attended the ordinary Board meeting in December 2023.
7 Hanne de Mora and Mats Henning resigned from the Board in April 2023 and had, prior thereto, attended all Board meetings during 2023.

President and CEO Martin Lundstedt in a Volvo excavator during a tour of Volvo Construction Equipment's plant in Changwon, South Korea.

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* *Member of the Volvo CE Transformation Committee*	**Bo Annvik**	**Jan Carlson**	**Eric Elzvik** *Chairman of the Audit Committee*	**Martha Finn Brooks** *Member of the Audit Committee*
Elected					
2012	2014	2023	2022	2018	2021
Year of birth					
1952	1952	1965	1960	1960	1959
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	MSc in Business Administration and Economics, School of Business, Economics and Law at the University of Gothenburg	MSc in Physics and Electrical Engineering from University of Linköping	MSc Business Administration, Stockholm School of Economics	BA Economics and Political Science, Yale University. MBA International Business from Yale School of Management, Yale University
Current assignments					
Chairman: Swedish Corporate Governance Board Member: Royal Swedish Academy of Engineering Sciences (IVA) and the European Round Table of Industry (ERT)	Chairman: DevCo Partners Board member: Kone Corporation Supervisory Board member: Finnish Cultural Foundation	President and CEO: Indutrade AB Board member: Indutrade AB	Chairman: Autoliv Inc. and Telefonaktiebolaget LM Ericsson	Chairman: Global Connect Group and Deutsche Glasfaser Group Board member: Telefonaktiebolaget LM Ericsson and Landis+Gyr Group AG Other: Senior industrial advisor to EQT	Board member: Constellium, CARE USA, CARE Enterprise Inc. and RMI
Principal work experience and other information					
Chairman: BP plc, the Royal Swedish Academy of Engineering Sciences (IVA) and the European Round Table of Industry (ERT) President and CEO: Assa Abloy AB and Telefonaktiebolaget LM Ericsson Member: External Advisory Board of the Earth Institute at Columbia University and the Advisory Board of Harvard Kennedy School Other: Various management positions at Asea Brown Boveri (ABB) and Securitas AB	Chairman: Aalto University, IMD, Confederation of Finnish Industries and Technology Industries of Finland Vice chairman: Metso Outotec Board member: ABB Ltd., UPM and British Telecom President and CEO: Kone Corporation President: Nokia Telecommunications and Nokia Mobile Phones Other: Various management positions within the Nokia Group, including Chief Strategy Officer	President and CEO: Haldex Board member: SSAB Other: Various management positions within Volvo Car Corporation, SKF and Outokumpu	Chairman: Veoneer Inc. President and CEO: Autoliv Inc and Veoneer Inc. President: Autoliv Europe, Autoliv Electronics, Saab Combitech and Swedish Gate Array Other: Various management positions within the Autoliv Group, including Vice President Engineering, and Honorary Doctor at the Technical faculty of Linköping University	Board member: Fenix Marine Services and VFS Global Other: Several management positions in the Finance function at ABB including Group CFO, CFO for the Divisions Discrete Automation & Motion and Automation Products, Head of M&A and New Ventures and Head of Corporate Development	President and CEO: Rolled Products and SVP in Alcan Inc. President and COO: Novelis Inc. Board member: Harley-Davidson, International Paper, Bombardier, Jabil and privately held Algeco Scotsman Other: Various management positions in Cummins truck and bus businesses, including Global VP of Truck and Bus business
Holdings in AB Volvo, own and related parties					
2,000,000 Series B shares	146,100 Series B shares	45 Series A shares	10,000 Series B shares	7,475 Series B shares	25,500 American depositary receipts representing Volvo B shares (ADRs)

Board members appointed by the employee organizations

Lars Ask
Employee representative, ordinary member
Member of the Volvo CE Transformation Committee

Elected
2016 (Deputy member 2009-2016)

Year of birth
1959

Principal work experience and other information
With Volvo since 1982

Holdings in AB Volvo, own and related parties
116 Series B shares

Mari Larsson
Employee representative, ordinary member
Member of the Volvo CE Transformation Committee

Elected
2023 (Deputy member 2015-2023)

Year of birth
1978

Principal work experience and other information
With Volvo since 2004

Holdings in AB Volvo, own and related parties
605 Series A shares and 343 Series B shares

Urban Spännar
Employee representative, ordinary member

Elected
2023

Year of birth
1967

Principal work experience and other information
With Volvo since 1997

Holdings in AB Volvo, own and related parties
1,007 Series A shares and 1,725 Series B shares

Board members elected by the Annual General Meeting

				
Kurt Jofs *Chairman of the Volvo CE Transformation Committee* *Member of the Remuneration Committee*	**Martin Lundstedt** *President and CEO*	**Kathryn V. Marinello**	**Martina Merz**	**Helena Stjernholm** *Member of the Audit Committee* *Member of the Volvo CE Transformation Committee*
Elected				
2020	2016	2014	2015	2016
Year of birth				
1958	1967	1956	1963	1970
Education				
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	MSc Business Administration, Stockholm School of Economics
Current assignments				
Board member: Feal AB and Arjeplog Hotel Silverhatten AB	Chairman: Permobil AB Board member: Autoliv Inc., the Confederation of Swedish Enterprise, the International Chamber of Commerce (ICC), Sweden and the European Automobile Manufacturers' Association (ACEA CV BOD) Member: European Round Table of Industry (ERT) and the Royal Swedish Academy of Engineering Sciences (IVA)	Chairperson: Concentrix President and CEO: PODS	Board member: Siemens AG and Rio Tinto	President and CEO: AB Industrivärden Board member: AB Industrivärden, Sandvik AB, Telefonaktiebolaget LM Ericsson and the Confederation of Swedish Enterprise Member: The Royal Swedish Academy of Engineering Sciences (IVA)
Principal work experience and other information				
Chairman: Tieto, Vesper Holding AB and Höganäs AB Board member: Telefonaktiebolaget LM Ericsson President: Segerström & Svensson and Linjebuss Other: Various management positions within Telefonaktiebolaget LM Ericsson, including Executive Vice President (with responsibility for Telefonaktiebolaget LM Ericsson's Networks business), and ABB	Co-chairman: UN Secretary-General's High-Level Advisory Group on Sustainable Transport President and CEO: Scania AB Board member: Concentric AB Other: Various management positions within Scania	Chairperson: Ceridian Corporation and Stream Global Services, Inc. Board member: Nielsen, Real-Page, General Motors Co., MasterCard US and Ares Acquisition Corporation President and CEO: Ceridian Corporation, Stream Global Services, Inc. and Hertz Global Holdings Other: Several management positions at Citibank, Chemical Bank New York (now JP Morgan Chase), First Bank Systems, First Data Corporation, General Electric (including Division President General Electric Financial Assurance Partnership Marketing and Division President General Electric Fleet Services) and Senior Advisor for Ares Management, LLC	President and CEO: thyssenkrupp AG CEO: Chassis Brakes International President: Bosch Closure Systems Other: Various management positions at Robert Bosch GmbH, including Executive Vice President Sales and Marketing in the Chassis System Brakes division combined with responsibility for regions China and Brazil, and member of the Board of Management of Brose Fahrzeugteile GmbH & Co.	Partner within the private equity firm IK Partners (former Industri Kapital), consultant for Bain & Company and various board seats in non-listed companies
Holdings in AB Volvo, own and related parties				
50,741 Series B shares	290,301 Series B shares and 300,000 call options in Series B shares	10,000 American depositary receipts representing Volvo B shares (ADRs)	6,500 Series B shares	8,000 Series B shares

Deputies appointed by the employee organizations

Danny Bilger
Employee representative, deputy member
Elected
2023
Year of birth
1965
Principal work experience and other information
With Volvo 1983–1999 and since 2007
Holdings in AB Volvo, own and related parties
736 Series A shares and 593 Series B shares

Camilla Johansson
Employee representative, deputy member
Elected
2016
Year of birth
1966
Principal work experience and other information
With Volvo since 1997
Holdings in AB Volvo, own and related parties
643 Series A shares and 508 Series B shares

Erik Svensson
Employee representative, deputy member
Elected
2023
Year of birth
1989
Principal work experience and other information
With Volvo since 2016
Holdings in AB Volvo, own and related parties
None

Secretary to the board

Nina Aresund
Secretary to the Board
Master of Laws
Elected
2023
Year of birth
1974
Principal work experience and other information
Head of Legal and Compliance Volvo Construction Equipment, Head of Corporate Legal AB Volvo and Corporate Legal Counsel AB Volvo
Holdings in AB Volvo, own and related parties
13,484 Series B shares

8 AUDITOR

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. Further, the auditors 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 the Volvo Group Executive Board have been complied with, which they present to the Annual General Meeting.

At the Annual General Meeting 2023, the registered auditing company Deloitte AB was re-elected as auditor for the period until the end of the Annual General Meeting 2024. The Authorized Public Accountant Jan Nilsson 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 Report.

9 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 performs advisory work as well, from time to time. 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 can be 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 to the CEO, the Group's General Counsel and the Audit Committee.

For additional information on internal control over financial reporting, see pages 210–211.

10 GOVERNANCE PRINCIPLES AND ORGANIZATIONAL STRUCTURE

Governance documents

A key part of the Group's governance is its policies and directives, including the Code of Conduct and policies relating to investments, financial risks, accounting, financial control and internal audit. These documents establish unified operating and financial rules for the Group's operations, as well as responsibility and authority structures.

