



# NS Annual Report 2023

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**This annual report is an English translation of the annual report prepared on 20 February 2024. In case of any discrepancies or possible differences in interpretation between the English translation and the annual report prepared on 20 February 2024, the latter prevail. The original Dutch version of the annual report is available at the chamber of commerce.**

# in 2023 In brief



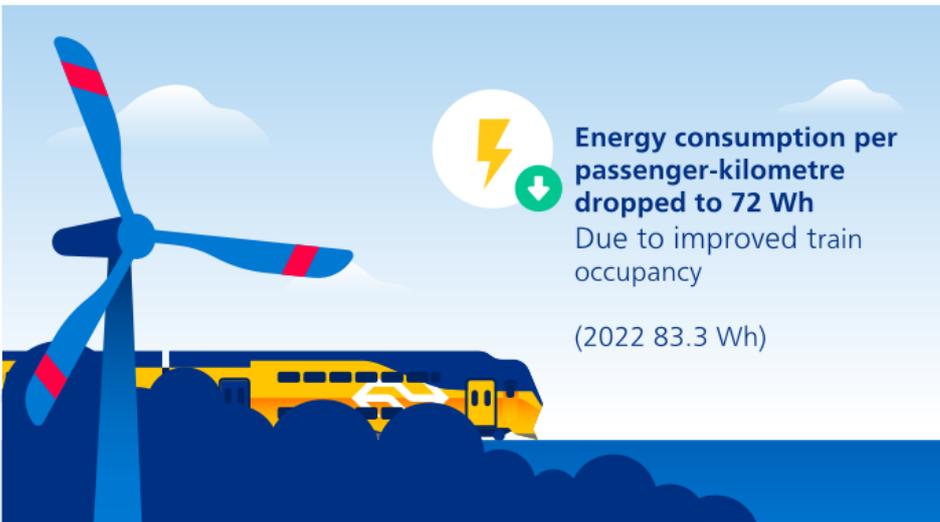
**Number of train journeys per working day:**  
**1,085,000**  
2022: 960,000



