VR GROUP

Report of the Board of Directors and Financial Statements 2022

7 March 2023

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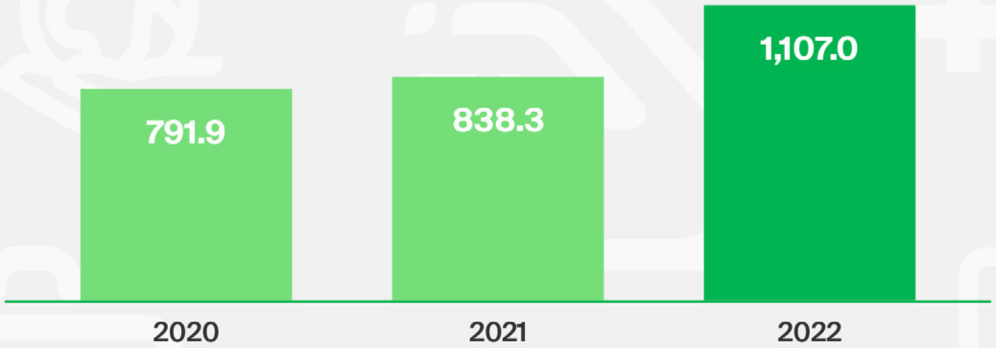

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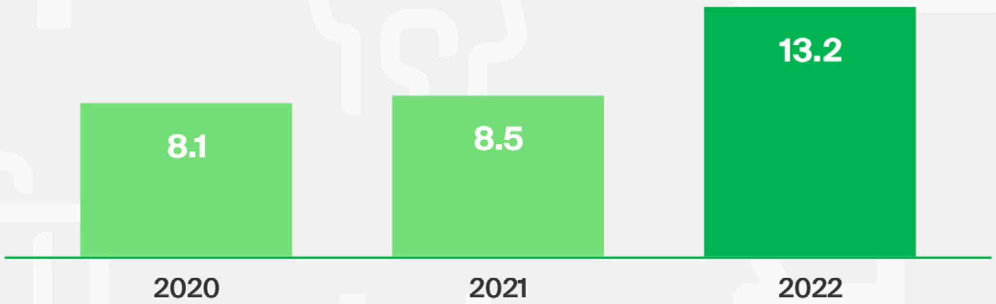

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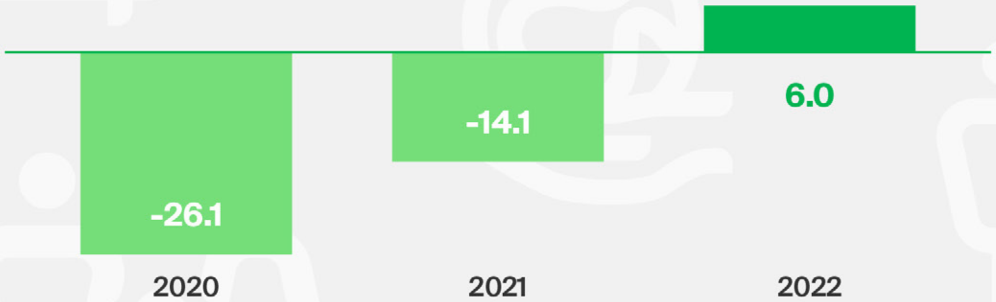

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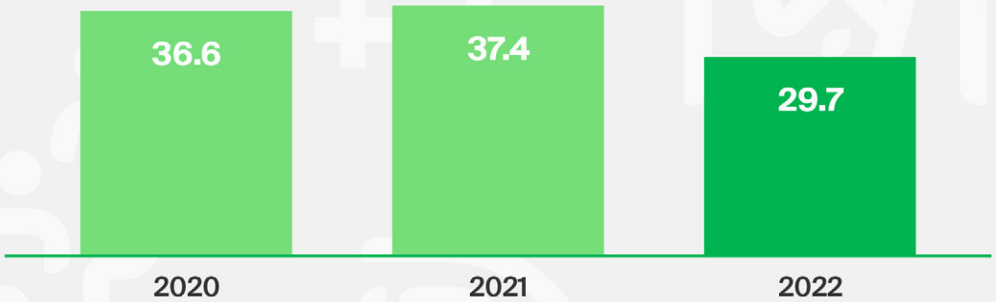

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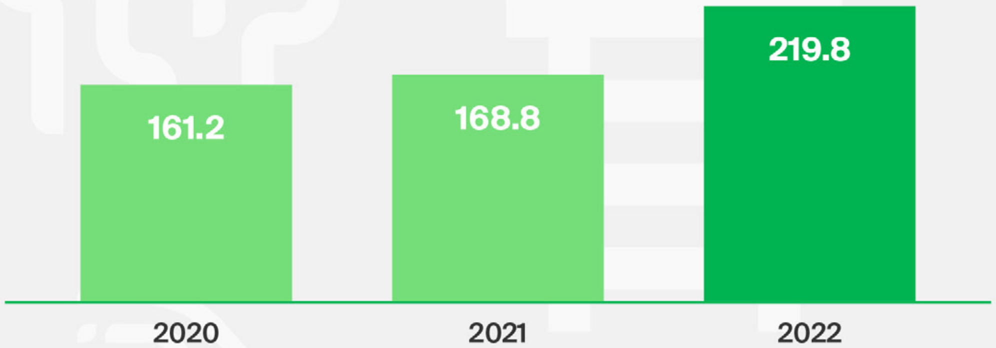

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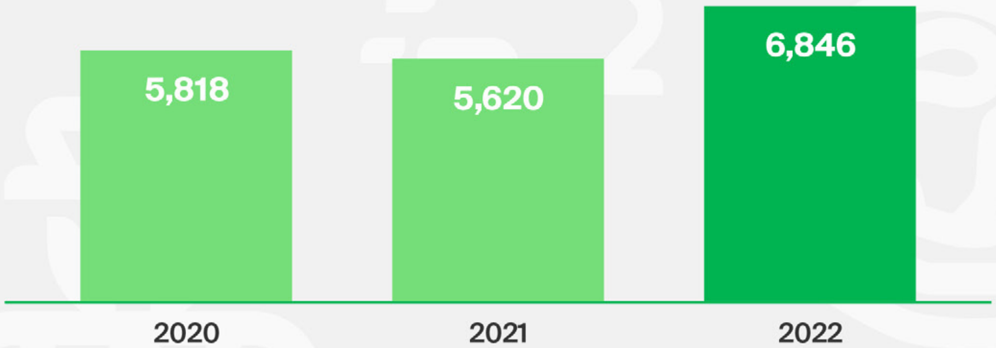


Report of the Board of Directors

Market conditions and operating environment

Russia's invasion of Ukraine and global political uncertainty have had a significant impact on Finnish society as a whole and, consequently, on VR Group's business. The prolonged war has weakened the economic outlook. Energy prices have been high, inflation has accelerated, and interest rates have risen.

VR Group discontinued Eastern freight traffic completely by the end of 2022. Part of the lost volume has been replaced by growth in the demand for domestic transport services. Passenger services to Russia were also suspended in spring 2022.

At the same time, the COVID-19 pandemic has eased and train travel has recovered. The number of journeys in long-distance traffic has risen to a good degree, marking a return to the pre-pandemic level. However, there has been a change in people's use of transport services. The emphasis has been on leisure travel, while commuting volumes have not returned to their previous level due to the increase in remote work.

VR Group executed its growth strategy in the Nordic region by expanding its operations to Sweden through an acquisition completed at the beginning of July 2022. VR Sweden is a bus and rail operator in the Stockholm, Eastern Götaland and Skåne regions. Going forward, an increasingly significant part of VR Group's net sales will be generated by stable contract traffic.

VR Group is committed to promoting the development of competition in order to increase rail services' share of the transport market. The most advantageous model for customers and society is Open Access, which means that each operator can compete on market terms with its own fleet, on the routes it chooses. Competition is free in Finland under this model in both long-distance traffic and freight traffic. VR Group has proposed a public rolling stock company for regional contract traffic, in which publicly subsidised traffic is put up for tender.

The Finnish parliamentary elections and the next government programme will also influence the operating conditions for climate-friendly rail traffic. The current condition and capacity of the state-owned railway network reduce the punctuality and reliability of rail traffic. Infrastructure investments are a prerequisite for the growth of rail traffic. Passenger and freight volumes in rail traffic can be increased by reducing the maintenance backlog of the rail infrastructure, making improvements in existing rail infrastructure and increasing track capacity through investments in new railway tracks.

The long-term megatrends in the operating environment are favourable for VR Group. Environmental awareness is growing and urbanisation is continuing. Customers are increasingly using sustainable modes of transport. By increasing the popularity of electric rail and city traffic, VR Group reduces the climate emissions of society as a whole.

VR Group's activities related to Russia

In response to Russia's invasion of Ukraine, which began on 24 February 2022, and the sanctions imposed by the West against Russia, VR Group's Board of Directors decided to discontinue the company's Eastern traffic by the end of the year. VR Group has complied with the sanctions, the guidance issued by the authorities and the applicable legislation. For the time being, the sanctions do not prevent rail traffic between the EU and Russia.

VR Group discontinued Eastern freight traffic completely by the end of 2022. Overall, approximately one-third of VR Transpoint's rail transport volumes have been Eastern traffic, comprising export, import and transit transport in Finland. In Russia, VR Transpoint has carried out small-scale logistics activities through the VR Group-owned local Group company OOO Finnlog LLC. Finnlog has leased freight wagons to a Finnish customer to cover its logistics needs. Finnlog's operations have been discontinued and the company has been placed in liquidation. VR Group's Finnish associated company ContainerTrans Scandinavia has provided railway container transport services, and the Finnish associated company Freight One Scandinavia has provided wagon-load transport services. Freight One Scandinavia has been placed in liquidation, and VR Group is also in the process of exiting its ownership in the associated company ContainerTrans Scandinavia.

VR Passenger Services and Russian Railways (RZD) have jointly operated the Allegro train service between Helsinki and St. Petersburg, and VR FleetCare has provided maintenance and lifecycle services for these trains. VR Passenger Services and VR FleetCare do not operates in Russia. VR Group and RZD have a joint venture, Oy Karelian Trains Ltd, which has been responsible for the ownership and leasing of the Allegro trains.

The Allegro passenger train services between Helsinki and St. Petersburg were suspended on 28 March 2022. VR has written off all Allegro-related rolling stock and spare parts. The write-offs and other non-recurring costs related to the discontinuation of Eastern traffic amounted to EUR 50.2 million in 2022.

In total, operations related to Russia generated approximately EUR 42 million in net sales in 2022 (EUR 91 million in 2021), representing approximately 3.8 per cent of the Group's net sales. On 31 December 2022, approximately EUR 17 million of the Group's assets were related to operations in Russia.

Strategy

VR Group is *Getting there together for a better world* and accelerating the transformation of sustainable transport. This crystallises the company's vision and purpose. Responsibility is a unifying theme for VR Group's business operations. VR Group creates value for customers and society, and VR Group's success has a positive impact around the company.

VR Group moves towards its vision by executing a strategy that focuses on three goals: Satisfied customers bring growth, motivated people create success, and efficiency ensures a profitable future.

Going forward, VR Group's core businesses are passenger services in Finland and Sweden, and freight traffic in Finland. City traffic, which includes both rail and bus services, is a significant new growth area for the passenger business. In city traffic, VR focuses on both the Finnish and Swedish markets.

As part of its renewed strategy, VR Group changed its business structure effective from the beginning of 2023. In the future, the business units will be VR Long-distance Traffic, VR City Traffic and VR Transpoint (logistics). VR FleetCare's main task will continue to be the high-quality and cost-effective maintenance of VR's rail fleet, and FleetCare will play an important role in improving VR's customer experience.

VR Group crystallised the company's values in autumn 2022. The VR Group-wide and engagement-driven project was carried out in active interaction with the personnel. The values are: we care, we work together, and we drive improvement. The values guide day-to-day work in the company, constitute the foundation for the strategy and support the achievement of VR Group's goals.

Description of the business model

VR Group is a passenger, logistics and maintenance service company, owned in its entirety by the Finnish state. The company serves both consumers and corporate customers. In passenger services, VR Passenger Services operates trains, buses and trams in Finland and Sweden. VR Transpoint provides rail and road logistics services in Finland.

In Finland, VR Passenger Services produces long-distance train services primarily on market terms. The company is responsible for ticket sales and pricing for long-distance trains. Restaurant and café services are also provided on trains and at stations. VR Group owns long-distance rolling stock and electric trains, as well as locomotives, which are used in both passenger and freight traffic.

VR Transpoint provides rail and road logistics services for heavy industry in Finland. Most of its net sales and profit is generated by rail services. VR Transpoint particularly transports raw materials and products for the forest, metal and chemical industries.

Competition in rail traffic in Finland is free under the Open Access model, in which each long-distance train and freight traffic operator can compete on market terms using its own rolling stock. VR Passenger Services is currently the only passenger train services operator in Finland. There are several operators in rail logistics in Finland, and VR Transpoint has the largest market share by a clear margin.

City traffic is a significant growth area for VR Group's passenger business. The company has expanded its city traffic operations to Sweden through an acquisition completed at the beginning of July 2022. In city traffic, ticket revenue typically covers roughly half of the operating costs, while the other half is covered by public subsidies. In publicly subsidised traffic, the client specifies the extent of operations and the service level. Operating contracts in city traffic are typically long-term, with durations up to 10 years. In bus transport, the fleet is owned by the operator, while in commuter train and tram traffic, the rolling stock is provided by the client.

In Finland, VR Passenger Services also operates regional commuter train services purchased by the Ministry of Transport and Communications, using rolling stock owned by the company. VR Group has proposed that a rolling stock company be established for regional, publicly subsidised commuter train services, in accordance with the Swedish model.

VR FleetCare enables competitive passenger services and freight traffic by providing efficient maintenance for VR Group's fleet. VR FleetCare also provides maintenance and lifecycle services to external customers in Europe.

There are many different parties involved in rail traffic in Finland. The Finnish Transport Infrastructure Agency is responsible for the state-owned railway network and its maintenance and development. Fintraffic is responsible for traffic control and passenger information at stations. Increasing the use of sustainable modes of transport is a general objective at the societal level. In its business operations, VR Group invests in electric rail and city traffic, as increasing the share of these modes of transport reduces the emissions of society as a whole.

VR Group's key figures

	2022	2021	2020
Net sales, M€	**1,107.0**	838.3	791.9
Operating result (EBIT), M€	**-58.4**	-22.7	-24.6
% of net sales	**-5.3**	-2.7	-3.1
Comparable operating result (EBIT), M€	**6.0**	-14.1	-26.1
% of net sales	**0.5**	-1.7	-3.3
Net result, M€	**-47.4**	-13.7	-33.1
Operating cash flow, M€	**179.9**	138.1	99.5
Investments, M€	**219.8**	168.8	161.2
Capital employed at the end of the accounting period, M€	**1,862.5**	1,583.1	1,560.7
Return on capital employed (ROCE) %	**-1.6**	-0.5	-1.1
Comparable return on capital employed (ROCE) %	**2.0**	0.0	-1.2
Net interest-bearing debt at the end of the accounting period, M€	**341.9**	188.1	37.6
Gearing ratio %	**27.4**	14.7	2.9
Average personnel	**6,846**	5,620	5,818

Net sales

VR Group's net sales increased by 32.1 per cent compared to 2021, to EUR 1,107.0 (838.3) million. The growth in net sales was attributable to an acquisition and the significant increase in train travel in Finland after COVID-19. VR Sverige AB (previously Arriva Sverige AB) has been consolidated into VR Group's figures from 1 July 2022 onwards. Net sales were negatively affected by VR Group's decision to discontinue Eastern freight traffic, which was due to Russia's invasion of Ukraine.

VR Passenger Services' net sales increased by 64.7 per cent, to EUR 710.9 (431.5) million. VR Transpoint's net sales were negatively affected to a significant degree by the controlled shutdown of Eastern freight traffic. Net sales were increased by the high energy prices being passed on to customer prices. VR FleetCare's net sales were EUR 221.4 (203.7) million, representing an increase of 8.7 per cent compared to 2021.

Net sales (EUR million)	1-12/2022	1-12/2021	Change %
VR Passenger services	**710.9**	431.5	64.7%
VR Transpoint	**386.2**	390.1	-1.0%
VR Fleetcare	**221.4**	203.7	8.7%
Other operations and eliminations	**-211.4**	-187.1	13.0%
VR Group in total	**1,107.0**	838.3	32.1%

Operating result (EBIT)

The COVID-19 pandemic still had an effect on the result for 2022, as VR Passenger Services' demand only began to recover in Q2/2022. The result was also affected by the decline in VR Transpoint's volumes due to the discontinuation of Eastern traffic. VR Group's operating result (EBIT) was EUR -58.4 (-22.7) million, or -5.3 per cent of net sales. Comparable operating result (EBIT), meaning operating result excluding gains and losses from the sale of assets, impairment and other non-recurring items, improved to EUR 6.0 (-14.1) million. Items affecting comparability amounted to EUR -64.4 million and mainly consisted of items arising from the discontinuation of Eastern traffic, which totalled EUR -50.2 million.

Higher oil prices on the world market and higher electricity prices pushed up production costs from the previous year. These factors had a negative impact on the development of VR Passenger Services' and VR Transpoint's profitability. VR Passenger Services' number of journeys developed positively, especially in the second half of the year, when improved capacity utilisation rates in passenger traffic had a positive impact on profitability.

Comparable operating results (EUR million)	1-12/2022	1-12/2021	Change %
VR Passenger services	**16.1**	-40.2	139.9%
VR Transpoint	**0.3**	23.0	-98.7%
VR Fleetcare	**-1.2**	4.7	-125.1%
Other operations and eliminations	**-9.2**	-1.6	-475.0%
VR Group in total	**6.0**	-14.1	142.2%

Operating results (EUR million)	1-12/2022	1-12/2021	Change %
VR Passenger services	**-31.7**	-50.4	37.1%
VR Transpoint	**-2.6**	23.0	-111.5%
VR Fleetcare	**-12.2**	4.7	-361.2%
Other operations and eliminations	**-11.9**	0.0	0.0%
VR Group in total	**-58.4**	-22.7	-157.2%

Net profit before taxes and profit for the period

Profit before taxes was EUR -46.4 (-19.5) million. Income taxes and minority interest amounted to EUR -1.0 (5.8) million. Profit for the accounting period was EUR -47.4 (-13.7) million.

Cash flow and financing

The Group's balance sheet total was EUR 2,365.3 (1,937.8) million at the end of 2022. Equity decreased in 2022 as a result of net profit being negative. Equity also includes a fair value reserve that is affected by changes in the fair value of NRC shares, and electricity and fuel derivates which are included in hedge accounting. Retained earnings are also affected by actuarial gains and losses on defined benefit pensions in accordance with IAS 19. These items, which are recognised directly in equity through other comprehensive income, increased equity by a total of EUR 54.4 (18.5) million.

The cash flow from operating activities was EUR 179.9 (138.1) million and the cash flow from investing activities EUR -241.3 (-142.7) million. Cash flow before financial items was EUR -61.4 (-4.6) million.

At the end of the financial year, VR Group's interest-bearing net debt amounted to EUR 341.9 (188.1) million and gearing was 27.4 (14.7) per cent. The increase in net debt was attributable to the acquisition of the Swedish bus and rail operator Arriva Sverige on 1 July 2022 and a return of capital of EUR 40 million paid to the owner on 15 June 2022. The interest-bearing liabilities comprised the bond issued in May 2022, leasing financing and lease liabilities related to IFRS 16, and liabilities of joint operations Karelian Trains.

The Group's liquidity remained good during the review period. Liquid assets at the end of the financial year amounted to EUR 274.4 (65.8) million. At the end of 2022, VR Group had an unused revolving credit facility (RCF) of EUR 200 million, the margin of which is linked to a reduction of greenhouse gas emissions and an improvement in material efficiency. The loan margin will change depending on the extent to which these objectives are achieved. The RCF agreement will expire in June 2025, with a one-year extension option remaining. At the end of the year, the Group also had unused overdraft facilities of EUR 5 million and SEK 100 million.

At the end of May 2022, VR Group successfully issued its first fixed-rate unsecured green bond as part of the Group's Green Finance Framework. The bond has a nominal value of EUR 300 million and a maturity of 7 years. The bond will mature in May 2029 and bears a fixed coupon of 2.375 per cent. The proceeds from the issue will be used for initiatives and projects that comply with VR Group's Green Finance Framework. The projects include investments in clean transport, renewable energy projects and improving the energy efficiency of buildings owned or occupied by VR Group.

Comparable return on capital employed (ROCE) was 2.0 (0.0) per cent. Return on capital employed (ROCE) was-1.6 (-0.5) per cent.

Investments and rolling stock

The Group's investments in 2022 totalled EUR 219.8 million (EUR 168.8 million). The largest individual investments were the new electric locomotives, the new e-buses, and the Helsinki station renewal project.

On 4 February 2022, VR Group announced its decision that, going forward, the company will put up for sale rolling stock for which a recycling decision has been issued. This supports VR Group's sustainability goal of the careful use of rolling stock until the end of its lifecycle. During the year, the company put up for sale freight traffic enrichment wagons and aged electric multiple units previously used in commuter services. On 7 September 2022, VR Group signed an agreement to sell 11 Sm2 train units to Suomen Lähijunat Oy. Under the agreement, the transfer of the train units will be completed by 31 March 2023 at the latest. In the future, rolling stock will become available for sale as VR Group makes recycling decisions regarding its rolling stock.

The investment breakdown was as follows:

Investments (EUR million)	2022	2021	Change %
Rolling stock	**145.3**	106.1	36.9
Bus fleet	**42.0**	17.4	141.0
Other investments	**32.5**	45.2	-28.0
Total	**219.8**	168.8	30.2

Locomotives, wagons, and other fleet

VR Group's significant purchases of locomotives and wagons progressed according to plan. The deliveries of Sr3 electric locomotives will continue until 2026, when all 80 of the new locomotives will be in use in commercial traffic. By the end of 2022, 50 of the locomotives had been delivered.

The procurement of 60 new diesel locomotives began in 2019. The first diesel locomotives were received for testing in Finland in 2022, with commercial traffic starting in the early part of 2023. In addition, in road logistics, the first trucks powered by liquid natural and biogas were introduced in commercial traffic.

In October, VR Group decided to purchase 20 commuter train units from Stadler. The trains will start operating from spring 2026. The purchase also includes an additional option for 50 trains and a maintenance option. The value of the rolling stock purchase, excluding the options, is approximately EUR 250 million. The purchase improves the customer experience, the employee experience and energy efficiency.

In December, VR Group decided on purchasing new night train rolling stock, comprising nine sleeper cars and eight car-carrier wagons from Škoda Transtech Oy. The agreement also includes the option to purchase an additional 30 sleeper cars and 30 car-carrier wagons. The value of the purchase is approximately EUR 50 million. The new night train rolling stock will be put into service by the end of 2025.

More e-buses were purchased for use by Pohjolan Liikenne, bringing their number to 150 at the end of 2022.

Business operations

VR Passenger Services

VR Passenger Services operates in long-distance and city traffic in Finland and Sweden. Long-distance rail services in Finland are operated primarily on market terms. City traffic is contract-based, which means the client specifies the extent of operations and the service level. In passenger services, VR Group operates trains, buses and trams. VR also provides café and restaurant services in trains and at stations in Finland.

Travel volumes

The number of journeys in VR Passenger Services increased significantly since the second quarter as the COVID-19 pandemic eased. The number of journeys in long-distance traffic increased by 56 per cent, to a total of 13.2 (8.5) million journeys made. The underlying reason for the growth was the increase in leisure travel from 2021. Traffic between Finland and Russia was suspended for most of the year. Traffic was discontinued on 28 March 2022.

For VR commuter trains operated in southern Finland, the number of journeys increased by 58 per cent, totalling 6.3 (4.0) million. In HSL commuter train traffic operated by VR, the number of journeys increased by 33 per cent, to a total of 56.4 (42.5) million journeys made. A total of 11.4 (4.1) million journeys were made on Tampere tramway's trams in 2022.

In bus services in Finland, the number of journeys increased by 44 per cent to 41.6 (28.9) million journeys.

In contract traffic in Sweden, the number of journeys in the second half of the year totalled 65.3 million, divided between 29.3 million journeys in commuter traffic and 36.0 million journeys in bus services. In Sweden, the recovery from COVID-19 continued steadily throughout the second half of 2022.

In March, VR Group offered Ukrainians the right to travel and almost 127 thousand Ukrainian citizens traveled free of charge on VR's trains.

VR Passenger Services	1-12/2022	1-12/2021	Change %
Net sales, M€	710.9	431.5	64.7
Comparable operating result, M€	16.1	-40.2	139.9
% of net sales	2.3	-9.3	
Operating result, M€	-31.7	-50.4	-37.1
% of net sales	-4.5	-11.7	
Investments, M€	117.4	59.8	96.4
Number of journeys in passenger traffic (mil.)			
Long-distance traffic	13.2	8.5	55.7
Commuter traffic, Finland	74.1	50.6	46.4
Commuter traffic, Sweden	29.3	n.a.	–
Bus services, Finland	41.6	28.9	44.0
Bus services, Sweden	36.0	n.a.	–
Passenger kilometres in train traffic	3,930.5	2,903.1	35.4
NPS (1) (2)			
Long-distance traffic	42	39	8
Commuter traffic	23	9	175
Punctuality (2)			
Long-distance traffic	82.6	86.9	-4.9
Commuter traffic	94.7	92.6	2.3

Passenger-kilometre (passenger-km, pkm) is a unit of measurement for passenger services, 1 pkm = a one-kilometre distance covered by one person.

(1) The indicator is the NPS (Net Promoter Score) index, which can range between -100 and +100. The value of the indicator is calculated by subtracting the number of answers with an excellent grade (9 and 10) from the number of answers with a poor grade (0–6) and proportioning the difference to the total number of answers.

(2) The Net Promoter Score (NPS) and punctuality figures do not include VR Sweden's operations.

Net sales and profitability

VR Passenger Services' net sales increased by 65 per cent, to EUR 710.9 (431.5) million. The growth in net sales was attributable to the Swedish business operations becoming part of VR Passenger Services at the beginning of the second half of the year, the recovery from the COVID-19 pandemic in domestic traffic and, in particular, the increased popularity of leisure travel in domestic long-distance traffic.

VR Passenger Services' comparable operating result (EBIT) improved to EUR 16.1 (-40.2) million and represented 2.3 (-9.3) per cent of net sales. The improved profitability was mainly due to the increase in the number of passengers as the COVID-19 pandemic eased.

However, the COVID-19 pandemic still presented significant challenges to profitability in the early part of the year, in addition to which high energy prices in 2022 had a negative impact on the result.

Items affecting comparability included a write-down and provision of EUR -37.6 million related to the Allegro rolling stock owned via the joint operations Karelian Trains, a provision of EUR -12.4 million related to an onerous contract, a write-down of EUR -4.3 million on diesel buses, and EUR +5.2 million consisting of the reversal of a write-down and insurance compensation. In 2021, the items affecting comparability totalled EUR -10.2 million. The operating result (EBIT) of VR Passenger Services was EUR –31.7 (–50.4) million.

Significant events in VR Passenger Services during the period under review

VR Passenger Services' business during the early part of the year was adversely affected by the COVID-19 pandemic, which had an impact on train travel. There was a turn for the better towards the end of the first quarter when the travel volumes of VR Passenger Services increased significantly, driven by leisure travel. Travel activity was high during the summer season, and VR achieved an all-time high in the number of journeys in July with over 1.4 million long-distance journeys taken during the month. During the rest of the year, however, the number of journeys was lower than the pre-pandemic level in both long-distance and commuter services, as commuting and business travel have not recovered to the previous level after the pandemic.

In January, VR Group and the Ministry of Transport and Communications entered into an agreement on contract traffic until 2030. The new agreement on contract traffic ensures the continuation of services even on routes that are not profitable on market terms in Finland, simultaneously promoting carbon-neutral transport. The annual operating compensation under the agreement, including VAT, is EUR 34.9 million. The new agreement covers approximately 16% of long-distance journeys in Finland. As part of the agreement, VR committed to purchasing new rolling stock for commuter trains and night trains. Progress was made on these purchases in 2022.

Allegro train services between Helsinki and St. Petersburg were suspended until further notice, effective from 28 March 2022, due to Russia's invasion of Ukraine.

VR Group expanded its operations to Sweden during the review period. Arriva Sverige AB was transferred to VR Group's ownership on 1 July 2022. VR Sverige operates in Stockholm city traffic, as well as in regional traffic in southern Sweden and eastern Götaland. With the acquisition, VR Group aims to grow and strengthen its position as a city traffic operator and to accelerate the electrification of the Swedish bus transport market. Now known as VR Sverige, the company has about 130 million passengers annually. It is the third-largest train operator and fourth-largest bus operator in Sweden. The acquisition also brought approximately 3,800 new employees to VR Group.

VR actively participates in regional public transport tendering in Sweden, and VR Sverige was selected as the new operator of train traffic in the region of Bergslagen. Train operations under the contract will begin in December 2023. The value of the contract is SEK 3.9 billion, which corresponds to approximately EUR 360 million. The contract period is 10 years. This is the first contract concluded by VR Sverige since VR Group acquired the company in July 2022.

VR Group is committed to increasing rail services' share of the transport market. VR Group has presented its own development perspectives to promote the expansion of passenger train services in Finland by means of separate additional funding in long-distance, night train and regional commuter services. VR Group has further proposed that a rolling stock company be established for regional contract traffic and supports the idea that municipal and joint municipal authorities be given the opportunity to organise regional contract traffic. In 2022, VR's commuter traffic services in the Pirkanmaa region more than doubled in August. The new services are additional supply ordered by municipalities to complement commuter train services purchased by the Ministry of Transport and Communications.

VR Transpoint

VR Transpoint provides logistics services in Finland. The services include railway and road transport and customised logistics chains with additional services. VR Transpoint's customers are domestic and international companies that need logistics solutions for raw material and product transport.

VR Transpoint	1-12/2022	1-12/2021	Change %
Net sales, M€	**386.2**	390.1	-1.0
Comparable operating result, M€	**0.3**	23.0	-98.7
% of net sales	**0.1**	5.9	
Operating result, M€	**-2.6**	23.0	-111.5
% of net sales	**-0.7**	5.9	
Investments, M€	**27.2**	39.6	-31.4
Total transport volumes (mil. tonnes)			
Railway transports	**29.7**	37.4	-20.5
Road transports	**4.7**	5.3	-11.7
NPS	**12**	27	-55
Punctuality	**89.4**	87.1	2.6

Transport volumes

The railway transport volumes decreased by -20.5 per cent and were 29.7 (37.4) million tonnes.