Organizational structure

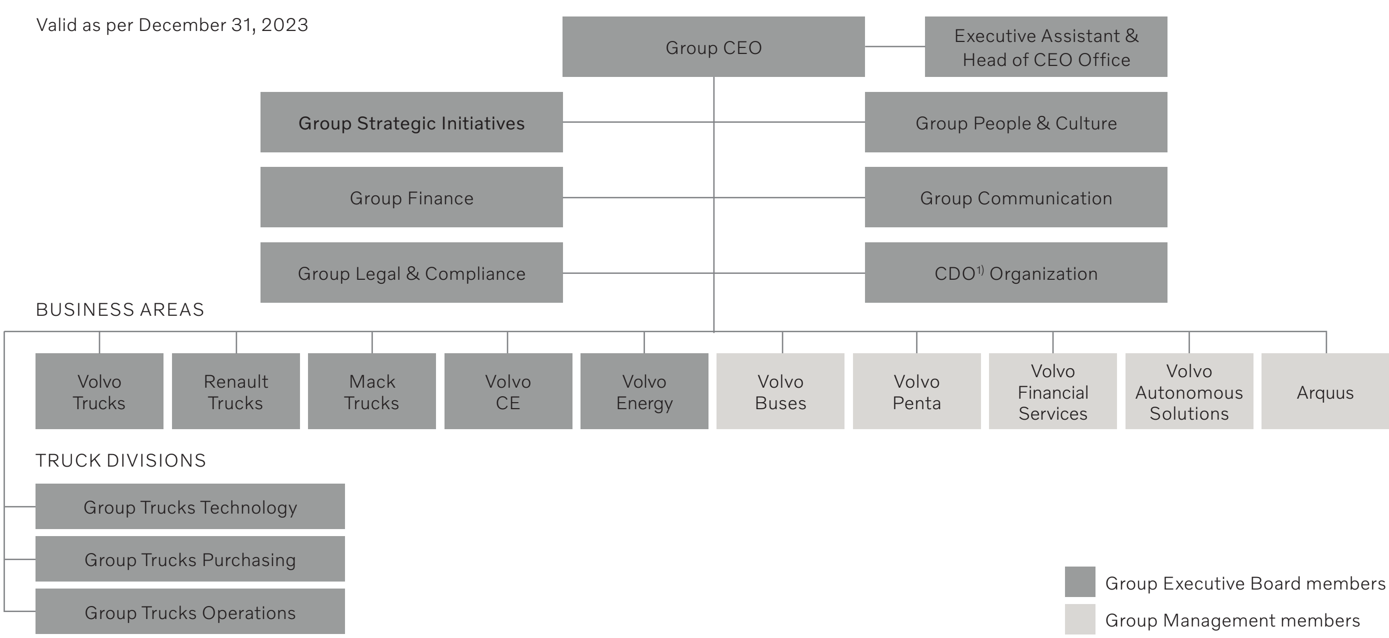
The Volvo Group operates through six Group Functions, three Truck Divisions and ten Business Areas. The six Group Functions (Group Finance, Group Legal & Compliance, Group People & Culture, Group Communication, Group Strategic Initiatives and CDO[1] Organization) are tasked with supporting the entire organization with expertise within each Group Function area, developing standards through policies, directives and guidelines as well as providing services and/or products for the entire Group. The Volvo Group's truck business, and in some areas also other Business Areas, are 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 Energy, Volvo Buses, Volvo Penta, Volvo Financial Services (VFS), Volvo Autonomous Solution (VAS) and Arquus. In addition, Nova Bus is a separate legal and operational entity within the Volvo Group.

Each Business Area and Truck Division holds regular Business Review Meetings, (BRM) to support strategic development and business performance, where key decisions are made. In addition, cross-functional decision forums like the People Board, Digital Product & Services Board, Product Board, Quality Board and Sales and Operational Planning ensure collaboration and alignment.

This governance model allows Volvo to leverage on global capabilities in product development, purchasing, and manufacturing while maintaining distinct leadership and responsibility in each Business Area. The aim is consistent business principles, optimizing earnings performance and cash flow generation in the short and long term across all Business Areas.

Volvo Group organization

Valid as per December 31, 2023



1 Chief Digital Office

11 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. During 2023, the members of the Group Executive Board are the 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 the extended Group Management include, in addition to the Group Executive Board members, the Presidents of Volvo Buses, Volvo Penta, Volvo Autonomous Solutions (VAS), Volvo Financial Services (VFS) and Arquus and report directly to the CEO respectively. The Group Executive Board and Group Management meet regularly to align on Group matters.

Remuneration of the Group Executive Board
AB Volvo's Annual General Meeting shall, at least every fourth year, resolve on guidelines for remuneration to the members of the Group Executive Board, based on a proposal from the Board. For information about the guidelines adopted by the Annual General Meeting 2023, please refer to Note 27 "Personnel" in the Group's notes in the Annual Report.

Changes to the Group Executive Board and Group Management
On June 1, 2023, Stephen Roy replaced Martin Weissburg as President of Mack Trucks and joined the Volvo Group Executive Board. On October 1, 2023, Mats Backman replaced Jan Ytterberg, then in the role as acting Chief Financial Officer, as Chief Financial Officer and joined the Volvo Group Executive Board. Jan Ytterberg continued as a senior advisor. On December 1, 2023, Anna Müller replaced Heléne Mellquist as President of Volvo Penta and joined the Volvo Group Management.

Sustainability matters
Sustainability is an intrinsic part of Volvo Group strategy and operations, and the Group relies on integrated approach to ensure that environmental, social and governance topics are considered in all relevant decision-making. Responsibilities for sustainability related matters largely follows the general management structure of the Group.

The Board of Directors' visit to Volvo Construction Equipment's plant in Changwon, South Korea.

On Group level, sustainability work is coordinated by cross-functional forums and working groups with representatives from the relevant Truck Divisions and Business Areas. These forums are assigned to specific topics and include:

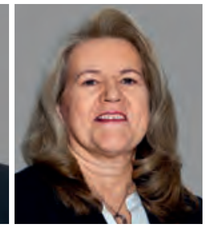
- The Product Board, headed by the Chief Technology Officer, where climate related opportunities and risks are managed primarily as part of the transition towards fossil-free transportation.
- The People Board, headed by the Executive Vice President and Head of People & Culture, which focuses on all significant employee related matters such as training, health and safety, diversity, inclusion and talent management.
- The Environmental Committee, 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.

In addition to the above, top sustainability related targets, risks and opportunities are managed by the Group Executive Board. One example is the Volvo Group's science-based climate targets which are regularly followed up in the Group Executive Board.

For more information on implementation of the Group's sustainability strategy and management of sustainability risks and opportunities see the Sustainability Notes, pages 163–193.

President and CEO Martin Lundstedt together with the Chairman of the Board Carl-Henric Svanberg, the Board and parts of the Group Executive Board in front of two Volvo EC550E excavators during a visit to Volvo Construction Equipment's plant in Changwon, South Korea.

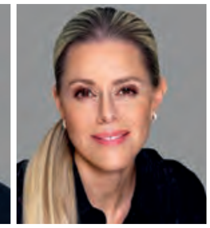
Group Executive Board

						
Martin Lundstedt *President and CEO*	**Roger Alm** *Executive Vice President Volvo Group and President Volvo Trucks*	**Nina Aresund** *Executive Vice President Group Legal & Compliance and General Counsel*	**Mats Backman** *Executive Vice President Group Finance and CFO*	**Bruno Blin** *Executive Vice President Volvo Group and President Renault Trucks*	**Andrea Fuder** *Executive Vice President Volvo Group Trucks Purchasing and Chief Purchasing Officer for Volvo Group*	**Jens Holtinger** *Executive Vice President Group Trucks Operations*
Employed since						
2015	1989	2007	2023	1999	2017	1995
Member of Group Executive Board since						
2015	2019	2023	2023	2016	2017	2020
Year of birth						
1967	1962	1974	1968	1963	1967	1970
Education						
MSc, Chalmers University of Technology		Master of Laws	BSc in Business Administration	MBA	MSc and MBA	MSc in Mechanical Engineering
Current assignments						
Chairman: Permobil AB Board member: Autoliv Inc., the Confederation of Swedish Enterprise, the International Chamber of Commerce (ICC), Sweden and the European Automobile Manufacturers' Association (ACEA CV BOD) Member: European Round Table of Industry (ERT) and the Royal Swedish Academy of Engineering Sciences (IVA)		Secretary to the AB Volvo Board	Board member: Gränges AB		Board member: The German-Swedish Chamber of Commerce	
Principal work experience and other information						
Co-chairman: UN Secretary-General's High-Level Advisory Group on Sustainable Transport President and CEO: Scania AB Board member: Concentric AB Other: Various management positions within Scania	Senior Vice President Volvo Trucks Europe, Senior Vice President Volvo Group Trucks Northern Europe, President Volvo Group Trucks Latin America, President Volvo Trucks Latin America and Managing Director Volvo Trucks, Region East	Head of Legal and Compliance Volvo Construction Equipment, Head of Corporate Legal AB Volvo and Corporate Legal Counsel AB Volvo	Operating Partner in Triton, CFO in Autoliv Inc. and, subsequently, Veoneer Inc., various management positions within Sandvik Group (including as CFO), Outokumpu, Nordea and Boliden	Senior Vice President Group Truck Sales South Europe, Senior Vice President Volvo Group Purchasing and, prior thereto, several senior positions within Renault Trucks Purchasing	Head of Purchasing at Scania and, prior thereto, various senior positions within Volkswagen's Purchasing organization	Senior Vice President Europe & Brazil Manufacturing Group Trucks Operations, Vice President Powertrain Production Skövde Plant and, prior thereto, several management positions within the Volvo Group
Holdings in AB Volvo, own and related parties						
290,301 Series B shares and 300,000 call options in Series B shares	398 Series A shares and 42,433 Series B shares	13,484 Series B shares	None	49,844 Series B shares	1,600 Series A shares and 77,559 Series B shares	30,220 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 Strategic Initiatives and President Volvo Energy*	**Stephen Roy** *Executive Vice President Volvo Group and President Mack Trucks*	**Lars Stenqvist** *Executive Vice President Group Trucks Technology and Volvo Group Chief Technology Officer*	**Kina Wileke** *Executive Vice President Group Communication*
Employed since						
2018	2005	2001	2005	1996	2016	2008
Member of Group Executive Board since						
2018	2019	2020	2012	2023	2016	2018
Year of birth						
1968	1966	1969	1970	1963	1967	1974
Education						
MSc in Mechanical Engineering	MBA and BA in Economics	BBA (Bachelors in Business Administration)	MSc Industrial Engineering and Management, MSc Financial Economics, MSc Business and Economics	BSA (Bachelor of Science in Agriculture) MBA Wake Forest University	MSc Industrial Engineering	MA in journalism
Current assignments						
			Board member: Concentric AB		Member: Royal Swedish Academy of Engineering Sciences (IVA)	Board member: International Chamber of Commerce (ICC), Sweden
Principal work experience and other information						
President and CEO: Höganäs AB Other: Executive Vice President, Business Area EMEA at SSAB, Senior Vice President Buses and Coaches at Scania AB and, prior thereto, various positions at Scania AB	Senior Vice President HR Trucks Asia Pacific, Senior Vice President HR Volvo Construction Equipment and, prior thereto, various management positions within Telefonaktiebolaget LM Ericsson	President Volvo Financial Services, CFO Chief Volvo Financial Services, Senior Vice President Global Operations Volvo Financial Services, Senior Vice President Risk Volvo Financial Services, several senior positions within Volvo Car Finance North America and, prior thereto, Business Assurance and Capital Markets Manager Coopers & Lybrand LLC	Executive Vice President Volvo Group and Chairman UD Trucks, Executive Vice President Group Trucks Sales, Executive Vice President Group Trucks Sales & Marketing APAC, President Volvo Group Asia Truck Operations, Vice President Volvo Group Alliance Office, Vice President Volvo Powertrain and, prior thereto, consultant with McKinsey & Company	Chairman: Association of Equipment Manufactures, CE Sector Other: Head of Region North America, Volvo Construction Equipment and, prior thereto, various senior positions within the Volvo Group, including within Mack Trucks and the Group's North American truck organization	Head of R&D and CTO at Volkswagen Truck & Bus, Senior Vice President Vehicle Definition R&D at Scania and, prior thereto, various senior positions at Scania	Senior Vice President Brand, Communication & Marketing Volvo Penta, Senior Vice President External Corporate Communication Volvo Group, CEO Communication Volvo Group and, prior thereto, various positions within TV4 Group
Holdings in AB Volvo, own and related parties						
53,281 Series B shares	76,312 Series B shares	36,646 Series B-shares	87 Series A shares and 283,587 Series B shares	29,352 Series B shares	52,710 Series B shares	344 Series A shares and 28,663 Series B shares