**Over 300,000 customer contacts by Customer Service per month, largely by telephone**



**20,559 employees in the Netherlands**  
5,434 vacancies filled



**Energy consumption per passenger-kilometre dropped to 72 Wh**  
Due to improved train occupancy  
(2022 83.3 Wh)

## Faster to Berlin



**30 min. time saving**

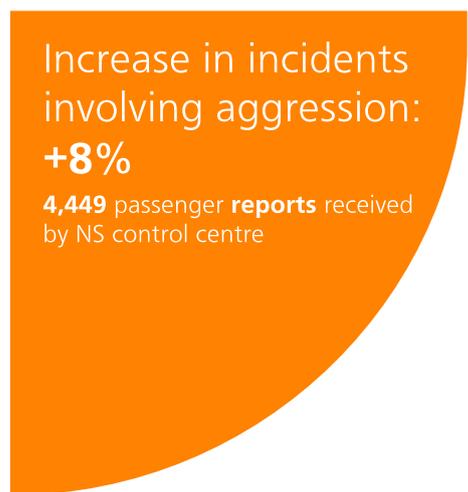
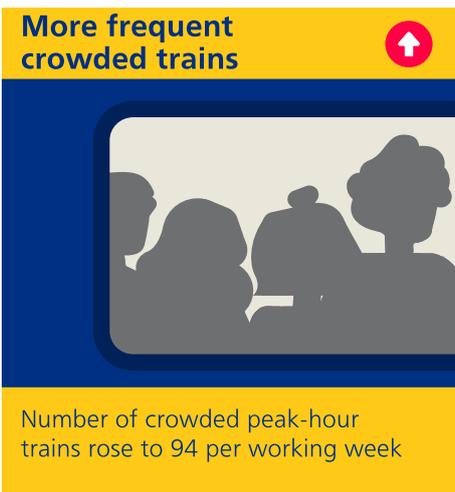
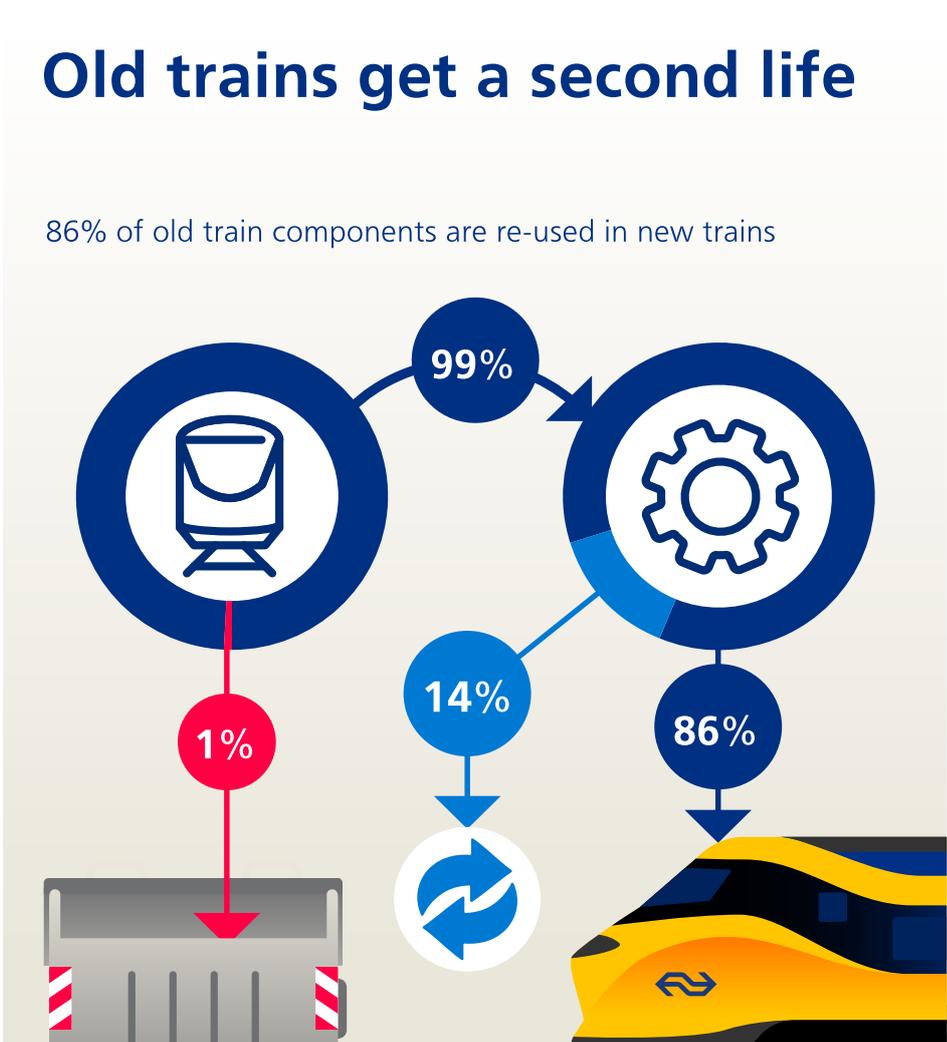
Due to a new locomotive, fewer stops and improved infrastructure

**Station renovation projects completed**

- Naarden-Bussum
- Roermond

**New bicycle parking facilities opened at Amsterdam Central Station**  
7,000 spaces in the Stationsplein parking facility, 4,000 in the IJboulevard facility





# Inhoudsopgave

## **About NS**

- 6 Foreword by the CEO
- 9 Profile of NS
- 14 Dilemmas
- 16 How NS adds value to society

## **Trends, developments and strategy**

- 21 Trends and developments
- 24 Our strategy
- 27 Main rail network franchise 2025–2033