Transport volumes in freight traffic were negatively affected particularly by labour action in Finnish industry in the early part of the year and the decision to discontinue Eastern traffic. In freight traffic, the reduction in transport volumes caused by the discontinuation of Eastern traffic has been partially compensated for by higher domestic transport volumes. Growth has been accelerated particularly by higher roundwood transport volumes in Finland. Roundwood rail transport volumes reached record-high levels during the latter part of the year.

In April, VR Group announced it would discontinue its Eastern traffic completely. VR Transpoint, which is responsible for freight traffic, drew up a plan to phase out traffic, and Eastern traffic was discontinued by the end of 2022, taking customer contracts into consideration.

In road logistics, the transported volume was 4.7 (5.3) million tonnes, showing a decrease of -11.7 per cent from last year.

Net sales and profitability

VR Transpoint's net sales decreased by -1.0 per cent to EUR 386.2 (390.1) million .The decision to discontinue Eastern freight traffic had a negative impact on net sales and profitability. High fuel and electricity prices had a negative effect on profitability. Net sales were increased, and the cost effect partly compensated, by the high energy prices being passed on to customer prices. VR Transpoint's comparable operating result (EBIT) was EUR 0.3 (23.0) million, representing 0.1 (5.9) per cent of net sales. Items affecting comparability included a write-off of EUR -2,9 million related to discontinuation of Eastern traffic. VR Transpoint's operating profit (EBIT) was EUR -2.6 (23.0) million.

Significant events in VR Transpoint during the period under review

VR Group's Board of Directors decided to wind down Eastern freight traffic in a controlled manner due to Russia's war of aggression. VR Transpoint drew up a plan for the discontinuation of traffic, and Eastern freight traffic ended at the conclusion of the year. VR Transpoint's offices in Vainikkala, Niirala, Imatrankoski and Vartius were closed due to the discontinuation of Eastern traffic.

Due to the changes in the operating environment and the end of wood imports, there have been major changes in domestic transport flows and customers' transport needs in Finland, particularly with regard to roundwood. VR Transpoint worked together with its customers to quickly reorganise its roundwood system and transport concepts in response to the customers' changed needs, which enabled higher volumes for roundwood transport. Record volumes of roundwood were transported during the second half of the year.

VR FleetCare

VR FleetCare's services include rail fleet maintenance, modernising projects, component services, lifecycle management and digital services. Trains and other rolling stock are maintained, repaired and serviced at depots and machine shops that are located all over Finland.

The company's main customers are VR Group's business units and other rail traffic operations, mainly from Finland and other neighbouring areas.

VR FleetCare	1-12/2022	1-12/2021	Change %
Net sales, M€	**221.4**	203.7	8.7
Comparable operating result, M€	**-1.2**	4.7	-125.1
% of net sales	**-0.5**	2.3	
Operating result, M€	**-12.2**	4.7	-361.2
% of net sales	**-5.5**	2.3	
Investments, M€	**7.9**	6.0	31.2
NPS	**11**	-4	

VR FleetCare volumes

VR FleetCare maintains a fleet of over 12,000 units, most of which are owned by VR Group. The fleet comprises over 100 different vehicle types.

The fleet maintained by VR FleetCare operated a total of 450.4 (438.7) million kilometres in 2022. The volume increased by 7.3% from 2021. In rolling stock projects, volumes increased compared to the previous year, and the most significant individual projects were the new production of Snps roundwood wagons, the renovation of Sm2 commuter trains and the modernisation of the Extra class in IC wagons used in long-distance traffic.

Net sales and profitability

In 2022, VR FleetCare's net sales totalled EUR 221.4 (203.7) million, which is an increase of 8.7 per cent compared to 2021. The increase in net sales is mainly explained by the increase in the volume of VR's internal rail fleet projects and the increased need for maintenance of rolling stock due to trains having travelled more kilometres. The comparable operating result (EBIT) was EUR -1.2 million, down from EUR 4.7 million in the previous year. Profitability was negatively affected particularly by increased material costs. The discontinuation of Eastern traffic gave rise to items affecting comparability in the amount of EUR -11.0 million. Operating result (EBIT) was EUR -12.2 (4.7) million.

Significant events in VR FleetCare during the period under review

VR FleetCare and the Finnish Transport Infrastructure Agency, which manages the state's railway network, signed an agreement on extensive remote condition monitoring of railway points. The agreement covers the condition monitoring of up to 300 points, and the aim is to monitor the operation of the railway points at several busy railway operating points. Condition monitoring of railway points has not been carried out to a similar extent in Finland before.

VR FleetCare signed an agreement with Metropolitan Area Rolling Stock Ltd regarding the refurbishment of Flirt electric train bogies. The contract concerns the periodic refurbishments of the bogies of 81 trains according to the kilometres travelled. The basic repairs are to be carried out between 2024 and 2030. The contract also includes a four-year option.

Other operations – property unit

The property unit maintains and rents premises and engages in contracting for construction projects as necessary. The property unit sells strategically unnecessary properties, taking into account any property development potential they may have. Profits on the sale of real estate in 2022 totalled EUR 3.2 (3.3) million. The property unit is also responsible for VR's private sidings.

Statement of non-financial information

This statement has been prepared according to Chapter 3a of the Finnish Accounting Act 1336/1997, applied from Directive 2014/95/EU of the European Parliament and of the Council.

Responsibility management

The key areas of VR Group's responsibility include environmental responsibility, safety and security, customer orientation, the employee experience and corporate social responsibility. The key areas are based on a materiality analysis that was updated on the basis of a stakeholder survey and stakeholder interviews conducted in 2022. The 2022 annual report contains a separate responsibility report that describes responsibility management and the progress made in each area of responsibility, and reports on the content of the GRI index. Environmental responsibility is described on pages 36-45 and the employee experience on pages 31-34. Description of corporate social responsibility on pages 48-54 includes respect for human rights and anti-corruption activities.

Governance

At the Annual General Meeting held on 17 March 2022, it was decided that the number of members of the Board of Directors of VR-Group Plc would be eight (8). Kjell Forsén was re-elected as Chair of the Board. Nermin Hairedin, Pekka Hurtola, Virve Laitinen and Sari Pohjonen were re-elected as ordinary members of the Board of Directors. Markus Holm, Jaakko Kiander and Turkka Kuusisto were elected as new ordinary members of the Board of Directors. At the meeting of the Board of Directors following the Annual General Meeting, Sari Pohjonen was elected as the Vice Chair of the Board. The Board of Directors convened a total of twenty (20) times during 2022, with an attendance rate of 98 per cent.

The Board of Directors elected the following persons to the Human Resources Committee: Kjell Forsén (Chairman), Nermin Hairedin, Pekka Hurtola and Turkka Kuusisto. The Human Resources Committee convened a total of fourteen (14) times in 2022, with an attendance rate of 99 per cent.

The Board of Directors elected the following persons to the Audit Committee: Sari Pohjonen (Chair), Markus Holm, Jaakko Kiander and Virve Laitinen. The Audit Committee convened a total of six (6) times during 2022, with an attendance rate of 100 per cent.

The Annual General Meeting held on 17 March 2022 decided that the Supervisory Board shall have twelve (12) members. Sheikki Laakso was elected as the Chair of VR-Group Plc's Supervisory Board, with Seppo Eskelinen, Raimo Piirainen, Katja Taimela, Ruut Sjöblom, Matias Marttinen, Jouni Kotiaho, Sanna Antikainen, Arto Pirttilahti, Hanna Holopainen, Mai Kivelä and Anders Adlercreutz elected as ordinary members.

Sheikki Laakso, Chair of the Supervisory Board, resigned from his position on 15 June 2022, and Vilhelm Junnila was elected as the new Chair of the Supervisory Board at VR-Group Plc's Extraordinary General Meeting held on 17 June 2022. During the period under review, the Supervisory Board convened a total of five (5) times, with an attendance rate of 77 per cent.

Representatives of personnel organisations also attend the meetings of VR Group Plc's Supervisory Board. The representatives of the personnel organisations have been Teppo Järnstedt, Chairman of the Association of Railway Professionals (JHL); Tero Palomäki, President of the Railway Union Finland RAU; Johanna Wäre, Chairman of the Association of Railway Technical and Employees (RTTL); Olli-Pekka Nyman, Chairman of VR Akava; Juri Aaltonen, President of ERTO; Ismo Kokko, President of ACP; and Annika Rönni-Sällinen, President of PAM.

KPMG Oy Ab, Authorised Public Accountants, was selected as auditor for 2022, with Ari Eskelinen, APA, as principal auditor. Auditors' fees for auditing services for the Groups' companies in the financial year 2022 totalled EUR 354.4 thousand, while fees paid to auditors for other services amounted to EUR 140 thousand.

The audit-related expenses recognised during the past financial year also included the following fees paid to the previous auditor, Ernst & Young Oy: EUR 51,1 thousand related to the audit for the year 2021 and EUR 22,6 thousand for other services.

VR-Group Plc complies with the Finnish Corporate Governance Code published by the Securities Market Association. The corporate governance statement and the remuneration policy and report are published separately but at the same time as the Report of the Board of Directors. After publication, both reports will be available on the company's website at **2022.vrgroupraportti.fi/en.**

Changes in corporate structure

VR Group acquired the Swedish bus and rail operator Arriva Sverige AB (now VR Sverige AB). The transaction was closed on 1 July 2022. VR Sweden operates under VR Passenger Services. It operates city traffic in Stockholm as well as regional traffic in southern Sweden and eastern Götaland.

As part of the phasing out of Eastern freight traffic, the business operations of VR Group's associated company Freight One Scandinavia Ltd and subsidiary OOO Finnlog LLC have been discontinued and the companies have been placed in liquidation.

Credit rating

The international credit rating agency Standard & Poor's (S&P) has awarded VR-Group Plc a credit rating of A+, with a stable outlook.

Risks and uncertainties

In addition to the general economic situation, VR Group's operations are affected by a variety of strategic, political, operational and damage risks, as well as associated reputational risks. By identifying risks, preparing for them and monitoring them, potential adverse effects on business can be limited. VR Group's risk management aims to ensure effective and successful implementation of its strategy. VR Group's Board of Directors and senior management are responsible for regulating risk appetite.

VR Group has a systematic method for identifying, evaluating and monitoring business risks. Risk management and its responsibilities are guided by the Group's risk management policy and other policies and guidelines specific to each area of risk. The starting point for risk assessment is an annual risk survey that systematically identifies risks that threaten the achievement of objectives. The Group's business operations monitor the development of the most significant risks identified in risk assessment and the adequacy of management measures on a quarterly basis.

Business in the early part of the year was negatively affected by the COVID-19 pandemic, which has since abated and train travel has recovered. In 2022, risk management resources were allocated particularly to managing the company's exit from Russia and the discontinuation of Eastern traffic, and the implementation of related measures, as well as the identification of risks related to climate change. A group-level risk survey was carried out in the spring and subsequently updated for the most significant risks in the autumn.

A more detailed description of VR Group's risk management is presented in the Corporate Governance Statement, which is available on the company's website at **2022.vrgroupraportti.fi/en**.

VR Group's most significant risks and uncertainties

The general economic situation

The general economic situation has significant knock-on effects on VR Group's operations. The deterioration of the economic situation may reduce the need of Finnish industrial production for rail and road logistics services, and it can also have a negative impact on the customer volumes of passenger services. The increase in the general interest rate level affects the Group's financing costs, and further accelerating inflation may increase, for example, investment and personnel costs in addition to energy costs. VR Group aims to minimise the impact of the materialisation of these risks through continuous monitoring of its own cost competitiveness and close customer cooperation. Cost increases due to inflation can be prepared for through index-linked customer contracts, for example.

Russia's war of aggression and the changed safety and security situation

Russia's invasion of Ukraine has significantly changed the business environment in Russia. VR Group discontinued Eastern freight traffic completely by the end of 2022, and passenger services to and from Russia were suspended in spring 2022. The discontinuation of Eastern freight traffic has significant impacts on VR Group's business operations. In addition to potential customer claims, some of the losses of volume may be permanent. The elevation of cyber threats due to Russia's war of aggression and potential acts of sabotage against Finland's rail and energy infrastructure may have an impact on VR Group's business continuity. The continuation of Russia's war of aggression has also increased geopolitical risks. Should they be realised, these risks can lead to, for example, new economic sanctions and increased problems in production and supply chains. To manage the impacts of the potential realisation of the risk, VR maintains close contact with the authorities and has prepared a preparedness and contingency plan that is regularly monitored and maintained by an internal working group.

Changes in Finland's rail traffic policies

Changes in the Finnish rail traffic policy may have adverse effects on VR Group's business. Any decisions to change the current market-based operating environment, and uncertainty relating to politics in general, may have significant impacts on the functioning and predictability of VR Group's business environment.

In addition to ensuring its own competitiveness and monitoring and anticipating the political situation, VR Group actively seeks to highlight the effects of regulation on the operating environment of rail transport, with the aim of keeping the operating environment equal for all parties.

Compliance risks

In its operations, VR Group also takes into account compliance risks related to, for example, data protection, competition law, corruption, bribery and sanctions, which, if implemented, may have detrimental impacts on the Group's business operations and financial situation. In addition to compliance with regulatory guidelines and practices, VR Group also requires compliance with ethical guidelines from its employees, as well as from its supply chain. Possible non-compliance is being recognised during, for example, regular inspections and auditing processes. In addition, VR Group encourages its personnel to report all suspected irregularities and violations of the Code of Conduct, through an anonymous whistleblowing service, if needed.

Railway infrastructure condition and maintenance

The condition and maintenance of railway infrastructure has a significant impact on VR Group's business. Infrastructure degradation and inadequate maintenance can cause, for example, functional constraints and disruptions on the lines, or even accidents. Insufficient investments in railway infrastructure can become an obstacle to the growth and green transition of railway traffic and can, as a result, have a negative impact on the implementation of VR Group's investment and growth plans. VR Group aims to actively influence stakeholders in the development of the traffic system and infrastructure investments together with, for example, the Finnish Transport Infrastructure Agency, which manages the state's fairway assets and is responsible for the care, development and maintenance of the railway network as a client organisation.

A major railway accident

A significant safety risk for VR Group's business is a major railway accident, resulting in particularly serious personal injuries and materiel and environmental damage. The risk of railway accidents and incidents is managed with a railway safety management system that covers all rail traffic business operations and serves as the foundation for VR Group's safety management and operational safety. Management measures also include preventive safety cooperation with different parties, such as training in the case of major accidents.

Figures in accordance with the EU taxonomy

The EU's Taxonomy Regulation sets out scientific screening criteria for sustainable economic activities. The taxonomy defines criteria for activities that are considered to significantly contribute to the EU's long-term climate and environmental objectives. The objectives are related to (1) climate change mitigation, (2) climate change adaptation, (3) sustainable use and protection of water and marine resources, (4) the transition to a circular economy, (5) pollution prevention and control, and (6) protection and restoration of biodiversity and ecosystems. Thus far, technical screening criteria have only been specified for the objectives concerning climate change mitigation and climate change adaptation. A company's activities may significantly contribute to one or more of the specified environmental objectives. For an economic activity to be aligned with the taxonomy, it must fall within the classification system of the taxonomy and significantly contribute to at least one environmental objective. At the same time, the activity must not significantly harm the achievement of the other environmental objectives, and it must meet the minimum safeguards for social responsibility, such as the fundamental rights of workers as defined by the International Labour Organization (ILO).

The reporting obligation stipulated by the Taxonomy Regulation applies to VR Group from 2022 onwards, as it falls within the scope of non-financial reporting in accordance with section 3a of the Accounting Act. In May 2022, VR Group issued a green bond, which is listed on Nasdaq Helsinki Ltd's official list of sustainable bonds.

Accounting principles applied in the financial statements

VR Group's reporting on the EU taxonomy complies with the provisions of the Commission Delegated Regulations 2021/2178 and 2021/2139. The purpose of the EU's sustainable finance classification system, known as the EU taxonomy, is to help companies and investors assess the environmental impacts of economic activities. The reporting obligations set out in the EU taxonomy are applied for taxonomy-eligible and taxonomy-aligned activities in VR Group's reporting on the financial year 2022. VR Group's turnover is mainly derived from transport services, the majority of which are taxonomy-eligible. The indicators presented for taxonomy-eligible and taxonomy-aligned activities are their proportion of the company's turnover, capital expenditure (CapEx) and operating expenditure as defined in the taxonomy, in accordance with Commission Delegated Regulation 2021/2178.

VR Group's consolidated financial statements have been prepared in accordance with the international financial reporting standards (IFRS) approved for use in the European Union. The data used to calculate the key figures in accordance with the EU taxonomy have been collected from VR Group's financial systems. The figures are based on the same information and the Group's accounting principles as the consolidated financial statements for the financial year 1 January–31 December 2022. The materiality of the economic activities was taken into account in the calculation of the key figures.

As taxonomy-eligible activities, VR Group reports the proportion of the Group's turnover, capital expenditure and operating expenditure that is accrued from activities that are within the scope of the taxonomy classification system.

In the key figure tables, each of the economic activities are presented only on one row. Therefore, for example, in the turnover table the columns "Absolute turnover" and "Proportion of turnover" indicate the taxonomy-eligible proportion, which by multiplying the percentage of the substantial contribution criteria, gives the taxonomy-aligned proportion in the column "Taxonomy-aligned proportion turnover, 2022".

In reporting taxonomy-eligible figures, VR Group applies the precautionary principle. This means that the figures do not include items that are not specifically mentioned in the taxonomy. According to the EU taxonomy, companies must avoid double counting in calculating the turnover, capital expenditure and operating expenditure of economic activities. VR Group has carried out the allocations based on cost structures and separate profitability accounting systems, and ensured the separateness of the different cost factors for each activity.

VR Group uses different profitability accounting systems that can be used to determine the turnover, capital expenditure and operating expenditure of different businesses for different types of traffic. These items have been allocated to taxonomy-eligible and taxonomy-aligned items.

Assessment of compliance with Regulation (EU) 2020/852

VR Group has conducted an assessment of compliance with Regulation (EU) 2020/852 in accordance with the screening criteria set out in Commission Delegated Regulation 2021/2139. Based on the assessment, the following economic activities have been identified as taxonomy-eligible in VR Group's operations:

6.1 Passenger interurban rail transport: all VR Group passenger train services in Finland, and Östgötapendeln and Pågatåget in Sweden

6.2 Freight rail transport: all of VR Group's rail logistics

6.3 Urban and suburban transport, road passenger transport: bus services in Finland and Sweden, Tampere Tramway, and rail services in the Stockholm region

6.6 Freight transport services by road: Road logistics operated with EURO VI class vehicles.

The taxonomy indicators are presented categorised into these four economic activities. Of VR Group's business operations, the economic activities 6.2 and 6.6 are part of VR Transpoint's rail and road logistics, and 6.1 and 6.3 are part of VR Passenger Services. The names of the activities do not directly correspond to VR Group's business structure, as VR commuter services and HSL commuter services, for example, are passenger services "on mainline networks, spread over an extensive geographic area" in accordance with the taxonomy definition for the economic activity 6.1 Passenger interurban rail transport.

The technical screening criteria have only been completed for the first two of the six environmental objectives. VR Group's assessment is that its business operations are materially linked to the environmental objective of climate change mitigation, and it has assessed their taxonomy eligibility in that respect.

Of the taxonomy-eligible activities, the activities that meet the technical screening criteria and that are therefore taxonomy-aligned at VR Group are as follows:

6.1 Passenger interurban rail transport: all electrically driven VR Group passenger train services in Finland, and Östgötapendeln and Pågatåget in Sweden. They meet technical screening criterion 1(a) and cause no significant harm to the other environmental objectives (2,4,5). Diesel-powered passenger train services (the Kolari night train on the Oulu–Kolari section and railcar traffic) are excluded from taxonomy alignment, as they do not meet the DNSH criterion regarding the emission limits for engines in accordance with Annex II to Regulation (EU) 2016/1628. The new Dr19 locomotives meet the emission limits but have not yet been deployed in commercial traffic.

6.2 Freight rail transport: electrically driven rail logistics that are not used for the transport of fossil fuels. It meets technical screening criteria 1(a) and 2 and does not cause significant harm to the other environmental objectives (2,4,5). Diesel-powered rail logistics and related shunting work are excluded from taxonomy alignment on the same grounds as mentioned for economic activity 6.1, and the transport of fossil fuels has also been eliminated from the reported indicators.

6.3 Urban and suburban transport, road passenger transport: Tampere Tramway, and rail services in the Stockholm region. These are fully electrically driven and therefore meet the technical screening criterion 1(a) and cause no significant harm to the other environmental objectives (2,4,5). Bus services in Finland and Sweden are excluded from taxonomy alignment, as the tyres used in both do not meet the DNSH criterion for environmental objective 5 due to not having rolling resistance coefficients in the two highest populated classes of energy efficiency. This DNSH criterion excludes a significant part of the business, as the majority of VR Group's bus services would meet technical screening criterion 1(a) (electric buses) or 1(b) (EURO VI).

6.6 Freight transport services by road: no taxonomy-aligned activities. The fleet of natural gas vehicles would meet technical screening criterion 1(c)ii, but, as in the case of activity 6.3, the DNSH criterion for environmental objective 5 is not met due to the rolling resistance coefficients related to the energy efficiency of the tyres.

According to the assessment, the minimum social safeguards related to human rights, including workers' rights, bribery and corruption, taxation and fair competition are also met in VR Group's operations.

Background information on the turnover indicator

VR Group has calculated the denominator of the turnover indicator using the same accounting principles applied to net sales in IFRS accounting. Turnover includes all revenue received from the sale of services and goods in the ordinary course of business. Total turnover corresponds to the net sales figure presented in the consolidated financial statements.

The taxonomy-eligible turnover includes the external turnover of the taxonomy-eligible economic activities. The majority of VR Group's turnover is taxonomy-eligible, including all rail passenger services in Finland and Sweden, all of VR Group's rail logistics, bus services in Finland and Sweden, the operations of the Tampere Tramway, rail traffic in the Stockholm area, and road freight services operated using EURO VI vehicles.

Taxonomy-aligned turnover includes VR Group's electrically driven passenger train services, electrically driven rail freight traffic (excluding the transport of fossil fuels), the Tampere Tramway, and rail traffic in the Stockholm area.

Of VR Group's total turnover in 2022, 93.4% was taxonomy-eligible and 62.2% was taxonomy-aligned.

Background information on the CapEx indicator

In the denominator for the capital expenditure indicator, VR Group has included increases to tangible and intangible assets and right-of-use assets during the financial year. Capital expenditure (CapEx) is related to turnover-generating taxonomy-eligible and taxonomy-aligned investments that are expected to generate turnover within the next three years at the latest, or that support climate change mitigation by reducing greenhouse gases. The items in question are treated in accordance with reporting pursuant to the following standards: IAS 16 Property, Plant and Equipment; IAS 38 Intangible Assets; and IFRS 16 Leases. More information on investments is provided in the section "Investments" in the Report of the Board of Directors. Most of VR Group's investments are investments in environmentally friendly rolling stock and buses.

The taxonomy-eligible investments comprise the investments made in the context of VR Group's taxonomy-eligible economic activities. The largest investments in this category are new electric locomotives (Sr3) and diesel locomotives (Dr19), electric trains (SmX) and e-buses. Some of the investments in locomotives are shared between different economic activities. For those investments, the allocation between taxonomy-aligned and taxonomy-eligible investments (the numerator) is determined in proportion to external turnover.

Investments based on the use of electricity are strongly related to the pursuit of a future that is independent of fossil raw materials. VR Group's business ties up large amounts of capital and requires significant investments. By having a large proportion of taxonomy-eligible investment, VR Group demonstrates a strong commitment to protecting the environment and the climate.

Taxonomy-aligned investments in 2022 comprised investments in rail passenger services, rail freight traffic, and investments in rail traffic in Sweden through the acquisition of a subsidiary. No investments were allocated to the Tampere Tramway in 2022, although it is a taxonomy-eligible activity. VR Group operates the Tampere Tramway using the operator's fleet. The largest taxonomy-aligned investments were the procurement of electric trains from Stadler Bussnang and the Sr3 locomotives supplied by Siemens.

VR Group issued a EUR 300 million green bond in accordance with the company's Green Finance Framework, which is in line with the Green Bond Principles published by the International Capital Market Association (ICMA) in 2021, the Green Loan Principles published by the Loan Market Association (LMA) and the Green Loan Principles published by the Asia Pacific Loan Market Association (APLMA) and the Loan Syndications and Trading Association (LSTA) in 2021.

The proceeds from the issue will be used for initiatives and projects that comply with VR Group's Green Finance Framework. The projects include investments in clean transport, renewable energy projects and improving the energy efficiency of buildings owned or occupied by VR Group. The goal is the global mitigation of climate change by reducing greenhouse gas emissions, producing renewable energy and saving energy.

The eligible assets in accordance with the Green Finance Framework are, to the best of their ability, in line with the technical screening criteria of the EU taxonomy, which contributes substantially to climate change mitigation.

Of VR Group's capital expenditure in 2022, 86.3 per cent was taxonomy-eligible and 45.2 per cent was taxonomy-aligned.

Background information on the OpEx indicator

VR Group has determined the denominator for the operating expenditure indicator, EUR 191.7 million, in accordance with the methodology of the Taxonomy Regulation. VR Group does not have research and development expenditure in accordance with IAS 38 Intangible Assets.

The taxonomy-eligible operating expenditure comprises the operating expenditure of VR Group's taxonomy-eligible business activities as defined in the taxonomy. Taxonomy-aligned operating expenditure comprises costs related to electrically driven passenger services, electrically driven freight traffic (excluding the transport of fossil fuels), city and suburban traffic in the Stockholm region and the operating costs of the Tampere Tramway, in accordance with the Commission Delegated Regulation.

Taxonomy-eligible and taxonomy-aligned operating expenditure is related to turnover-generating and taxonomy-eligible assets and economic activities, which include all direct non-capitalised costs related to the asset's operations that could be itemised.These include, in accordance with the denominator defined in the calculation of the indicator, direct expenditure on locomotives, wagons, buses and road transport that is related to fleet repair and maintenance costs to ensure the operability of the fleet (IAS 16 Property, Plant and Equipment, recognition of the maintenance costs of fixed assets). The maintenance costs of fixed assets include direct wage costs of maintenance personnel, material costs and maintenance costs of external subcontractors, as defined in the Commission Delegated Regulation. The maintenance costs of buildings and structures have also been taken into account in the denominator.

Of VR Group's total operating expenditure in 2022, 89.1 per cent was taxonomy-eligible and 63.9 per cent was taxonomy-aligned.

Proportion of turnover from products or services associated with taxonomy-aligned economic activities, 2022

				Substantial contribution criteria						DNSH criteria ('Does Not Significantly Harm')										
	Code(s)	Absolute turnover	Proportion of turnover	Climate change mitigation	Climate change adaptation	Water and marine resources	Circular economy	Pollution	Biodiversity and ecosystems	Climate change mitigation	Climate change adaptation	Water and marine resources	Circular economy	Pollution	Biodiversity and ecosystems	Minimum safeguards	Taxonomy-aligned proportion of turnover, 2022	Taxonomy-aligned proportion of turnover, 2021	Category (enabling activity)	Category (transitional activity)
Economic activities		MEUR	%	%	%	%	%	%	%	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	%	E	T
A. Taxonomy-eligible activities																				
A.1 Environmentally sustainable activities (taxonomy-aligned)																				
Passenger interurban rail transport	6.1	442.2	39.9 %	97.1 %	-	-	-	-	-	-	Y	-	Y	Y	-	Y	38.8 %	-	-	T
Freight rail transport	6.2	291.5	26.3 %	66.8 %	-	-	-	-	-	-	Y	-	Y	Y	-	Y	17.6 %	-	-	T
Urban and suburban transport, road passenger transport	6.3	235.2	21.2 %	27.2 %	-	-	-	-	-	-	Y	-	Y	Y	-	Y	5.5 %	-	-	T
Turnover of environmentally sustainable activities (taxonomy-aligned) (A.1)		968.9	87.5 %	71.0 %													62.2 %			
A.2 Taxonomy-eligible but not environmentally sustainable activities (not taxonomy-aligned activities)																				
Freight transport services by road	6.6	64.9	5.9 %																	
Turnover of taxonomy-eligible but not environmentally sustainable activities (not taxonomy-aligned activities) (A.2)		64.9	5.9 %																	
Total (A.1+A.2)		1033.8	93.4 %																	
B. Taxonomy-non-eligible activities																				
Turnover of taxonomy-non-eligible activities (B)		73.2	6.6 %																	
Total (A+B)		1107	100.0 %																	

Proportion of CapEx from products or services associated with taxonomy-aligned economic activities, 2022

				Substantial contribution criteria						DNSH criteria ('Does Not Significantly Harm')										
	Code(s)	Absolute CapEx	Proportion of CapEx	Climate change mitigation	Climate change adaptation	Water and marine resources	Circular economy	Pollution	Biodiversity and ecosystems	Climate change mitigation	Climate change adaptation	Water and marine resources	Circular economy	Pollution	Biodiversity and ecosystems	Minimum safeguards	Taxonomy-aligned proportion of CapEx, 2022	Taxonomy-aligned proportion of CapEx, 2021	Category (enabling activity)	Category (transitional activity)
Economic activities		MEUR	%	%	%	%	%	%	%	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	%	E	T
A. Taxonomy-eligible activities																				
A.1 Environmentally sustainable activities (taxonomy-aligned)																				
Passenger interurban rail transport	6.1	98.1	29.7 %	91.2 %	-	-	-	-	-	-	Y	-	Y	Y	-	Y	27.1 %	-	-	T
Freight rail transport	6.2	75.2	22.8 %	64.4 %	-	-	-	-	-	-	Y	-	Y	Y	-	Y	14.7 %	-	-	T
Urban and suburban transport, road passenger transport	6.3	109.5	33.2 %	10.3 %	-	-	-	-	-	-	Y	-	Y	Y	-	Y	3.4 %	-	-	T
CapEx of environmentally sustainable activities (taxonomy-aligned) (A.1)		282.9	85.8 %	52.8 %													45.2 %			
A.2 Taxonomy-eligible but not environmentally sustainable activities (not taxonomy-aligned activities)																				
Freight transport services by road	6.6	1.9	0.6 %																	
CapEx of taxonomy-eligible but not environmentally sustainable activities (not taxonomy-aligned activities) (A.2)		1.9	0.6 %																	
Total (A.1+A.2)		284.8	86.3 %																	
B. Taxonomy-non-eligible activities																				
CapEx of taxonomy-non-eligible activities (B)		45.1	13.7 %																	
Total (A+B)		329.9	100 %																	

Proportion of OpEx from products or services associated with taxonomy-aligned economic activities, 2022

				Substantial contribution criteria						DNSH criteria ('Does Not Significantly Harm')										
	Code(s)	Absolute OpEx	Proportion of OpEx	Climate change mitigation	Climate change adaptation	Water and marine resources	Circular economy	Pollution	Biodiversity and ecosystems	Climate change mitigation	Climate change adaptation	Water and marine resources	Circular economy	Pollution	Biodiversity and ecosystems	Minimum safeguards	Taxonomy-aligned proportion of OpEx, 2022	Taxonomy-aligned proportion of OpEx, 2021	Category (enabling activity)	Category (transitional activity)
Economic activities		MEUR	%	%	%	%	%	%	%	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	%	E	T
A. Taxonomy-eligible activities																				
A.1 Environmentally sustainable activities (taxonomy-aligned)																				
Passenger interurban rail transport	6.1	111.1	58.0 %	94.6 %	-	-	-	-	-	-	Y	-	Y	Y	-	Y	54.9 %	-	-	T
Freight rail transport	6.2	43.5	22.7 %	34.3 %	-	-	-	-	-	-	Y	-	Y	Y	-	Y	7.8 %	-	-	T
Urban and suburban transport, road passenger transport	6.3	15.1	7.9 %	15.9 %	-	-	-	-	-	-	Y	-	Y	Y	-	Y	1.3 %	-	-	T
OpEx of environmentally sustainable activities (taxonomy-aligned) (A.1)		169.7	88.6 %	72.2 %													63.9 %			
A.2 Taxonomy-eligible but not environmentally sustainable activities (not taxonomy-aligned activities)																				
Freight transport services by road	6.6	1.0	0.5 %																	
OpEx of taxonomy-eligible but not environmentally sustainable activities (not taxonomy-aligned activities) (A.2)		1.0	0.5 %																	
Total (A.1+A.2)		170.8	89.1 %																	
B. Taxonomy-non-eligible activities																				
OpEx of taxonomy-non-eligible activities (B)		20.9	10.9 %																	
Total (A+B)		191.7	100.0 %																	

Share capital and shares

VR Group Plc's shares are owned by the State of Finland. The company's share capital consists of 2,200,000 shares.