Extended Group Management

Nils Jaeger *President Volvo Autonomous Solutions*	**Emmanuel Levacher** *President and CEO Arquus*	**Anna Müller** *President Volvo Penta*	**Marcio Pedroso** *President Volvo Financial Services*	**Anna Westerberg** *President Volvo Buses*
Member of the extended Group Management since				
2020	2015	2023	2020	2021
Year of birth				
1969	1962	1967	1968	1975
Principal work experience and other information				
President of Volvo Financial Services EMEA and, prior thereto, several management positions within Deere & Company	International Director VECV, Sales & marketing Director Asia & Africa Renault SA. and, prior thereto, various management positions within Renault Trucks and Volvo	Senior Vice President Europe North & Central Volvo Trucks, several senior positions at Volvo Trucks and, prior thereto, Managing Director Ford Motor Company AB	Several management positions within Volvo Financial Services, including Senior Vice President, Americas, Managing Director, Brazil and Chile, and Vice President, Latin America Markets; additional senior positions and special assignments across Americas and Europe within the Volvo Group, as well as various management positions outside of Volvo within the insurance and corporate finance industries	Senior Vice President Volvo Group Connected Solutions, and prior thereto, President for Volvo Group Venture Capital and Vice President, Product Management Industrial, Volvo Penta

12 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 shareholders and other stakeholders with an understanding of the Group's internal control with regards to 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.

As further described above, Volvo also has an internal audit function, Group Internal Audit.

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 the company's basic values included in the Code of Conduct, to ensure that the business conducted by the organization is characterized by good ethics, integrity and is in compliance with legislation.

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 Group Executive Board and Group Management as well as the Board through the Audit Committee, based on assessments by management, 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 forecasts and estimates in management group meetings to specific reconciliation of accounts and analyzes 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 Program," 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 critical directives and policies, primarily the 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 the Group Executive Board, the Group Management and the Audit Committee. During 2023, 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 28, 2024

AB Volvo (publ)
The Board of Directors

AUDITOR'S REPORT ON THE CORPORATE GOVERNANCE STATEMENT

To the general meeting of the shareholders in AB Volvo 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 2023-01-01–2023-12-31 on pages 194-211 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 28, 2024

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 disposition of unappropriated earnings

AB Volvo	SEK
Retained earnings	31,034,973,781.14
Income for the period 2023	44,813,512,671.69
Total retained earnings	**75,848,486,452.83**

The Board of Directors proposes that the above sum be disposed of as follows:

	SEK
To the shareholders, an ordinary dividend of SEK 7.50 per share and an extraordinary dividend of SEK 10.50 per share, for a total of	36,602,137,512.00
To be carried forward	39,246,348,940.83
Total	**75,848,486,452.83**

The record date for determining who is entitled to receive dividends is proposed to be Tuesday April 2, 2024.

In view of the Board of Directors' proposal to the Annual General Meeting to be held March 27, 2024 to decide on the distribution of an ordinary dividend of SEK 7.50 per share and an extraordinary dividend of SEK 10.50 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 66.1% to 52.7% and the Group's solvency from 26.8% to 22.6%, calculated as per year end 2023. 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 39,246,348,940.83 will remain of the Company's non-restricted equity, calculated as per year end 2023.

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 28, 2024

Carl-Henric Svanberg
Board Chairman

Matti Alahuhta Board member	Bo Annvik Board member	Jan Carlson 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
Helena Stjernholm Board member	Lars Ask Board member	Mari Larsson Board member
	Urban Spännar Board member	

Our audit report was issued on February 28, 2024

Deloitte AB

Jan Nilsson
Authorized Public Accountant

Audit report

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 2023-01-01 - 2023-12-31. The annual accounts and consolidated accounts of the company are included on pages 56-162, 212 and 218-220 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 December 31, 2023 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 2023 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 Receivables in China

Risk description

The downturn in the Chinese construction equipment market is impacting customers' and dealers' profitability negatively. A substantial part of the Volvo Group's accounts receivable is related to customers in this market, and the determination of 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 financial performance. There is a high degree of uncertainty and subjectivity in determining the severity and duration of the decreased market activity, and the potential impact on the recoverability of the Group's receivables.

The Volvo Group applies a 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. The accounting principles for expected credit losses and management's significant judgments applied in relation thereto are further described in Note 16 "Receivables" to the annual report.

Our Audit Approach

Our audit procedures included, but were not limited to:

- Evaluating the design and implementation of relevant internal controls.
- Assessing the reasonableness of the expected credit loss methodology, including reviewing management's policies, procedures, and accounting position papers.
- Obtaining third-party confirmations from a selection of customers validating the existence and valuation of receivables.
- Performing audit procedures to test the completeness and accuracy of the underlying data and information used in managements estimation of the allowance for expected credit losses.
- Assessing the reasonableness of management's assumptions in relation to credit risk on a portfolio level as well as at customer-by-customer level through inspection of documentation supporting key assumptions, as well as by evaluating the financial position of a selection of customers.
- Assessing the adequacy of the disclosures related to the allowance for expected credit losses.

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 and management's significant judgements applied 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, 2023, the company has not been able to make a reliable estimate of the total amount of provision or contingent liability that could arise from these claims, except for the amount reflected in the provisions recorded which have been described by Volvo.

Our Audit Approach

Our audit procedures included, but were not limited to:

- Evaluating the design and implementation of relevant internal controls.
- Holding discussions with management and audit the relevant documentation to conclude how management and the board assessed the claims and other matters relevant to the claims.
- Holding discussions with internal legal department and with Volvo Group's external legal advisors in order to obtain an understanding of facts, development and assessment.
- Reviewing court rulings in relevant jurisdictions
- 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 provision.
- Assessing the adequacy of the disclosures around the legal proceedings.

Other information than the annual accounts and consolidated accounts

This document also contains other information than the annual accounts and consolidated accounts and is found on pages 1-55, 163-193 and 221-229. The other information comprises also of the remuneration report which we obtained prior to the date of this auditor's report. The Board of Directors and the Managing Director are responsible for this other information.

Our opinion on the annual accounts and consolidated accounts does not cover this other information and we do not express any form of assurance conclusion regarding this other information.

In connection with our audit of the annual accounts and consolidated accounts, our responsibility is to read the information identified above and consider whether the information is materially inconsistent with the annual accounts and consolidated accounts. In this procedure we also take into account our knowledge otherwise obtained in the audit and assess whether the information otherwise appears to be materially misstated.

If we, based on the work performed concerning this information, conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of the Board of Directors and the President

The Board of Directors and the Managing Director are responsible for the preparation of the annual accounts and consolidated accounts and that they give a fair presentation in accordance with the Annual Accounts Act and, concerning the consolidated accounts, in accordance with IFRS as adopted by the EU. The Board of Directors and the Managing Director are also responsible for such internal control as they determine is necessary to enable the preparation of annual accounts and consolidated accounts that are free from material misstatement, whether due to fraud or error.

In preparing the annual accounts and consolidated accounts, The Board of Directors and the Managing Director are responsible for the assessment of the company's and the group's ability to continue as a going concern. They disclose, as applicable, matters related to going concern and using the going concern basis of accounting. The going concern basis of accounting is however not applied if the Board of Directors and the Managing Director intends to liquidate the company, to cease operations, or has no realistic alternative but to do so.

The Audit Committee shall, without prejudice to the Board of Director's responsibilities and tasks in general, among other things oversee the company's financial reporting process.

Auditor's responsibility

Our objectives are to obtain reasonable assurance about whether the annual accounts and consolidated accounts as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinions. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs and generally accepted auditing standards in Sweden will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these annual accounts and consolidated accounts.

A further description of our responsibilities for the audit of the annual accounts and consolidated accounts is located at the Swedish Inspectorate of Auditors website: www.revisorsinspektionen.se/revisornsansvar. This description forms part of the auditor´s report.

REPORT ON OTHER LEGAL AND REGULATORY REQUIREMENTS

Opinions

In addition to our audit of the annual accounts and consolidated accounts, we have also audited the administration of the Board of Directors and the Managing Director of AB Volvo (publ) for the financial year 2023-01-01–2023-12-31 and the proposed appropriations of the company's profit or loss.