## **Our activities and achievements in the Netherlands**

- 32 Overview of franchise indicators
- 34 Customer satisfaction
- 36 Operational performance
- 44 Door-to-door journeys
- 49 Stations and their environment
- 55 Travelling and working in safety
- 62 NS as an employer
- 72 Our sustainability performance

## **Our activities and achievements abroad**

- 88 Abellio
- 91 Abellio in Germany

## **Financial performance**

- 98 Finances in brief

## **NS Group**

- 109 Report of the Supervisory Board
- 123 Corporate governance
- 130 Risk management
- 133 Group risks
- 136 Dialogue with our stakeholders in the Netherlands
- 148 Statement by the Executive Board
- 149 About the scope of this report
- 150 Scope and reporting criteria

## **Financial statements**

- 152 Consolidated financial statements
- 230 Company financial statements

## **Other information**

- 236 Independent auditor's report and assurance report
- 251 NS 10-year summary

# About NS

# Foreword by the CEO

For NS, there were two sides to 2023. The start of the year was promising, but we are by no means satisfied with our operational performance in the second half of the year. After all, passengers need to be able to depend on the train every day. The award of the 2025-2033 main rail network franchise means, however, that we can look to the future with confidence.

As we look back at 2023, several dramatic events stand out. In March, one of our drivers was killed near Maarn in a collision with another NS train. A horrific accident like that is a shock for the entire organisation. Another terrible rail accident took place near Voorschoten in early April, when an Intercity train partially derailed due to a collision with a crane that was being deployed on the track and had been hit by a freight train minutes before. In this accident, the crane operator died and about thirty people on the train, including NS staff, were injured. The accident also caused an IT outage at ProRail's Amsterdam traffic control centre, which lasted for several hours and had a huge impact on passengers and staff in the wider region.

## Disappointing operational performance

Until the summer, NS's operational performance was gradually moving in the right direction. 1,200 new main guards and train drivers started work. Trains were on time more often, and were longer, which increased seat availability. The quality of our services was clearly improving.

From August, a variety of circumstances – including trackwork, disruptions and warm weather – combined to cause problems in our operations. There was also growing inconvenience for passengers and staff as high levels of rolling stock withdrawals meant that fewer trains were available, while crowding increased significantly, especially during super-peak hours. The introduction of the Intercity New Generation did not go as planned. This had a major impact on performance on the HSL, as did the speed restriction on part of the HSL at Rijkswatering and the adjusted timetable during trackwork.

It took a great deal of time to get all these problems under control, resulting in disappointing operational performance levels, especially during disruptions or trackwork, such as at Rotterdam Central Station in November and December. Compared with the annual figures for other years, our results may not seem too bad. However, the figures conceal negative travel experiences of individual passengers that cannot be captured in averages. We are working hard to bring our performance back to the level that passengers expect from us.

## Long-term efforts to improve train travel

The award of the 2025-2033 main rail network franchise is a great incentive for us to improve our performance in the coming years. The award decision offers certainty to our organisation. It is also good news for the Netherlands as a whole, as the award will allow us to continue our efforts to make train travel better, more enjoyable and more sustainable and to create a strong and highly interconnected rail network. This also enables us to continue to play an important role in solving major societal issues, including the mobility agenda, the climate challenge and the need to ensure accessibility for a million new homes. As co-owners of the stations, we are involved in area development projects for residential, work and recreational functions in various cities, including Amsterdam, Utrecht and Den Bosch. People who travel by NS train instead of by car contribute to solving the climate problem. As part of the new franchise agreement with the Ministry of Infrastructure and Water Management, we are going to measure the CO<sub>2</sub> emissions avoided by train travel. We see opportunities to raise awareness of this issue among employers as part of their mobility policies.

Moreover, the security offered through the main rail network franchise means that we will remain an attractive employer. Last year, we managed to recruit many new guards and train drivers in a short period of time, which allowed us to improve our timetable services step by step. Nevertheless, we still have a shortage of engineers and mechanics. To solve this problem, we took a number of targeted measures in 2023. For example, we intensified recruitment efforts, launched an additional 'TechniekFabriek' training programme, offered new training courses and found technical solutions to ensure a more effective organisation of maintenance.