The company's share capital amounts to EUR 370,013,438.19.

Outlook for the new year

VR Group expects that the comparable operating result (EBIT) for 2023 will improve compared to 2022.

The general economic situation in Finland is marred by high inflation, risen energy prices, higher interest rates and low consumer confidence in the economy. The underlying factors are Russia's invasion of Ukraine and geopolitical uncertainty. The economic situation is significantly reflected in VR Group's business operations, profitability and near-term outlook. In particular, the high price of electricity has a negative impact on VR Group's profitability.

VR Group discontinued Eastern freight traffic completely in 2022 due to Russia's war of aggression, which will reduce total rail logistics volumes this year. VR Group expects volumes to grow in domestic transport, particularly in the case of roundwood transport. This will also be affected by new investments in the forest industry, such as the Kemi bioproduct mill that is set to be commissioned. The general economic development is reflected in Finnish industry and, consequently, transport needs and volumes.

Train travel has recovered as the COVID-19 pandemic has abated. Nevertheless, the pandemic has changed the way people work and, as a result, their mobility patterns. Remote work has become increasingly common, and travel demand has been driven by leisure travel. The total number of long-distance journeys is expected to increase from the previous year. These increases will mainly take place in the early part of the year, as the pandemic reduced travel volumes particularly in early 2022. The temporary VAT deduction for public transport for the first four months of the year has been fully passed on to ticket prices by VR Group. In city traffic in Sweden, net sales and profitability will decline compared to 2022 due to some of the existing agreements expiring and the next new agreement not starting until late 2023.

The Finnish parliamentary elections and the next government programme will also influence the operating conditions for rail transport. Investments in the condition and capacity of the state's railway network are a prerequisite for the growth of environmentally friendly rail traffic. For regional contract traffic in which publicly subsidised traffic is put up for tender, VR Group has proposed a public rolling stock company. In long-distance services and freight traffic, the benefits to customers and society can be maximised by the Open Access model of competition that is already in use in Finland, which involves operators competing on market terms using their own rolling stock and on the routes they choose.

Major events after the end of the financial year

New segment reporting as of January 1, 2023

Based on the new strategy VR Group will change the reporting segments as of January 1, 2023. VR Passenger Services will be divided into two parts: VR Long Distance Traffic and VR City Traffic. VR Long Distance Traffic is responsible on long distance rail traffic and related services. VR City Traffic will include VR Sverige in Sweden, VR's commuter rail operations in Finland, Pohjolan Liikenne and Tampere tram.

VR FleetCare will not be reported as an own segment in the future. It's group internal maintenance operations will be reported under each reporting segment and the external maintenance sales will be reported under Other Operations.

The new reporting segments are VR Long Distance Traffic, VR City Traffic, and VR Transpoint (logistics).

Investment into rolling stock

On 18 January 2023, VR-Group Plc announced it will purchase nine sleeper cars and eight car-carrier wagons from Škoda Transtech Oy. The value of the purchase is approximately EUR 50 million. The new rolling stock will be in use on night train routes by the end of 2025. Night train traffic is part of the contract traffic agreed between VR and the Ministry of Transport and Communications. VR Group finances the procurement with its own funds, and the Ministry of Transport and Communications compensates VR for part of the procurement costs, as defined in the contract traffic agreement.

Board's proposal on the disposal of profit

The distributable funds of the parent company were EUR 395,844,425.20, of which the result for the accounting period is EUR 28,401,632.03. No fundamental changes have taken place in the Group's financial position since the end of the financial year.

The Board of Directors proposes to the Annual General Meeting that no dividend be distributed for the result for 2022.

Helsinki, 6 March 2023

VR-Group Plc

Board of Directors

Kjell Forsén
Chairperson of the Board

Nermin Hairedin

Markus Holm

Pekka Hurtola

Jaakko Kiander

Turkka Kuusisto

Virve Laitinen

Sari Pohjonen

Auditor's Note

A report on the audit performed has been issued today.

Helsinki, 6 March 2023

KPMG Oy Ab

Authorised Public Accountant

Ari Eskelinen
APA

Calculation of key figures

Capital employed

Balance sheet total - non-interest-bearing liabilities

Return on capital employed (ROCE) before taxes, %

$$\frac{\text{Profit before taxes + interest and other financial expenses}}{\text{Balance sheet total - non-interest-bearing liabilities (average during the period)}} \times 100$$

Comparable return on capital employed (ROCE) before taxes, %

$$\frac{\text{Profit before taxes + interest and other financial expenses +/- items affecting comparability}}{\text{Balance sheet total - non-interest-bearing liabilities (average during the period)}} \times 100$$

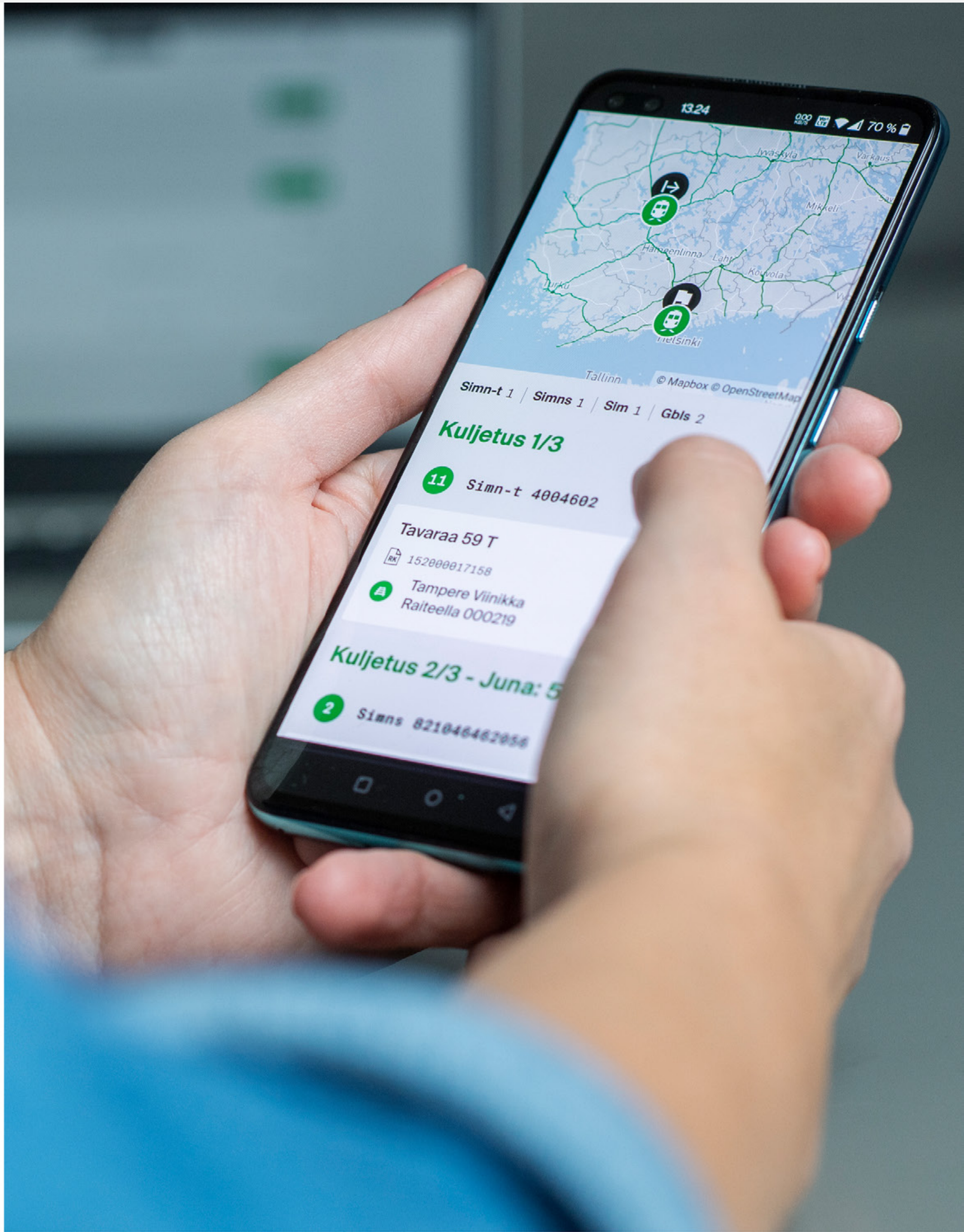
Gearing, %

$$\frac{\text{Interest-bearing liabilities}}{\text{Equity, total}} \times 100$$

Interest-bearing liabilities

Long-term interest-bearing liabilities + long-term lease liabilities
+ short-term interest-bearing liabilities + short-term lease liabilities
- cash and cash equivalents - other interest-bearing liabilities

Consolidated financial statements (IFRS)



Consolidated statement of comprehensive income (EUR 1,000)

	Note data	1 Jan-31 Dec 2022	1 Jan-31 Dec 2021
Net sales	2.2.	**1,107,031**	838,270
Other operating income	2.4.	**58,551**	45,325
Materials and services		**-386,890**	-272,610
Change in stocks of finished and unfinished products		**1,340**	652
Production for own use		**64,133**	47,757
Personnel expenses	3.1.	**-470,456**	-359,954
Depreciation, amortisation and impairment losses	4.1.-4.2.	**-207,396**	-151,946
Other operating expenses	2.4.	**-224,734**	-170,213
Operating result (EBIT)		**-58,422**	-22,718
Financial income		**29,374**	13,989
Financial expenses		**-17,454**	-11,194
Net financial expenses	5.3.	**11,920**	2,795
Income from associated companies	8.1.	**54**	466
Result before taxes		**-46,448**	-19,458
Income taxes	7.	**-968**	5,782
Result for the period		**-47,416**	-13,676
Result for the period attributable to			
Equity holders of the parent		**-47,417**	-13,676
Non-controlling interests		**1**	–

Other comprehensive income (EUR 1,000)

Items that may be reclassified subsequently to profit or loss	Note data	1.1.-31.12.2022	1.1.-31.12.2021
Translation differences		**305**	-224
Cash flow hedges		**37,100**	16,641
Taxes on items that may be reclassified subsequently to profit or loss		**-7,420**	-3,328
Items that will not be reclassified to profit or loss			
Remeasurements of defined benefit plans		**62,600**	14,942
Financial assets at fair value through other comprehensive income		**-13,819**	-8,155
Taxes on items that will not be reclassified subsequently to profit or loss		**-24,322**	-1,357
Total other comprehensive income for the period net of taxes		**54,445**	18,518
Total comprehensive income for the period		**7,028**	4,843
Total comprehensive income for the period attributable to			
Equity holders of the parent		**7,027**	4,843
Non-controlling interests		**1**	–
Total		**7,028**	4,843

Consolidated statement of financial position

Assets (1 000 €)

Non-current assets	Note data	31 Dec 2022	31 Dec 2021
Intangible assets	4.4.	**59,100**	40,223
Goodwill	4.4.	**10,862**	7,550
Tangible assets	4.1.	**1,302,474**	1,203,366
Right-of-use assets	4.2.	**298,966**	281,173
Investment properties	4.3.	**12,077**	13,053
Holdings in associated companies	8.1.	**1,872**	1,968
Investments	5.2.	**18,596**	32,371
Other receivables	5.2.	**143,695**	95,072
Non-current assets, total		**1,847,642**	1,674,775
Current assets			
Inventories	4.6.1.	**75,135**	77,800
Accounts receivable and other receivables	4.6.2.	**117,015**	71,823
Prepaid expenses and accrued income	4.6.2.	**51,140**	47,517
Other financial assets	5.2.	**50,000**	–
Cash and cash equivalents	5.2.	**224,396**	65,845
Current assets, total		**517,686**	262,986
Assets, total		**2,365,328**	1,937,761

Equity and liabilities (1 000 €)

Equity	Note data	31 Dec 2022	31 Dec 2021
Equity attributable to holders of the parent			
Share capital		**370,013**	370,013
Fair value reserve		**-33,978**	-38,037
Invested non-restricted equity reserve		**336,228**	376,228
Retained earnings		**621,360**	584,650
Net result for the financial year		**-47,417**	-13,676
Equity attributable to holders of the parent, total		**1,246,206**	1,279,178
Non-controlling interest		**14**	–
Equity, total	5.4.	**1,246,220**	1,279,178
Non-current liabilities			
Provisions	4.5.	**78,207**	47,756
Financial liabilities	5.2.	**325,065**	28,975
Lease liabilities	4.2.	**243,620**	246,655
Accounts payable and other liabilities	4.6.3.	**3,434**	32,262
Deferred tax liabilities	7.	**117,420**	82,779
Non-current liabilities, total		**767,746**	438,427
Current liabilities			
Provisions	4.5.	**690**	–
Financial liabilities	5.2.	**2,930**	4,345
Lease liabilities	4.2.	**44,707**	23,984
Advances received	4.6.3.	**18,346**	11,755
Accounts payable and other liabilities	4.6.3.	**94,553**	61,562
Accrued expenses and prepaid income	4.6.3.	**190,136**	118,509
Current liabilities, total		**351,362**	220,156
Liabilities total		**1,119,108**	658,583
Equity and liabilities, total		**2,365,328**	1,937,761

Consolidated cash flow statement (1 000 €)

Cash flow from operating activities	1 Jan-31 Dec 2022	1 Jan-31 Dec 2021
Result before taxes	**-46,448**	-19,458
Depreciation and amortisation	**207,396**	151,946
Profit and loss from sale of tangible and Intangible assets and other adjustments	**-2,942**	12,121
Cash flow from operating activities before change in working capital	**158,006**	144,609
Change in working capital	**15,517**	5,996
Net financial expenses	**516**	-8,806
Income taxes paid	**5,890**	-3,673
Cash flow from financial items and taxes	**6,406**	-12,479
Cash flow from operating activities (A), total	**179,929**	138,126

Cash flow from investing activities		
Tangible and intangible assets purchases	**-167,214**	-152,241
Tangible and intangible assets sales	**16,867**	5,270
Shares and holdings acquired	**-69,719**	-3,873
Shares and holdings sold	**–**	600
Change in investment receivables	**-21,233**	7,552
Cash flow from investing activities (B), total	**-241,299**	-142,692
Cash flow before financing (A)+(B)	**-61,370**	-4,566

Cash flow from financing activities	1 Jan-31 Dec 2022	1 Jan-31 Dec 2021
Dividends and returns of invested capital paid	**-40,000**	-100,000
Change in bond	**298,527**	–
Change in non-current liabilities	**-3,080**	-3,046
Repayment of leasing liabilities	**-34,112**	-27,414
Change in current interest-bearing liabilities	**-1,415**	2,042
Cash flow from financing activities (C), total	**219,921**	-128,418
Change in cash flows (A)+(B)+(C)	**158,551**	-132,985
Cash and cash equivalents 1 Jan.	**65,845**	198,831
Cash and cash equivalents 31 Dec.	**224,396**	65,845

The position of Interest-bearing investment receivables has been changed from Cash flow from financing activities (C) to Cash flow from investing activities (B).

Consolidated statement of changes in equity (EUR 1,000)

	Note data	Share capital	Fair value reserve	Invested non-restricted equity reserve	Translation differences	Retained earnings	Attributable to holders of parent company, total	Attributable to non-controlling interest	Equity total
Equity 1 Jan 2022	**5.4.**	**370,013**	**-38,037**	**376,228**	**166**	**570,808**	**1,279,178**	**–**	**1,279,178**
Comprehensive income									
Net result for the financial year						-47,417	-47,417	1	**-47,416**
Translation differences					305		305		**305**
Cash flow hedges			29,680				29,680		**29,680**
Remeasurements of defined benefit plans						50,080	50,080		**50,080**
Changes in fair value with effects on comprehensive income			-25,620				-25,620		**-25,620**
Other comprehensive income total			**4,060**		**305**	**50,080**	**54,445**		**54,445**
Total comprehensive income for the financial year			**4,059**		**305**	**2,663**	**7,027**	**1**	**7,028**
Return of invested equity				-40,000			-40,000	–	**-40,000**
Changes in group structure								13	**13**
Equity 31 Dec 2022	**5.4.**	**370,013**	**-33,978**	**336,228**	**471**	**573,471**	**1,246,206**	**14**	**1,246,220**
Equity 1 Jan 2021	**5.4.**	**370,013**	**-44,826**	**376,228**	**390**	**572,530**	**1,274,335**		**1,274,335**
Comprehensive income									
Net result for the financial year						-13,676	-13,676		**-13,676**
Translation differences					-224		-224		**-224**
Cash flow hedges			13,313				13,313		**13,313**
Remeasurements of defined benefit plans						11,954	11,954		**11,954**
Changes in fair value with effects on comprehensive income			-6,524				-6,524		**-6,524**
Other comprehensive income total			**6,789**		**-224**	**11,954**	**18,518**		**18,518**
Total comprehensive income for the financial year			**6,789**		**-224**	**-1,722**	**4,843**		**4,843**
Equity 31 Dec 2021	**5.4.**	**370,013**	**-38,037**	**376,228**	**166**	**570,808**	**1,279,178**	**–**	**1,279,178**

Notes to the consolidated financial statements

How to read the consolidated financial statements

In VR Group's consolidated financial statements, notes are compiled into themes to form an overview and make it easier to read the financial statements. The areas presented in the financial statements are indicated by these symbols:

Accounting principles
Accounting principles followed in IFRS financial statements can be identified by this symbol.

Management estimates
A description of management discretion relating to an area and uncertainties associated with the estimates.

Key consolidated accounting principles

Accounting principle	Area	Note	IFRS standard
Segment information	Profitability of operations	2.1.	IFRS 8
Revenue recognition	Profitability of operations	2.2.	IFRS 15
Defined-benefit pension plans	Remuneration of the personnel and related parties	3.2.	IAS 19
Leases	Capital invested and provisions	4.2.	IFRS 16
Investment properties	Capital invested and provisions	4.3.	IAS 40
Provisions	Capital invested and provisions	4.5.	IAS 37
Derivatives and hedge accounting	Financial risk management	6.2.	IFRS 7 IFRS 9
Business Combinations	Group structure	8.1.	IFRS 3

1. Description of the Group and general accounting principles

1.1. Description of the Group

VR Group is a travel, logistics and maintenance service company. The parent company of the Group is VR-Group Plc and its domicile is Helsinki, Finland. Copies of the consolidated financial statements are available from the company's headquarters at Radiokatu 3, P.O. Box 488, 00240 Helsinki, Finland.

The corporate form of the group's parent company changed to a public limited company (Plc) during the accounting period.

The Group's Board of Directors approved these financial statements in its meeting on 6 March 2023. In accordance with the Finnish Limited Liability Companies Act, shareholders can accept or reject the financial statements at a general meeting held after their publication. The general meeting can also resolve on amending the financial statements.

1.2. General accounting principles

Basis of accounting

The financial statements have been prepared in accordance with the International Financial Reporting Standards (IFRS) approved by the EU, in force on 31 December 2022. International Financial Reporting Standards refers to the standards and associated interpretations in the Finnish Accounting Act and in regulations issued under it that are approved by the EU for application in accordance with the procedures laid down in Regulation (EC) No 1606/2002. The Group has applied these accounting principles both to the financial years 2022 and 2021, unless otherwise specified below. The Group has not applied any new or revised standards or interpretations prior to their entry into force.

The financial year of VR Group is the calendar year, with the exception of Transitar Oy, acquired during the financial year, whose financial year is exceptionally 18 months 1. July 2021– 31. December 2022. VR Group's financial statements are reported in thousands of euros, unless otherwise specified. All of the reported figures have been rounded up or down, so the total sum of individual figures can differ from the reported sum figure.

Areas relating to the COVID-19 pandemic

COVID-19 affected the development of VR Group's business and profitability, and therefore the Group's liquidity was strengthened with a revolving credit facility totalling EUR 200 million, which will mature in June 2025 with one-year extension option remaining.

During the COVID-19 pandemic, VR Group has carefully monitored and assessed the credit risks associated with its accounts receivables. The amount of credit loss provision is based on the maturity of the receivables and risk categorization of client companies.

In response to Russia's invasion of Ukraine, which began on 24 February 2022, and the sanctions imposed by West against Russia, VR Group's Board of Directors decided to discontinue the company's Eastern traffic by the end of the year. VR Group has complied with the sanctions, guidance issued by the authorities, and the applicable legislation. For the time being, the sanctions do not prevent rail traffic between the EU and Russia. VR Group has assessed the impact of Russia's invasion of Ukraine and the related sanctions imposed on Russia on the balance sheet by examining whether tangible fixed assets, inventory valuation and the collectability of trade receivables show signs of impairment. Expectations of future cash flows have been updated to reflect the changed economic environment. In total, VR Group's operations related to Russia generated approximately EUR 42 million in net sales in 2022, representing approximately 3.8 percent of the Group's net sales. Due to the significant uncertainty regarding business in Russia, VR Group has written off all Allegro-related items, and part of the assets related to Eastern freight transport. VR Group has recorded items affecting comparability totaling EUR 50.2 million related to fixed assets, inventories and bad debts.

Key estimates and discretionary decisions

Preparing IFRS financial statements requires the management to exercise discretion and use assumptions and estimates. These estimates and assumptions are based on prior experience and other justified factors, such as expectations concerning future events. The management's estimates are based on the best view and knowledge of the management of VR Group on the closing date.

The table presents the key estimates and discretionary decisions essential to assessing the financial statements on the whole, and indicates the notes in which the information is disclosed.

Key estimates and discretionary decisions	Note
Measurement of investment properties	4.3.
Pension obligations	3.2.
Leases	4.2.
Testing for impairment loss	4.1. and 4.4.
Provisions for environmental obligations	4.5.
Income tax	7.
Legal liabilities	9.1.3.
Group structure	8.1.

New and revised standards that entered into force during the financial year and which are applicable to future financial years

In the completed fiscal year, VR Group has implemented the following improvements to the existing standards published by the IASB. These changes did not have a significant impact on the consolidated financial statements.

- References to the conceptual framework
- Changes to IFRS 3
- Improvements to IAS 37
- Provisions, contingent liabilities and contingent assets
- Expenses arising from fulfilling the contract
- Improvements to standard IAS 16: Tangible fixed assets
- Income before intended use

The Group has not proactively adopted any of the revised standards and interpretations already issued by the IASB. The Group will adopt them as of the entry into force of each standard and interpretation, or if the effective date is not the first day of the financial year, as of the beginning of the next financial year after the effective date. According to the Group's current estimate, these standards and interpretations will not have a significant impact on future consolidated financial statements.

2. Profitability of operations

2.1. Segment information

The segments of VR Group are VR Passenger Services, VR Transpoint (logistics business), VR FleetCare (maintenance) and other operations, which includes train operations, property management and group operations.

VR Passenger Services

VR Passenger Services provides railway passenger services. Restaurant and catering service provider Avecra complements the service onboard the trains and at the stations. The Passenger Services also includes the Pohjolan Liikenne bus service and Karelian Trains as a joint operation.

VR Transpoint

VR Transpoint offers rail logistics services as well as domestic and international road logistics services. The services include combined railway and road transports and customised logistics chains with additional services. VR Transpoint's customers are domestic and international companies that need logistics solutions for raw material and product transportation.

VR FleetCare

VR FleetCare provides high-quality train fleet repair, maintenance and lifecycle services as well as rolling stock technology adviser services in the Nordic and Baltic countries. Our key customers are VR Group's business operations and units. Customers also include Helsinki Regional Transport HSL; Metropolitan Area Rolling Stock Ltd, which owns the Flirt commuter traffic vehicles; and the associated company Karelian Trains Ltd, which owns the Allegro trains that are used in traffic to St. Petersburg, Russia.

Other operations

Train Operations is responsible for owning VR Group's locomotives, managing their lifecycle, organising maintenance and investing in new fleet. The unit is also responsible for procuring electrical energy and fuel for the rail traffic and for the energy-efficiency of the rail traffic. The rail traffic planning unit plans the use of locomotives in long-distance passenger traffic and freight traffic trains as well as train drivers schedules. The planning unit is also responsible for long-term train driver resource planning and updating short-term plans of train drivers and locomotives related to changes in traffic. Train Operations' most important customers are VR Group's train traffic passengers and logistics customers who are served together with VR Passenger Services and VR Transpoint. VR Group's property management unit takes care of property development and rental operations. Group operations provide support to the business units.

The President and CEO and the Management team as the supreme operational decision-making body review the management's internal reports on a monthly basis. The evaluation of the profitability of the segments is based on their operating profit. The Group has not consolidated the segments to form reporting segments.

The figures for the business operations are based on IFRS reporting figures, and they are reported consistently in the notes as they are reported to the President and CEO and the Management team. Sales between business operations are made on market terms. Internal transactions are eliminated in the consolidated financial statements.

The Group's assets and liabilities have not been allocated to the segments, because the supreme operational decision-making body does not allocate resources based on the assets or liabilities of the segments and does not review the segments' assets or liabilities.

New segment reporting as of January 1, 2023

Based on the new strategy VR Group will change the reporting segments as of January 1, 2023. VR Passenger Services will be divided into two parts: VR Long Distance Traffic and VR City Traffic. VR Long Distance Traffic is responsible on long distance rail traffic and related services. VR City Traffic will include VR Sverige in Sweden, VR's commuter rail operations in Finland, Pohjolan Liikenne and Tampere tram.

VR FleetCare will not be reported as an own segment in the future. It's group internal maintenance operations will be reported under each reporting segment and the external maintenance sales will be reported under Other Operations.

The new reporting segments are VR Long Distance Traffic, VR City Traffic, and VR Transpoint (logistics).

Information pertaining to the entire Group

The Group's net sales are generated almost exclusively in Finland and Sweden, and the Group's non-current assets are located in Finland and Sweden. The Group does not have an external customer generating revenue amounting to a minimum of 10 per cent of the Group's net sales.

Segments 2022 (EUR 1,000)

	VR passenger services	VR Transpoint	VR FleetCare	Segments total	Other operations and eliminations	Group total
Sales to outside the Group	710,196	385,189	11,646	1,107,031	–	1,107,031
Group's internal sales	668	978	209,776	211,422	-211,422	–
Sales, total	**710,864**	**386,167**	**221,422**	**1,318,453**	**-211,422**	**1,107,031**
Comparable operating result (EBIT)	**16,072**	**296**	**-1,168**	**15,201**	**-9,250**	**5,951**
Items affecting comparability	**-47,734**	**-2,945**	**-10,988**	**-61,667**	**-2,706**	**-64,373**
Operating result (EBIT)	**-31,662**	**-2,649**	**-12,156**	**-46,466**	**-11,955**	**-58,422**
Financial income and expenses (net)						11,920
Income tax						-968
Net result for the period						**-47,416**

Segments 2021 (EUR 1,000)

	VR passenger services	VR Transpoint	VR FleetCare	Segments total	Other operations and eliminations	Group total
Sales to outside the Group	431,430	389,886	16,954	838,270	–	838,270
Group's internal sales	105	204	186,754	187,064	-187,064	–
Sales, total	**431,536**	**390,091**	**203,708**	**1,025,335**	**-187,064**	**838,270**
Comparable operating result (EBIT)	**-40,243**	**23,026**	**4,654**	**-12,563**	**-1,540**	**-14,103**
Items affecting comparability	**-10,121**	**–**	**–**	**-10,121**	**1,506**	**-8,615**
Operating result (EBIT)	**-50,364**	**23,026**	**4,654**	**-22,685**	**-33**	**-22,718**
Financial income and expenses (net)						2,795
Income tax						5,782
Net result for the period						**-13,676**

Items affecting comparability (EUR 1,000)

	2022	2021
Operating result (EBIT)	**-58,422**	-22,718
Profits from the sale of assets and other one off profits	**-3,314**	-3,570
Losses from the sale of assets and exceptional amortisations	**67,687**	12,185
Items affecting comparability, total	**64,373**	8,615
Comparable operating result (EBIT)	**5,951**	-14,103

The Group posted items affecting comparability that had a negative EUR 64.4 million impact to operating result. The items affecting comparability related mainly to discontinuation of the Eastern traffic amounting to EUR 50.2 million. In addition EUR 12.4 million related to provision to an onerous contract.

Items affecting comparability are unusual items, that are not related ordinary operations. Most commonly items affecting comparability are gains or losses on asset sales, asset write-offs or reversals of write-offs, gains or losses on sale of a group company, provisions on planned reorganisations, environmental provisions, and fines or penalties imposed by authorities.

2.2. Net sales

Customer contracts are assessed using the five-step model pursuant to IFRS 15: the contract and the performance obligations in the contract are identified, the transaction price is determined and allocated to the performance obligation, and revenue is recognised when (or as) the performance obligation is fulfilled. Sales revenue is recognised in an amount that reflects the consideration to which the Group expects to be entitled in exchange for the goods or services transferred to the customer. The timing of revenue recognition is based as control is passed.

VR Group's cash flows are generated by different types of business:

- VR Passenger Services provides public transport services in long-distance and commuter traffic with trains and Pohjolan Liikenne's buses. Catering services of long-distance train traffic are provided by Avecra, which also operates restaurants and cafés at railway stations.
- VR Transpoint transports mainly raw materials and products for the forest, metal, chemical and construction industries by rail and road.
- VR FleetCare services include rail vehicle maintenance, modernising projects and lifecycle management.