We recommend to the general meeting of shareholders that the profit to be appropriated in accordance with the proposal in the statutory administration report and that the members of the Board of Directors and the Managing Director be discharged from liability for the financial year.

Basis for Opinions

We conducted the audit in accordance with generally accepted auditing standards in Sweden. Our responsibilities under those standards are further described in the Auditor's Responsibilities section. We are independent of the parent company and the group in accordance with professional ethics for accountants in Sweden and have otherwise fulfilled our ethical responsibilities in accordance with these requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinions.

Responsibilities of the Board of Directors and the 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 Managing Director shall manage the ongoing administration according to the Board of Directors' guidelines and instructions and among other matters take measures that are necessary to fulfill the company's accounting in accordance with law and handle the management of assets in a reassuring manner.

Auditor's responsibility

Our objective concerning the audit of the administration, and thereby our opinion about discharge from liability, is to obtain audit evidence to assess with a reasonable degree of assurance whether any member of the Board of Directors or the Managing Director in any material respect:

- has undertaken any action or been guilty of any omission which can give rise to liability to the company, or
- in any other way has acted in contravention of the Companies Act, the Annual Accounts Act or the Articles of Association.

Our objective concerning the audit of the proposed appropriations of the company's profit or loss, and thereby our opinion about this, is to assess with reasonable degree of assurance whether the proposal is in accordance with the Companies Act.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with generally accepted auditing standards in Sweden will always detect actions or omissions that can give rise to liability to the company, or that the proposed appropriations of the company's profit or loss are not in accordance with the Companies Act.

A further description of our responsibilities for the audit of the management's administration is located at the Swedish Inspectorate of Auditors website: www.revisorsinspektionen.se/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 Managing Director have prepared the annual accounts and consolidated accounts in a format that enables uniform electronic reporting (the Esef report) pursuant to Chapter 16, Section 4 a of the Swedish Securities Market Act (2007:528) for AB Volvo (publ) for the financial year 2023-01-01–2023-12-31.

Our examination and our opinion relate only to the statutory requirements.

In our opinion, the Esef report 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 Managing Director are responsible for the preparation of the Esef report in accordance with the Chapter 16, Section 4 a of the Swedish Securities Market Act (2007:528), and for such internal control that the Board of Directors and the Managing Director determine is necessary to prepare the Esef report without material misstatements, whether due to fraud or error.

Auditor's responsibility
Our responsibility is to obtain reasonable assurance whether the Esef report is in all material respects prepared in a format that meets the requirements of Chapter 16, Section 4(a) of the Swedish Securities Market Act (2007:528), based on the procedures performed.

RevR 18 requires us to plan and execute procedures to achieve reasonable assurance that the Esef report is prepared in a format that meets these requirements.

Reasonable assurance is a high level of assurance, but it is not a guarantee that an engagement carried out according to RevR 18 and generally accepted auditing standards in Sweden will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the Esef report.

The firm applies International Standard on Quality Management 1, which requires the firm to design, implement and operate a system of quality management including policies or procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

The examination involves obtaining evidence, through various procedures, that the Esef report has been prepared in a format that enables uniform electronic reporting of the annual accounts and consolidated accounts. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement in the report, whether due to fraud or error. In carrying out this risk assessment, and in order to design audit procedures that are appropriate in the circumstances, the auditor considers those elements of internal control that are relevant to the preparation of the Esef report by the Board of Directors and the Managing Director, but not for the purpose of expressing an opinion on the effectiveness of those internal controls. The examination also includes an evaluation of the appropriateness and reasonableness of assumptions made by the Board of Directors and the Managing Director.

The procedures mainly include a validation that the Esef report has been prepared in a valid XHMTL format and a reconciliation of the Esef report with the audited annual accounts and consolidated accounts.

Furthermore, the procedures also include an assessment of whether the consolidated statement of financial performance, financial position, changes in equity, cash flow and disclosures in the Esef report have been marked with iXBRL in accordance with what follows from the Esef regulation.

Deloitte AB, was appointed auditor of AB Volvo by the general meeting of the shareholders on April 4, 2023 and has been the company's auditor since April 5, 2018.

Göteborg, February 28, 2024

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 LIMITED ASSURANCE REPORT ON SUSTAINABILITY REPORT AND STATEMENT REGARDING THE STATUTORY SUSTAINABILITY REPORT

To AB Volvo (publ.), corporate identity number 556012-5790

Introduction
We have been engaged by the Board of Directors and Executive Management of AB Volvo to undertake a limited assurance engagement of the AB Volvo Sustainability Report for the year 2023. The Company has defined the scope of the Sustainability Report in connection to the table of content in the Annual Report and the Statutory Sustainability Report on page 56.

Responsibilities of the Board of Directors and the Executive Management
The Board of Directors and the Executive Management are responsible for the preparation of the Sustainability Report including the Statutory Sustainability Report in accordance with the applicable criteria and the Annual Accounts Act respectively. The criteria are defined on page 163 in the Annual Report, and are part of the Sustainability Reporting Guidelines published by GRI (Global Reporting Initiative), which are applicable to the Sustainability Report, as well as the accounting and calculation principles that the Company has developed. This responsibility also includes the internal control relevant to the preparation of a Sustainability Report that is free from material misstatements, whether due to fraud or error.

Responsibilities of the auditor
Our responsibility is to express a conclusion on the Sustainability Report based on the limited assurance procedures we have performed and to express an opinion regarding the Statutory Sustainability Report. Our engagement is limited to historical information presented and does therefore not cover future-oriented information.

We conducted our limited assurance engagement in accordance with ISAE 3000 (revised) Assurance Engagements Other than Audits or Reviews of Historical Financial Information. A limited assurance engagement consists of making inquiries, primarily of persons responsible for the preparation of the Sustainability Report, and applying analytical and other limited assurance procedures. Our examination regarding the Statutory Sustainability Report has been conducted in accordance with FAR's accounting standard RevR 12 The auditor's opinion regarding the Statutory Sustainability Report. A limited assurance engagement and an examination according to RevR 12 is different and substantially less in scope than an audit conducted in accordance with International Standards on Auditing and generally accepted auditing standards in Sweden.

The firm applies International Standard on Quality Management 1, which requires the firm to design, implement and operate a system of quality management including policies or procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements. We are independent of AB Volvo in accordance with professional ethics for accountants in Sweden and have otherwise fulfilled our ethical responsibilities in accordance with these requirements.

The limited assurance procedures performed and the examination according to RevR 12 do not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. The conclusion based on a limited assurance engagement and an examination according to RevR 12 does not provide the same level of assurance as a conclusion based on an audit.

Our procedures are based on the criteria defined by the Board of Directors and the Executive Management as described above. We consider these criteria suitable for the preparation of the Sustainability Report.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion below.

Conclusion
Based on the limited assurance procedures we have performed, nothing has come to our attention that causes us to believe that the Sustainability Report, is not prepared, in all material respects, in accordance with the criteria defined by the Board of Directors and Executive Management.

A Statutory Sustainability Report has been prepared.

Göteborg, February 28, 2024

Deloitte AB

Jan Nilsson Authorized Public Accountant	Lennart Nordqvist Expert Member of FAR

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 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.*

Operating cash flow
Definition: The operating cash flow is a measure of the amount of cash generated by the Volvo Group's regular business operations. The operating cash flow also includes investments and disposals of intangible and tangible assets, which are part of the investing activities. For reconciliation see *Consolidated cash flow statement*.

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. 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	**2023**	2022
Net sales	533,269	459,703
Operating income	63,063	44,862
Amortization product and software development	2,890	2,799
Amortization other intangible assets	161	119
Depreciation tangible assets	13,123	13,010
Total depreciation and amortization	16,173	15,928
Operating income before depreciation and amortization (EBITDA)	**79,237**	**60,790**
EBITDA margin, %	**14.9**	**13.2**

Equity ratio
Definition: Total equity divided by total assets.

	Industrial Operations		Volvo Group	
SEK M	**2023**	2022	**2023**	2022
Total equity	159,119	147,439	180,739	166,236
Total assets	439,807	431,771	674,068	629,064
Equity ratio, %	**36.2**	**34.1**	**26.8**	**26.4**

Gross margin
Definition: Gross income divided by net sales.

	Industrial Operations		Volvo Group	
SEK M	**2023**	2022	**2023**	2022
Net sales	533,269	459,703	552,764	473,479
Gross income	141,693	105,021	149,321	111,737
Gross margin, %	**26.6**	**22.8**	**27.0**	**23.6**

Net capitalization of research and development cost
Definition: Capitalized research and development cost reduced by amortizations.

	Volvo Group	
SEK M	**2023**	2022
Capitalization	4,710	4,707
Amortization	–2,688	–2,635
Net capitalization of research and development cost	**2,021**	**2,072**

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 statement 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. Items of a one-time character means they are not directly related to the underlying business operations, they occur infrequently and with limited predictive value. Examples of significant one-time items can be results from divestments of operations or restructuring costs.

Definition adjusted operating margin: Adjusted operating income divided by net sales.