## **Persistent financial challenge**

Financially, we are still struggling with the aftermath of the COVID-19 pandemic. 2023 was another year in which we operated at a loss. Passenger numbers are rising, but high inflation and the associated sharply rising costs of wages, IT, energy and equipment are not helping. We do not fully pass on those extra costs in train fares, because we want train travel to remain affordable for as many people as possible. At the same time, we want to continue investing for the benefit of our passengers, for example by purchasing and modernising trains.

## **Keeping our employees happy at work**

We will continue to invest in our employees. There is still a lot of work to do to ensure that everyone remains healthy and enjoys working at NS. Sickness absence levels are high, and in terms of public safety, things could and should be improved: the number of incidents involving aggression has risen at an alarming rate since 2019. Our employees on trains and at the stations are often the victims in these incidents. This is unacceptable. To counter this trend, we introduced another package of measures last year: 100% entry checks at various stations, staff equipped with bodycams, increased surveillance and more effective cooperation with local authorities. It is very frustrating however to see that in certain situations staff do not have the powers they need or that police assistance is not available quickly enough. There are limits to what we at NS can do ourselves, so we need help from the central government and public bodies to improve interventions and enforcement. Last year, talks started with the unions to reach a new collective agreement.

## **Driving trains across the border and in foreign countries**

The non-domestic operations of NS should promote the interests of Dutch passengers. Abellio UK was transferred to the management of Abellio UK at the end of February 2023. In Germany, Abellio will continue to operate a limited number of franchises, in Lower Saxony and central Germany. The 'Deutschlandticket' – a €49 card that allows passengers unlimited regional public transport travel for a month – has led to passenger growth at Abellio, demonstrating the potential for incentivising train travel. However, there is a great deal of disruption on the German railways due to infrastructure maintenance issues and work needed to modernise the tracks. This leads to many delays and train cancellations, and thus inconvenience for passengers. In the coming years, we anticipate that our German staff and passengers will continue to experience a great deal of inconvenience.

We maintain our ambition to carry out cross-border operations. For destinations such as Paris, Berlin and London, train travel is already a fully-fledged alternative to air travel. In 2023, we once again sold more international tickets. From next summer, new ICs will be travelling to Frankfurt, and we will be running our brand-new ICNG Belgium to Brussels. Both of these developments are extremely promising!

## Looking ahead

Train travel has a bright future. To be ready for that future, we will continue to work with ProRail and our other partners in 2024 to make improvements to and on the tracks. This means we are again going to see works and renovations taking place. The very busy rail network, combined with infrastructure constraints and the expected increase in passenger numbers, means we need to continue finding solutions to spread passengers more effectively and continue to recruit new staff. We want to be open about the fact that this will continue to cause inconvenience at times in the years ahead. However, it is essential to get the basics right now so that we can keep the Netherlands accessible in a sustainable manner.

## A word of thanks to all NS employees

In my first full year as CEO, I have been impressed by the resilience and expertise of each and every one of our more than 20,000 employees. Thanks to them, train travel remains relevant and NS is vital to the accessibility and sustainable future of the Netherlands. On behalf of the Executive Board, I would like to thank you all very much for your efforts. I am also grateful to all employee representatives, the Supervisory Board, our partners and our shareholder for their dedication and for the trust that they have shown in us. It is up to us to live up to that confidence again next year.

On behalf of the Executive Board,

Wouter Koolmees  
CEO



# Profile of NS



NS transported over 134,000 enthusiastic race fans to Zandvoort by train during the Formula 1 weekend at the end of August. That is a new record!

NS provides a broad range of services that go beyond trains. In all our activities, the primary focus is on our passengers. Our more than 22,000 employees in the Netherlands and abroad work hard on this focus every day. Together with our public transport partners, we continually work to improve our service and performance levels.