The Group's sales revenue is mainly generated by services, which are recognised as revenue when the service has been provided, such as tickets or transport of goods or individual maintenance measures. The business operations of VR FleetCare also include projects in which comprehensive service is provided to the customer, with control passed to the customer over time, and therefore the project is recognised as revenue over time. Advances received and accruals from sales are associated with advance payments received by VR FleetCare from the modernisation contract before the fulfilment of the performance obligation. The advances received and accruals from sales are recognised as revenue once VR FleetCare has fulfilled its contractual obligations, and they are classified as liabilities based on a customer contract.

VR FleetCare's sales revenue, including estimated profit, is recognised as costs are incurred. The management regularly reviews the progress of performance obligations. As part of the assessment, the management takes into account the key contractual obligations, percentage of completion of the project, identified risks and opportunities and changes in the estimate of income and costs. The losses caused by the commitments are recognised in full through profit or loss for the period during which they are observed.

Sales based on services 2022 (EUR 1,000)

	VR Passenger Services	VR Transpoint	VR FleetCare	Other operations	Group, total
Rail traffic	470,448	293,976	–		702,155
Road traffic (truck or bus)	206,833	92,191			299,024
Catering and restaurant services	33,582				33,582
Other	–	–	221,422	–	221,422
Eliminations	–	–	–	-211,422	-211,422
Total	**710,864**	**386,167**	**221,422**	**-211,422**	**1,107,031**

Sales based on services 2021 (EUR 1,000)

	VR Passenger Services	VR Transpoint	VR FleetCare	Other operations	Group, total
Rail traffic	302,239	310,610	–		612,848
Road traffic (truck or bus)	109,360	79,481			188,841
Catering and restaurant services	19,937				19,937
Other	–	–	203,708	–	203,708
Eliminations	–	–	–	-187,064	-187,064
Total	**431,536**	**390,091**	**203,708**	**-187,064**	**838,270**

Net sales by geographical area (EUR 1,000)

	2022	2021
Finland	954,313	831,744
Sweden	151,041	–
Rest of Europe	1,676	6,526
Total	**1,107,031**	838,270

Net sales by timing of revenue recognition 2022 (EUR 1,000)

	VR Passenger Services	VR Transpoint	VR FleetCare	Other operations and eliminations	Group, total
At a point in time	710,864	386,167	213,439	-211,422	1,099,048
Over time			7,983		7,983
Total	**710,864**	**386,167**	**221,422**	**-211,422**	**1,107,031**

Net sales by timing of revenue recognition 2021 (EUR 1,000)

	VR Passenger Services	VR Transpoint	VR FleetCare	Other operations and eliminations	Group, total
At a point in time	431,535	390,090	193,067	-187,064	827,628
Over time			10,641		10,641
Total	**431,535**	**390,090**	**203,708**	**-187,064**	**838,269**

Items recognised on the balance sheet for sales contracts (EUR 1,000)

	2022	2021
Receivables (incl. in Accounts receivable on the balance sheet)	**68**	105
Contractual liabilities	**2,739**	2,018

Contractual liabilities are advance payments received based on the Group's maintenance contract, which the Group is not yet entitled to recognise as sales revenue. Contractual assets are connected to the the Group's maintenance business contract on the basic repair of metro trains to the extent that the work has been performed but not yet billed. The asset is reclassified to accounts receivable once an absolute right to the receivable emerges.

Maturity of sales in future financial years (EUR 1,000)

	2023	2024
Maturity of VR FleetCare's sales in future financial years	8,395	2,854

2.3. Materials and services (EUR 1,000)

	2022	2021
Purchases during the year	**215,391**	146,905
Change in inventories	**21,275**	-2,418
External services purchased	**150,225**	128,122
Total	**-386,890**	-272,610

2.4. Other operating income and expenses

Income not generated by ordinary business operations is reported in other income. This category includes recurring items, such as rental income, and non-recurring items, such as insurance indemnities and profit from the sale of assets.

Public grants

Public grants received as compensation for costs already incurred are recognised through profit or loss for the period during which the right to receiving the grant emerges. Such grants are reported in other operating income.

Avecra Oy has received subsidies of EUR 307 thousand (EUR 1,625 thousand) from the Finnish State for its restaurant operations, which is included in other operating income in the income statement of the financial year. The amount of the compensation received is the statutory maximum.

VR-Group Plc received subsidies for fuel oil for work machinery amounting to EUR 82 (0) thousand and SeaRail received EUR 1 (0) thousand of the same subsidy. Oy Pohjolan Liikenne Ab received subsidies for transport companies amounting to EUR 241 (0) thousand, and Transitar Oy received EUR 59 (0) thousand of the same subsidy. The fuel subsidy paid reduces the unrestricted equity available for the distribution of funds in the financial statements for the financial year that ends. (Law "Laki kuljetusalan yritysten määräaikaisesta polttoainetuesta 763/2022" 9 §).

VR Group also received EUR 109 thousand from Business Finland for solar power investment for Ilmala depot. In 2021 VR Group received EUR 68 thousand in product development grants and EUR 167 thousand in energy subsidies from The Ministry of Employment and the Economy.

In 2022 VR Group received CEF-support to a maximum of EUR 85 thousand, for development of Tampere railway station, as part of the larger development project of the Tampere passenger railway yard led by the Finnish Transport Infrastructure Agency.

Rental income is comprised of income from assets leased out (Note 4.2) and income from investment properties (Note 4.3).

Other operating income (EUR 1,000)

	2022	2021
Rental income	**20,669**	18,762
Profit from sale of tangible assets	**5,124**	4,013
Other income	**32,757**	22,549
Total	**58,551**	45,325

Other operating expenses (EUR 1,000)

	2022	2021
Track access fees and track networks	**-40,063**	-43,691
Rents and other real estate expenses	**-42,832**	-36,690
Travel and other personnel expenses	**-27,747**	-18,216
Telecommunication and information management expenses	**-40,777**	-34,427
Other operation-related expenses	**-22,887**	-19,896
Administration and other expenses	**-50,428**	-17,294
Total	**-224,734**	-170,214

Auditors' fees (EUR 1,000)

	2022	2021
Auditing fees	**-406**	-474
Tax services	**–**	-9
Other services	**-46**	-55
Total	**-451**	-538

Auditors' fee, in addition to fees for KPMG, include fees for the previous auditor EY for the audit of the financial year 2021.

3. Remuneration of the personnel and related parties

3.1. Personnel expenses

Employment relationship benefits include the following short-term employment relationship benefits, post-employment benefits, other long-term employment relationship benefits and benefits associated with the termination of employment.

Short-term employment relationship benefits include salaries, fees and fringe benefits, annual holidays and bonuses. The Group recognises the items for the period during which the work concerned was performed. Moreover, VR Group recognises the expected expense due to short-term employment relationship benefits granted as paid leaves as follows:

- when employees perform work that increases their right to future paid leaves, in case of accumulating paid leaves.
- when the leaves take place, in case of non-accumulating paid leaves.

Post-employment benefits are paid to the beneficiaries after the termination of employment. At VR Group, these benefits are comprised of defined-contribution and defined-benefit pension plans. VR Group has both defined-contribution and definedbenefit pension plans. Contributions to defined-contribution pension plans are recognised in the income statement for the period concerned by the charge. In defined-contribution plans, the Group does not have a legal or factual obligation to make additional payments in case the recipient of the contributions fails to pay the pension benefits.

In defined-benefit pension plans, the plan may result in obligations or assets for VR Group after the contribution is made. The defined-benefit pension obligation illustrates the present value of the future cash flows due to benefits paid. The present value of pension obligations is calculated using the Projected Unit Credit Method. Pension expenses are expensed during the service of the employees based on actuarial calculations. In calculating the present value of the pension obligation, the discount rate used is the market yield of high-quality euro-denominated corporate bonds. The assets of the pension plan corresponding to the pension obligation are measured at fair values on the closing date. Actuarial gains and losses are recognised in other comprehensive income.

The present value of pension obligations depends on several factors, which are based on actuarial assumptions. Any change in these assumptions will have an impact on the balance sheet value of the pension obligations. The note on pensions presents a description of the essential risks and a sensitivity analysis of the impacts of changes in the actuarial assumptions. The employees' statutory pension coverage is provided by an employment pension insurance institution and voluntary supplementary pension coverage in VR Pension Fund.

Other long-term employment relationship benefits include all other employment relationship benefits besides short-term benefits, post-employment and termination-related benefits.

Termination-related benefits are not based on work performance, but on termination of employment. These benefits are comprised of severance pay.

Personnel expenses (EUR 1,000)

	2022	2021
Wages and salaries	**380,584**	297,181
Pension expenses (defined-contribution plans)	**59,181**	50,393
Pension expenses (defined-benefit plans)	**341**	739
Other personnel related expenses	**30,350**	11,641
Total	**470,456**	359,954

The wages and salaries paid to key management personnel are presented in Note 3.3.

During the accounting period, the average number of the Group's employees by segment was as follows:

	2022	2021
VR Passenger Services	**3,701**	2,454
VR Transpoint	**968**	1,038
VR FleetCare	**997**	926
Other	**1,180**	1,202
Total	**6,846**	5,620

3.2. Pension receivables and obligations

VR Group has a defined-benefit supplementary pension plan in Finland. Some of the personnel employed by the former state-owned company Valtionrautatiet whose employment relationship continues with VR Group have defined-benefit supplementary pension plans in VR Pension Fund. The benefits are retirement age lower than the statutory age or higher pension accumulation. The plan is fully funded.

In addition, with the acquisition of VR Sweden, a supplementary pension plan for personnel of one traffic operations contract is consolidated to VR Group as a defined-benefit plan. The obligation is part of the traffic operations contract and is the responsibility of the operator, managing traffic operations at each time. A mandatory provision of EUR 590 thousand has been made for the obligation. The plan is not included to the figures presented below for VR Pension Fund.

The operations of VR Pension Fund are regulated, besides the rules of the fund, by the Pension Funds Acts and decrees and guidelines issued under it. The operations of the Pension Fund are supervised by the Finnish Financial Supervisory Authority. The Pension Fund is managed by its management and the Board of Directors. VR Pension Fund invests its assets in a secure and profitable manner. VR Pension Fund actively monitors the development of market risks and the distribution of its investment risks.

Determination of the balance sheet values of the defined-benefit pension plan (EUR 1,000)

	31 Dec 2022	31 Dec 2021
Present value of the obligations of funded defined-benefit obligations	**222,307**	339,905
Fair value of the assets included in the plan	**-346,360**	-421,699
Surplus (-) / Deficit (+)	**-124,053**	-81,794
Net receivable (-) / liability (+) on the balance sheet	**-124,053**	-81,794

Change in the net receivable on the balance sheet (EUR 1,000)

	2022	2021
Receivable at the beginning of the financial year	**-81,794**	-81,108
Income/expenses recognised on the income statement	**-227**	308
Remeasurement	**-62,600**	-11,425
Return of excess balance	**20,000**	10,000
Plan expenses	**568**	431
Receivable at the end of the financial year	**-124,053**	-81,794

Defined-benefit pension expenses on the statement of comprehensive income (EUR 1,000)

	2022	2021
Expenses based on work performance during the financial year	**345**	460
Interest expense and income, total	**-572**	-152
Maintenance expenses	**568**	431
Pension expenses (+) / income (-) on the income statement	**341**	739
Remeasurement	**-62,600**	-11,425
Pension expenses (+) / income (-) on the statement of comprehensive income	**-62,259**	-10,686

Changes in the present value of the obligation (EUR 1,000)

	2022	2021
Obligation at the beginning of the financial year	**339,905**	349,516
Expenses based on work performance during the financial year	**345**	460
Interest expense	**2,603**	665
Actuarial gains (-) and losses (+) resulting from changes in economic expectations	**-79,041**	8,796
Experience adjustment gains (-) or losses (+)	**-12,778**	13,544
Total	**251,034**	372,981
Pensions paid	**-28,727**	-33,076
Obligation at the end of the financial year	**222,307**	339,905

Changes in the fair value of plan assets (EUR 1,000)

	2022	2021
Fair values of plan assets at the beginning of the financial year	**421,699**	430,624
Interest income	**3,175**	817
Return on plan assets, excluding items included in interest income	**-29,219**	33,765
Total	**395,655**	465,206
Pensions paid	**-28,727**	-33,076
Return of excess balance	**-20,000**	-10,000
Administrative expenses	**-568**	-431
Fair values of plan assets at the end of the financial year	**346,360**	421,699

Breakdown of the fair value of plan assets by asset category, as percentage of the fair values of plan assets (%)

	2022	2021
Shares in developed markets	**21.5**	18.2
Shares in developing markets	**5.3**	9.1
Bonds	**33.1**	38.5
Cash and cash equivalents and money market investments	**6.5**	6.2
Real estate investments	**25.5**	20.4
Other items	**8.1**	7.6
Total	**100.0**	100.0

VR Pension Fund aims for an investment breakdown that diversifies the risks of different asset categories in the long term.

Actuarial assumptions

	2022	2021
Discount rate	**3.8%**	0.8%
Inflation rate	**2.6%**	2.1%
Expected pension increases	**2.8%**	2.4%
Expected salary increases	**2.2%**	2.2%

Assumptions regarding mortality are made based on independent actuarial assumptions, and they are based on the statistics published in each area and experience.

In 2023, it is projected that VR Group will not need to pay contributions to the benefit plan.

VR Pension Fund's pension obligation amounted to EUR 222,3 million (2021: 339,9) discounted at a discount rate of 3.8% (2021: 0.8%).

- if the discount rate was changed by +/- 0.5 percentage points with the other assumptions remaining unchanged, the change impact on the pension obligation is EUR -10.2/+11.1 (2021: -19.9/+22.1) million.
- If the expected pension increases were changed by +/- 0.5 percentage points with the other assumptions remaining unchanged, the change impact on the pension obligation is EUR +10.0/-9.3 (2021: +19.9/-18.1) million.

The weighted average duration of the defined-benefit obligation is 12 (2021: 12) years.

Most significant risks of the defined-benefit pension plan

Volatility of assets and the obligation

The discount rate used in calculating the obligation due to the plan corresponds with the interest rate on bonds close to maturity issued by solvent companies in the Eurozone in terms of maturity. In the long term, VR Group aims to gain returns above the discount rate on the plan assets. When the return on the assets is above or below the discount rate, the value of the plan assets changes. This can lead to a surplus or deficit. VR Pension Fund's solvency position is good, and therefore VR Pension Fund endures even a very steep decline in the equity market.

Changes in bond returns

When the return on bonds changes, VR Group may have to adjust the discount rate. This has an impact on the value of the obligation included in the definedbenefit pension plan and the defined-benefit plan recognised on the statement of comprehensive income.

Risk management of investment activities

In funded plans, VR Pension Fund manages its investments so that the aim is to match assets and liabilities. The purpose of this is to match the investments with the obligations resulting from pension plans. The processes used in risk management are continuously improved. The investments are diversified so that losing any individual investment would not have a material impact on the total amount of assets.

3.3. Related parties

Employment benefits of key management personnel

(EUR 1,000)

President and CEO	2022	2021
Salaries and other short-term employment benefits	**-787**	-449
Pension benefits (defined-contribution plans)	**0**	0
Pension benefits (defined-benefit plans)	**0**	0
Total	**-787**	-449

Board of Directors		
Salaries and other short-term employment benefits	**-359.8**	-304
Pension benefits (defined-contribution plans)	**0**	0
Pension benefits (defined-benefit plans)	**0**	0
Total	**-359.8**	-304

Supervisory Board		
Salaries and other short-term employment benefits	**-27**	-29
Pension benefits (defined-contribution plans)	**0**	0
Pension benefits (defined-benefit plans)	**0**	0
Total	**-27**	-29

Key management personnel		
Salaries and other short-term employment benefits	**-1768**	-1795
Pension benefits (defined-contribution plans)	**0**	0
Pension benefits (defined-benefit plans)	**0**	0
Total	**-1768**	-1795

(1) Salaries and other short term benefits of the President and CEO includes a severance pay and a salary for a notice period amounting to EUR 380 thousand.

Transactions with other related parties and outstanding balances

VR Group paid a total of EUR 40.1 million (2021: EUR 43.7 million) in track access fees to the state. Contract traffic sold to the Ministry of Transport and Communications totalled EUR 31.6 million (2021: EUR 49.2 million).

The related parties of the Group's parent company VR-Group Plc include its subsidiaries, associated companies and joint operations. In addition, related parties include the President and CEO, Board of Directors and Supervisory Board and the Management Team of the Group as members of Group management, as well as entities over which these persons have control or joint control, and the close family members of the above-mentioned persons. Furthermore, the Finnish state, which holds all of the shares in the company, is considered to be a related party of VR Group Plc.

4. Capital invested and provisions

4.1. Property, plant and equipment

VR Group classifies as property, plant and equipment assets which:

- The Group uses for manufacturing goods and providing services, rental operations outside the Group and administrative purposes; and
- Are expected to be used in more than one financial year

Property, plant and equipment items include the station and properties owned by the Group and their plots, trains and other wagon fleet and related machinery and other spare parts.

The Group measures property, plant and equipment at original acquisition cost less accumulated depreciation and any impairment losses.

The acquisition cost includes purchase price, all expenses directly resulting from bringing the asset to the location and condition in which it can operate in the way intended by the management, and expenses pursuant to the original estimate for dismantling and transporting the asset and restoring its location to the original state. The land areas owned by the Group involve restoring soils contaminated during use. The provisions recognised due to these obligations are specified in more detail in Note 4.5. Provisions.

If a fixed asset is comprised of several separable components with differing economic useful lives, each component is treated as a separate asset. The Group treats maintenance programmes in which major components, such as bogies and wheelsets, are replaced in conjunction with maintenance as such separate assets. Maintenance programmes are expensed over the depreciation period determined on the basis of maintenance intervals. The Group recognises

Depreciation of property, plant and equipment

The depreciation is calculated using the straight-line depreciation method, and it is based on the economic useful lives of the assets. Depreciation begins when the fixed asset is ready for use and when it is in a location or condition that allows the use of the asset as intended by the management. The residual values and economic useful lives of assets are assessed at the end of each accounting period and, if necessary, adjusted to correspond to changes in the expected economic benefit. The depreciation periods of property, plant and equipment are:

Land and water areas	No depreciation
Buildings and structures	10–50 years
Locomotives	30 years
Electric trains	25 years
Wagons	15–30 years
Other machinery and equipment	3–15 years
Other tangible assets	5–30 years

The Group derecognises the book value of tangible assets if the asset is removed from use, sold or is not expected to generate returns over its economic useful life.

The Group assesses on each closing date if it there is a need for adjusting the economic useful lives or any residual values of property, plant and equipment assets. When there are indications of the book value of an individual fixed asset exceeding its recoverable value, the book value of the said asset is tested for impairment. Usually, fixed assets do not generate separate cash flow, but they are tested as part of a cashgenerating unit. For additional information about testing for impairment, see Note 4.4..

Property, plant and equipment 31 December 2022 (EUR 1,000)

The table below presents the changes in the acquisition cost of property, plant and equipment:

Acquisition cost	Land and water areas	Building and structures	Machinery and equipment	Other tangible assets	Advance payments and incomplete acquisitions	Total
Opening balance 1 January	60,012	370,700	2,125,472	15,431	119,698	**2,691,312**
Translation difference			1,496			**1,496**
Increases through business acquisitions	–	840	161,995	–	57	**162,892**
Increases	17,955	–	4,980	–	218,816	**241,751**
Decreases	-1,313	-3,375	-66,677	-30	-34	**-71,430**
Reclassifications	832	-876	129,912	21,865	-161,449	**-9,716**
Closing balance 31 December	**77,485**	**367,289**	**2,357,178**	**37,266**	**177,087**	**3,016,305**
Accumulated depreciation, amortisation and impairment						
Opening balance 1 January	–	-185,407	-1,292,006	-10,533	–	**-1,487,945**
Translation difference		1	109			**110**
Increases through business acquisitions	–	-624	-122,020	–	–	**-122,644**
Increases	–	–	–	–	–	**–**
Accumulated depreciation for decreases and transfers	–	1,497	54,571	26	–	**56,093**
Depreciations for the financial year	–	-12,977	-103,013	-1,415	–	**-117,405**
Impairment losses	–	-4,648	-35,519	–	-137	**-40,304**
Reclassifications	–	14,888	-1,735	-14,888	–	**-1,735**
Closing balance 31 December	**–**	**-187,270**	**-1,499,613**	**-26,811**	**-137**	**-1,713,831**
Book value 1 January	**60,012**	**185,292**	**833,467**	**4,898**	**119,697**	**1,203,366**
Book value 31 December	**77,485**	**180,019**	**857,565**	**10,455**	**176,949**	**1,302,474**

Property, plant and equipment 31 December 2021 (EUR 1,000)

Acquisition cost	Land and water areas	Building and structures	Machinery and equipment	Other tangible assets	Advance payments and incomplete acquisitions	Total
Opening balance 1 January	61,247	379,908	2,030,544	14,961	132,437	**2,619,097**
Translation difference			1,090			**1,090**
Increases	12	2,893	90,758	110	54,488	**148,261**
Decreases	-1,084	–	-51,250	–	-3,299	**-55,633**
Reclassifications	-164	-12,101	54,330	360	-63,930	**-21,504**
Closing balance 31 December	**60,012**	**370,700**	**2,125,472**	**15,431**	**119,698**	**2,691,312**
Accumulated depreciation, amortisation and impairment						
Opening balance 1 January	–	-179,947	-1,233,243	-9,682	–	**-1,422,872**
Translation difference			-218			**-218**
Accumulated depreciation for decreases and transfers	–	–	32,443	–	–	**32,443**
Depreciations for the financial year	–	-13,712	-88,452	-851	–	**-103,015**
Impairment losses	–	-127	-332	–	–	**-459**
Reclassifications	–	8,379	-2,202	–	–	**6,176**
Closing balance 31 December	**–**	**-185,407**	**-1,292,006**	**-10,533**	**–**	**-1,487,945**
Book value 1 January	**61,247**	**199,962**	**797,301**	**5,279**	**132,437**	**1,196,224**
Book value 31 December	**60,012**	**185,292**	**833,467**	**4,898**	**119,697**	**1,203,366**

4.2. Leases

Group as lessee

VR Group recognises a lease liability and a corresponding right-ofuse asset on the balance sheet for all of its leases at the start of the agreement. The Group's leases are typically associated with diverse land and water areas, office and warehouse buildings and machines and equipment. Their duration varies by contractual terms and the leased asset.

Right-of-use assets are measured at acquisition cost, from which the Group recognises straight-line depreciation based on the term of the lease and any impairment losses. The acquisition cost includes the original amount of the lease liability plus direct initial costs and rents paid in advance. In addition, any incentives offered by the lessor are deducted from lease liabilities.

Right-of-use assets are amortised using the straight-line method over the lease term. The Group uses the following amortisation periods:

Land and water areas	5–40 years
Buildings and structures	5–50 years
Machinery and equipment	5–20 years

The lease liability is measured by discounting future fixed minimum rent payments to their present value using the effective interest method. The lease liability does not include other variable rents than those associated with contractual index-pegged increase. VR Group repays the lease liability against rent payments. The repayment is broken down into interest expense and liability repayment. If the lease liability is changed, such as due to changes in future rent payments, the right-of-use asset is adjusted to match the change in the lease liability.

VR Group uses the implicit interest rate of the contract as the discount rate, or if the interest rate is difficult to determine, the interest rate on the lessee's incremental borrowing rate of interest. The Group separates nonlease components from leases if they can be directly separated from the lease.The Group applies the following practical reliefs:

- Short-term leases with a term of less than 12 months; and
- Leases with an underlying asset of a minor value

Leases included in the scope of the are not recognised as part of the lease liability, but the Group expenses them to profit or loss. Leases with a minor value include rental payments for machinery and equipment leased by the Group.

Group as lessor

The Group acts as a lessor in logistics subcontracting agreements, in addition to which the Group sublets part of its premises in the headquarters building named Iso Paja. In the subcontracting agreements, rents are generally paid monthly. As the lessor, VR Group classifies logistics subcontracting agreements as operating leases or financial leases. All of the Group's assets leased out are operating leases, and the resulting rental income is recognised to the income statement in equal batches over the term of the lease.

VR Group has a significant number of leases relating to wagons, cars, buses, properties and land areas which are valid until further notice and either have a short period of notice or a fixed term with possible termination and extension options. Estimating the probable term of these leases and the future use or non-use of any options requires major discretion. The term of lease includes the periods covered by the leases if it is reasonably certain that the option will be exercised. The probable lease term is typically assessed according to the five-year strategy period. In case of exceptional conditions, significant basic refurbishing costs or other significant or indirect costs for exiting the lease, the lease term can be more than five years. For leases not concerning properties, the need for the assets concerned is often short term, which is why leases valid until further notice with a termination period of 12 months or less are treated as short-term leases.

Property, plant and equipment and right-of-use assets

Right-of-use assets 31 December 2022 (EUR 1,000)

Acquisition cost	Land and water areas	Building and structures	Machinery and equipment	Total
Opening balance 1 January	21,206	40,847	382,014	**444,066**
Increases through business acquisitions	–	72,450	39,296	**111,746**
Increases	212	35,602	20,137	**167,697**
Decreases	–	-71,919	-32,109	**-104,028**
Reclassifications	–	–	-1,992	**-1,992**
Closing balance 31 Dec	**21,418**	**76,980**	**407,345**	**505,742**
Accumulated depreciation, amortisation and impairment				
Opening balance 1 Jan	-2,313	-9,833	-150,747	**-162,893**
Translation difference		225	95	**320**
Increases through business acquisitions	–	-44,100	-26,974	**-71,074**
Accumulated depreciation for decreases and transfers	–	43,554	19,692	**63,246**
Depreciations for the financial year	-2,062	-10,888	-25,160	**-38,111**
Impairment losses	–	–	–	**–**
Reclassifications	–	–	1,735	**1,735**
Closing balance 31 Dec	**-4,375**	**-21,043**	**-181,359**	**-206,777**
Book value 1 January	**18,893**	**31,014**	**231,267**	**281,173**
Book value 31 December	**17,042**	**55,937**	**225,986**	**298,966**

Right-of-use assets 31 December 2021 (EUR 1,000)

Acquisition cost	Land and water areas	Building and structures	Machinery and equipment	Total
Opening balance 1 January	5,993	31,305	366,055	**403,353**
Increases through business acquisitions	–	–	–	**–**
Increases	18,273	10,549	18,486	**47,308**
Decreases	-3,303	-1,007	-200	**-4,510**
Reclassifications	243	–	-2,327	**-2,084**
Closing balance 31 Dec	**21,206**	**40,847**	**382,014**	**444,066**
Accumulated depreciation, amortisation and impairment				
Opening balance 1 Jan	-1,470	-7,669	-132,736	**-141,875**
Translation difference				
Increases through business acquisitions	–	–	–	**–**
Accumulated depreciation for decreases and transfers	770	650	25	**1,445**
Depreciations for the financial year	-1,370	-2,814	-18,738	**-22,922**
Impairment losses	–	–	-1,500	**-1,500**
Reclassifications	-243	–	2,202	**1,959**
Closing balance 31 Dec	**-2,313**	**-9,833**	**-150,747**	**-162,893**
Book value 1 January	**4,523**	**23,636**	**233,318**	**261,476**
Book value 31 December	**18,893**	**31,014**	**231,267**	**281,173**

The table below presents the lease items recognised through profit or loss:

Items recognised through profit or loss (EUR 1,000)

	2022	2021
Lease expenses for low value and short-term items	**-4,200**	-764
Amortisation of right-of-use assets on underlying assets	**-23,649**	-23,164
Land and water areas	**-2,082**	-1,370
Buildings and structures	**-3,764**	-3,029
Machinery and equipment	**-17,804**	-18,765
Total	**-27,849**	-23,928

The table below presents the rent payments not included in lease liabilities:

	2022	2021
Variable rent expenses	**-965**	-693
Interest expenses on lease liabilities	**-2,800**	-2,032

Items presented on the cash flow statement

	2022	2021
Outgoing cash flows from leases, total	**-40,456**	-29,446

Commitments concerning leases

The tables below present the breakdown of short and long-term lease liabilities and the maturities of lease liabilities. Additional information about other breakdowns of the Group's liabilities and maturities of financial liabilities are presented in Note 5.2. Financial assets and financial liabilities and fair values.

Balance sheet values of lease liabilities (EUR 1,000)

	2022	2021
Short-term	**44,707**	23,984
Long-term	**243,620**	246,655
Total	**288,327**	270,639

The table below presents the breakdown of the minimum payments of the lessor's non-cancellable leases:

Group as lessor

Minimum rents of non-cancellable leases (EUR 1,000):

	2022	2021
Within one year	**9,395**	9,512
Between one year and five years	**5,103**	7,411
After five years	**44,468**	31,092
Total	**58,966**	48,015

The primary purpose of leasing is to provide in-house operations with optimum premises from owned real estate stock. Premises not needed for own use are leased to external users, where possible. The floor area of properties owned by VR Group totals approximately 465,600 (479,000) m^2.

4.3. Investment properties

The Group's investment properties are comprised of old station and machine shop properties and other buildings and structures built in conjunction with them, among others. The investment properties are mainly located along the rail traffic network and other traffic nodes in Finland.

VR Group classifies as investment properties those properties owned by the Group that the Group holds to primarily obtain rental income and/or increase in value. Investment properties include both owned properties and properties leased out.

The Group has properties that are partly in the Group's own use and partly investment properties. In these cases, the property is classified as an investment property only if an insignificant part is used for providing services or for administrative purposes. For example, the Helsinki Central Railway Station property is not classified as an investment property.

An investment property is derecognised when the property is divested or permanently decommissioned and no future economic benefit is expected from its transfer.

Measurement of investment properties and fair values

Investment properties are measured at acquisition cost less accumulated depreciation and any impairment losses. Investment properties are depreciated using the straight-line depreciation method based on estimated economic useful lives. Land areas are not depreciated.

The depreciation periods of investment properties are 10–50 years.

Impairment is recognised for an investment property if its book value exceeds its fair value.

The Group uses, when necessary, both an external assessor and its own estimates based on economic return to measure the fair values of investment properties. In 2022, the assessment was carried out by Newsec.

The book values of investment properties are subject to provisions for environmental obligations. The measurement of the provisions requires management discretion regarding, for example, the amount of the provision and the timing of its realisation. For additional information about these, see Note 4.5. Provisions.