2023 SEK M	Quarter	Trucks	Construction Equipment	Buses	Volvo Penta	Group Functions & Other incl. elim	Industrial Operations	Financial Services	Eliminations	Volvo Group
Net sales		**373,048**	**104,981**	**22,423**	**21,006**	**11,811**	**533,269**	**24,012**	**–4,518**	**552,764**
Operating income		**48,893**	**16,383**	**–380**	**3,230**	**–5,062**	**63,063**	**3,719**	**2**	**66,784**
Previously announced provision for premature degradation of an emission control component	1	139	–	–139	–	–	–	–	–	–
Restructuring charges relating to the European bus operation	1	–	–	–1,300	–	–	–1,300	–	–	–1,300
Restructuring charges relating to the US bus production for Nova Bus	2	–	–	–	–	–1,270	–1,270	–	–	–1,270
Costs relating to claims arising from the European Commission's 2016 antitrust settlement decision	2	–6,000	–	–	–	–	–6,000	–	–	–6,000
Financial impact related to Russia	3	–640	–	–	–	–18	–658	–136	–	–794
Financial impact related to the planned divestment of the ABG paver business	4	–	–610	–	–	–	–610	–	–	–610
Financial impact related to the planned divestment of Arquus	4	–	–	–	–	–880	–880	–	–	–880
	Year	–6,501	–610	–1,439	–	–2,168	–10,718	–136	–	–10,854
Adjusted operating income		**55,394**	**16,993**	**1,059**	**3,320**	**–2,895**	**73,782**	**3,855**	**2**	**77,638**
Operating margin, %		**13.1**	**15.6**	**–1.7**	**15.4**	–	**11.8**	–	–	**12.1**
Adjusted operating margin, %		**14.8**	**16.2**	**4.7**	**15.4**	–	**13.8**	–	–	**14.0**

2022 SEK M	Quarter	Trucks	Construction Equipment	Buses	Volvo Penta	Group Functions & Other incl. elim	Industrial Operations	Financial Services	Eliminations	Volvo Group
Net sales		**310,536**	**100,261**	**18,583**	**18,102**	**12,221**	**459,703**	**17,355**	**–3,579**	**473,479**
Operating income		**31,976**	**12,907**	**353**	**2,527**	**–2,900**	**44,862**	**848**	**2**	**45,712**
Financial impact related to Russia	1	–1,447	–106	–	–3	–1	–1,557	–2,568	–	–4,125
Financial impact related to Russia	3	232	–232	–	–	–	–	–	–	–
Costs relating to claims arising from the European Commission's 2016 antitrust settlement decision	4	–630	–	–	–	–	–630	–	–	–630
	Year	–1,845	–338	–	–3	–1	–2,187	–2,568	–	–4,755
Adjusted operating income		**33,821**	**13,244**	**353**	**2,530**	**–2,899**	**47,049**	**3,416**	**2**	**50,467**
Operating margin, %		**10.3**	**12.9**	**1.9**	**14.0**	**–**	**9.8**	**–**	**–**	**9.7**
Adjusted operating margin, %		**10.9**	**13.2**	**1.9**	**14.0**	**–**	**10.2**	**–**	**–**	**10.7**

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	**2023**	2022
Number of financed units	68,027	68,658
Number of units sold where financial services are offered	251,751	241,117
Penetration rate, %	**27**	**28**

Return on capital employed

Definition: Operating income plus interest income and similar credits divided by weighted average capital employed.

	Industrial Operations	
SEK M	**2023**	2022
Operating income	63,063	44,862
Interest income and similar credits	3,207	1,315
Operating income and interest income and similar credits	66,270	46,177
Weighted average capital employed	180,434	168,703
Return on capital employed, %	**36.7**	**27.4**

Return on operating capital

Definition: Operating income divided by weighted average operating capital.

	Industrial Operations	
SEK M	**2023**	2022
Operating income	63,063	44,862
Weighted average operating capital	88,397	88,367
Return on operating capital, %	**71.3**	**50.8**

Return on equity

Definition: Income for the period divided by weighted average equity.

	Financial Services		Volvo Group	
SEK M	**2023**	2022	**2023**	2022
Income for the period	2,695	–53	49,932	32,969
Weighted average equity	20,730	16,766	173,780	159,232
Return on equity, %	**13.0**	**–0.3**	**28.7**	**20.7**

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	**2023**	2022	**2023**	2022
Net sales	533,269	459,703	552,764	473,479
Increase/decrease of net sales for the year	73,567	98,642	79,285	101,263
Currency rates	–24,866	–42,087	–26,030	–44,031
Acquired and divested units	–	5,438	–	5,438
Adjusted Increase/decrease of net sales for the year	48,700	61,993	53,255	62,669
Sales growth adjusted for currency and acquired and divested units, %	**10.6**	**17.2**	**11.2**	**16.8**

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	**2023**	2022	**2023**	2022
Cash flow from operating activities	63,430	51,423	26,675	33,244
Investments in in-/tangible assets and leasing vehicles, net	17,609	16,096	22,985	20,288
Self-financing ratio, %	**360**	**319**	**116**	**164**

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	**2023**	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Net sales	**552,764**	**473,479**	**372,216**	**338,446**	**431,980**	**390,834**	**334,748**	**301,914**	**312,515**	**282,948**	**272,622**
Cost of sales	–403,443	–361,741	–282,463	–259,319	–326,895	–303,478	–254,581	–231,602	–240,653	–220,012	–212,504
Gross income	**149,321**	**111,737**	**89,753**	**79,127**	**105,085**	**87,357**	**80,167**	**70,312**	**71,862**	**62,937**	**60,118**
Research and development expenses	–26,645	–22,526	–18,027	–16,798	–18,539	–15,899	–16,098	–14,631	–15,368	–16,656	–15,124
Selling expenses	–33,675	–29,044	–23,959	–26,510	–33,037	–30,890	–28,582	–26,867	–27,694	–27,448	–28,506
Administrative expenses	–7,356	–5,880	–4,870	–4,621	–5,901	–5,798	–5,642	–5,121	–5,769	–5,408	–5,862
Other operating income and expenses	–12,280	–7,374	246	–5,459	–221	–2,273	–1,061	–3,135	–4,179	–7,697	–3,554
Income from investments in joint ventures and associated companies	–2,568	–1,333	–54	1,749	1,859	1,948	1,407	156	–143	46	96
Income from other investments	–14	132	–15	–3	285	33	135	112	4,609	50	–30
Operating income	**66,784**	**45,712**	**43,074**	**27,484**	**49,531**	**34,478**	**30,327**	**20,826**	**23,318**	**5,824**	**7,138**
Interest income and similar credits	2,690	1,008	358	299	320	199	164	240	257	328	381
Interest expenses and similar charges	–1,167	–1,205	–1,167	–1,349	–1,674	–1,658	–1,852	–1,847	–2,366	–1,994	–2,810
Other financial income and expenses	–1,581	–437	926	–518	–1,345	–870	–385	11	–792	931	11
Income after financial items	**66,726**	**45,077**	**43,190**	**25,917**	**46,832**	**32,148**	**28,254**	**19,230**	**20,418**	**5,089**	**4,721**
Income taxes	–16,794	–12,108	–9,947	–5,843	–10,337	–6,785	–6,971	–6,008	–5,320	–2,854	–919
Income for the period	**49,932**	**32,969**	**33,243**	**20,074**	**36,495**	**25,363**	**21,283**	**13,223**	**15,099**	**2,235**	**3,802**
Attributable to:											
Owners of AB Volvo	49,825	32,722	32,787	19,318	35,861	24,897	20,981	13,147	15,058	2,099	3,583
Non-controlling interest	107	247	456	755	635	466	302	75	41	136	219

Income statement Industrial Operations

SEK M	**2023**	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Net sales	**533,269**	**459,703**	**361,062**	**326,472**	**418,361**	**378,320**	**323,809**	**291,459**	**303,582**	**275,999**	**265,420**
Cost of sales	–391,576	–354,682	–277,048	–252,933	–319,055	–296,109	–248,382	–225,797	–236,311	–217,251	–209,307
Gross income	**141,693**	**105,021**	**84,013**	**73,539**	**99,306**	**82,210**	**75,428**	**65,662**	**67,271**	**58,748**	**56,113**
Research and development expenses	–26,645	–22,526	–18,027	–16,798	–18,539	–15,899	–16,098	–14,631	–15,368	–16,656	–15,124
Selling expenses	–30,380	–26,066	–21,575	–24,284	–30,483	–28,642	–26,495	–24,946	–25,857	–25,778	–26,904
Administrative expenses	–7,342	–5,867	–4,859	–4,611	–5,887	–5,756	–5,602	–5,081	–5,728	–5,367	–5,824
Other operating income and expenses	–11,687	–4,498	300	–3,673	230	–1,828	–640	–2,531	–3,473	–6,931	–2,710
Income/loss from investments in joint ventures and associated companies	–2,568	–1,333	–54	1,749	1,859	1,948	1,407	156	–143	46	96
Income from other investments	–9	132	–15	–4	285	33	135	112	4,610	49	–31
Operating income	**63,063**	**44,862**	**39,783**	**25,919**	**46,771**	**32,067**	**28,135**	**18,740**	**21,312**	**4,111**	**5,616**

Consolidated balance sheets SEK M	**2023**	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Intangible assets	42,512	41,544	37,070	34,577	36,668	38,104	35,893	37,916	36,416	37,115	36,588
Property, plant and equipment	68,449	63,162	54,405	49,113	53,496	55,673	53,348	55,875	53,618	55,181	52,233
Assets under operating leases	41,910	43,518	39,969	37,962	43,326	43,103	37,166	34,693	32,531	31,218	25,672
Shares and participations	20,039	22,188	21,225	13,436	13,113	11,875	11,225	12,420	12,050	9,839	6,327
Inventories	76,863	75,689	63,916	47,625	56,644	65,783	52,701	48,287	44,390	45,533	41,153
Customer-financing receivables	232,203	193,928	151,504	128,531	142,982	126,927	109,378	110,821	102,583	99,166	83,861
Interest-bearing receivables	6,170	7,466	3,702	5,880	2,743	3,393	3,501	2,393	2,938	2,555	1,389
Other receivables	90,548	97,590	81,772	73,982	81,432	82,509	72,961	70,814	61,932	68,448	59,943
Cash and cash equivalents	83,415	83,979	62,293	85,419	61,660	47,093	36,270	25,172	24,393	33,554	29,559
Assets held for sale	11,960	–	–	34,296	32,773	203	51	525	3,314	288	8,104
Assets	**674,068**	**629,064**	**515,856**	**510,821**	**524,837**	**474,663**	**412,494**	**398,916**	**374,165**	**382,896**	**344,829**
Total equity[1]	180,739	166,236	144,118	148,142	141,678	125,831	109,011	97,764	85,610	80,048	77,365
Provision for post-employment benefits	11,219	8,745	12,177	18,430	19,988	16,482	14,476	14,669	13,673	16,683	12,322
Other provisions	32,602	30,987	28,095	27,335	30,835	32,165	25,477	26,408	27,207	28,010	19,900
Interest-bearing liabilities	236,791	210,948	153,624	153,424	157,752	135,857	127,676	141,048	132,607	147,985	135,001
Other liabilities	204,559	212,148	177,842	152,204	164,171	164,328	135,854	118,879	114,495	110,042	99,891
Liabilities held for sale	8,157	–	–	11,286	10,413	–	–	148	573	130	350
Total equity and liabilities	**674,068**	**629,064**	**515,856**	**510,821**	**524,837**	**474,663**	**412,494**	**398,916**	**374,165**	**382,896**	**344,829**
[1]of which non-controlling interests	2,948	3,519	3,073	2,847	3,083	2,452	1,941	1,703	1,801	1,723	1,333
Assets pledged	7,924	3,582	6,742	14,960	21,220	15,988	12,791	10,592	9,428	7,680	5,078
Contingent liabilities	15,907	18,201	17,971	13,832	13,732	14,247	15,242	16,056	15,580	15,940	17,290