## Our organisation

NS consists of several business units, including NS Operations (around 13,400 staff on average in 2023), Commerce & Development (around 700 staff) and NS Stations (around 3,600 staff, including retail), plus central departments such as HR, Finance and IT (around 2,500 staff). Abroad, NS operates in conjunction with Abellio Germany (around 1,700 staff).

**NS Operations** is responsible for rail transport on the Dutch main rail network, including the high-speed line (HSL). This is where the employees work who enable our trains to travel from A to B in the Netherlands and across the border. They include train drivers, guards, mechanics and service staff, as well as the staff who work behind the scenes to help implement our timetables and manage operations during unexpected events.

In the **Commerce & Development** unit, staff design new timetables, come up with train formulas, run the Customer Service department, maintain stakeholder relations, launch marketing campaigns, carry out strategic and innovative projects and make the company more sustainable. This unit is also responsible for ticket and season ticket sales and for NS International. In addition, Commerce & Development conducts satisfaction surveys among passengers and identifies areas for improvement.

**NS Stations** works in a high-quality network of 400 large and small stations and promotes area development initiatives around the stations. Together with ProRail, public authorities and carriers, NS Stations seeks to make passenger journeys and the time spent in and around stations as convenient and enjoyable as possible. In collaboration with local authorities, citizens and social entrepreneurs, we seek effective integration of our facilities in the station environment. All activities are designed to improve the passenger experience at the station and throughout the journey.

**Abellio** bids for and operates rail franchises exclusively in the regional rail transport market. At the end of 2023, Abellio Germany operated three franchises in eight regions. Abellio UK was transferred to local management via a management buyout at the end of February.

### Organisation chart



# Rail franchises in Europe

## Nederland



## Mitteldeutschland



## WestfalenBahn



# Our trains

NS invests in the purchase, overhaul and upgrading of trains. Proven technology, sustainability and convenience for passengers are given the highest priority.

## New generation of double-decker trains

In December 2022, NS and Spanish train manufacturer CAF signed a contract for the supply of 60 new trains. The trains concerned are a combination of single-decker and double-decker coaches. The trains combine high capacity with high accessibility and can travel up to 160 km/h. After the design phase in 2023, production will start in 2024. The first new trains are expected to become operational in 2028.

## Intercity New Generation

In April last year, test runs with Intercity New Generation (ICNG) trains carrying passengers started on the Amsterdam-Rotterdam/Breda route. By running timetabled services with passengers, we were able to test how the trains perform in practice. In July, we extended the tests to The Hague-Eindhoven route. The importance of testing was demonstrated during this period when new teething problems emerged, causing inconvenience to passengers and staff. Train manufacturer Alstom incorporates these experiences in software updates. In early October 2023, the ICNG was authorised in Belgium, and a test programme started there as well. At that stage, tests were still run without passengers, to and from Brussels.

After finishing the tests in the Netherlands, NS completed the trial programme in December. The 2024 timetable includes ICNG journeys on the high-speed line between Amsterdam and Breda. In 2024, the ICNG will be rolled out on The Hague-Eindhoven and Amsterdam-Rotterdam routes, and we will start test runs to Leeuwarden/Groningen and Brussels.

## ICNG Germany

The ICNG contract with Alstom offers the possibility of ordering Intercity trains that are suitable for onward travel abroad. For example, NS previously ordered the ICNG Belgium model. In 2021, NS commissioned Alstom to develop two trains from the original domestic order into a model suitable for deployment in both the Netherlands and Germany. In 2023, NS ordered a further ten trains with this option.

## New tendering procedure for Sprinter trains

In 2022, NS launched a European tendering procedure for the purchase of Sprinter trains. The call for tenders from suppliers was published in December 2023. NS is looking for a comfortable and easily accessible train that can be used as a Sprinter: fast acceleration and deceleration, and suitable for speeds of up to 160 km/h. The new Sprinter should also be able to be used as an Intercity train on a limited number of routes. This will help us to improve flexibility and efficiency in the way we deploy our rolling stock, resulting in an optimum return on investment. Based on studies of future rolling stock requirements, we have decided to move the launch of the first trains from 2027 to late 2029/2030.