Investment property items (EUR 1,000)

	2022	2021
Acquisition cost 1 January	**50,500**	13,379
Increases	**478**	–
Decreases	**-1,743**	-596
Reclassifications	**–**	37,717
Total 31 December	**49,235**	50,500
Accumulated depreciation, amortisation and impairment 1 January	**-37,447**	-1,284
Decreases	**1,285**	–
Depreciation and amortisation for the financial year	**-996**	-544
Accumulated depreciation for decreases and transfers	**–**	-33,739
Impairments	**–**	-1,880
Closing balance 31 December	**-37,158**	-37,447
Book value 1 January	**13,053**	12,096
Book value 31 December	**12,077**	13,053
Fair value	**26,315**	19,823

Investment properties are classified as fair value hierarchy level 3, because inputs not based on observable market data have been used in determining their fair values.

Investment property items measured through profit or loss (EUR 1,000)

	2022	2021
Rental income	**4,783**	3,750
Maintenance expenses of leased assets	**-2,031**	-2,122
Maintenance expenses of non-leased assets	**-146**	-100
Investment property items through profit or loss, total	**2,606**	1,528

Commitments

No commitments or restrictions are known. Furthermore, no protected sites are known with regard to the investment properties.

4.4. Goodwill and intangible assets

The Group's intangible assets include goodwill from acquired companies, licences owned by the Group, software and capitalised development expenses. VR Group classifies these items to goodwill, customer relationships, intangible rights and development expenses on the balance sheet.

Goodwill

VR Group recognises goodwill at the amount by which:

- the consideration transferred and
- the fair value of the previous holding in the acquisition combined exceed the value of the identifiable net assets acquired at the time of acquisition.

Goodwill is measured at original acquisition cost less accumulated impairment losses, the amount of which the Group assesses annually at the minimum. Goodwill is not regularly amortised. With regard to associated companies, goodwill is included in the balance sheet value of the holding in the associated company. Impairment losses on goodwill are recognised through profit or loss, and they cannot be subsequently cancelled. Further information about testing goodwill for impairment is presented below in this Note. VR Group allocates goodwill to cash-generating units. Additional information about the Group's cash-generating units can be found below.

Other intangible assets

The Group recognises an intangible asset when it is probable that expected economic benefits will accrue to the Group and the acquisition cost can be reliably determined. The Group initially measures intangible assets at acquisition cost, after which the acquisition is adjusted for accumulated depreciation and amortisation and any impairment loss.

The Group's intangible assets include the acquisition cost of company acquisitions allocated to customer relationships.

Intangible rights include IT systems and software acquired by the Group and associated rights. Expenses relating to the maintenance of the systems and software are expensed when they occur.

Intangible assets are amortised using the straight-line method based on an estimate of the economic useful lives of the assets. The amortisation periods of intangible assets are as follows:

Customer relationships	5 years
Intangible rights	5 years

Research and development expenses

The Group expenses research and development expenses, such as the personnel expenses of diverse system projects, for the financial year during which they are incurred. Only product development expenses that meet the following criteria for capitalisation are recognised on the balance sheet:

- completing the asset is technically feasible,
- the Group aims to complete the asset,
- the Group can use or sell the asset
- the asset will generate probable future economic benefit
- adequate resources for completing the development work are available, and
- the expenses can be reliably determined during the development phase.

The development expenditure capitalised by the Group includes all expenses incurred directly from completing the asset ready for its intended purpose of use. Development expenses associated with intangible assets still in progress are recognised on the balance sheet at original acquisition cost. After initial entry, the acquisition cost is adjusted for amortisation based on the economic useful life of the development expenses or any impairment losses.

The estimated economic useful life of the Group's capitalised development expenses is 5 years, during which the expenses are expensed as straight-line depreciation.

Intangible assets 2022 (EUR 1,000)

Acquisition cost	Goodwill	Customer relationships	Other	Total
Opening balance 1 January	7,550	1,607	151,300	**160,457**
Increases through business acquisitions	3,312	18,882	14,532	**36,726**
Decreases	–	–	-8,427	**-8,427**
Reclassifications	–		18,136	**18,136**
Closing balance 31 December	**10,862**	**20,489**	**175,542**	**206,893**
Accumulated depreciation, amortisation and impairment				
Opening balance 1 January	–	-888	-111,797	**-112,685**
Translation differences		94	43	**137**
Increases through business acquisitions	–		-7,579	**-7,579**
Accumulated depreciation for decreases	–		411	**411**
Depreciation and amortisation for the financial year	–	-4	-17,211	**-17,215**
Closing balance 31 December	**–**	**-798**	**-136,132**	**-136,930**
Book value 1 January	**7,550**	**719**	**38,785**	**47,773**
Book value 31 December	**10,862**	**19,691**	**39,409**	**69,962**

Intangible assets 2021 (EUR 1,000)

Acquisition cost	Goodwill	Customer relationships	Other	Total
Opening balance 1 January	4,941	1,877	160,221	**167,039**
Increases	2,608	–	2,710	**5,318**
Decreases	–	-270	-27,880	**-28,150**
Reclassifications	–		16,251	**16,251**
Closing balance 31 December	**7,550**	**1,607**	**151,300**	**160,457**
Accumulated depreciation, amortisation and impairment				
Opening balance 1 January	–	-349	-124,720	**-125,069**
Accumulated depreciation for decreases			28,048	**28,048**
Depreciation and amortisation for the financial year	–	-538	-10,724	**-11,262**
Reclassifications	–		-4,403	**-4,403**
Closing balance 31 December	**–**	**-888**	**-111,797**	**-112,685**
Book value 1 January	**4,941**	**1,528**	**35,501**	**41,970**
Book value 31 December	**7,550**	**719**	**39,504**	**47,773**

Goodwill impairment testing

VR Group allocated goodwill for impairment testing to those cash-generating units which are expected to benefit from the business combination that resulted in the goodwill. “Cash-generating unit” refers to the smallest identifiable asset group at VR Group whose generated cash flows are largely independent of the cash flows generated by other assets or groups of assets. The Group recognises an impairment loss when the book value of a cash-generating unit exceeds its recoverable amount.

The goodwill on the Group’s balance sheet is from the acquisitions of Avecra, Transitar and VR Sverige (previously Arriva Sverige). Avecra is part of VR Passenger Services and tested as a separate cashgenerating unit because its cash flows can be separated from other cash flows of VR Passenger Services. Transitar is part of VR Transpoint and it is tested as part of VR’s road logistics, as its operations are integrated into the road logistics after the acquisition. VR Sverige is tested as a Swedish operations of VR Passenger Services.

The recoverable amount has in impairment loss testing been determined based on value in use. The values used in determining the value in use are consistent with figures obtained from external information sources. The cash flows forecast in the calculations are based on financial plans approved by top management, covering the five-year strategy period and the subsequent terminal period. The discount rate is the weighted average cost of capital (WACC) determined by business area.

On the basis of the impairment testing carried out, the balance sheet values of goodwill were not impaired at 31 December 2022.

Goodwill by business area (EUR 1,000)

	12/31/22	12/31/21
VR Passenger Services (Avecra and VR Sverige)	**8,254**	4,941
VR Transpoint (Transitar)	**2,608**	2,608
Total	**10,862**	7,550

Key information of tests for impairment

	12/31/2022	12/31/2021
The growth factor (%) used for extrapolating cash flows after the strategy period (the assumption is a steady growth factor)	**1,0-1,5**	1,0-1,5
Discount rate (pre-tax WACC), %	**6,0-6,3**	6,0-6,3
WACC after taxes, %	**4,8-5,0**	4,8-5,0

VR Group’s management assesses on each closing date whether there are indications of impairment of goodwill (or any other intangible or tangible asset or right-of-use asset). The Group regularly estimates these indications based on the Group’s internal reporting or changes in the economic environment and market.

For instance, indications may include:

- unexpected changes in the variables of the testing calculations (net sales and profitability), and
- changes in market conditions, such as changes in foreign exchange rates (Russian rouble).

Measurement is generally discretionary, and the values can change from one financial year to another, because the management has to project the supply and demand concerning individual businesses, future selling prices and achievable levels of costs. The estimated benefits and savings achieved as the result of efficiency programmes are subjective. The value in use of a cash-generating unit is determined by discounting estimated cash flows using an interest rate based on the weighted average cost of capital (WACC). The WACC calculation is based on the beta factors and capital structures of of benchmark companies.

Goodwill is tested annually, regardless of whether there are any indications. No depreciations are done for goodwill, but it is tested for impairment annually. Imparments done previously are not reversed, even if the circumstances leading to imparment would have improved significantly.

4.5. Provisions

VR Group's provisions are comprised of environmental obligations, expenses on onerous contracts, employer's obligation to pay the unemployment insurance liability component and expenses of warranty repairs of maintenance work.

Provisions are recognised for environmental obligations as a result of VR Group's operations at depots, machine shops, refuelling and loading sites and for restoring or rehabilitating leased land areas or buildings or the environment. The most typical sites are old machine shops, depots and refuelling or loading sites where environmentally hazardous substances have potentially been handled. Some of the sites have been used by the Group for a long time, and some of them are built in previously contaminated areas.

Provision for environmental obligations

Provisions for environmental obligations are associated with the restoration or rehabilitation of owned and leased land areas or buildings. The Group has determined an estimated restoration schedule, amount and time of realisation for the sites. With regard to owned assets, the expenses associated with the provision for environmental obligations are included in the acquisition cost of the property, plant and equipment asset and the acquisition cost of assets classified as investment properties. Similarly, the corresponding expenses associated with leased sites are included in the right-of-use asset.

Other provisions

Other provisions include provisions for onerous contracts, warranty provisions and unemployment insurance fund provisions. Provision for onerous contract is recognised when it is likely that the income from the contract is not adequate to cover the expenses arising from full-filling the obligations of the contract. Warranty provisions are provisions for expenses of warranty repairs of maintenance work done by VR FleetCare. An employer is obligated to pay the unemployment insurance contribution (Unemployment Insurance Fund provision), if a senior employee who has been given notice or laid off remains unemployed or laid off for a long time. The Group recognises a provision in conjunction with dismissal. The unemployment insurance fund provision are realised in two years time.

The provisions are comprised of liabilities whose time of realisation or actual amount is uncertain. A provision is recognised when the Group has a (legal or factual) obligation as a result of a previous event, the realisation of the payment obligation is probable and the amount of the obligation can be reliably determined.

The amount recognised as a provision equals the best estimate of the expenses required to fulfil the existing obligation on the closing date of the reporting period. The outgoing cash flows caused by the obligation are discounted to the time of review if the impact of the time value of money is substantial. The discount rate should reflect the market view of the time value of money at the time of review and the special risks concerning the liability in question. The risks and uncertainties associated with the obligation are taken into consideration in the amount of the provision.

Provisions concerning fixed assets are included in the acquisition cost of the property, plant and equipment or right-of-use asset, as the acquisition cost has to include the costs of dismantling and transferring the asset and restoring the location to the original state pursuant to the initial estimate. Any subsequent changes in liabilities are added to the acquisition cost of the asset concerned by the liabilities or deducted from it, and the adjusted depreciable amount of the asset is recognised non-retroactively as an expense over its remaining economic useful life.

Estimates of the existence and amount of the obligation need to be used in deciding on the prerequisites for recognising provisions and determining their amounts. The recognised amount is the best estimate of the expenses caused by the obligation on the closing date or if it was transferred to a third party. The estimates can deviate from the actual future obligation in terms of amount and existence. In addition to the identified provisions, the Group has some offbalance sheet liabilities with possible future obligations (timing, costs) that cannot be reliably projected. With regard to provisions for environmental obligations, determining the time of materialisation difficult, the estimate requires management discretion and the time of materialisation used is 20 years until the timing can be more accurately estimated.

The management of VR Group has exercised discretion in determining the deductibility of VAT on expenses for environmental provisions. The management has decided to include 24% VAT on the estimated provision expense based on KHO 2018:68 decision described in the notes 9.1.3.

Provisions 2022 (EUR 1,000)

	Provisions for environmental obligations	Other provisions	Total
Book value 1 January	45,282	2,493	**47,775**
Increases through business acquisition		2,414	**2,414**
Increases	20,168	13,451	**33,619**
Provisions used	-3,497	-1,117	**-4,614**
Cancellation of unused provisions	-24	-272	**-297**
Book value 31 December	**61,929**	**16,969**	**78,897**

Provisions 2021 (EUR 1,000)

	Provisions for environmental obligations	Other provisions	Total
Book value 1 January	46,022	3,612	**49,634**
Increases		1,031	**1,031**
Provisions used	-630		**-630**
Cancellation of unused provisions	-110	-2,149	**-2,259**
Book value 31 December	**45,283**	**2,493**	**47,776**

Provision for environmental obligations

The amount recognised as a provision is the present value of the expenses expected to be required for fulfilling the obligation. The present value of the expenses is determined either as an in-house estimate or by an external consultant, dependingon the site. The Group annually revises the estimates of future expenses relating to land areas and their timing.

A major increase in a provision resulting from the lapse of time is recognised as an interest expense. At the end of the year 2022 the discount rate was updated due to increased interest rates to an average of 2,3%. The discount rate used in the entries for 2020 and 2021 has been 0% and the Group has not recognised interest expenses from the provisions.

The estimated time of materialisation of the Group's provisions for environmental obligations varies from 1 to 20 years. They are typically long-term obligations. With regard to provisions for environmental obligations in which determining the time of materialisation is difficult, the time of materialisation used is 20 years until the timing can be more accurately estimated.

Other provisions

An employer may be obligated to pay the unemployment insurance contribution if a senior employee who has been given notice or laid off remains unemployed or laid off for a long time.

4.6. Working capital

VR Group manages the items described in the table as working capital:

EUR 1,000	2022	2021
Inventories	**75,135**	77,800
Accounts receivable and other receivables	**168,155**	119,340
Working capital - receivables, total	**243,290**	197,141
Accounts payable and other liabilities	**305,686**	195,081
Working capital - liabilities, total	**305,686**	195,081
Net working capital	**-62,395**	-2,060

4.6.1. Inventories

VR Group's inventories are mainly comprised of spare and replacement parts needed for maintaining and repairing rolling stock, only replaced upon breaking down, such as train windshields. The inventories include purchased products, products manufactured by the Group and unfinished products and supplies intended for use in the production process.

VR Group classifies replacement and spare parts with a significant value that will be regularly replaced based on the maintenance programmes as fixed assets. They are described in more detail in Note 4.1. Property, plant and equipment. VR Group measures inventories at the lower of acquisition cost or net realisable value. The acquisition cost of inventories is determined using the weighted average price method. The net realisable value is the estimated price obtained from selling the inventory item in the course of ordinary business less the estimated expenses due to finishing the product and realising the sale.

The Group includes direct purchase expenses, including import duties and acquisition and transport costs in the acquisition cost of products sourced as finished products. Any discounts received are deducted from the acquisition cost. The acquisition cost of finished and unfinished products manufactured by the Group includes raw materials, wage and salary expenses caused by the direct work performance and a share of other required expenses. In addition, a share of the variable and fixed overhead of manufacturing is allocated to the items in accordance with the normal utilisation rate.

The provision recognised for inventories with a slow turnover time and obsolete inventories is based on the best estimate at the closing date. The estimates are based on a systematic and continuous review and assessment of inventory quantities. This assessment also takes into consideration the composition of inventories and their age in relation to the estimated future need.

EUR 1,000	2022	2021
Single-use items	**49,525**	51,040
Replacement parts	**24,239**	25,794
Fuels	**1,371**	966
Total	**75,135**	77,800

A total of EUR -19,936 (3,070) thousand was expensed to the income statement for materials and supplies, work in progress and finished products. These items are included in the income statement item materials and services and production for own use.

A total of EUR -8,790 (-1,683) thousand was recognised as impairment in the inventories of VR FleetCare during the financial year. The book value of these inventory items was decreased to correspond with their net realisable value. In the financial period, EUR 1,151 (2,266) thousand of the items impaired in previous financial years were also recognised as a return of impairments, which resulted in a net negative effect of EUR -7,639 (583 positive) thousand of impairments and their returns.

The inventory impairment of VR Group included EUR -9,680 thousand one-time write-off related to discontinuation of the Eastern traffic.

4.6.2. Accounts receivable and other receivables

The Group's accounts receivable and other receivables are comprised of the following items:

EUR 1,000	2022	2021
Accounts receivable	**83,774**	57,722
Other receivables	**2,581**	576
Advances paid	**269**	1,660
Derivatives	**30,391**	11,865
Prepaid expenses and accrued income	**51,140**	47,517
Total	**168,155**	119,340

The table describes the items susceptible to credit risk and the provision for expected credit losses:

	2022		2021	
EUR 1,000	Gross book value	Credit loss provision	Gross book value	Credit loss provision
Current accounts receivable (not due)	77,086	-539	55,571	-326
Overdue				
1–7 days	1,631	-10	1,788	-120
8–30 days	2,132	-7	467	-2
31–60 days	634	-22	105	-7
61–90 days	668	-23	5	-2
91–180 days	906	-12	48	-6
over 180 days	1,769	-438	265	-64
Total	**84,826**	**-1,051**	**58,249**	**-528**

The reconciliation of expected credit losses is presented in the table below:

EUR 1,000	2022	2021
Book value 1 January	**-528**	-596
Impairment losses	**37**	276
Net re-evaluation of provisions for credit losses	**-560**	-208
Book value 31 December	**-1,051**	-528

The Group recognises all accounts receivable at amortised cost. Accounts receivable are current assets that the Group intends to hold for a maximum of 12 months after the close of the reporting period.

Expected credit losses

The Group measures accounts receivables at amortised cost, and the expected credit losses for them are recognised. The Group applies a simplified procedure (provision matrix) to calculating expected credit losses, with the allowance concerning the loss measured at an amount corresponding with the expected credit losses for the entire validity period. Changes in expected credit losses are recognised through profit or loss in other operating expenses.

Accounts receivable are broken down by business area in calculating expected credit losses. The provision matrix takes into account historical data about actual credit losses, economic conditions at the time of review and forward-looking expectations of the development of credit losses.

An actual credit loss is recognised on the income statement for accounts receivable when the Group considers that no payment will be received.

During the COVID-19 pandemic and Russia's invasion of Ukraine, VR Group has carefully monitored and assessed the credit risks associated with its accounts receivable. The amount of credit loss provisions is based on the maturity distribution of accounts receivable and risk categories of companies. Therefore, a growth in the credit loss risk associated with accounts receivable leads to a higher credit loss provision. Moreover, the credit loss risk was separately assessed at the end of 2022, based on which the provisions were found to be at an adequate level. The provisions for credit losses increased slightly during 2022.

4.6.3. Accounts payable and other liabilities

The Group's accounts payable and other liabilities are comprised of the following items:

	2022	2021
Accounts payable	**79,903**	53,776
Other liabilities	**14,649**	7,747
Accrued expenses and prepaid income	**190,136**	118,509
Advances received	**20,997**	15,049
Dividend payment liability	**–**	100,000
Total	**305,686**	195,081

The most significant items in the Group's accrued expenses and prepaid income include salary liabilities, EUR 84,977 thousand (67,304) and accruals from sales and expenses totalling EUR 100,962 thousand (50,410). The largest item was the prepayment for the new SMX Flirt trains amounting to EUR 42,226 thousand.

Advances received are mainly comprised of accruals from VR's multi and single tickets.

Accounts payable are initially recognised at fair value on the balance sheet and subsequently measured at amortised cost. Accounts payable are current liabilities that will fall due within a maximum of 12 months after the close of the reporting period.

5. Capital structure

5.1. Capital management

The purpose of VR Group's capital management is to ensure the prerequisites for the Group's operations under all conditions. In addition, the objective is to achieve the optimum capital structure. The Group monitors the development of its capital structure, i.e. equity and interest-bearing liabilities. The monitored indicator of the capital structure is the net gearing, or the ratio of net interest-bearing liabilities to equity.

EUR 1,000	2022	2021
Cash and cash equivalents	**224,396**	65,845
Other financial assets	**50,000**	–
Equity	**1,246,220**	1,279,178
Long-term interest-bearing liabilities (1)	**568,686**	275,630
Short-term interest-bearing liabilities (1)	**47,637**	28,329
Interest-bearing liabilities, total	**616,323**	303,959
Equity and interest-bearing liabilities, total	**1,862,543**	1,583,138
Net debt	**341,927**	188,114

(1) Includes lease liabilities

The Group's liquidity risk and maturity of interest-bearing liabilities are presented in the risk management note 6.1.

5.2. Financial assets and liabilities and fair values

Financial assets and liabilities

The Group's financial assets consist of investments in commercial papers and corporate and state bonds, investments in funds and shares, loans and accounts receivable as well as derivative assets. Financial liabilities include loans from financial institutions, lease and rent liabilities, accounts payable and derivative liabilities.

Financial assets

The Group measures an item included in financial assets at fair value upon initial recognition, and in case of items other than those included in financial assets at fair value through profit or loss, the immediate item-related transaction costs are added to or deducted from it. Financial assets at fair value through profit or loss are initially recognised on the balance sheet at fair value and transaction costs are recognised through profit or loss.

The classification of financial assets is based on business models defined by VR Group and contractual cash flows of financial assets. The Group's financial assets are classified into the following categories: at amortised cost, at fair value through other comprehensive income and at fair value through profit or loss. Financial assets are included in non-current assets on the balance sheet, unless they mature within 12 months of the closing date.

Amortised cost
Loan receivables, accounts receivable and cash and cash equivalents which are held to maturity to collect contractual cash flows and the cash flows are solely payments of principal and interest, are measured at amortised cost in the Group. Loan receivables are measured at amortised cost using the effective interest method.

Furthermore, the Group's investments in commercial papers and bonds are measured at amortised cost. The objective of the business model applied to these investments is to secure the Group's liquidity position and manage investments to collect contractual cash flows.

An allowance for expected credit losses is recognised for financial assets measured at amortised cost. The calculation of the loss allowance is described in Note 6.1

At fair value through profit or loss

Financial assets at fair value through profit or loss include financial assets that are obtained for held for trading purposes or that are classified in this category upon initial recognition. The transaction costs associated with financial assets at fair value through profit or loss and realised and unrealised gains and losses resulting from changes in fair value are recognised through profit or loss. The Group recognises non-hedge accounted derivatives at fair value through profit or loss.

Shares and funds

The Group classifies its investments in shares and funds at fair value through profit or loss, with the related fair value changes being recognised through profit or loss. Dividends received on investments are recognised through profit or loss. Investments in unlisted shares are recognised at the lower of original acquisition cost or probable value, because their fair values are not reliably available.

Equity instruments at fair value through other comprehensive income

With regard to equity instruments, the Group can upon initial recognition make an irrevocable election and measure the items at fair value through other comprehensive income. In this case, subsequent changes in fair value are reported in other comprehensive income with only dividends on investments being recognised through profit or loss, unless the dividend clearly represents refund of capital. In the Group, this item consists of investment in shares of NRC Group.

Cash and cash equivalents

Cash and cash equivalents include cash, bank account balances, short-term commercial papers and deposits. Cash and cash equivalents have a maturity of a maximum of three months from the time of acquisition and the risk of changes in their value is low. Used overdraft facilities are presented in other short-term liabilities on the balance sheet. When their maturity exceeds three months, investments in commercial papers and deposits are recognized in other financial assets.

Financial liabilities

Financial liabilities are measured at fair value upon initial entry. In case of items other than those included in financial liabilities at fair value through profit or loss, the immediate item-related transaction costs are added to or deducted from it. Financial liabilities at fair value through profit or loss are initially recognised on the balance sheet at fair value and transaction costs are immediately recognised as expenses.

The Group's financial liabilities are classified into the following categories: at amortised cost and at fair value through profit or loss. Both long- and short-term liabilities include financial liabilities. A financial liability is classified as short-term unless the Group has an absolute right to postpone the payment of the liability a minimum of 12 months after the closing date of the reporting period.

Amortised cost

The Group measures interest-bearing liabilities and accounts payable at amortised cost. Loans from financial institutions are measured at amortised cost using the effective interest method.

At fair value through profit or loss

Financial liabilities measured at fair value through profit or loss are comprised of derivative liabilities not included in hedge accounting. The transaction costs associated with financial liabilities at fair value through profit or loss, together with realised and unrealised gains and losses resulting from changes in fair value are recognised through profit or loss.

Derivatives and hedge accounting

Derivatives are initially recognised at fair value on the balance sheet and are subsequently measured at fair value. Non-hedge accounted derivatives are recognised through profit or loss, whereas derivatives subject to cash flow hedge accounting are carried at fair value through other comprehensive income in accordance with IFRS 9. Derivative contracts and hedge accounting principles are described in more detail in the Risk Management Note 6.2.

Derecognition

Financial assets are derecognised once the Group's rights have expired or they have been transferred to other parties. At this time, the Group has transferred the risks and benefits related to the ownership to a substantial extent to another party. Financial liabilities are derecognised once the obligation associated with the liability in question has been fulfilled or it has expired.

Guarantees

VR Group issues business-related guarantees associated closely with its operations. The purpose of the guarantees is to make sure that VR Group can fulfil its contractual obligations. Guarantees have not been given to companies outside the Group, so the guarantees do not result in credit risk.

Measurement of fair values

The fair value of an asset or liability is the price that would be received from the sale of the asset or paid for transferring the liability between market parties in the course of ordinary business on the measurement date.

Fair values are classified to fair value hierarchy levels as follows, describing the significance of the inputs used in the measurement methods:

Level 1

Quoted fair values (unadjusted) in active markets for identical assets or liabilities

Level 2

Inputs other than quoted market prices included within Level 1 are used in measuring fair values. The inputs are observable for the asset or liability, either directly or indirectly.

Level 3

Fair values are measured using inputs that are unobservable inputs for the asset or liability. The book value of short-term accounts receivable and accounts payable are considered to equal the best estimate of their fair value. In addition, the acquisition price of unlisted shares is considered to equal the best estimate of their fair value.

The Group has exercised discretion in the IFRS treatment of the shares in NRC Group as an investment. VR Group holds 18.3% of the shares in NRC. It has been decided to account for the shares in NRC Group using IFRS 9 – OCI (other comprehensive income), with changes in fair value to be recognised through other comprehensive income

Financial assets and liabilities

The table below shows the categories of financial assets and liabilities and the classification of items recognised at fair value in the fair value hierarchy. There were no transfers between level 1 and level 2 or to level 3 of the fair value hierarchy in the financial years 2022 or 2021.

2022 (EUR 1000)

Financial assets	At amortised cost	At fair value through profit or loss	At fair value through other comprehensive income	Derivatives in hedge accounting	Book value total	Fair value	Level 1	Level 2	Level 3
Long-term financial assets									
Loan receivables					–				
Investments			18,291		18,291	18,291	18,291		
Derivatives				9,181	9,181	9,181		9,181	
Short-term Financial assets									
Loan receivables					–				
Accounts receivable and other receivables	86,355				86,355	86,355			
Derivatives		62		30,329	30,391	30,391		30,391	
Other financial assets	50,000				50,000	50,000			
Cash and cash equivalents	224,396				224,396	224,396			
Financial assets, total	**360,751**	**62**	**18,291**	**39,510**	**418,614**	**418,614**	**18,291**	**39,572**	**–**

Financial liabilities									
Long-term financial liabilities									
Bond	298,527				298,527	265,619	265,619		
Loans from financial institutions	25,149				25,149	25,149			
Lease liabilities	243,620				243,620	243,620			
Derivatives				782	782	782		782	
Accounts payable and other liabilities	4,041				4,041	4,041			
Short-term financial liabilities									
Loans from financial institutions	2,930				2,930	2,930			
Lease liabilities	44,707				44,707	44,707			
Derivatives					–				
Accounts payable and other liabilities	94,553				94,553	94,553			
Financial liabilities, total	**713,527**	**–**	**–**	**782**	**714,309**	**681,401**	**265,619**	**782**	**–**

2021 (EUR 1,000) **Financial assets**	At amortised cost	At fair value through profit or loss	At fair value through other comprehensive income	Derivatives in hedge accounting	Book value total	Fair value	Level 1	Level 2	Level 3
Long-term financial assets									
Loan receivables	8,242				8,242	8,242			
Investments			32,110		32,110	32,110	32,110		
Derivatives				2,494	2,494	2,494		2,494	
Short-term Financial assets									
Loan receivables	367				367	367			
Accounts receivable and other receivables	58,298				58,298	58,298			
Derivatives				11,865	11,865	11,865		11,865	
Cash and cash equivalents	65,845				65,845	65,845			
Financial assets, total	**132,752**	**–**	**32,110**	**14,359**	**179,221**	**179,221**	**32,110**	**14,359**	**–**

Financial liabilities									
Long-term financial liabilities									
Loans from financial institutions	28,087				28,087	28,087			
Lease liabilities	246,655				246,655	246,655			
Derivatives		26,070		2,898	28,968	28,968		28,968	
Accounts payable and other liabilities	4,182				4,182	4,182			
Short-term financial liabilities									
Loans from financial institutions	4,345				4,345	4,345			
Lease liabilities	23,984				23,984	23,984			
Derivatives		39		1,027	1,066	39		39	
Accounts payable and other liabilities	60,523				60,523	60,523			
Financial liabilities, total	**367,776**	**26,109**	**–**	**3,925**	**397,810**	**396,783**	**–**	**29,007**	**–**

Accounts receivable and expected credit losses are described in Note 4.6.
The hedge accounting principles and accounting for derivatives applied by the Group are described in Note 6.2.
The Group's leases and lease liabilities are described in Note 4.2.

Loan receivables

VR Group had acquired parking rights from a parking garage named P-Hämppi owned by Finnpark Oy (formerly Tampereen Pysäköintitalo Oy), for which leaseback and redemption possibility and obligation of the parking rights has been agreed upon. A financial asset is any asset that is a contractual right to obtain cash funds from another entity. In this arrangement, based on the redemption obligation, VR Group was entitled to receive cash funds from Finnpark, and therefore the investment in parking rights was reported in financial assets. The arrangement ended on 30 November 2022 when Finnpark Oy paid VR-Group Plc EUR 8,400 thousand. The Group classified the arrangement as a loan receivable at amortised cost totalling EUR 8,242 thousand on 31 December 2021.

Other financial assets

At the end of 2022, the Group had EUR 50.0 million (EUR 0.0 million at the end of 2021) of bank deposits with maturities over three months.

(EUR 1,000)	2022	2021
Short-term investments		
Bank deposits over 3 months	**50,000**	–
Total	**50,000**	–

Equity investments at fair value through other comprehensive income

The investment in shares in NRC Group is recognised at fair value through other comprehensive income, because it is a strategic investment in shares in a significant partner and the shares are not held for trading purposes. The shares in NRC Group are listed on the Oslo Stock Exchange and classified at level 1 of the fair value hierarchy.

(EUR 1,000)	Fair value 2022	Fair value 2021	Dividends recognised on the income statement 2022	Dividends recognised on the income statement 2021
NRC Group	18,291	32,110	–	–
Total	**18,291**	**32,110**	**–**	**–**

During the 2022 reporting period, there were no changes in the holdings in NRC Group, and no reclassifications of retained earnings or losses were made between equity items.