Balance sheets Industrial Operations SEK M	**2023**	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Intangible assets	42,378	41,471	36,971	34,423	36,467	37,889	35,716	37,768	36,314	37,010	36,479
Property, plant and equipment	68,393	63,112	54,356	49,045	53,411	55,631	53,308	55,812	53,554	55,087	52,146
Assets under operating leases	35,154	34,109	32,150	29,460	33,794	32,700	24,051	22,752	20,616	19,484	17,013
Shares and participations	20,020	22,169	21,209	13,421	13,095	11,866	11,215	12,409	12,042	9,825	6,321
Inventories	75,958	75,382	63,715	47,273	56,080	65,366	52,231	48,080	44,194	45,364	40,964
Customer-financing receivables	2,632	3,031	2,537	1,695	1,570	1,560	1,358	1,698	11	1,828	1,406
Interest-bearing receivables	6,189	12,918	3,723	6,301	4,916	3,882	4,966	4,415	3,738	2,777	2,195
Other receivables	98,176	103,481	96,758	84,413	99,082	101,347	85,822	75,759	68,223	70,413	60,679
Cash and cash equivalents	78,947	76,098	59,603	82,186	57,675	43,907	32,447	20,875	21,210	31,105	28,230
Assets held for sale	11,960	–	–	29,362	28,427	203	51	525	3,314	288	8,104
Assets	**439,807**	**431,771**	**371,022**	**377,579**	**384,517**	**354,351**	**301,165**	**280,093**	**263,216**	**273,181**	**253,537**
Total equity	159,119	147,439	129,619	135,127	127,150	113,144	97,790	86,579	75,151	70,105	68,467
Provision for post-employment benefits	11,138	8,690	12,095	18,282	19,850	16,374	14,391	14,608	13,621	16,580	12,249
Other provisions	32,511	28,485	24,918	23,794	27,055	28,476	22,680	22,545	23,936	25,054	17,575
Interest-bearing liabilities	19,641	29,735	19,919	35,017	32,326	25,328	27,001	33,944	32,562	48,180	52,491
Other liabilities	209,239	217,422	184,471	158,721	172,209	171,029	139,303	122,269	117,374	113,131	102,405
Liabilities held for sale	8,157	–	–	6,638	5,927	–	–	148	573	130	350
Total equity and liabilities	**439,807**	**431,771**	**371,022**	**377,579**	**384,517**	**354,351**	**301,165**	**280,093**	**263,216**	**273,181**	**253,537**

Consolidated cash flow statements SEK bn	**2023**	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Operating income	66.8	45.7	43.1	27.5	49.5	34.5	30.3	20.8	23.3	5.8	7.1
Depreciation and amortization	21.2	20.7	18.7	20.6	20.6	18.4	16.9	16.7	16.8	15.9	17.4
Other non-cash items	13.8	7.0	–1.0	1.2	–2.8	9.7	1.4	–0.4	–0.5	6.1	2.4
Change in working capital	–55.8	–28.7	–17.5	–13.7	–18.2	–23.7	–4.7	–13.9	–9.0	–14.1	–10.8
Dividends received from joint ventures and associated companies	0.1	0.1	0.8	1.1	0.5	–	–	–	–	–	–
Financial items and income tax	–19.5	–11.6	–10.4	–5.0	–10.1	–7.7	–6.3	–5.7	–4.6	–5.0	–5.1
Cash flow from operating activities	**26.7**	**33.2**	**33.6**	**30.6**	**39.0**	**31.2**	**37.6**	**17.5**	**25.9**	**8.7**	**11.0**
Investments in in-/tangible assets	–18.4	–16.7	–12.5	–8.8	–12.0	–10.7	–7.7	–9.5	–8.8	–8.6	–12.2
Investments in leasing assets	–10.3	–9.2	–9.3	–8.6	–10.0	–10.1	–11.5	–10.8	–10.5	–10.1	–8.2
Disposals of in-/tangible assets and leasing assets	5.7	5.6	5.8	6.3	7.4	6.2	5.4	9.0	6.0	5.0	3.4
Investments and divestments of shares, net	–1.2	–0.9	–7.4	–0.5	0.1	1.0	2.2	0.2	–2.0	0.1	0.0
Acquired and divested operations, net	–2.4	–0.1	22.0	0.4	1.3	–0.2	0.9	1.4	0.4	7.4	0.9
Interest-bearing receivables including marketable securities	–0.3	–0.2	–0.1	1.1	–1.0	0.1	1.6	2.5	3.6	–4.8	0.5
Cash flow after net investments	**–0.2**	**11.8**	**32.2**	**20.7**	**24.9**	**17.4**	**28.5**	**10.4**	**14.5**	**–2.3**	**–4.6**
Change in loans, net	31.0	34.0	–7.0	7.3	9.3	1.9	–9.0	–2.2	–13.2	6.7	13.0
Dividend to AB Volvo's shareholders	–28.5	–26.4	–49.8	–	–20.3	–8.6	–6.6	–6.1	–6.1	–6.1	–6.1
Dividend to non-controlling interests	–0.5	–	–0.6	–0.8	–	–	–	–0.2	–	–	–0.2
Other	–0.1	–	–0.1	–0.1	0.2	–	–	–	–	–0.1	0.1
Change in cash and cash equivalents excluding exchange rate changes	**1.7**	**19.2**	**–25.4**	**27.1**	**14.0**	**10.7**	**12.8**	**1.9**	**–4.8**	**–1.8**	**2.2**
Effect of exchange rate changes on cash and cash equivalents	–2.2	2.5	2.3	–3.4	0.5	0.1	–0.7	1.0	–0.4	1.1	–0.5
Change in cash and cash equivalents	**–0.6**	**21.8**	**–23.1**	**23.7**	**14.5**	**10.8**	**12.1**	**2.9**	**–5.2**	**–0.7**	**1.7**

Operating cash flow Industrial Operations SEK bn	**2023**	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Operating income	63.0	44.9	39.8	25.9	46.8	32.1	28.1	18.7	21.3	4.1	5.6
Depreciation and amortization	16.2	15.9	14.3	15.9	15.8	13.8	12.6	12.6	12.6	12.7	14.5
Other non-cash items	12.7	3.4	–1.4	–0.8	–3.6	8.9	0.9	–1.1	–1.1	5.3	1.5
Change in working capital	–10.2	–2.5	–2.3	–11.0	–0.5	–11.0	–0.2	–14.7	–1.9	–3.3	–2.0
Dividends received from joint ventures and associated companies	0.1	0.1	0.8	1.1	0.5	–	–	–	–	–	–
Financial items and income taxes	–18.3	–10.3	–9.5	–4.2	–9.5	–7.5	–5.6	–5.6	–4.0	–4.5	–4.9
Cash flow from operating activities	**63.4**	**51.4**	**41.7**	**25.9**	**49.0**	**36.4**	**35.8**	**9.9**	**26.7**	**14.3**	**14.7**
Investments in in-/tangible assets	–18.3	–16.6	–12.5	–8.7	–11.9	–10.7	–7.7	–9.4	–8.8	–8.6	–12.2
Investments in leasing assets	–	–	–	–	–0.1	–	–0.1	–0.1	–0.3	–0.5	–1.5
Disposals of in-/tangible assets and leasing assets	0.7	0.6	0.4	1.4	1.4	0.9	0.4	3.2	0.7	1.1	0.5
Operating cash flow	**45.8**	**35.3**	**29.4**	**18.5**	**38.3**	**26.6**	**28.4**	**3.5**	**18.3**	**6.4**	**1.5**

Exports from Sweden SEK M	**2023**	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Volvo Group, total	139,026	132,092	108,538	92,746	118,543	117,887	107,958	91,962	86,731	78,174	88,560

Key ratios	**2023**	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Gross margin, %[1]	26.6	22.8	23.3	22.5	23.7	21.7	23.3	22.5	22.2	21.3	21.1
Research and development expenses as % of net sales[1]	5.0	4.9	5.0	5.1	4.4	4.2	5.0	5.0	5.1	6.0	5.7
Selling expenses as % of net sales[1]	5.7	5.7	6.0	7.4	7.3	7.6	8.2	8.6	8.5	9.3	10.1
Administration expenses as % of net sales[1]	1.4	1.3	1.3	1.4	1.4	1.5	1.7	1.7	1.9	1.9	2.2
Operating income before depreciation and amortization (EBITDA), SEK M[1]	79,237	60,790	54,080	41,847	62,568	45,858	40,732	31,373	33,886	16,784	20,089
EBITDA margin, %[1]	14.9	13.2	15.0	12.8	15.0	12.1	12.6	10.8	11.2	6.1	7.6
Net capitalization of research and development, SEK M	2,021	2,072	552	–385	1,006	791	–876	90	–550	–1,441	787
Return on capital employed in Industrial Operations, %	36.7	27.4	25.3	14.7	28.4	22.4	–	–	–	–	–
Return on operating capital in Industrial Operations, %	71.3	50.8	51.9	29.4	52.3	39.0	32.5	21.5	25.0	4.5	5.9
Return on total equity, %	28.7	20.7	23.4	13.8	27.0	21.3	20.8	14.9	18.4	2.8	5.0
Self-financing ratio, %	116	164	210	279	268	213	272	155	194	64	84
Self-financing ratio Industrial Operations, %	360	319	341	353	458	373	483	155	316	180	112
Net Financial position excl. post-employment benefits and lease liabilities SEK M[1]	83,407	73,897	66,227	74,691	62,596	43,926	26,339	–1,151	349	–9,924	–19,828
Net Financial position incl. post-employment benefits and lease liabilities SEK M[1]	66,687	61,303	50,356	50,959	37,267	29,101	12,200	–15,679	–13,237	–26,378	–32,066
Equity ratio	26.8	26.4	27.9	29.0	27.0	26.5	26.4	24.5	22.9	20.9	22.4
Equity ratio, Industrial Operations	36.2	34.1	34.9	35.8	33.1	31.9	32.5	30.9	28.6	25.7	27.0