## Upgrading Intercity trains

After completing the VIRM1 upgrade, we started modernising VIRM2/3-type double-deckers in 2021. By the end of 2023, we had upgraded 40 of the 45 trainsets comprising 212 coaches.

The project to upgrade VIRM4 double-decker trainsets will begin in 2026. In 2023, we carried out preliminary design work and started a 'pre-tryout'. In a pre-tryout, we upgrade one train from the series to see whether the design created on paper is feasible in practice.

	Number of trainsets as at 31 December 2023	Number of sections/coaches	Number of seats
<b>Sprinter trains</b>			
 SLT	131	648	34,412
 SNG	205	703	36,878
 FLIRT	58	199	11,990
<b>Intercity trains:</b>			
 ICRmh (Traxx)	29	206	16,676
 VIRM	175	856	89,161
 ICMm	115	452	29,590
 DDZ	49	238	23,085
 ICNG (National)	15	93	4,824
 ICNG (International)	0	0	0
 Double-decker (CAF) (due in 2028)	0	0	0
<b>Total</b>	<b>777</b>	<b>3,395</b>	<b>246,616</b>

NS has ordered a total of 109 ICNGs from the train manufacturer Alstom. Of these, 77 trains are intended for the Dutch rail network, with 15 already in operation. In addition to deployment in the Netherlands, the 32 remaining trains are also suitable for onward travel to Belgium or Germany. NS has also ordered 60 new double-deckers, which are being developed by the train manufacturer CAF. The first train from that order is expected to reach the tracks in 2028.

# Dilemmas

NS regularly faces dilemmas, both in its daily operations and in developing its plans for the future. We feel it is important to share some of these with the outside world. This enables us to give people in the Netherlands an idea of the considerations feeding into our decisions in 2023. In the section below, we highlight three important dilemmas that NS faced in 2023.

## Trackwork: more trains or a less-vulnerable timetable?



In the second half of 2023, ProRail carried out many works on the tracks, for example at Gouda, Schiphol and Rotterdam. Passengers are often inconvenienced by such works, due to timetable changes, fewer services and train cancellations. They may have to travel longer than usual or cover part of the journey by bus. Trackwork also creates vulnerability in the timetable and can easily compromise performance levels, such as punctuality.

During major works, NS always faces a dilemma: are we going to run as many trains as possible in order to carry as many passengers as possible? Or are we going to run fewer trains, thus reducing the risk of delays but also reducing seat availability? After all, in an already vulnerable timetable, running more trains increases the potential impact of disruptions. As regards works in the Rotterdam area, we decided to run as many trains as possible and risk a bigger impact in the event of a breakdown. That turned out to be too optimistic: when we were confronted with disruptions on top of the trackwork, the inconvenience for passengers only increased. That was a good lesson for us. A lot of trackwork remains to be done in 2024, with an increased emphasis on robustness. In each specific case, NS will be looking with ProRail at the best way to minimise inconvenience to passengers.

## Rate differentiation to spread passengers: a small group of people pay substantially more, or everyone pays a bit more



Since the COVID-19 pandemic, passenger behaviour has changed permanently. Passengers work at home more often, especially on Wednesdays and Fridays, while on Tuesdays and Thursdays, they are more likely to travel during super-peak hours. All of our rolling stock and staff are set up to ensure smooth flows at peak times, while we run mostly empty trains the rest of the day. On average, over an entire day, only one in three seats is occupied. As a result, our fixed costs are high, and if we do nothing to address super-peak hours,

they will continue to rise. This is why NS wants to spread passengers more evenly throughout the day. This is also a more sustainable approach.