Cash and cash equivalents (EUR 1,000)

	2022	2021
Cash and cash equivalents	**224,396**	65,845
Total	**224,396**	65,845

Interest-bearing liabilities

The key terms and conditions of the Group's liabilities are described in the table below.

EUR 1,000	Interest rate	Maturity	Nominal value 2022	Book value 2022	Nominal value 2021	Book value 2021
Bond	Fixed	2029	**300,000**	**298,527**		
Loans from financial institution	Floating	2032	**28,623**	**28,623**	31,005	31,005
Other financial loans	Fixed	2024-2026	**845**	**845**	282	282
Lease liabilities	Floating	2026-2033	**240,560**	**240,560**	221,675	221,675
Rent liabilities	Fixed	2026-2033	**47,767**	**47,767**	48,963	48,963
Above interest-bearing liabilities, total			**617,795**	**616,322**	301,925	301,925

The maturity distribution of interest-bearing liabilities is presented in risk management note 6.1

The measurement of interest on lease liabilities is described in Note 6.1

At the end of May 2022, VR Group issued its first unsecured fixed-rate Green Bond as part of the Group's newly established Green Finance Framework. The bond has a nominal value of EUR 300 million and a maturity of 7 years. The loan will mature in May 2029 and will bear an annual fixed interest rate of 2.375 per cent.

The proceeds from the issue will be used for initiatives and projects that comply with VR Group's Green Finance Framework. The projects include investments in clean transport, renewable energy projects and improving the energy efficiency of buildings owned or occupied by VR Group.

Loans from financial institutions includes the Group's share of the loan of Oy Karelian Trains Ltd, treated as a joint operation. As a party to a joint operation, the Group recognises a share of the liabilities of the joint operation in its financial statements. Karelian Trains has funded the acquisition of Allegro rolling stock with a floating-rate loan which is due in 2032. VR Group's share of the loan from financial institutions was EUR 28.6 million (EUR 31.0 million on 31 December 2021). In addition, the financing arrangement is accompanied by an interest rate swap that expires in 2032, which serves as an interest rate hedge for the acquisition share of the trains in the loan agreement and is included in the hedge accounting.

Due to the war in Ukraine and the sanctions imposed on Russia, the passenger traffic conducted with Allegro passenger trains between Helsinki and St. Petersburg was discontinued on March 28th 2022. The hedged cash flows of the loan can no longer be treated highly probable, so it was decided to end cash flow hedge accounting on November 30th 2022 and since December 2022, VR Group's share of the interest rate swap's market value change has been recorded in the income statement.

5.3. Financial income and expenses (EUR 1,000)

The table describes the items recognised through profit or loss

Financial income	2022	2021
Dividend income	**4**	3
Interest income according to the effective method	**1,251**	374
Change in the fair value of derivatives	**18,078**	10,504
Other financial income	**10,042**	3,108
Total	**29,374**	13,989

Financial expenses		
Impairment losses	**–**	148
Interest expenses according to the effective method	**-6,961**	-6,882
Interest expenses of lease liabilities	**-2,800**	-2,032
Change in the fair value of derivatives	**-626**	–
Other financial expenses	**-7,067**	-2,429
Total	**-17,454**	-11,194

Financial income and expenses, total	**11,920**	2,795

At the end of May 2022, VR Group issued an unsecured fixed-rate Green Bond, which was pre-hedged with interest rate swaps. These swaps were terminated at the time of the bond issuance. Also other interest rate swaps under cash flow hedge accounting, as well as interest rate swaps that were excluded from hedge accounting on June 30th 2019 and June 30th 2020, were terminated during financial year 2022.

The change in the fair value of derivatives in 2022 (financial income) includes 18.0 million euros of positive change in the fair value of interest rate derivatives and 0.1 million euros of positive change in the fair value of currency derivatives.

Other financial income in 2022 include 4.0 million euros of fair value change from terminated interest rate swaps that were under cash flow hedge accounting and 6.0 million euros of exchange rate gains from currency derivatives, internal loans and invoices.

Other financial expenses in 2022 include 5.9 million euros of exchange rate losses from currency derivatives, internal loans and invoices.

5.4. Equity and reserves

Share capital	2022 qty	2021 qty	2022 (EUR 1000€)	2021 (EUR 1000€)
Share capital 1 Jan	**2,200,000**	2,200,000	**370,013**	370,013
Share capital 31 Dec	**2,200,000**	2,200,000	**370,013**	370,013

Treasury shares

VR does not hold any treasury shares.

Hedging and other reserves

The effective part of the change in the fair value of derivatives in hedge accounting is recognised in the hedging reserve.

Invested non-restricted equity reserve

The invested non-restricted equity reserve includes other equity investments that are not recognised in share capital based on a specific decision. The invested non-restricted equity reserve is fully comprised of the invested nonrestricted equity reserve of the parent company, VR-Group Plc.

Dividends

The Board of Directors proposes to the Annual General Meeting that no dividend shall be paid by VR-Group Plc from the financial year of 2022.

6. Financial risk management

6.1. Financial risks

In its operations, the Group is exposed to liquidity risk, credit risk and market risk (interest risk, exchange risk, fuel and electricity price risk). The objective of VR Group's risk management is to ensure effective and successful implementation of risk management in order to meet its financial objectives. In addition, the Group's financial risk management aim is to maintain the Group's ability to receive funding from the market through a strong balance sheet position and consistent profitability.

Principles of financial risk management

The Board of Directors of VR Group decides on the Group's treasury policy that defines the principles governing the management of financial risks. The Group's treasury function, headed by the Group CFO, is responsible for risk management in practice. VR Group's Board of Directors and senior management are responsible for regulating risk appetite.

Market risk

The treasury function of the Group is responsible for the management of market risks and its practical implementation. The Group's market risks include interest rate risk, exchange risk and fuel and electricity price risk.

Interest rate risk

Changes in interest rates create uncertainty to the Group's cash flow, profitability and value. The Group's interest rate risk arises mainly from floating rate lease liabilities and loans from financial institutions. The goal of interest rate risk management is to reduce the effect of interest rate changes to the Group's cash flow, profitability and value.

Items exposed to interest rate risk (EUR 1,000)

Floating-rate liabilities	2022	2021
Loans from financial institutions	**28,623**	31,655
Lease liabilities	**210,026**	221,675
Total	**238,649**	253,330

Derivatives		
Interest rate swaps	**22,371**	300,693
Total	**22,371**	300,693

The Group's loans consist of both fixed and floating-rate loans, and at the end of the 2022 financial year the floating rate liabilities totaled EUR 239 million (EUR 253 million). The reference rates for the floating-rate loans are Euribor rates. Floating rate loans are hedged with interest rate swaps against the same reference Euribor-rates with a total amount of 22.4 million euros (2021: 301 million euros).

The weighted average interest rate on the Group's floating-rate liabilities (excluding rent lease liabilities) was 2.4% (31 December 2021: 0.7 per cent).

Sensitivity analysis of interest rate changes

The table below describes the impact of an interest rate change of one (1) percentage point on the Group's interest expenses for the next year, taking into consideration the impact of interest rate derivatives. The analysis assumes that other factors remain unchanged. Equity only includes items subject to hedge accounting. The Group's floating rate loans have a 0%-floor for the reference rate.

Hedge ratio of the Group's debt portfolio was 60% at the end of 2022 financial year. Fixed rate loans and interest rate swaps that are used to fix interest rates are considered part of the hedged share in the calculation, More details of the derivatives are described in table "Nominal values and fair values of derivatives" in Note 6.2.

	Income statement		Equity	
(EUR, 1 000)	Increase 1%	Decrease 1%	Increase 1%	Decrease 1%
Floating-rate liabilities	-2,736	1,357		
Interest rate swaps	1,620	-299	–	–
Total	**-1,115**	**1,058**	**–**	**–**

Fuel and electricity price risk

Changes in the market price of fuel and electricity create uncertainty to the Group's cash flow, profitability and value. Fuel and electricity price risk arises from the Group's operations.

The Group's fuel price risk is mostly concentrated to the logistics and contractual business. Fuel price risk is hedged with index-linked customer contracts, where changes in the fuel price change the pricing in the contracts. The Group's electricity price risk is hedged with index –linked customer contracts and electricity derivatives.

More details of the derivatives are described in table "Nominal values and fair values of derivatives" in Note 6.2.

Items exposed to price risk

	2022	2021
Fuel consumption, tonnes	**29,206**	29,578
Electricity consumption, GWh	**590**	636

Sensitivity analysis of changes in electricity prices on derivatives

The table below describes the impact a 20% change in fuel and electricity prices has on the Group's income and equity. The table indicates how much equity would change through the change in the market value of derivatives and how much the following year's net profit would change through cash flow. The analysis assumes that other factors remain unchanged.

At the end of financial year 2022, 75% of system price risk and 54% of Helsinki area price difference risk of the electricity consumption excluding index-linked customer contracts was hedged with electricity derivatives.

Fuel price risk was almost totally hedged with index-linked customer contracts during financial year 2022, therefore fuel derivatives were terminated during financial year 2022.

	Income statement		Equity	
EUR 1,000	Increase	Decrease	Increase	Decrease
Electricity (undiscounted figures)	8,171	-8,171	12,830	-12,829

Share price risk

VR Group's investment in NRC Group shares is measured at fair value through other comprehensive income. The +/-10 per cent change in the share price has an impact of EUR +/- 1.8 (+/- 3.2) million on the Group's comprehensive income before taxes.

Currency risk

Changes in exchange rates create uncertainty with regard to the Group's cash flow, profitability and value. The Group's currency risk arises from two components: transaction risk and translation risk. Transaction risk refers to changes in exchange rates affecting the value of commercial transactions, and translation risk refers to changes in exchange rates affecting the balance sheet value of assets and receivables. The Group's currency risk arises mainly from internal loans, payments denominated in foreign currencies and binding offers issued in foreign currencies. The objective of currency risk management is to reduce the impact of changes in exchange rates on the Group's cash flow, profitability and value.

The table below describes the impact a 10% change in foreign exchange rate has on the Group's income. The table describes how much the following year's income changes through cash flow. The analysis assumes that other factors remain unchanged.

Impact of change in foreign exchange rate on the Group's income	Euro strengthening +10%	Euro weakening -10%
SEK	-3,7million euros	+4,5 million euros
RUB	-1,6 million euros	+1,6 million euros

The Group's currency risk arises mainly from internal loans. The Group has granted EUR-denominated funding to its subsidiary operating in Russia. Swedish Krona (SEK) risk is fully hedged with foreign exchange derivatives, which are not under hedge accounting.

VR Group is indirectly exposed to the currency risk of the Norwegian krone (NOK) due to its investment in shares in NRC Group, which are quoted in NOK. Exchange rate changes arising from the price of a NRC Group share are recorded as part of the change in the value of investments in the fair value reserve.

Liquidity risk

Liquidity risk is the risk of the Group's companies not being able to engage in their normal business or fulfil their maturing payment obligations in due time due to a shortage of liquid assets.

The Group manages its liquidity risk by planning and managing its day-to-day liquidity and monitoring the liquidity situation. In order to ensure day-to-day liquidity, the Group has, for example, a commercial paper programme, short-term bank account limits and a long-term revolving credit facility. The table below describes the contractual cash flows of financial liabilities and interest rate derivatives. The reported data is undiscounted and includes both the payment of interest and repayment of the principal.

Material contract based purchase commitments with their respective payment schedules are described in Note 9.1.2 Commitments and other open liabilities.

Contractual cash flows 2022 (EUR 1,000)

	Total	Under 12 months	1-5 years	over 5 years
Bond	349,875	7,125	28,500	314,250
Loans from financial institutions	32,225	3,820	14,403	14,002
Other financial loans	946	17	929	–
Lease and rent liabilities	288,327	25,093	118,319	144,915
Accounts payable	79,903	79,903	–	–
Total	**401,401**	**108,833**	**133,651**	**158,917**
Derivatives	**2,193**	**469**	**1,251**	**473**
Total	**403,594**	**109,302**	**134,902**	**159,390**

Contractual cash flows 2021 (EUR 1,000)

	Total	Under 12 months	1-5 years	over 5 years
Loans from financial institutions	31,654	2,961	11,852	16,841
Lease and rent liabilities	270,639	23,984	90,995	155,660
Accounts payable	53,776	53,776	–	–
Total	**356,070**	**80,721**	**102,847**	**172,502**
Derivatives	**31,958**	**6,782**	**17,762**	**7,414**
Total	**388,028**	**87,503**	**120,609**	**179,916**

The table below describes VR Group's liquidity reserve aiming to secure the Group's short-term liquidity.

(EUR 1,000)	2022	2021
Cash and cash equivalents	**224,396**	65,845
Bank deposits over 3 months	**50,000**	–
Total	**274,396**	65,845

Commercial paper programme (EUR 300 million)
Revolving Credit Facility (EUR 200 million)
Overdraft facility (EUR 5 million)
Overdraft facility (SEK 100 million)

VR Group has strengthened the Group's liquidity through a revolving credit facility totalling EUR 200 million, which expires on 3 June 2025 and can be extended by one one (1) year extension until 3 June 2026. The RCF was fully undrawn at the reporting date. The agreement does not involve any financial covenants, but the State is required to hold more than 50% of the shares.

In addition, VR Group has a short-term overdraft facility of EUR 5 million and a short-term overdraft facility of SEK 100 million, both unused at the reporting date. The Group also has a EUR 300 million commercial paper programme that was unused at the reporting date.

Credit risk

Credit risk refers to the risk of losses caused by the counterparties and customers of Group companies not being able to fulfil their contractual obligations and the guarantees received not securing the receivables.

The Group is exposed to credit risk due to accounts receivable, loan receivables and investments recognised at amortised cost. The Group manages credit risk through careful monitoring of customers' creditworthiness and payment behaviour. With regard to investments, the Group has defined counterparty specific limits for investment activities in accordance with the treasury policy.

Financial management and the risk management function are responsible for the practical implementation and supervision of the credit risk management.

Items exposed to credit risk, total (EUR 1,000)

	2022	2021
Loan receivables	–	8,609
Bank deposits over 3 months	**50,000**	–
Derivative receivables	**39,572**	14,359
Accounts receivable	**83,774**	57,722
Total	**173,346**	80,690

Expected credit losses

The Group calculates the expected credit loss (ECL) for financial assets measured at amortised cost. The expected credit loss describes the probability-weighted estimate of credit risks that will materialise. An allowance for the expected credit loss is recognised for accounts receivable, loan receivables and investments.

All actual credit losses are recognised through profit or loss. The credit loss is cancelled in a subsequent period if the cancellation can be objectively considered to be related to an event after the recognition of the credit loss. The calculation of the expected credit losses of accounts receivable is described in Note 4.6.2.

The expected credit loss associated with certificates of claim and loan receivables is calculated applying the general approach of IFRS 9.

Expected credit losses from investments

Credit risk data obtained from an external database and an estimate of the recovery rate are used as estimates of the probability of credit loss in calculating the provision for credit losses. The credit risk of the investment portfolio is estimated to be low, because the investments concern investments with high creditworthiness according to the Group's estimate. No expected credit loss was recognised for the investments in 2022 and 2021.

6.2. Derivatives and hedge accounting

In line with its treasury policy, VR Group uses interest and commodity derivatives to reduce the interest rate and commodity risks arising from the Group's financial leasing liabilities in the balance sheet as well as its future electricity and fuel purchases. In addition, the Group uses currency derivatives to hedge foreign currency internal loans purchases and sales that expose the Group to foreign currency risk. VR Group makes derivative contracts for hedging purposes, but not all contracts are subject to hedge accounting.

VR Group uses interest rate swaps to reduce the interest rate risk related to payments on floating-rate loan agreements. Interest rate swaps are used in changing floating interest rates into fixed interest rates. Aforementioned contracts are used for hedging purposes, however, hedge accounting is not applied for all of the contracts. Changes in the fair values of interest rate swaps qualifying for hedge accounting, and which are effective, are recognised in the cash flow hedging reserve within balance sheet's restricted equity (cash flow hedge). In case contracts are not effective or not meeting the hedge accounting requirements, the fair value changes are recorded in the income statement under financial items.

Hedge accounting

Risk of changes in fuel and electricity prices

VR Group applies IFRS hedge accounting principles when hedging future cash flows (cash flow hedges). Fuel and electricity price risk refers to the uncertainty of cash flow and net profit resulting from fluctuations in fuel and electricity prices. VR Group uses OTC commodity derivatives to hedge the price risk of electricity and light fuel oil. With regard to the electricity price risk, both the system price and the area price difference are hedged, and together they form the area price of electricity in Finland. Changes in the fair value of derivatives are recognised on the balance sheet in the cash flow hedging reserve under equity when the contracts meet hedge accounting requirements and are effective.

In line with VR Group's treasury policy, the hedging level for fuel and electricity derivatives is targeted to be 75% of the forecasted consumption for the next 12 months. Fuel price risk was almost totally hedged with index-linked customer contracts during financial year 2022, therefore fuel derivatives were terminated during financial year 2022.

Karelian Trains

VR Group's investment in Oy Karelian Trains Ltd is treated as a joint operation pursuant to IFRS 11 Joint Arrangements. A party to a joint arrangement must recognise in its financial statements for example, its interest in the liabilities of the joint arrangement including its share of the joint liabilities, if there are any. The classification as a joint arrangement is described in detail in Note 9.1. VR Group's share of the external interest-bearing liabilities of Oy Karelian Trains Ltd is recorded in VR Group's IFRS balance sheet.

Oy Karelian Trains Ltd has financed the acquisition of Allegro rolling stock with a floating-rate loan from a financial institution. The financing arrangement includes an interest rate swap that was included in hedge accounting (cash flow hedge) until November 30th 2022. Due to the war in Ukraine and the sanctions imposed on Russia, the passenger traffic conducted with Allegro passenger trains between Helsinki and St. Petersburg was discontinued on March 28th 2022. The hedged cash flows of the loan can no longer be treated highly probable, so it was decided to end cash flow hedge accounting on November 30th 2022 and since December 2022, VR Group's share of the interest rate swap's market value change has been recorded in the income statement. The purpose of interest rate hedging is to limit the negative impact of changes in market rates on the company's cash flow and net profit. Approximately 80% of floating-rate loan facilities have been hedged with interest rate derivatives until 2032.

Hedge accounting prerequisites

In order to meet the prerequisites for hedge accounting, financial instruments are initially designated as hedging instruments and hedge relationship is documented. The Group also verifies, both at the start of the hedging relationship and annually with efficiency testing, that the hedging relationship is efficient. In this case, it is probable in the future that the hedging instrument almost fully offsets changes in the fair value or cash flows of the hedged item (concerning the hedged risk). The Group considers that in cash flow hedging, the most significant terms and conditions of the hedged items and hedging instruments coincide and the hedge ratio 1:1 is applied for hedged items. Changes in the fair value of derivatives are recognised on the balance sheet in the cash flow hedging reserve under restricted equity when the contracts meet hedge accounting requirements and are effective.

In case contracts are not effective or not meeting the hedge accounting requirements, the fair value changes are recorded in the income statement.

Nominal values and fair values of derivatives 2022 (EUR 1,000)

Derivatives in hedge accounting	Nominal value	Positive fair value	Negative fair value	Fair value, net
Commodity derivatives				
Electricity derivatives, GWh	1,043	39,510	-157	39,353
Commodity derivatives, total		39,510	-157	39,353
Derivatives in hedge accounting, total		**39,510**	**-157**	**39,353**
Derivatives not included in hedge accounting				
Interest rate swaps	22,371		-626	-626
Currency derivatives	41,699	62		62
Total	**65,113**	**39,572**	**-782**	**38,789**

Fuel price risk was almost totally hedged with index-linked customer contracts during financial year 2022, therefore fuel derivatives were terminated during financial year 2022.

At the end of May 2022, VR Group issued its first unsecured fixed-rate Green Bond, which was pre-hedged with interest rate swaps. These swaps were terminated at the time of the bond issuance. Also other interest rate swaps under cash flow hedge accounting, as well as interest rate swaps that were excluded from hedge accounting on June 30th 2019 and June 30th 2020, were terminated during financial year 2022.

Nominal values and fair values of derivatives 2021 (EUR 1,000)

Derivatives in hedge accounting	Nominal value	Positive fair value	Negative fair value	Fair value, net
Interest rate derivatives				
Interest rate swaps	124,726	1,200	-2,894	-1,694
Interest rate derivatives, total	**124,726**	**1,200**	**-2,894**	**-1,694**
Commodity derivatives				
Fuel derivatives, tonnes	7,680	1,432	–	1,432
Electricity derivatives, GWh	749	11,728	-4	11,724
Commodity derivatives, total		**13,160**	**-4**	**13,156**
Derivatives in hedge accounting, total		**14,360**	**-2,898**	**11,462**
Derivatives not included in hedge accounting				
Interest rate swaps	175,967		-26,070	-26,070
Currency derivatives	2,915		-39	-39
Total		**14,360**	**-29,007**	**-14,647**

Oy Karelian Trains Ltd has financed the acquisition of Allegro rolling stock with a floating-rate loan from a financial institution. The financing arrangement includes an interest rate swap. Due to the war in Ukraine and the sanctions imposed on Russia, the passenger traffic conducted with Allegro passenger trains between Helsinki and St. Petersburg was discontinued on March 28th 2022. The hedged cash flows of the loan can no longer be treated highly probable, so it was decided to end cash flow hedge accounting on November 30th 2022

Maturity distribution of derivatives subject to hedge accounting

At the end of the 2022 and 2021 financial years, the Group had the following instruments with which it hedges against changes in interest rates and changes in commodity prices:

2022 (EUR 1,000)

		Maturity (nominal amounts)		
Price risk	Nominal amounts, total	Less than 12 months	1-5 years	Over 5 years
Electricity derivatives	1043 GWh	482 GWh	562 GWh	

2021 (EUR 1,000)

		Maturity (nominal amounts)		
Interest rate risk	Nominal amounts, total	Less than 12 months	1-5 years	Over 5 years
Interest rate derivatives	124,726	102,355	9,419	12,952
Price risk				
Fuel derivatives	12,510 tonnes	7,230 tonnes	5,280 tonnes	
Electricity derivatives	922 GWh	372 GWh	550 GWh	

Balance sheet values of derivatives subject to hedge accounting and the items recognised to the income statement

2022 (EUR 1,000)

	At year-end Balance sheet value			During the year Transferred to the income statement	
Cash flow hedges	Receivables	Liabilities	Net, cash flow hedging reserve	To interest expenses	Included in materials and services
Electricity derivatives	39,510	157	39,353		35,949

2021 (EUR 1,000)

	At year-end Balance sheet value			During the year Transferred to the income statement	
Cash flow hedges	Receivables	Liabilities	Net, cash flow hedging reserve	To interest expenses	Included in materials and services
Interest rate swaps	1,200	2,894	-1,694	-620	
Fuel derivatives	1,432	–	1,432		916
Electricity derivatives	11,728	4	11,724		13,588

Balance sheet values of derivatives subject to hedge accounting and the items recognised to the income statement.

7. Income tax

The tax expense for the period on the income statement is comprised of tax based on the taxable income for the period, income tax on previous financial years and changes in deferred tax liabilities and receivables. Income taxes are recognised through profit or loss, except for taxes associated with other comprehensive income or items recognised directly in equity. In these cases, the income tax is recognised through either comprehensive income or equity according to the items concerned.

Recognition of taxable income

VR Group calculates the tax on taxable income for the period in each country in which it operates on the basis of the taxable income specified in respective legislation and valid tax rate. The taxable income for the period is adjusted or any taxes associated with previous financial years. Only tax rates (and laws) prescribed or practically approved by the closing date of the reporting period are taken into consideration in calculating the taxes for the financial year. Other taxes, such as property and other local taxes, are included in other operating expenses. VR Group does not have any uncertain tax positions.

The Group's taxable income does not directly equal the net profit reported on the consolidated financial statements, as some income or expense items can be taxable or tax deductible in different years. In addition, certain income items are not necessarily taxable at all, while some expense items are not eligible for deduction in taxation.

Recognition of deferred taxes

Deferred taxes are generally recognised:

- For temporary differences between the book values and taxable values of assets and liabilities on the closing date, and
- Unused tax losses and unused tax rebates.

Deferred tax liabilities are generally recognised on the balance sheet in full. However, a deferred tax liability is not recognised if it is due to:

- Initial recognition of goodwill, or
- Initial recognition of an asset or liability if it is not a business combination and the transaction will not have an impact on the accounting profit or taxable income during its time of materialisation.

A deferred tax receivable is recognised for tax-deductible temporary differences only up to an amount by which it is probable that there will be future taxable income against which VR Group can utilise the temporary difference. A deferred tax receivable can be recognised or not recognised on the balance sheet. Their treatment differs as follows:

- Deferred tax receivables recognised on the balance sheet: the amount of these deferred tax receivables and the probability of their utilisation is re-evaluated at the end of each reporting period. If the Group no longer considers the tax benefit in question probable, a corresponding decrease is recognised for the book value of the deferred tax receivable.
- Deferred tax receivables not recognised on the balance sheet: these items are re-evaluated at the end of each period. They are recognised on the balance sheet up to the amount that it is probable that the said receivables can be utilised against future taxable income.

At VR Group, the most significant temporary differences result from provisions, shares in NRC, defined-benefit pensions and depreciation difference. Deferred taxes are not recognised for non-tax-deductible impairment losses of goodwill, and neither for the undistributed earnings of subsidiaries to the extent that the difference is not likely to be cancelled in the foreseeable future. Taxes are recognised for undistributed earnings of foreign subsidiaries only if they are known to result in tax consequences. Deferred tax receivables and liabilities are offset (netted) when they are related to taxes collected by the same taxation authority and can be legally offset under an enforceable right.

VR Group determines the deferred tax receivables and liabilities using the tax rates (and tax laws) which will probably be valid in the period during which the asset will be liquidated or otherwise utilised or the liability will be paid. The tax rate used is the tax rate in force on the closing date of the reporting period or tax rates for the year following the financial year if they have been approved in practice by the closing date of the reporting period in the countries concerned.

The management of VR Group has made assumptions and used certain estimates regarding the tax consequences for future years due to differences between the book values recognised on the financial statements and their taxable values. The key assumptions concern, for instance, the utilisation period of estimated deductible confirmed tax losses remaining unchanged and the tax laws and rates in force remaining unchanged in the near future. The usability of deferred tax receivables is assessed on each closing date, and if the circumstances indicate that no taxable income will be generated in the future against which the temporary difference could be utilised, the deferred tax receivable is cancelled up to the amount that can be used.

No changes have taken place in the corporate tax rates of the countries in which VR Group operates during the current or reference period.

VR Group has previously recognised deferred tax receivables on NRC shares, as the fair value write-offs in accounting have not been recognised in taxation. There is a significant uncertainty on the tax deductibility of the recognised fair value changes of the shares. Based on that the deferred tax receivable of EUR 11.8 million has been reversed.

The table below presents the amount of income tax recognised through profit or loss for the 2022 and 2021 financial years.

Amount of income tax recognised through profit or loss (EUR 1,000)

	2022	2021
Tax based on the taxable income for the financial year	**-29**	268
Taxes for previous financial years	**707**	-647
Change in deferred taxes	**-1,646**	6,161
Total	**-968**	5,782

The tax expenses included in the consolidated income statement differ from the tax calculated according to Finland's nominal tax rate of 20.0 per cent (20.0) as follows:

	2022	2021
Profit (loss) before income taxes	**-46,448**	-19,458
Taxes calculated using the domestic tax rate	**9,290**	3,892
Differing tax rates of foreign subsidiaries	**24**	
Income taxes for previous years	**707**	-647
Unrecognised deferred tax receivables for tax losses	**-1,280**	303
Non-deductible expenses	**-443**	-610
Tax-free income	**238**	27
Use of tax losses unrecognized for previous years		-25
Other items	**247**	
Adjustments concerning consolidation	**-9,751**	2,841
Income taxes on the income statement, total	**-968**	5,782
Effective tax rate, %	**-2%**	30 %

The tax rate of VR Group's parent company in Finland was 20.0 per cent (20.0). Corporate tax rate in Sweden is 20.6% which increases the group's effective tax rate due to acquisition completed during the financial year. Between 2022 and 2021, there were no changes in the Russian corporate tax rate, and the tax rate in both years was 20.0%, so the tax changes had no impact on the deferred tax receivables and liabilities of the subsidiaries operating in the country.

The table below presents taxes recognised in other comprehensive income

Taxes recognised in other comprehensive income (EUR 1,000)

	2022			2021		
Items that may be reclassified to profit or loss	Before taxes	Tax expense (-) / Tax benefit (+)	After taxes	Before taxes	Tax expense (-) / Tax benefit (+)	After taxes
Translation differences	305	–	305	-216	–	-216
Cash flow hedging	37,100	-7,420	29,680	16,641	-3,328	13,313
Items that will not be reclassified to profit or loss						
Items from remeasurements of defined-benefit plans	62,600	-12,520	50,080	14,942	-2,988	11,954
Financial assets at fair value through other comprehensive income 1)	-13,819	-11,802	-25,620	-8,155	1,631	-6,524
Total	**86,186**	**-31,741**	**54,445**	**23,212**	**-4,685**	**18,527**

(1) No deferred tax receivable has been recognised on the fair value reduction during the financial year, and the deferred tax receivable of EUR 11,802 thousand recognised on the previous financial years has been reversed during 2022.