1 Pertains to the Industrial Operations.

Regular employees at year-end Number	**2023**	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Sweden	24,361	22,964	21,022	20,598	21,094	20,887	19,965	19,235	20,412	21,384	22,588
Europe, excluding Sweden	28,205	28,056	27,378	27,678	29,033	28,807	27,596	26,955	27,662	29,449	29,746
North America	18,624	17,815	16,956	15,559	17,750	17,845	15,882	14,245	15,534	15,217	16,397
South America	6,964	6,665	5,860	5,448	5,466	5,228	4,774	4,762	5,380	6,353	6,275
Asia	10,318	9,990	9,305	16,121	16,863	16,888	16,526	16,469	17,046	17,793	17,953
Africa and Oceania	2,263	2,196	2,019	2,088	2,369	2,474	2,361	2,373	2,430	2,626	2,574
Volvo Group total	**90,735**	**87,686**	**82,540**	**87,492**	**92,575**	**92,129**	**87,104**	**84,039**	**88,464**	**92,822**	**95,533**

Operating segment statistics

Net sales SEK M		2023	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Trucks	Europe	175,203	137,177	107,798	92,127	112,125	111,237	99,642	91,468	83,767	72,757	73,640
	North America	107,975	92,582	65,308	52,038	85,731	70,233	52,405	51,849	73,017	53,696	40,314
	South America	36,897	38,254	23,569	15,830	23,753	16,021	12,789	10,613	11,624	19,669	23,318
	Asia	30,617	23,988	21,359	35,441	37,610	36,664	36,998	33,464	31,589	29,264	26,740
	Africa and Oceania	22,356	18,535	12,846	12,826	17,427	16,203	14,646	13,256	13,982	15,518	14,462
	Total	**373,048**	**310,536**	**230,881**	**208,262**	**276,647**	**250,358**	**216,480**	**200,650**	**213,978**	**190,904**	**178,474**
Construction Equipment	Europe	34,228	30,194	29,524	23,191	30,300	27,291	22,977	19,739	17,732	17,215	16,356
	North America	29,590	22,294	16,583	13,020	17,404	15,575	12,234	10,724	11,843	10,784	8,319
	South America	4,101	6,491	3,951	2,245	2,532	2,304	1,760	1,414	2,207	3,234	3,314
	Asia	28,150	34,228	36,427	39,095	33,932	33,781	25,058	15,765	16,424	18,458	21,911
	Africa and Oceania	8,912	7,054	5,546	3,902	4,437	5,287	4,468	3,088	2,802	3,164	3,539
	Total	**104,981**	**100,261**	**92,031**	**81,453**	**88,606**	**84,238**	**66,497**	**50,731**	**51,008**	**52,855**	**53,437**
Buses	Europe	7,007	6,034	5,886	5,765	7,369	7,036	7,753	7,861	7,284	6,139	5,429
	North America	9,200	6,521	4,089	8,302	15,543	13,244	12,512	11,345	10,635	6,721	5,929
	South America	2,207	3,154	882	1,793	3,281	1,393	1,148	1,363	1,425	2,559	1,836
	Asia	1,601	1,372	1,371	2,397	2,617	2,094	3,135	3,067	2,557	1,892	2,055
	Africa and Oceania	2,408	1,502	1,423	1,535	2,209	2,060	1,530	1,749	1,678	1,334	1,457
	Total	**22,423**	**18,583**	**13,652**	**19,791**	**31,019**	**25,826**	**26,078**	**25,386**	**23,580**	**18,645**	**16,707**
Volvo Penta	Europe	10,787	9,417	7,464	6,064	6,671	7,487	5,727	4,973	4,462	3,779	3,714
	North America	4,070	3,695	2,949	2,532	3,180	2,912	2,456	2,191	2,161	1,584	1,491
	South America	783	635	474	345	319	299	289	291	365	386	297
	Asia	3,950	3,302	2,698	2,228	2,439	2,443	2,082	1,891	1,855	1,615	1,692
	Africa and Oceania	1,417	1,054	851	691	679	599	566	546	562	425	356
	Total	**21,006**	**18,102**	**14,437**	**11,891**	**13,287**	**13,741**	**11,119**	**9,893**	**9,406**	**7,790**	**7,550**
	Group functions & Other incl. eliminations	11,811	12,221	10,061	5,074	8,802	4,157	3,635	4,799	5,610	5,806	9,252
Net sales Industrial Operations		**533,269**	**459,703**	**361,062**	**326,472**	**418,361**	**378,320**	**323,809**	**291,459**	**303,582**	**275,999**	**265,420**
Financial Services	Europe	8,727	6,705	5,929	6,116	6,279	6,063	5,431	5,116	5,278	5,120	4,686
	North America	7,775	5,752	4,519	4,907	5,534	4,600	4,234	4,202	4,033	2,999	2,900
	South America	5,374	3,338	1,618	1,380	1,555	1,276	1,368	1,235	1,116	1,122	1,009
	Asia	1,027	788	843	1,022	1,010	800	543	476	548	638	707
	Africa and Oceania	1,108	772	528	535	492	332	235	213	224	232	237
	Total	**24,012**	**17,355**	**13,437**	**13,960**	**14,870**	**13,070**	**11,812**	**11,242**	**11,199**	**10,111**	**9,539**
	Eliminations	–4,518	–3,579	–2,283	–1,987	–1,252	–555	–873	–787	–2,265	–3,162	–2,336
Volvo Group total		**552,764**	**473,479**	**372,216**	**338,446**	**431,980**	**390,834**	**334,748**	**301,914**	**312,515**	**282,948**	**272,622**
Of which:[1]												
Vehicles[2]		425,301	367,234	282,666	247,397	332,558	299,356	252,063	223,996	237,430		
Services		127,463	92,469	78,396	79,075	85,804	78,963	71,747	67,463	66,152		
Financial Services		–	17,355	13,437	13,960	14,870	13,070	11,812	11,242	11,199		
Eliminations		–	–3,579	–2,283	–1,987	–1,252	–555	–873	–787	–2,265		

1 As from 2023, net sales for Financial Services are included in Services.
2 Including construction equipment and Volvo Penta engines.

Operating income SEK M	**2023**	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Trucks	48,893	31,976	27,349	15,764	31,552	19,541	20,383	15,020	19,517	4,157	6,145
Construction Equipment	16,383	12,907	12,228	9,583	11,910	12,125	7,917	2,246	2,044	652	2,592
Buses	–380	353	78	–522	1,337	575	928	911	860	92	–190
Volvo Penta	3,230	2,527	2,092	1,402	1,876	2,341	1,439	1,269	1,086	724	626
Financial Services	3,719	848	3,289	1,564	2,766	2,411	2,192	2,086	2,006	1,712	1,522
Group functions & and Other incl. eliminations	–5,060	–2,899	–1,962	–308	91	–2,515	–2,532	–707	–2,195	–1,514	–3,557
Operating income Volvo Group	**66,784**	**45,712**	**43,074**	**27,484**	**49,531**	**34,478**	**30,327**	**20,826**	**23,318**	**5,824**	**7,138**

Operating margin %	**2023**	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Trucks	13.1	10.3	11.8	7.6	11.4	7.8	9.4	7.5	9.1	2.2	3.4
Construction Equipment	15.6	12.9	13.3	11.8	13.4	14.4	11.9	4.4	4.0	1.2	4.9
Buses	–1.7	1.9	0.6	–2.6	4.3	2.2	3.6	3.6	3.6	0.5	–1.1
Volvo Penta	15.4	14.0	14.5	11.8	14.1	17.0	12.9	12.8	11.5	9.3	8.3
Industrial Operations	**11.8**	**9.8**	**11.0**	**7.9**	**11.2**	**8.5**	**8.7**	**6.4**	**7.0**	**1.5**	**2.1**
Volvo Group	**12.1**	**9.7**	**11.6**	**8.1**	**11.5**	**8.8**	**9.1**	**6.9**	**7.5**	**2.1**	**2.6**

Regular employees at year-end Number	**2023**	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Trucks	55,607	54,046	50,974	56,483	59,142	58,891	55,026	52,154	54,668	58,067	58,542
Construction Equipment	15,028	14,797	13,847	13,404	13,756	13,419	12,788	13,397	13,889	14,901	14,663
Buses	5,637	5,325	5,117	6,608	8,324	8,178	7,943	7,353	7,270	6,900	6,648
Volvo Penta	2,167	2,022	1,832	1,798	1,800	1,713	1,622	1,530	1,470	1,422	1,412
Financial Services	1,599	1,596	1,546	1,511	1,538	1,401	1,363	1,328	1,340	1,339	1,355
Other	10,697	9,900	9,224	7,688	8,015	8,527	8,362	8,277	9,827	10,193	12,913
Volvo Group, total	**90,735**	**87,686**	**82,540**	**87,492**	**92,575**	**92,129**	**87,104**	**84,039**	**88,464**	**92,822**	**95,533**

Environmental and social metrics More detailed information and management approach are further described in Sustainability Notes on page 163–193. Absolute values; and related to net sales where applicable	**2023**	2022	2021	2020
Energy usage (GWh; MWh/SEK M)[1]	2,345; 4.4	2,367; 5.1	2,437; 6.8	2,158; 6.6
Direct GHG emissions, CO_2e, scope 1 (1,000 tons; tons /SEK M)[1]	288; 0.4	243; 0.5	252; 0.7	211; 0.6
Indirect GHG emissions, CO_2e scope 2 (1,000 tons; tons/SEK M)[1]	66; 0.1	81; 0.2	115; 0.3	121; 0.4
Indirect GHG emissions, CO_2e scope 3 use of sold products (Mton)	266	287	286	241
Water withdrawal (1,000 m^3; m^3/SEK M)	5,034; 9.4	4,566; 9.9	4,628; 12.8	4,865; 14.9
Hazardous waste (tons; kilos/SEK M)	39,076; 73	36,800; 80	53,314; 148	51,712; 159
Net sales, Industrial operations (SEK bn)	533.3	459.7	361.1	326.5
Accident rates (Lost time accidents per 200,000 hours)	1.08	1.00	1.03	0.87
Gender representation in total workforce, (% Men/Women)	78/22	78/22	79/21	81/19
Gender representation among leaders (% Men/Women)	75/25	76/24	77/23	80/20

1. In this 11 year summary, data points only summarize historical reported metric in the Annual Report each year but is not restated. On page 172 data is restated from 2019 due to changing reporting scope affecting the baseline to the Group's climate targets.