At present, our fare system does not differentiate between differences in crowds. It makes no difference whether you travel to Amsterdam's Zuidas at 8 am on a Tuesday or to Groningen on a Sunday afternoon, even though, on average, trains are much busier on Tuesdays than on Sundays. This presents us with a dilemma: should we raise the price of train tickets for everyone, or only for passengers who choose to take a crowded train? NS presented a proposal for the second strategy. This would make trains more expensive at busy times and cheaper at other times. Under this proposal, around 80 per cent of passengers would benefit while 10 per cent would be worse off.

The idea is that a new fare system would encourage NS passengers to avoid peak-hour

travel. In such a system, the price would not be determined solely by distance but also by level of crowding. However, NS underestimated the resistance to the peak-hour surcharge, which was generally thought to be unfair. The government decided that the plan should not go ahead. This means that the problem of crowded trains and affordability remains unresolved. The government has instructed NS to consider alternatives.

## **A long-term, more expensive energy contract versus a short-term, more affordable contract**



The current energy contract between NS, the rail sector and Eneco expires on 1 January 2025. NS hopes to sign another affordable, sustainable contract with long-term security and predictable rates. At the start of the tendering procedure, we were in the middle of the energy crisis, partly due to the war in Ukraine. Amid all this turbulence, it was unclear what potential providers would be able to deliver and at what price. However, it did become clear that providers were less willing to take risks, given the high and volatile energy prices. A different risk allocation would mean more financial risks for NS and the sector as buyers. Similarly, it proved almost impossible for us to secure long-term contracts in this turbulent market without incurring considerable risk ourselves. This presented us with a choice: should we commit to a long-term contract with more risk of higher rates or even a failed tender, or should we opt for a short-term contract, with less risk but also less long-term security? Together with the rail sector, NS opted for a short-term contract.

# How NS adds value to society



The Zeeland Line celebrated its 150th anniversary on 8 September. Since 1873, the line and its 11 stations have connected towns and villages in the provinces of Zeeland and North-Brabant with each other and with the rest of the Netherlands.

As a provider of sustainable mobility, NS is committed each and every day to making Dutch society more sustainable. As a major carrier and employer that is inextricably linked with society, NS has a considerable socioeconomic impact. That impact covers many areas and is usually positive, but sometimes it is negative.

In the past, we used to describe our socioeconomic impact using a social impact model. In that model, we translated our positive and negative impact into euros. The model only allowed us to describe our impact on the Netherlands in a limited way. We have therefore decided not to use the model in that form for this annual report, and will instead describe the impact of our business activities from a more holistic perspective. The key question is: what added value do we provide for the Netherlands through our business activities?

## **Offering travel opportunities for all**

Thanks to its comprehensive timetable, complementary transport and attractive stations, NS offers travel opportunities for all. Every single day, over a million travellers use NS to travel to work, school or university, or for a day out. We offer people the freedom to travel whenever and wherever they want and connect family and friends, in the Netherlands or abroad. Time on the train is free to spend. By offering a variety of season tickets and target group tickets, we aim to keep train travel affordable. We provide travel assistance for passengers with disabilities and our trains are becoming more and more accessible.

However, travelling with NS is not always a wholly positive experience. Delays or train cancellations lead to lost time and dissatisfaction. Sometimes people are prevented from fully participating in social and economic life due to faltering public transport facilities. Broken lifts and escalators and various mental barriers mean train travel is not always accessible to everyone. There is also a limit to the affordability of train tickets. Our costs are rising due to high inflation. For the most part we paid those costs ourselves, and did not pass them on in new train fares in 2021, 2022 or 2023. That allowed us to keep the train attractive for everyone, but it created a huge hole in NS's budget.

## **Contributing to a sustainable society**

The world is facing the great challenge of tackling climate change. Public transport is an important part of the solution. Those who decide not to travel by car or by plane save a lot of CO<sub>2</sub> emissions, especially since NS trains run on 100% green electricity on an annual basis. In addition, our new and upgraded trains consume less energy, and our train drivers always drive in an energy efficient manner. We also contribute to a cleaner world with our waste policy and by recycling materials. Finally, as a means of transport, the train is highly efficient in the use of space. We also use our sustainability policy to set an example to our suppliers, and make demands on them too.