The table below presents changes in deferred tax receivables and liabilities

2022 (EUR 1,000)

Deferred tax receivables	1 January 2022	Recognised through profit or loss	Recognised through other comprehensive income	Exchange rate differences and other changes	31 December 2022
Consolidation	916			85	1,001
Provisions	9,382	2,374		3,653	15,409
Hedging	2,704	-123	-579		2,002
Other items	32,710	-6,157	-11,802	75	14,827
Total	**45,712**	**-3,906**	**-12,381**	**3,813**	**33,239**
Netted to deferred tax liabilities	-45,712	3,906	12,381	-3,813	-33,239
Deferred tax receivables on the balance sheet	**–**	**–**	**–**	**–**	**–**

Deferred tax liabilities	1 January 2022	Recognised through profit or loss	Recognised through other comprehensive income	Exchange rate differences and other changes	31 December 2022
Consolidation	1,674	-410		1,358	2,622
Provisions	7,875			3,590	11,465
Pension obligations	16,359	-4,068	12,520		24,811
Depreciation difference	98,124	332			98,456
Hedging		748			748
Other items	4,460	-712	6,841	1,969	12,558
Total	**128,492**	**-4,110**	**19,361**	**6,917**	**150,660**
Netted from deferred tax assets	-45,712	3,906	12,381	-3,813	-33,239
Deferred tax receivables on the balance sheet	**82,780**	**-205**	**31,742**	**3,103**	**117,420**

2021 (EUR 1,000)

Deferred tax receivables	1 January 2021	Recognised through profit or loss	Recognised through other comprehensive income	Exchange rate differences and other changes	31 December 2021
Consolidation	762	337	-183		916
Provisions	9,750	-368			9,382
Hedging	7,987	-2,138	-3,145		2,704
Other items	23,747	7,332	1,631		32,710
Total	**42,246**	**5,163**	**-1,697**	**–**	**45,712**
Netted to deferred tax liabilities	-42,247	-5,163	1,697		-45,712
Deferred tax receivables on the balance sheet	**–**	**–**	**–**	**–**	**–**

Deferred tax liabilities	1 January 2021	Recognised through profit or loss	Recognised through other comprehensive income	Exchange rate differences and other changes	31 December 2021
Consolidation	1,252	422			1,674
Provisions	7,898	-23			7,875
Pension obligations	15,519	-2,148	2,988		16,359
Depreciation difference	97,196	1,683		-754	98,124
Investment properties	-1,602			1,602	–
Other items	5,904	-932		-513	4,460
Total	**126,167**	**-998**	**2,988**	**335**	**128,492**
Netted from deferred tax assets	-42,247	-5,163	1,697	–	-45,712
Deferred tax receivables on the balance sheet	**83,920**	**-6,161**	**4,685**	**335**	**82,780**

8. Group structure

8.1. Group structure

The consolidated financial statements include the parent company VR-Group Ltd and all of the subsidiaries over which the parent company has control. The Group has control when it is exposed, or has rights, to variable returns from its involvement with the company and has the ability to affect those returns through its power over the company. VR Group's control is based on voting power. The consolidation of a subsidiary begins when VR Group obtains control and ends when control ceases to exist. Changes in holdings that do not result in losing control are treated as equity transactions.

In preparing the consolidated financial statements, intra-Group transactions, receivables, liabilities and unrealised margins and internal distribution of profit are eliminated.

VR Group consolidates acquired or established subsidiaries in the consolidated financial statements using the acquisition method. In this case, the consideration given, the Group's existing investment in the acquiree and the identifiable assets and liabilities of the acquiree are measured at air values at the time of acquisition. The consideration given in conjunction with acquisitions includes any assets given, liabilities emerging with the acquiring party to the previous owners of the acquiree and issued equity interests. Acquisition-related expenses are recognised as expenses through profit or loss, except for expenses resulting from the issue of debt or equity instruments.

Any conditional consideration (earn-out) is measured at fair value at the time of acquisition. An earn-out classified as a liability is measured at fair value on the closing date of each reporting period.

Non-controlling interest in the acquiree is measured at fair value or an amount corresponding to the non-controlling interests' proportional share of the identifiable net assets of the acquiree.

Associated companies

At VR Group, associated companies are companies over which the Group exerts considerable influence. Considerable influence is considered to emerge if the Group holds a minimum of 20 per cent of votes in the company or when the Group otherwise has considerable influence on the company, but not control. Associated companies are consolidated using the equity method.

If the Group's share of the losses of the associated company exceed the book value of the investment, the investment is recognised at zero value on the balance sheet. Losses exceeding the book value are not consolidated, unless the Group has committed itself to fulfill the obligations of the associated companies. The investment in an associated company includes the goodwill arising from its acquisition. The Group's share of profit in associated companies, based on the Group's holding in the companies, is shown on the income statement under operating profit (EBIT). The Group's share of changes recognised in other comprehensive income of the associated company is shown in the Group's other comprehensive income.

Joint arrangements

A joint arrangement is an arrangement of which two or more parties have joint control. Joint control involves the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require the unanimous consent of the parties sharing control. Arrangements subject to joint control are classified as either a joint venture or a joint operation.

A joint venture is an arrangement in which the parties sharing joint control have rights to the net assets of the arrangement. A joint operation is an arrangement in which the parties sharing joint control have rights to assets and obligations for liabilities.

All of the Group's joint arrangements, such as the alliance, Karelian Trains Ltd and mutual real estate companies, are joint operations. The Group consolidates its share of the assets and liabilities and income and expenses of the joint operations line by line on the balance sheet and income statement. The rolling stock company Oy Karelian Trains Ltd was established in November 2006 to acquire high-speed rolling stock for the Helsinki–St. Petersburg route. The company is also responsible for procuring the servicing and maintenance services required by the rolling stock and leasing rolling stock to operators managing passenger services. The company is domiciled in Helsinki. The company is owned by VR-Group Ltd and Russian Railways OAO RZD with equal holdings.

The management has exercised discretion in classifying the nature of VR's holding in Karelian Trains and the joint operation. In particular, the agreed decision-making mechanism, legal structure and funding of the arrangement are reviewed in determining the classification.

Group structure

VR Group includes the following companies:

Company	Domicile	Group holding (%) 2022	2021	Segment
Oy Pohjolan Liikenne Ab	Helsinki	100	100	VR Passenger Services
Avecra Oy	Helsinki	100	100	VR Passenger Services
VR FleetCare Ltd	Helsinki	100	100	VR FleetCare
SeaRail Oy	Tampere	100	100	VR Transpoint
Transitar Oy	Kuopio	100	100	VR Transpoint
Limited Liability Company Finnlog	Russia	100	100	VR Transpoint
VR Sverige AB	Sweden	100	—	VR Passenger Services
VR Service AB	Sweden	100	—	VR Passenger Services
VR Tåg AB	Sweden	100	—	VR Passenger Services
VR Östgötapendeln AB	Sweden	100	—	VR Passenger Services
Botniatåg AB	Sweden	60	—	VR Passenger Services
VR Group Sverige AB	Sweden	100	—	VR Passenger Services
SIA VR Services Latvia	Latvia	100	—	Other operations
VR Norge AS	Norway	100	100	VR Passenger Services

Arriva Sverige AB was acquired by VR Group on 1.7.2022, when Arriva International Ltd sold its ownership. The agreement between Arriva International Ltd, owned by Deutsche Bahn, and VR Group was signed on 24.3.2022. Arriva Sverige AB's name was changed to VR Sverige AB on 20.9.2022. VR Sverige operates as a local transport operator in the Stockholm region, the Östragötland region and southern Sweden, the Skåne region.

VR Östgötapendeln AB (formerly Arriva Östgötapendeln AB) is a wholly owned subsidiary of VR Sverige AB, which operates train services in Eastern Götaland. The company is responsible for the planning and operation of the traffic, but it does not own the rolling stock needed for the operation, which is owned by the public transport authority.

VR Service AB (formerly Arriva Service AB) is a wholly owned subsidiary of VR Sverige AB, which is responsible for the maintenance and cleaning of rail rolling stock, buses and transport infrastructure. The company offers its services internally to other Swedish companies owned by VR. The services to be provided are defined as part of the tenders submitted to the public transport authorities. The company has operations, for example, in the Stockholm and Skåne regions.

VR Tåg AB (formerly Arriva Tåg AB) is a wholly owned subsidiary of VR Sverige AB, established for the operation of train services. The company has no operations at the moment.

Botniatåg AB is a joint venture between VR Östgötapendeln AB and SJ AB, whose field of business is rail transport. VR Östgötapendeln AB owns 60% of the company and SJ AB owns 40%. The company has no operations at the moment.

On 4.3.2022, VR Group established SIA VR Services Latvia in Latvia, which provides in-group IT services.

VR Norge AB is a Norwegian subsidiary established in 2021 to participate in the tender process. The company has no activities.

Pohjolan Liikenne operates bus services in the Helsinki metropolitan area and operates charter and contract services in Finland and abroad.

VR Kunnossapito Oy is a subsidiary of VR-Group, which is responsible for and takes care of the maintenance of the rolling stock. The company has depots and workshops in Helsinki, Tampere, Kouvola, Joensuu, Kokkola, Oulu and Pieksämäki, as well as offices in Kotka, Hamina and Imatra. VR Kunnossapito Oy also provides expert services related to rolling stock and rail infrastructure and their systems to customers outside the VR-Group. SeaRail offers terminal and material handling services for Metsä Board's Tako paperboard mill in Tampere and operates as part of VR Transpoint's road logistics.

Avecra offers restaurant, café and kiosk services at train stations and on long-distance trains.

Limited Liability Company Finnlog operates in import traffic between Russia and Finland. Finnlog operates wagons in Russia, takes care of maintenance contracts and is operationally responsible for planning and controlling the use of wagons on the Russian side. As part of the discontinuation of the Eastern traffic, the company's business operations have been discontinued and the company has been placed in liquidation.

Associated companies

Information about the Group's associated companies is presented in the table below:

		Group holding (%)		Book value (EUR 1,000)		
Company	Domicile	2022	2021	2022	2021	Segment
Freight One Scandinavia Ltd.	Helsinki	50	50	837	816	VR Transpoint
Oy ContainerTrans Scandinavia Ltd.	Helsinki	50	50	826	944	VR Transpoint
Varkauden Keskusliikenneasemakiinteistö Oy	Varkaus	33	33	208	208	Other operations
Associated companies, total				**1,872**	**1,968**	

Freight One Scandinavia Ltd. is a logistics company specialising in railway transport between Finland, Russia and the CIS countries. The company sells and operates wagonload transports in Eastern traffic. As part of the discontinuation of the Eastern traffic the business operations have been discontinued and the company has been placed in liquidation.

Oy ContainerTransScandinavia Ltd. (CTS) is a joint venture established by VR and JSC TransContainer in 2007, specialising in rail transport of container goods. As part of the discontinuation of the Eastern traffic VR Group is in a process of exiting its ownership in CTS associated company.

Varkauden keskusliikenneasema Oy is owned by the City of Varkaus, Matkahuolto Oy and VR-Group Ltd. The station is located in the city of Varkaus, and it serves train, bus and taxi passengers.

The Group considers the associated companies not to be independently major. Below is a summary of the financial data of the associated companies.

(EUR 1,000)	2022	2021
Group's share of the profit for the financial period	**53,715**	465,767
Group's share of other comprehensive income	–	–
Group's share of comprehensive income	**53,715**	465,767

Joint arrangements

Information about the Group's joint arrangements, all of which are joint operations, is presented below:

		Group holding (%)	
Company	Domicile	2022	2021
Oy Karelian Trains Ltd	Helsinki	50	50

Joint operations

VR Group consolidates Oy Karelian Trains Ltd as a joint operation. The parties to the joint operation aim to timely and cost-efficiently address the growing need for passenger services between Helsinki and St. Petersburg. The company was established to procure and lease high-speed rolling stock for the operators of the service between Helsinki and St. Petersburg. The operators are VR in Finland and RZD in Russia. The line of business of Oy Karelian Trains Ltd is to procure, lease, own and manage rolling stock.

VR's share of Karelian Trains' income and expenses and assets, liabilities and shares of the company's joint items are consolidated into VR Group's consolidated financial statements in accordance with the principles agreed upon in the shareholders' agreement. VR Group's interest in the share capital of the arrangement is 50 per cent.

VR Group implements planning service and rail traffic operation services in Tampere via an alliance. The alliance is based on the parties' agreement on implementing services in cooperation. The parties to the arrangement are jointly liable for the liabilities and obligations of the alliance.

8.2. Consolidation

Acquired subsidiaries are consolidated using the acquisition method. The consideration given and the identifiable assets and liabilities of the acquiree are measured at fair value at the time of acquisition. The consideration given includes any assets given and liabilities emerging with the acquiring party to the previous owners of the acquiree.

Acquisition-related expenses, such as expert fees, are recognised as expenses for the period during which the expenses occur and services are received. Goodwill is recognised at the amount by which the consideration transferred and previous holding in the acquiree at fair value exceed the net identifiable assets and liabilities of the acquiree.

8.3. Acquisitions

Arriva Sverige AB and its subsidiaries were acquired by VR Group on July 1, 2022, when Arriva International Ltd sold its holdings. The agreement between VR Group and Arriva International Ltd, which is owned by Deutsche Bahn, was signed on 24 March 2022.

The purchase price was EUR 79.8 million, including the acquisition of Arriva Sverige AB's shares and refinancing the company by repaying Arriva Sverige AB's group loan to the seller. The refinancing liability is not included in the value of the assets and liabilities acquired in the transaction, as presented below. The purchase price was paid in full in cash at the time of the transaction.

Acquired subsidiaries	Group holding (%)
Arriva Sverige AB	100%
Arriva Services AB	100%
Arriva Tåg AB	100%
Arriva Östgötapendeln AB	100%
Botniatåg AB	60%

Purchase price

Cash consideration paid (1000 €)	**79,756**

Fair values of assets acquired and liabilities assumed at the date of acquisition (1000 €)

Intangible assets	25,749
Tangible assets	41,803
Right-of-use assets	42,157
Inventories	5,523
Accounts receivable and other receivables	47,955
Cash and cash equivalents	10,774
Lease liabilities	-42,157
Accounts payable and other liabilities	-55,360
Net acquisition's identifiable net assets	**76,444**
Goodwill on consolidation generated from the acquisition	3,312
Total net assets arising from the acquisition	**79,756**

In assessing the fair values of the assets acquired and liabilities assumed, the customer contracts transferred as part of the acquisition were identified as new intangible assets. The bus fleet included in tangible assets, particularly diesel buses, were measured at a value lower than their book value at the time of the acquisition.

The goodwill on consolidation is based on the expertise of the personnel acquired in the transaction and the profitability of the acquired business. The acquisition strengthens our expertise in city and commuter traffic and our insight into the Swedish market, which will enable the further development of VR Passenger Services' business operations in the Swedish market.

The goodwill on consolidation generated by the acquisition is allocated to the VR Passenger Services segment, where the acquired business constitutes a separate cash-generating unit. Impairment testing on goodwill will be performed on VR Passenger Services' Swedish operations as a whole.

In the period in which it was consolidated into the Group, 1 July–31 December 2022, the acquired business generated net sales of EUR 151,041. The total net sales for 2022 amounted to EUR 322,568. The result of the businesses for the period in which they were consolidated into the Group came to EUR -4,005 thousand.

9. Off-balance sheet items

9.1. Contingent liabilities, contingent assets and commitments

A contingent liability arises for VR Group when there is a possible obligation that arises from past events whose existence will be confirmed only by a future event not within the control of the Group. The Group has a present obligation that arises from past events but either it is not probable that an outflow of resources embodying economic benefits will be required to settle the obligation or the Group cannot measure the amount of the obligation with sufficient reliability.

Contingent liabilities are not recognised in the balance sheet, but are reported in notes of the financial statement, unless it is very improbable that the payment obligation will materialise. A contingent asset arises for VR Group if future economic benefit to the Group is probable but not certain in practice and depends on an events that is not wholly within the control of the Group. Contingent assets are reported in notes. If the materialisation of the income item is practically certain, it is recognised.

9.1.1. Securities

EUR 1,000	2022	2021
Guarantees given on own behalf		
Mortgages on properties	**6,100**	6,100
Contract and agreement guarantees	**138,952**	58,559
Rental commitments	**629**	675
Other commitments given	**475**	651
Commitments given, total	**146,156**	65,985

9.1.2. Commitments and other open liabilities

Contractual liabilities on fleet procurement

VR Group Plc has made contracts on deliveries on locomotives and electric trains with consortium formed by Siemens Oy and Siemens AG, and with Stadler Rail Valencia S.A.U and Stadler Bussnang AG. The contracts include, in addition to the locomotive and electric train deliveries, their documentation, spare parts, tools and training related to the new fleet. The contracts include options in addition to the amounts shown below.

	Quantity		Contractual liability, MEUR		Estimated execution time of the remaining liability, MEUR		
	Ordered	Deli-vered	Liability on contract signing date	Remai-ning liability 31 Dec 2022	Under 12 months	1-5 years	Over 5 years
Siemens, delivery of electric locomotives	80	50	314.5	108.2	29.2	79.0	0
Stadler, delivery of diesel locomotives	60	0	208.0	158.6	46.0	112.6	0
Stadler, Flirt SmX electric motor trains	20	0	250.0	207.8	0	207.8	0

9.1.3. Legal proceedings and disputes

On 15 December 2022, the Helsinki Court of Appeal issued its decision concerning the matter related to the supplementary pensions paid by VR Pension Fund. The plaintiffs demanded VR to compensate for the amount by which the plaintiffs' overall pension remains lower after the supplementary pension is adjusted for the reduction for early retirement. The District Court had accepted the plaintiffs' claims, but the Helsinki Court of Appeal overturned the decision of the District Court and dismissed the claims and released VR from liability of the plaintiffs' legal costs. The decision is not final.

An action has been brought before the Helsinki District Court (more than 260 locomotive drivers in total) concerning the matter of unpaid meal breaks. The plaintiffs request the District Court to confirm that the right to eat during working hours has become a condition of the employment between the plaintiffs and the defendants. On 11 February 2022, the Helsinki District Court decided to dismiss the action of the locomotive drivers. The plaintiffs have been granted leave to appeal by the Helsinki Court of Appeal and the matter will be decided by the Court of Appeal.

On 7 June 2022 the South Savo District Court gave its decision in the matter related to an environmental accident that occurred in Kinni, Mäntyharju in the spring of 2018. A corporate fine of EUR 80,000 was ordered against VR.

In its decision KHO 2018:68, the Supreme Administrative Court has interpreted the restoration costs of degraded land and the demolition of old buildings on the property in certain cases as being closely linked to the sale of the property, which is a VAT-free event. As a result, the selling company was also not allowed to deduct VAT for restoration and demolition costs. Over the past few years, VR Group has sold properties where cleaning operations worth a total of approximately ten million euros have been carried out. Additionally, when estimating the cost of restoring the degraded land held by VR Group, VR Group deducted VAT for them. It is possible that in some of the cases mentioned above, VAT is not deductible in accordance with the above court decision. VR Group applied for a preliminary ruling from the tax authority on the right to deduct VAT. In its preliminary ruling, the tax authority considered VAT not deductible. The ruling is not final since VR Group appealed the decision to the Administrative Court on 27 January 2023. Before the decision of the Administrative Court is received, it is not possible to reliably estimate the impact on the amount of the required reservation.

Based on the uncertainty of the VAT deductibility, the 24% VAT has been included to the calculation of the environmental provisions at December 31, 2022 increasing the total amount for the provision.

The Group did not have any other pending legal proceedings or disputes in the financial years 2021–2022.

10. Events after the closing date of the reporting period

New segment reporting as of January 1, 2023

Based on the new strategy VR Group will change the reporting segments as of January 1, 2023. VR Passenger Services will be divided into two parts: VR Long Distance Traffic and VR City Traffic. VR Long Distance Traffic is responsible on long distance rail traffic and related services. VR City Traffic will include VR Sverige in Sweden, VR's commuter rail operations in Finland, Pohjolan Liikenne and Tampere tram.

VR FleetCare will not be reported as an own segment in the future. It's group internal maintenance operations will be reported under each reporting segment and the external maintenance sales will be reported under Other Operations.

The new reporting segments are VR Long Distance Traffic, VR City Traffic, and VR Transpoint (logistics).

Investment into rolling stock

On 18 January 2023, VR-Group Plc announced it will purchase nine sleeper cars and eight car-carrier wagons from Škoda Transtech Oy. The value of the purchase is approximately EUR 50 million. The new rolling stock will be in use on night train routes by the end of 2025. Night train traffic is part of the contract traffic agreed between VR and the Ministry of Transport and Communications. VR Group finances the procurement with its own funds, and the Ministry of Transport and Communications compensates VR for part of the procurement costs, as defined in the contract traffic agreement.

Parent company financial statements (FAS)

Parent company income statement (EUR 1,000)

	Note	1 Jan-31 Dec 2022	1 Jan-31 Dec 2021
Net sales	1	**773,921**	674,022
Other operating income	2	**89,296**	74,863
Materials and services	3	**-168,286**	-136,907
Personnel expenses	4	**-220,650**	-212,966
Depreciation, amortisation and impairment losses	5	**-126,638**	-127,484
Other operating expenses	6	**-326,652**	-286,451
Expenses, total		**-842,226**	-763,807
Operating result (EBIT)		**20,991**	-14,922
Financial income and expenses	7	**-2,728**	-8,456
Result before appropriations and taxes		**18,263**	-23,378
Change in depreciation difference	8	**9,902**	-10,636
Group contributions	9	**–**	5,300
Income taxes	10	**237**	-11
Result for the year		**28,402**	-28,724

Parent company balance sheet (EUR 1,000)

Assets

	Note	12/31/22	12/31/21
Non-current assets			
Intangible assets	11	**26,662**	36,407
Tangible assets	11	**1,342,771**	1,299,689
Investments	12		
Holdings in Group companies		**91,766**	66,596
Holdings in associated companies		**1,273**	1,273
Other investments		**19,518**	33,398
Non-current assets, total		**1,481,989**	1,437,363
Current assets			
Inventories	13	**1,114**	836
Non-current receivables	14	**67,759**	18,991
Current receivables	14	**192,977**	127,766
Financial securities	15	**50,000**	–
Cash and cash equivalents		**212,869**	56,460
Current assets, total		**524,718**	204,053
Assets, total		**2,006,708**	1,641,417

Equity and liabilities

	Note	12/31/22	12/31/21
Equity	16		
Share capital		**370,013**	370,013
Fair value reserve		**21,896**	-16,515
Invested non-restricted equity reserve		**336,228**	376,228
Retained earnings		**31,297**	60,021
Net result for the year		**28,402**	-28,724
Equity, total		**787,836**	761,024
Appropriations	17	**456,476**	466,378
Provisions	18	**30,492**	7,269
Liabilities			
Non-current liabilities	19	**472,566**	210,595
Current liabilities	19	**259,338**	196,151
Liabilities, total		**731,903**	406,747
Equity and liabilities, total		**2,006,708**	1,641,417

Parent company cash flow statement (EUR 1,000)

Cash flow from operating activities	1 Jan-31 Dec 2022	1 Jan-31 Dec 2021
Operating result (EBIT)	**20,991**	-14,961
Planned depreciation, amortisation and impairment losses	**126,638**	117,362
Sales profit from the disposal of fixed assets and other adjustments (1)	**24,012**	9,510
Change in inventories	**-277**	-86
Change in current receivables	**-13,876**	-14,198
Change in current liabilities	**26,951**	29,712
Interest received	**8,763**	547
Interest paid and payments for other financial transactions	**-11,627**	-8,368
Dividends received	**153**	962
Income taxes paid	**8,003**	-3,575
Net cash from operating activities	**189,732**	116,906

(1) Non-cash flow items and items shown elsewhere in the cash flow.

Cash and cash equivalents includes cash, bank account balances, short-term commercial papers and deposits, with a maturity of maximum of three months.

Cash flow from investing activities	1 Jan-31 Dec 2022	1 Jan-31 Dec 2021
Capital expenditure on fixed assets	**-127,620**	-139,649
Disposal of fixed assets	**13,744**	5,303
Shares in subsidiaries sold	**–**	600
Subsidiaries acquired	**-81,306**	-2,963
Change in investment receivables	**-33,695**	2,140
Net cash from investing activities	**-228,878**	-134,570
Cash flow before financing activities	**-39,146**	-17,664
Cash flow from financing activities		
Change in bond	**298,527**	–
Change in non-current liabilities	**-1,000**	–
Repayment of lease liabilities	**-14,367**	-14,903
Group contributions	**5,300**	500
Dividends and returns of invested capital paid	**-40,000**	-100,000
Change in funds transferred to Group accounts	**-52,906**	-7,648
Net cash from financing activities	**195,554**	-122,051
Change in cash and cash equivalents	**156,409**	-139,715
Cash and cash equivalents 1 Jan	**56,460**	196,175
Cash and cash equivalents 31 Dec	**212,869**	56,460

Accounting principles

The parent company, VR-Yhtymä Plc, financial statements are prepared in accordance with the Finnish Accounting Act of 30 December 1997 (1336).

Comparability of the parent company´s financial statements

The comparison period figures are from accounting period 1 Dec-31 Jan 2021, 12 months. The periods are comparable.

Valuation principles

Fixed assets are capitalised at direct acquisition costs.

Inventories are valued at average cost with principle of prudence. Production for own use, included in inventories, is valued at direct production costs. Work in progress includes variable costs accrued on the balance sheet date. Production for own use, included in inventories, includes also a portion of fixed costs.

Financial securities are valued at acquisition cost.

Transactions in foreign currencies are recorded at the exchange rate of the transaction date. Receivables and liabilities denominated in foreign currencies, outstanding on the balance sheet date are valued at the average exchange rate of closing date of the European Central Bank.

Leases

Parent company has applied Chapter 5, Section 5 b of the Finnish Accounting Act, according to which assets acquired under financial leasing can be recognised in the financial statements in accordance of IFRS 16 - Leases standard. The accounting principles for leases are described in the Group financial statements, note 4.2.

Derivatives

Parent company has applied Chapter 5, Section 2 a of the Finnish Accounting Act, according to which derivatives can be, under certain conditions, recognised on the balance sheet at fair value. The fair values are based either on market prices on the balance sheet date or on the net present value of future cash flows by using interest rates at the balance sheet date.

Changes in the fair value of derivatives are recorded on the balance sheet in the fair value reserve under restricted equity when the conditions for the hedge accounting are met and the hedges are effective. If the hedge accounting principles are not applicable or the hedges are not effective, the changes in fair values are recorded in the income statement.

The effectiveness of the hedges is tested annually with sensitivity analysis.

Pensions

The statutory pension security under the Employees Pensions Act (TyEL) is arranged through an external pension insurance company. Pension costs are expensed as incurred.

Some of the employees have been provided with supplementary pension plan at VR Pension Fund. The Pension Fund was closed on 1 July 1995. The Pension Fund administers supplementary pension benefits for 122 employees at the end of 2021. In 2022, no contributions were paid to the VR Pension Fund.

The Group's pension commitments are fully covered.

Deferred taxes

Deferred tax liabilities and receivables are calculated for temporary differences between taxation and the financial statements using the tax rate for the following years as confirmed on the balance sheet date. Deferred tax liabilities are recognised in their entirety and deferred tax receivables are recognised only to the extent of the probable future tax benefit.

Parent company has not recognised deferred taxes.

Notes to the income statement

1. Net sales by sector and geographical area

(EUR 1,000)

Net sales by sector	2022	2021
VR		
Rail services	**408,322**	303,013
VR Transpoint		
Rail services	**291,531**	304,748
Road transport	**74,068**	66,261
Total	**773,921**	674,022

Net sales by geographical area		
Finland	**773,921**	674,022
Total	**773,921**	674,022

2. Other operating income (EUR 1,000)

	2022	2021
Rental income	**49,307**	44,557
Profit on sale of non-current assets	**5,436**	3,834
Other income	**34,553**	26,473
Total	**89,296**	74,863

3. Materials and services (EUR 1,000)

Materials and supplies (goods)	2022	2021
Purchases during the year	**-82,484**	-55,467
Change in inventories	**277**	13
External services purchased	**-86,079**	-81,453
Total	**-168,286**	-136,907

4. Employees and personnel expenses

During the accounting period, the average number of VR-Group Plc's employees by sector was as follows:

	2022	2021
VR Passenger services	**975**	1,058
VR Transpoint	**946**	1,038
Train operations	**1,113**	998
Other Group services	**218**	204
Total	**3,252**	3,298

Personnel expenses (EUR 1,000)

	2022	2021
Wages and salaries	**-199,738**	-184,990
Pension expenses	**-13,262**	-20,792
Other personnel related expenses	**-7,650**	-7,184
Total	**-220,650**	-212,966

5. Depreciation, amortisation and impairment losses (EUR 1,000)

	2022	2021
Planned depreciation and amortisation (1)		
Intangible assets	**-10,840**	-9,686
Buildings and structures	**-21,037**	-16,230
Locomotives and wagons	**-82,784**	-92,058
Other machinery and equipment	**-8,858**	-7,670
Other tangible assets	**-3,119**	-1,840
Total	**-126,638**	-127,484

(1) Breakdown of right-of-use assets are presented in the **note 11**

Planned depreciation periods and methods are:

Intangible rights	5 years	straight-line depreciation
Other long-term expenses	3–10 years	straight-line depreciation
Buildings	4–7%	declining
Structures	20%	declining
Locomotives	30 years	straight-line depreciation
Electric trains	25 years	straight-line depreciation
Wagons	15–30 years	straight-line depreciation
Other machinery and equipment	5–15 years	straight-line depreciation
Other tangible assets	5–30 years	straight-line depreciation

Planned depreciation is calculated using the above stated depreciation method from the acquisition cost, based on the economic useful lives of the assets, excluding buildings.

6. Other operating expenses (EUR 1,000)

	2022	2021
Track access fees and track taxes	**-39,912**	-43,685
Rents and other real estate expenses	**-47,952**	-34,644
Travel and other personnel expenses	**-20,614**	-13,966
Telecommunication and information management expenses	**-31,334**	-30,079
Other operation-related expenses	**-17,283**	-16,034
Administration and other expenses	**-169,558**	-148,043
Total	**-326,653**	-286,451

Auditors' fees (EUR 1,000)

	2022	2021
Auditing fees	**-156**	-275
Other services	**-46**	-64
Total	**-202**	-339

Auditors' fee, in addition to fees for KPMG, include fees for the previous auditor EY for the audit of the financial year 2021.