Delivered units

Number	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Heavy-duty trucks (>16 tons)	198,383	197,249	170,295	140,652	201,092	193,886	171,963	158,025	176,589	173,650	170,307
Medium-duty trucks (7–16 tons)	18,863	15,475	13,907	10,736	12,700	14,065	14,331	15,691	14,749	15,114	16,779
Light trucks (<7 tons)	29,026	19,834	18,256	15,453	18,977	18,539	16,108	16,708	16,137	14,360	13,188
Total trucks	**246,272**	**232,558**	**202,458**	**166,841**	**232,769**	**226,490**	**202,402**	**190,424**	**207,475**	**203,124**	**200,274**

Number		2023	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Trucks	Europe	129,016	113,245	98,600	79,814	104,145	110,349	105,432	97,909	86,448	72,458	82,088
	North America	60,782	56,535	47,629	32,056	62,308	53,877	37,941	39,193	64,507	57,714	44,755
	South America	22,036	31,958	28,718	17,684	23,729	16,146	11,073	9,442	11,069	23,741	29,137
	Asia	21,991	19,066	17,842	27,009	29,435	32,276	35,476	31,502	31,979	32,399	28,692
	Africa and Oceania	12,447	11,754	9,669	10,278	13,152	13,842	12,480	12,378	13,472	16,812	15,602
	Total	**246,272**	**232,558**	**202,458**	**166,841**	**232,769**	**226,490**	**202,402**	**190,424**	**207,475**	**203,124**	**200,274**
	Of which fully electric	3,523	1,211	371	67	–	–	–	–	–	–	–
Construction Equipment	Europe	16,278	16,767	20,453	15,762	21,420	19,567	17,519	14,700	12,539	14,174	13,522
	North America	9,549	7,663	6,217	5,025	7,278	7,218	5,685	5,105	5,710	7,127	5,240
	South America	2,271	4,875	4,263	2,335	2,004	2,023	1,372	1,175	2,036	3,669	3,568
	Asia	28,073	48,153	65,635	68,232	53,664	50,716	36,254	21,072	22,339	33,648	44,892
	Africa and Oceania	3,893	3,451	3,303	2,406	2,519	3,130	3,297	2,254	2,094	2,699	3,564
	Total	**60,064**	**80,909**	**99,871**	**93,760**	**86,885**	**82,654**	**64,127**	**44,306**	**44,718**	**61,317**	**70,786**
	Of which fully electric	895	598	321	12	–	–	–	–	–	–	–
Buses	Europe	1,476	1,424	1,388	1,565	2,350	2,142	2,645	2,676	2,431	2,221	2,146
	North America	1,590	1,134	1,118	1,644	3,084	2,796	2,973	2,659	2,398	1,590	1,752
	South America	1,043	1,957	726	1,152	1,917	973	784	1,149	1,415	2,985	2,434
	Asia	875	819	585	1,097	1,465	1,451	2,186	1,849	1,656	1,242	1,822
	Africa and Oceania	789	481	705	797	915	1,064	805	1,220	925	721	756
	Total	**5,773**	**5,815**	**4,522**	**6,215**	**9,731**	**8,426**	**9,393**	**9,553**	**8,825**	**8,759**	**8,910**
	Of which fully electric	363	240	211	223	–	–	–	–	–	–	–
	Of which hybrids	165	127	232	83	–	–	–	–	–	–	–

2019	2018	2017	2016	2015	2014	2013
2,372; 5.7	2,196; 5.8	2,068; 6.4	2,076; 7.1	2,077; 6.8	2,168; 7.9	2,320; 8.7
250; 0.6	223; 0.6	207; 0.6	211; 0.7	220; 0.7	231; 0.8	255; 1.0
125; 0.3	198; 0.5	192; 0.6	196; 0.7	192; 0.6	218; 0.8	243; 0.9
323						
5,389; 12.9	4,870; 12.9	4,817; 14.9	4,430; 15.2	4,919; 16.2	4,982; 18.1	5,815; 21.9
50,909; 122	38,601; 102	31,941; 99	27,649; 95	27,824; 92	24,944; 90	28,395; 107
418.4	378.3	323.8	291.5	303.6	276.0	265.4
1.22	1.22	1.00	1.06	1.38	1.59	
81/19	81/18	81/19	82/18			
80/20	81/19	81/19	82/18			

Volvo share statistics

Data per share[1]	**2023**	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Basic earnings, SEK[1]	24.50	16.09	16.12	9.50	17.64	12.25	10.08	6.47	7.42	1.03	1.77
Ordinary dividend, SEK	7.50[8]	7.00	6.50	6.00	0	5.00	4.25	3.25	3.00	3.00	3.00
Extraordinary dividend, SEK	10.50[8]	7.00	16.00[9]	9.00	0	5.00	0	0	0	0	0
Share price at year end (B share), SEK	261.70	188.48	209.65	193.80	156.90	115.95	152.70	106.40	79.10	84.70	84.45
Dividend yield (B share), %[2]	6.9	7.4	10.7	7.7	0	8.6	2.8	3.1	3.8	3.5	3.6
Effective return (B share), %[3]	48	1	16	24	44	–21	47	38	–3	4	–2
Price/earnings ratio (B share)[4]	10.7	11.7	13.0	20.4	8.9	9.5	14.8	16.4	10.7	82.2	47.7
EBIT multiple[5]	6.7	7.2	8.3	12.5	6.1	6.5	9.9	11.7	7.7	26.3	19.6
Payout ratio, %[6]	73	87	140	158	0	82	41	50	40	291	169
Total equity, SEK[7]	87	80	69	72	68	61	52	47	41	39	38
Return on total equity, %	28.7	20.7	23.4	13.8	27.0	21.3	20.5	14.9	18.4	2.8	5.0

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 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 2024.
9 Of which SEK 6.50 per share for 2021 and SEK 9.50 per share relating to the distribution of the proceeds from the sale of UD Trucks paid out in July 2021.

Other share data	**2023**	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Number of shareholders at year end	382,200	374,185	362,144	283,731	250,798	245,663	240,521	237,654	234,989	237,871	246,265
Number of Series A shares outstanding at year end, million	445	445	445	448	456	457	459	472	485	492	499
Number of Series B shares outstanding at year end, million	1,588	1,588	1,588	1,585	1,577	1,576	1,573	1,560	1,546	1,537	1,530
Average number of shares outstanding, million	2,033	2,033	2,033	2,033	2,033	2,032	2,032	2,031	2,030	2,028	2,028
Number of Series A shares traded in Stockholm during the year, million	36.7	41.1	88.1	65.7	43.8	51.8	46.7	67.2	51.7	86.3	53.0
Number of Series B shares traded in Stockholm during the year, million	820.2	967.5	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

The largest shareholders in AB Volvo, December 31, 2023	Number of shares	Share of votes, %	Share of capital, %
Industrivärden	185,000,000	27.9	9.1
Geely Holding	137,940,474	15.5	6.8
AMF Insurance & Funds	67,873,315	5.5	3.3
Alecta	54,961,010	4.0	2.7
AFA Insurance	15,903,854	2.3	0.8
BlackRock	65,921,685	2.1	3.2
Vanguard	64,596,031	2.1	3.2
Swedbank Robur Funds	89,860,590	1.8	4.4
AP4 Fund	10,960,288	1.6	0.5
Norges Bank Investment Management	46,362,708	1.6	2.3
Total	**739,379,955**	**64.4**	**36.3**

Source: Modular Finance

Distribution of shares, December 31, 2023	Number of shareholders	% of total votes	Share of capital, %
1–1,000 shares	326,260	2.8	3.2
1,001–10,000 shares	51,301	5.9	6.9
10,001–100,000 shares	4,071	3.3	4.8
100,001–	568	88.0	85.1
Total	382,200	100.0	100.0

Source: Euroclear

Annual General Meeting, March 27, 2024

The Annual General Meeting of AB Volvo will be held on Wednesday, March 27, 2024. For further information about the Annual General Meeting 2024, please refer to Volvo's website, www.volvogroup.com.

Volvo's Election Committee

The following persons are members of Volvo's Election Committee:

Fredrik Persson	Chairman of the Election Committee, AB Industrivärden[1]
Anders Oscarsson	AMF and AMF Fonder, appointed by the Annual General Meeting
Carina Silberg	Alecta[2]
Anders Algotsson	AFA Försäkring, 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.

1 The Annual General Meeting elected Pär Boman as member of the Election Committee. Following Pär Boman's resignation from this assignment, AB Industrivärden has appointed Fredrik Persson as new member.

2 The Annual General Meeting elected Magnus Billing as member of the Election Committee. Since Magnus Billing's employment at Alecta has ended, Alecta appointed Carina Silberg as a new member.

Preliminary financial calendar

Annual General Meeting 2024	March 27, 2024
Report on the first quarter 2024	April 17, 2024
Report on the second quarter 2024	July 18, 2024
Report on the third quarter 2024	October 18, 2024
Capital Markets Day	November 14, 2024

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