7. Financial income and expenses (EUR 1,000)

Dividend income	2022	2021
From Group companies	**–**	810
From associated companies	**150**	150
From others	**3**	2
Dividend income, total	**153**	962

Other current interest and financial income		
From Group companies	**1,482**	423
From others	**25,741**	10,869
Interest and other financial income, total	**27,222**	11,293

Interest expenses and other financial expenses		
Impairment losses from investments in non-current assets	**-13,819**	-8,155
Impairment losses from financial securities in current assets	**–**	148
Interest expenses of lease liabilities	**-1,491**	-1,478
To others	**-14,794**	-11,226
Interest and other financial expenses, total	**-30,104**	-20,711

Financial income and expenses, total	**-2,728**	-8,456

8. Change in depreciation difference (EUR 1,000)

Difference between planned depreciation and depreciation in taxation

	2022	2021
Change in depreciation difference (increase -, decrease +)	**9,902**	-10,636

9. Group contributions (EUR 1,000)

	2022	2021
Group contributions received	–	5,300
Total	–	5,300

10. Income taxes (EUR 1,000)

	2022	2021
Income tax on operating activities	**237**	-3
Other income taxes	–	-7
Total	**237**	-11

11. Non-current assets (EUR 1,000)

2022	Intangible assets: Intangible rights and other capitalised long-term expenses	Intangible assets: Total	Tangible assets: Land and water areas	Buildings and structures	Machinery and equipment	Other tangible assets	Advance payments and constructions in progress	Total
Acquisition cost 1 Jan	136,241	136,241	30,321	403,120	2,022,913	14,544	115,951	2,586,848
Increases	601	601	182	6,487	88,975	170	73,432	169,245
Decreases	-702	-702	-7,837	-4,450	-359	-341	-54	-13,042
Reclassifications	863	863	658	-9,357	30,765	21,695	-44,616	-856
Acquisition cost 31 Dec	**137,003**	**137,003**	**23,323**	**395,800**	**2,142,294**	**36,068**	**144,712**	**2,742,196**
Accumulated depreciation 1 Jan	-99,833	-99,833	–	-233,362	-1,254,252	-9,741	–	-1,497,355
Accumulated depreciation for decreases	332	332	–	2,777	176	241	–	3,193
Depreciation and impairment losses for the financial year	-10,840	-10,840	–	-17,908	-86,920	-1,387	–	-106,215
Reclassifications	–	–	–	14,888	-8	-14,888	–	-8
Acquisition cost 31 Dec	**-110,340**	**-110,340**	**–**	**-233,605**	**-1,341,004**	**-25,775**	**–**	**-1,600,384**
Book value 31 December	**26,662**	**26,662**	**23,323**	**162,195**	**801,290**	**10,292**	**144,712**	**1,141,812**
2021								
Acquisition cost 1 Jan	124,446	124,446	30,402	403,470	1,918,942	14,109	126,125	2,493,048
Increases	4,409	4,409	10	9	93,126	11	52,171	145,328
Decreases	-1,516	-1,516	-92	-2,172	-41,855	–	–	-44,119
Reclassifications	8,902	8,902	–	1,813	52,700	424	-62,345	-7,409
Acquisition cost 31 Dec	**136,241**	**136,241**	**30,321**	**403,120**	**2,022,913**	**14,544**	**115,951**	**2,586,848**
Accumulation depreciation 1 Jan	-90,857	-90,857	–	-220,869	-1,194,795	-8,942	–	-1,424,606
Accumulated depreciation for decreases	710	710	–	1,384	22,395	–	–	23,779
Depreciation and impairment losses for the financial year	-9,686	-9,686	–	-13,878	-80,361	-799	–	-95,038
Reclassifications	–	–	–	–	-1,490	–	–	-1,490
Accumulated depreciation 31 Dec	**-99,833**	**-99,833**	**–**	**-233,362**	**-1,254,252**	**-9,741**	**–**	**-1,497,355**
Book value 31 Dec	**36,407**	**36,407**	**30,321**	**169,758**	**768,661**	**4,803**	**115,951**	**1,089,494**

11. Non-current assets (EUR 1,000)

2022	The right-of-use assets, tangible assets Land and water areas	Buildings and structures	Machinery and equipments	Total
Acquisition cost 1 Jan	17,445	36,588	195,626	249,658
Increases	26	3,751	283	4,060
Decreases	–	–	-18	-18
Reclassifications	–	–	-8	-8
Acquisition cost 31 Dec	**17,471**	**40,338**	**195,883**	**253,692**
Accumulated depreciation 1 Jan	-1,138	-8,126	-30,199	-39,463
Accumulated depreciation for decreases	–	–	6	6
Depreciation of the financial year	-1,732	-3,129	-8,424	-13,285
Reclassifications	–	–	8	8
Accumulated depreciation 31 Dec	**-2,870**	**-11,255**	**-38,609**	**-52,733**
Book value 31 Dec	**14,601**	**29,082**	**157,274**	**200,959**

2021	The right-of-use assets, tangible assets Land and water areas	Buildings and structures	Machinery and equipments	Total
Acquisition cost 1 Jan	588	27,598	255,396	283,582
Increases	16,857	9,789	2,430	29,076
Decreases	–	-800	-17,331	-18,131
Reclassifications	–	–	-44,869	-44,869
Acquisition cost 31 Dec	**17,445**	**36,588**	**195,626**	**249,658**
Accumulated depreciation 1 Jan	-96	-6,403	-69,877	-76,376
Accumulated depreciation for decreases	–	629	4,058	4,687
Depreciation of the financial year	-1,041	-2,352	-9,245	-12,638
Reclassifications	–	–	44,865	44,865
Accumulated depreciation 31 Dec	**-1,138**	**-8,126**	**-30,199**	**-39,463**
Book value 31 Dec	**16,307**	**28,461**	**165,427**	**210,196**

12. Investments (EUR 1,000)

2022	Holdings in group companies	Holdings in associated companies	Other shares and holdings	Total
Acquisition cost 1 Jan	66,596	1,272	92,503	**160,372**
Increases	25,170	–	–	**25,170**
Decreases	–	–	-61	**-61**
Acquisition cost 31 Dec	**91,766**	**1,272**	**92,443**	**185,481**
Accumulated depreciation 1 Jan	–	–	-59,106	**-59,106**
Impairment losses	–	–	-13,819	**-13,819**
Accumulated depreciation 31 Dec	**–**	**–**	**-72,925**	**-72,925**
Book value 31 Dec	**91,766**	**1,272**	**19,518**	**112,557**

2021	Holdings in group companies	Holdings in associated companies	Other shares and holdings	Total
Acquisition cost 1 Jan	66,362	1,272	92,493	**160,127**
Increases	6,083	–	10	**6,093**
Decreases	-5,848	–	–	**-5,848**
Acquisition cost 31 Dec	**66,596**	**1,272**	**92,503**	**160,372**
Accumulated depreciation 1 Jan	-2,500	–	-50,853	**-53,353**
Decreases	2,500	–	–	**2,500**
Impairment losses	–	–	-8,253	**-8,253**
Accumulated depreciation 31 Dec	**–**	**–**	**-59,106**	**-59,106**
Book value 31 Dec	**66,596**	**1,272**	**33,398**	**101,267**

12. Investments

Shares owned by VR-Group Plc

Group companies	ownership % 2022	2021
Avecra Oy, Helsinki	**100.0**	100.0
Oy Pohjolan Liikenne Ab, Helsinki	**100.0**	100.0
SeaRail Oy, Tampere	**100.0**	100.0
Transitar Oy, Kuopio	**100.0**	100.0
VR Fleetcare Ltd, Helsinki	**100.0**	100.0
SIA VR Services Latvia, Latvia	**100.0**	–
VR Norge As, Norway	**100.0**	100.0
VR Sverige Ab, Sweden	**100.0**	–
VR Group Sverige Ab, Sweden	**100.0**	100.0
Limited Liability Company Finnlog, Russia	**99.9**	99.9

13. Inventories (EUR 1,000)

	2022	2021
Materials and supplies	**1,114**	836
Total	**1,114**	836

14. Receivables (EUR 1,000)

Non-current receivables

Receivables from Group companies	2022	2021
Loan receivables	**56,414**	13,959
Receivables from Group companies, total	**56,414**	13,959

Receivables from others		
Non-current derivative receivables	**9,181**	2,494
Non-current loan receivables	**–**	367
Other receivables	**2,164**	2,172
Receivables from others, total	**11,345**	5,032

Non-current receivables, total	**67,759**	18,991

Current receivables

Receivables from Group companies	2022	2021
Accounts receivable	**1,907**	594
Loan receivables	**122**	2,012
Other receivables	**66,043**	23,933
Prepaid expenses and accrued income	**1,104**	731
Receivables from Group companies, total	**69,176**	27,270

Receivables from associated companies		
Accounts receivable	**97**	328
Receivables from associated companies, total	**97**	328

Receivables from others		
Accounts receivable	**68,045**	52,004
Current loan receivables	**–**	367
Other receivables	**47**	4,501
Prepaid expenses and accrued income	**55,612**	43,297
Receivables from others, total	**123,704**	100,168

Current receivables, total	**192,977**	127,766

Material items in prepaid expenses and accrued income

	2022	2021
Accrued income	**13,474**	12,623
Derivative receivables	**36,142**	11,865
Other prepaid expenses	**7,101**	19,540
Prepaid expenses and accrued income total	**56,717**	44,028

15. Financial securities (EUR 1,000)

The financial securities include investment certificates and certificates of deposit issued by banks, funds, commercial papers and the part of corporate and government bonds maturing within a year.

	2022	2021
Replacement value	**50,000**	–
Book value	**50,000**	–
Difference	**–**	–

16. Equity (EUR 1,000)

Restricted equity	2022	2021
Share capital 1 Jan	**370,013**	370,013
Share capital 31 Dec	**370,013**	370,013
Fair value reserve 1 Jan	**-16,515**	-36,443
Increases	**38,411**	19,928
Fair value reserve 31 Dec	**21,896**	-16,515
Restricted equity, total	**391,909**	353,499
Non-restricted equity		
Invested non-restricted equity reserve 1 Jan	**376,228**	376,228
Return of invested equity	**-40,000**	–
Invested non-restricted equity reserve 31 Dec	**336,228**	376,228
Retained earnings 1 Jan	**31,297**	60,021
Retained earnings 31 Dec	**31,297**	60,021
Net result for the year	**28,402**	-28,724
Non-restricted equity, total	**395,927**	407,525
Equity, total	**787,836**	761,024

Calculation of distributable funds (EUR 1,000)

	2022	2021
Retained earnings from previous financial years	**31,297**	60,021
Net result for the financial year	**28,402**	-28,724
Invested non-restricted equity reserve	**336,228**	376,228
Negative fair value reserve	**–**	-16,515
Received fuel contributions	**-82**	–
Total	**395,844**	391,010

The received fuel contributions reduce the distributable funds, unless the company returns the received contributions to the state prior the approval of the financial statements. (Law: Laki kuljetusalan yritysten määräaikaisesta polttoainetuesta 763/2022 9 §).

17. Depreciation difference (EUR 1,000)

	2022	2021
Book value 1 Jan	**466,378**	455,742
Change in the income statement	**-9,902**	10,636
Book value 31 Dec	**456,476**	466,378

Deferred tax liabilities related to the depreciation difference MEUR 91.3 (MEUR 93.3)

18. Provisions (EUR 1,000)

	2022	2021
Provisions	**30,492**	7,269

The provisions consist of provisions for environmental and onerous contract obligations.

19. Liabilities (EUR 1,000)

Non-current liabilities

Liabilities to others	2022	2021
Bond	**298,527**	–
Non-current lease liabilities	**173,210**	183,904
Non-current derivative liabilities	**157**	26,074
Other liabilities	**672**	618
Liabilities to others, total	**472,566**	210,595
Non-current liabilities, total	**472,566**	210,595

Liabilities due after five years		
Non-current lease liabilities	**116,994**	126,796
Non-current derivative liabilities	**–**	24,992

Current liabilities

Liabilities to Group companies	2022	2021
Accounts payable	**20,181**	23,088
Accrued expenses and prepaid income	**17,087**	13,661
Other liabilities	**6,048**	14,345
Liabilities to Group companies, total	**43,316**	51,093

Liabilities to associated companies		
Accounts payable	**–**	17
Liabilities to associated companies, total	**–**	17

Liabilities to others		
Current lease liabilities	**14,253**	13,866
Accounts payable	**48,245**	35,622
Accrued expenses and prepaid income	**128,371**	78,610
Other liabilities	**6,808**	5,190
Advances received	**18,345**	11,754
Liabilities to others, total	**216,022**	145,041
Current liabilities, total	**259,338**	196,151

Material items in accrued expenses and prepaid income

	2022	2021
Personnel related liabilities	**42,289**	41,509
Accrued income and expenses	**81,223**	36,421
Other items	**21,946**	14,341
Total	**145,459**	92,271

20. Leases

VR-Group Plc has applied the IFRS 16 Leases standard. According to the IFRS 16 standard, lessees must enter all lease contracts as right-of-use assets and lease liabilities on the balance sheet, excluding short-term and low value assets and leases in which the lease payments are based on the lessee's performance.

The right-of-use assets with regard to fixed-term contracts are recorded as equal to the liability.

Lease liability is valued at the present value of future rentals. The right-of-use assets is valued at acquisition cost and the depreciation are recorded according to the IAS 16 standard as straight-line depreciation.

In addition, VR Group has made use of the exemption permitted by the standard to exclude short-term and low-value leases.

Due dates of lease liabilities (EUR 1,000)

	2022	2021
Within one year	**14,220**	14,904
Between one year and five years	**54,128**	57,454
After five years	**116,994**	125,745
Total	**185,342**	198,103

21. Contingent liabilities (EUR 1,000)

Liabilities with the parent company's payment guarantee

	2022	2021
Financial lease liabilities	**70,410**	71,866
Value of commitments given	**41,118**	42,163
Other financial liabilities	**28,075**	31,005
Value of commitments given	**28,075**	31,005

On whose behalf the commitments were given:		
On behalf of Group companies	**41,118**	42,163
On behalf of others	**28,075**	31,005
Total	**69,193**	73,167

Other commitments given

On own behalf	2022	2021
Mortgages in real estate on the basis of land leases	**6,100**	6,100
Contract and agreement guarantees	**53,070**	53,045
Rental commitments	**582**	547
Other commitments given	**475**	475
On own behalf, total	**60,227**	60,167

On behalf of Group companies		
Contract and agreement guarantees	**85,502**	5,514
Rental commitments	**47**	34
Other commitments given	**293**	814
On behalf of Group companies, total	**85,842**	6,363

Other commitments given, total	**146,069**	66,530
Commitments given, total	**215,262**	139,697

Leasing- and rental commitments

	2022	2021
Due in the next accounting period	**269**	259
Due in later accounting periods	**116**	112
Leasing- and rental commitments, total	**386**	371

Rental and leasing commitments include leases of less than 12 months' duration as well as low-value and usage-based leases.

Pension commitments

The VR Pension Fund's pension commitments amounted to EUR 244.7 (261.2) million at the end of 2022 and were fully covered. The VR Pension Fund has 1.4 (1.6) times more assets than liabilities. VR-Group Plc has rented two land areas from the VR Pension Fund with 30-year leases.

Other commitments

Contractual liabilities for fleet purchases

VR-Group Plc has signed agreements concerning deliveries of locomotives and electric multiple units with a consortium formed by Siemens Oy and Siemens AG and with Stadler Rail Valencia S.A.U and Stadler Bussnang AB. The agreements cover the procurement of locomotives and trains, as well as documentation, spare parts, tools and training related to the new rolling stock. In addition to the amounts presented below, the agreements include options for additional purchases.

	Quantity		Contractual liability, MEUR		Estimated execution time of the remaining liability, MEUR		
	Ordered	Delivered	Liability on contract signing date	Remaining liability 31 Dec 2022	Under 12 months	1-5 years	Over 5 years
Siemens, delivery of electric locomotives	80	50	314.5	108.2	29.2	79.0	0
Stadler, delivery of diesel locomotives	60	0	208.0	158.6	46.0	112.6	0
Stadler, Flirt SmX electric motor trains	20	0	250.0	207.8	0	207.8	0

22. Derivatives

In line with its treasury policy, VR-Group Plc uses interest and commodity derivatives to reduce the interest rate and commodity risks arising from the company's financial leasing liabilities in the balance sheet as well as its future electricity and fuel purchases. In addition, the company may use currency derivatives to hedge foreign currency denominated internal loans purchases or sales that expose the company to foreign currency risk.

Derivatives are recorded on the balance sheet at fair value on the closing date, pursuant to Chapter 5, Section 2 a of the Finnish Accounting Act. The fair values of derivatives are based on observable prices whereby the instruments could be sold or bought for on the balance sheet date. The fair values of derivatives are defined as presented below.

The fair values of all derivatives are calculated using the interest rates and quoted commodity prices on the balance sheet date. The fair values of fuel and electricity derivatives are calculated as the net present value of future cash flows. The fair values of interest rate swaps are calculated as the net present value of future cash flows.

VR Group uses interest rate swaps to reduce the interest rate risk related to payments on floating-rate loan agreements. Interest rate swaps are used in changing floating interest rates into fixed interest rates. These derivatives have been entered into for hedging purposes, but not all of them are subject to hedge accounting. Changes in the fair value of derivatives are recognised on the balance sheet in the cash flow hedging reserve under restricted equity when hedge accounting principles are applicable and the hedges are effective. If the hedge accounting principles are not applicable or the hedges are not effective, the changes in fair values are recorded in the financial items of the income statement.

At the end of May 2022, VR Group issued its first unsecured fixed-rate Green Bond, which was pre-hedged with interest rate swaps. These swaps under cash flow hedge accounting were terminated at the time of the bond issuance, and all other interest rate swaps under cash flow hedge accounting were terminated during the financial year of 2022.

VR Group uses OTC commodity derivatives to hedge the price risk of electricity and light fuel oil used in trains. Fuel price risk was almost totally hedged with index-linked customer contracts during financial year 2022, therefore fuel derivatives were terminated during financial year 2022.

VR Group applies IFRS hedge accounting principles when hedging future cash flows (cash flow hedge). These principles are applied when hedging fuel and electricity price risks and interest payments on loans.

Changes in the fair value of derivatives are recognised on the balance sheet in the fair value reserve under restricted equity when the contracts meet hedge accounting requirements and are effective. With regard to the interest rate hedges maturing in 2026-2028 , it was decided on 30 June 2019 that the hedges no longer meet the requirements for hedge accounting and were therefore excluded from hedge accounting. With regard to the interest rate hedge maturing in 2033, it was decided on 30 June 2020 that the hedge no longer meets the requirements for hedge accounting and was therefore excluded from hedge accounting The negative market value accumulated in the fair value reserve of equity until the moment of transfer will be amortised through profit or loss over the original maturity of the contracts. Interest rate swaps that were excluded from hedge accounting on June 30th 2019 and June 30th 2020, were terminated during financial year 2022.

For commodity derivatives, all contracts in VR Group are considered to meet the hedge accounting requirements and their related fair value changes are fully recognised in the fair value reserve of equity.

The nominal values and fair values of the derivatives are described in the table below. All derivatives of the VR Group are classified at level 2 of the fair value hierarchy. The fair values of level 2 instruments are based on, to a significant extent, inputs other than the quoted prices included in the level 1 but still based on information that can be observed for the asset or liability in question either directly (as a price) or indirectly (derived from prices).

22. Derivatives (EUR 1,000)

	2022				2021			
		Fair values				Fair values		
Interest rate derivatives	Nominal value	Positive	Negative	Net	Nominal value	Positive	Negative	Net
Interest rate swaps	–	–	–	–	100,000	1,200	–	1,200
Interest rate derivatives, total	**–**	**–**	**–**	**–**	**100,000**	**1,200**	**–**	**1,200**
Commodity derivatives								
Fuel derivatives, tons	–	–	–	–	7,680	1,432	–	1,432
Electricity derivatives, GWh	1,043	39,510	-157	39,353	749	11,728	-4	11,724
Commodity derivatives, total		**39,510**	**-157**	**39,353**		**13,159**	**-4**	**13,155**
Items in hedge accounting, total		39,510	-157	39,353		14,359	-4	14,355
Items outside hedge accounting								
Interest rate swaps	22,371	–	-626	-626	175,967	–	-26,070	-26,070
Currency derivatives	41,994	62	-0	61	2,915	–	-39	-39
Items outside hedge accounting, total		**62**	**-626**	**-564**		**–**	**-26,110**	**-26,110**
Derivatives, total		**39,572**	**-783**	**38,789**		**14,359**	**-26,114**	**-11,755**

23. Public service obligation

According to the Public Service Contract Regulation (EC 1370/2007), a service operator must separate the accounts of services subject to the public service obligation. Pursuant to the Act on Transport Services (320/2017), the profit and loss accounts pertaining to the separate accounts are included in the Notes of the operator's financial statements.

Income and expenses have been allocated by using internal accounting according to the matching principle. The income and expenses pertaining to the separated business operations also include intra-group items.

Income statement (EUR 1,000)

	1 Jan-31 Dec 2022	1 Jan-31 Dec 2021
Net sales	**408,322**	303,013
Other operating income	**15,116**	8,413
Materials and services	**-44,044**	-34,383
Personnel expenses	**-108,702**	-94,392
Depreciation, amortisation and impairment losses	**-68,023**	-54,749
Other operating expenses	**-177,038**	-169,133
Expenses, total	**-397,808**	-352,657
Operating result (EBIT)	**25,631**	-41,231

24. Major events after the end of the financial year

On 18 January 2023, VR-Group Plc announced it will purchase nine sleeper cars and eight car-carrier wagons from Škoda Transtech Oy. The value of the purchase is approximately EUR 50 million. The new rolling stock will be in use on night train routes by the end of 2025. Night train traffic is part of the contract traffic agreed between VR and the Ministry of Transport and Communications. VR Group finances the procurement with its own funds, and the Ministry of Transport and Communications compensates VR for part of the procurement costs, as defined in the contract traffic agreement.

Auditor’s Report

To the Annual General Meeting of VR-Yhtymä Oyj

Report on the Audit of the Financial Statements

Opinion

We have audited the financial statements of VR-Yhtymä Oyj (business identity code 1003521-5) for the year ended 31 December 2022. The financial statements comprise the consolidated balance sheet, statement of comprehensive income, statement of changes in equity, statement of cash flows and notes, including a summary of significant accounting policies, as well as the parent company’s balance sheet, income statement, statement of cash flows and notes.

In our opinion

- the consolidated financial statements give a true and fair view of the group’s financial position, financial performance and cash flows in accordance with International Financial Reporting Standards (IFRS) as adopted by the EU
- the financial statements give a true and fair view of the parent company’s financial performance and financial position in accordance with the laws and regulations governing the preparation of financial statements in Finland and comply with statutory requirements.

Our opinion is consistent with the additional report submitted to the Audit Committee.

Basis for Opinion

We conducted our audit in accordance with good auditing practice in Finland. Our responsibilities under good auditing practice are further described in the Auditor’s Responsibilities for the Audit of the Financial Statements section of our report.
We are independent of the parent company and of the group companies in accordance with the ethical requirements that are applicable in Finland and are relevant to our audit, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

In our best knowledge and understanding, the non-audit services that we have provided to the parent company and group companies are in compliance with laws and regulations applicable in Finland regarding these services, and we have not provided any prohibited non-audit services referred to in Article 5(1) of regulation (EU) 537/2014. The non-audit services that we have provided have been disclosed in note 2.4. to the consolidated financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Materiality

The scope of our audit was influenced by our application of materiality. The materiality is determined based on our professional judgement and is used to determine the nature, timing and extent of our audit procedures and to evaluate the effect of identified misstatements on the financial statements as a whole. The level of materiality we set is based on our assessment of the magnitude of misstatements that, individually or in aggregate, could reasonably be expected to have influence on the economic decisions of the users of the financial statements. We have also taken into account misstatements and/or possible misstatements that in our opinion are material for qualitative reasons for the users of the financial statements.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the financial statements of the current period. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters. The significant risks of material misstatement referred to in the EU Regulation No 537/2014 point (c) of Article 10(2) are included in the description of key audit matters below.

We have also addressed the risk of management override of internal controls. This includes consideration of whether there was evidence of management bias that represented a risk of material misstatement due to fraud.

The key audit matter	How the matter was addressed in the audit
Valuation of tangible assets (consolidated accounting principles and note 4.1.)	
The value of tangible assets in the balance sheet was EUR 1,302 million (approx. 55% of the consolidated balance sheet total) and depreciations according to plan are EUR 117 million. The company's annual investments are significant. The management evaluates the economic lifetime of the assets when preparing the depreciation plan. Determining the economic useful life for tangible asset items and depreciation accounting include management judgment, which is why the valuation of tangible assets is considered a key audit matter.	We gained an understanding of the investment-related processes and assessed the appropriateness of the economic useful lives of the assets, the valuation and the fulfillment of the capitalization criteria. We have evaluated the internal control arrangements and tested the controls related to the approval of investments and purchase invoices. We have tested the control environment of the information system used in the asset register for fixed asset accounting and utilized data analysis to ensure the reliability of the fixed asset accounting. We have also evaluated the appropriateness of the notes to the financial statements related to the presentation of tangible assets.
Revenue recognition (consolidated accounting principles and note 2.2.)	
Sales revenue is mainly generated from the sale of passenger services, logistics and restaurant services. Sales revenue from these is recognized when the service has been provided to the customer. The IT-system environment related to the accounting for sales transactions consists of several different subsystems and the number of transactions is large. In addition, the company has numerous customer sales contracts. The accuracy and timely registration of sales revenue requires effective controls relating to system environment and sales processes, which is why revenue recognition is considered as a key audit matter.	We gained an understanding of the revenue recognition process and evaluated the controls of the information systems related to revenue recognition and tested their effectiveness. We tested received payment transactions to sales revenue entries made in the accounting and tested selected sales contracts and delivery documents from different business areas with a sample to ensure revenue is recognized accurately when the service has been provided. We have also evaluated the appropriateness of the accounting principles used and the appropriateness of the notes related to the presentation of net sales.
Acquisition of Arriva Sverige AB's shares (consolidated accounting principles and note 8.3.)	
During the financial year 2022, VR-Yhtymä Oyj acquired all shares of Arriva Sverige AB (now VR Sverige AB). The acquisition has been consolidated into VR Group's passenger services segment from 1 July 2022 and forms an essential part of the group's net sales and assets. The new subsidiary's reporting and consolidation in the consolidated financial statements is considered as a key audit matter.	We have reviewed the documentation related to the acquisition of the stock and assessed the appropriateness of the accounting principles used by the acquired company in its reporting in relation to the IFRS standards. We have evaluated the methods used by the management in determining the fair value of the acquired net assets, tested the correctness of the purchase price calculation and evaluated management judgements in allocation the purchase price to the assets and liabilities. We have also evaluated the appropriateness of the accounting principles and the notes related to the presentation of the acquisition.

Responsibilities of the Board of Directors and the Managing Director for the Financial Statements

The Board of Directors and the Managing Director are responsible for the preparation of consolidated financial statements that give a true and fair view in accordance with International Financial Reporting Standards (IFRS) as adopted by the EU, and of financial statements that give a true and fair view in accordance with the laws and regulations governing the preparation of financial statements in Finland and comply with statutory requirements. 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 financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Board of Directors and the Managing Director are responsible for assessing the parent company's and the group's ability to continue as a going concern, disclosing, as applicable, matters relating to going concern and using the going concern basis of accounting. The financial statements are prepared using the going concern basis of accounting unless there is an intention to liquidate the parent company or the group or cease operations, or there is no realistic alternative but to do so.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with good auditing practice 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 the financial statements.

As part of an audit in accordance with good auditing practice, we exercise professional judgment and maintain professional skepticism throughout the audit.

We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the parent company's or the group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of the Board of Directors' and the Managing Director's use of the going concern basis of accounting and based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the parent company's or the group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the parent company or the group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events so that the financial statements give a true and fair view.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Other Reporting Requirements

Information on our audit engagement

We were first appointed as auditors by the Annual General Meeting on 17 March 2022 and our appointment represents a total period of uninterrupted engagement of one year.

Other Information

The Board of Directors and the Managing Director are responsible for the other information. The other information comprises the report of the Board of Directors and the information included in the Annual Report, but does not include the financial statements and our auditor's report thereon. We have obtained the report of the Board of Directors prior to the date of this auditor's report, and the Annual Report is expected to be made available to us after that date. Our opinion on the financial statements does not cover the other information.

In connection with our audit of the financial statements, our responsibility is to read the other information identified above and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. With respect to the report of the Board of Directors, our responsibility also includes considering whether the report of the Board of Directors has been prepared in accordance with the applicable laws and regulations.

In our opinion, the information in the report of the Board of Directors is consistent with the information in the financial statements and the report of the Board of Directors has been prepared in accordance with the applicable laws and regulations.

If, based on the work we have performed on the other information that we obtained prior to the date of this auditor's report, we 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.

Other Opinions

We support that the financial statements should be adopted. The proposal by the Board of Directors regarding the use of the profit for the financial period 2022 is in compliance with the Limited Liability Companies Act. We support that the Members of the Board of Directors of the parent company and the Managing Director should be discharged from liability for the financial period audited by us.

Helsinki, 6 March 2023

KPMG Oy Ab

Ari Eskelinen

Authorized Public Accountant, KHT

Independent Auditor's Reasonable Assurance Report on VR-Group Plc's ESEF Financial Statements

To the Board of Directors of VR-Group Plc

We have undertaken a reasonable assurance engagement in respect of whether the consolidated financial statements for the year ended 31 December, 2022 included in the digital financial statements 743700XQ240JMMYBNW69-2022-12-31-en.zip of VR-Group Plc (Business ID 1003521-5) have been marked up with iXBRL markups in accordance with the requirements of Article 4 of EU Delegated Regulation 2018/815 (ESEF RTS).

The Responsibility of the Board of Directors and Managing Director

The Board of Directors and Managing Director are responsible for preparing the report of the Board of Directors and financial statements (ESEF financial statements) that comply with the requirements of ESEF RTS. This responsibility includes:

- preparation of ESEF financial statements in XHTML format in accordance with Article 3 of the ESEF RTS
- marking up the primary statements and the notes to the consolidated financial statements, and the company identification data included in the ESEF financial statements with iXBRL tags in accordance with Article 4 of the ESEF RTS; and
- ensuring consistency between ESEF financial statements and audited financial statements.
- The Board of Directors and the Managing Director are also responsible for such internal control as they deem necessary to prepare the ESEF financial statements in accordance with the requirements of the ESEF RTS.

Auditor's Independence and Quality Management

We are independent of the company in accordance with the ethical requirements applicable in Finland, which apply to the engagement we have performed, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

The auditor applies International Standard on Quality Management ISQM 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 regulations requirements.

Auditor's Responsibility

In accordance with the Engagement Letter our responsibility is to express an opinion on whether the marking up of the consolidated financial statements included in the ESEF financial statements comply in all material respects with the Article 4 of the ESEF RTS. We conducted our reasonable assurance engagement in accordance with International Standard on Assurance Engagements 3000.

The engagement involves procedures to obtain evidence whether;

- the primary statements of the consolidated financial statements included in the ESEF financial statements are, in all material respects, marked up with iXBRL tags in accordance with Article 4 of the ESEF RTS, and;
- whether the notes to the consolidated financial statements and the company identification data included in the ESEF financial statements data, have been marked up, in all material respects, with iXBRL tags in accordance with Article 4 of the ESEF RTS; and
- whether the ESEF financial statements and the audited financial statements are consistent with each other.
- The nature, timing and the extent of procedures selected depend on practitioner's judgement. This includes the assessment of the risks of material departures from the requirements set out in the ESEF RTS, whether due to fraud or error.
- We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Opinion

In our opinion, the primary statements of the consolidated financial statements, the notes to the consolidated financial statements and the company identification data included in the ESEF financial statements of VR-Group Plc identified as 743700XQ240JMMYBNW69-2022-12-31-en.zip for the year ended 31 December, 2022 are, in all material respects, marked up in compliance with the ESEF Regulatory Technical Standard.

Our audit opinion on the audit of the consolidated financial statements of VR-Group Plc for the year ended 31 December, 2022 is set out in our Auditor's Report dated 6 March, 2023. In this report, we do not express any audit opinion or other assurance conclusion on the consolidated financial statements.

Helsinki, 7 March 2023

KPMG Oy Ab

Ari Eskelinen

Authorized Public Accountant, KHT

Report of the Board of Directors and Financial Statements 2022

7 March 2023