At the same time, rail transport itself appears to be responsible for relatively large emissions of particulate matter. We are examining ways of reducing those. NS consumes a lot of raw and processed materials, which we reuse as much as possible; we also produce waste and heat and cool office buildings.

## **Ensuring new, accessible housing and liveable cities**

The Dutch government has decided that 100,000 new houses are to be built every year during the period up to 2030. Those houses have to be climate neutral and accessible, while space is scarce. To get people to use the train in new residential areas, it is important to opt for high-density construction so as to create proximity. This is in line with current urbanisation plans as well as people's wishes. NS is contributing ideas on how to ensure good connections for new housing estates, some of which will be built on its own land. Examples include the Cartesius Triangle in Utrecht and the Spoorzone in Zwolle, where over 4,000 houses are being built in total.

To ensure accessibility for these housing estates in the long term, the residents should have a choice of different modes of transport. In addition to train services, NS will therefore offer its own shared transport options and shared transport options from its mobility partners. However, there is also a negative impact: construction activities for new stations near new housing estates and villages may cause noise nuisance for local residents. It is our task to minimise that nuisance. In addition, residential space cannot be used for other purposes.

The Dutch population will grow by one million residents by 2037. This will cause pressure on the liveability of many areas, on top of the existing challenges in connection with pollution, safety (including road safety) and congestion. Thanks to public transport, cities are becoming more pleasant places to live. High-quality rail connections to and from our cities help to reduce congestion and pollution while improving road safety. Providing such connections, therefore, will remain a key priority for us. In addition, our train services and public transport bicycles help to make cities accessible for everybody – including people who do not have a car.

Our stations also contribute to a liveable and safe environment. Stations are dynamic places where people work, live and travel, they offer a range of facilities and, for example, ‘Station Living Rooms’ that serve as meeting places for the neighbourhood. As a gateway to the rest of the world, our stations serve as the focal point of towns and villages.

## **Contributing to the economy**

As one of the largest companies in the Netherlands, we play an important role in the Dutch economy. For example, we enable people to go to work. The share of train travel in mobility is over 12% (KiM Mobility Assessment 2023). During the COVID-19 period, we all realised once again how indispensable train travel is for keeping the Netherlands moving: we ensured that police officers, nurses and teachers could still go to work.

NS is also an employer itself. We provide jobs for over 20,000 people and invest in training and development opportunities. We are also a social employer: for example, we provide work for refugees and people with limited opportunities on the labour market. We frequently discuss attractive working conditions with the trade unions.

We also have a socioeconomic impact through our own expenditure, which includes the money we spend by purchasing goods and services, making investments and paying salaries. This means, for instance, that we generate jobs at our suppliers. The economic benefits exceeded €1.4 billion in added value for suppliers, or approximately 21,700 jobs (2022 figures).

## **Value creation model**

The value creation model, based on the guidelines of the IFRS Integrated Reporting Framework, guides the structure of this report. In the value creation model, we describe our key resources, such as people, trains and technology. We explain how we add value to those resources through our business activities. We also describe the results from those business activities, as well as their positive and negative impacts.

Each year, NS provides sustainable mobility to millions of passengers in the Netherlands. In doing so, we contribute to the accessibility and economic development of cities and regions, and to the country’s climate goals. In our annual report, we report on the subjects that our internal and external stakeholders feel to be relevant and that enable us to create value for Dutch society. We use our material relevance analysis for this purpose.

## Input

To make our business model work as effectively as possible, we depend on key inputs such as people, trains and technology. As a carrier, we would not be able to function without our people and their knowledge. But other inputs are important too, such as energy (e.g. from wind) for powering our trains.

## Business model

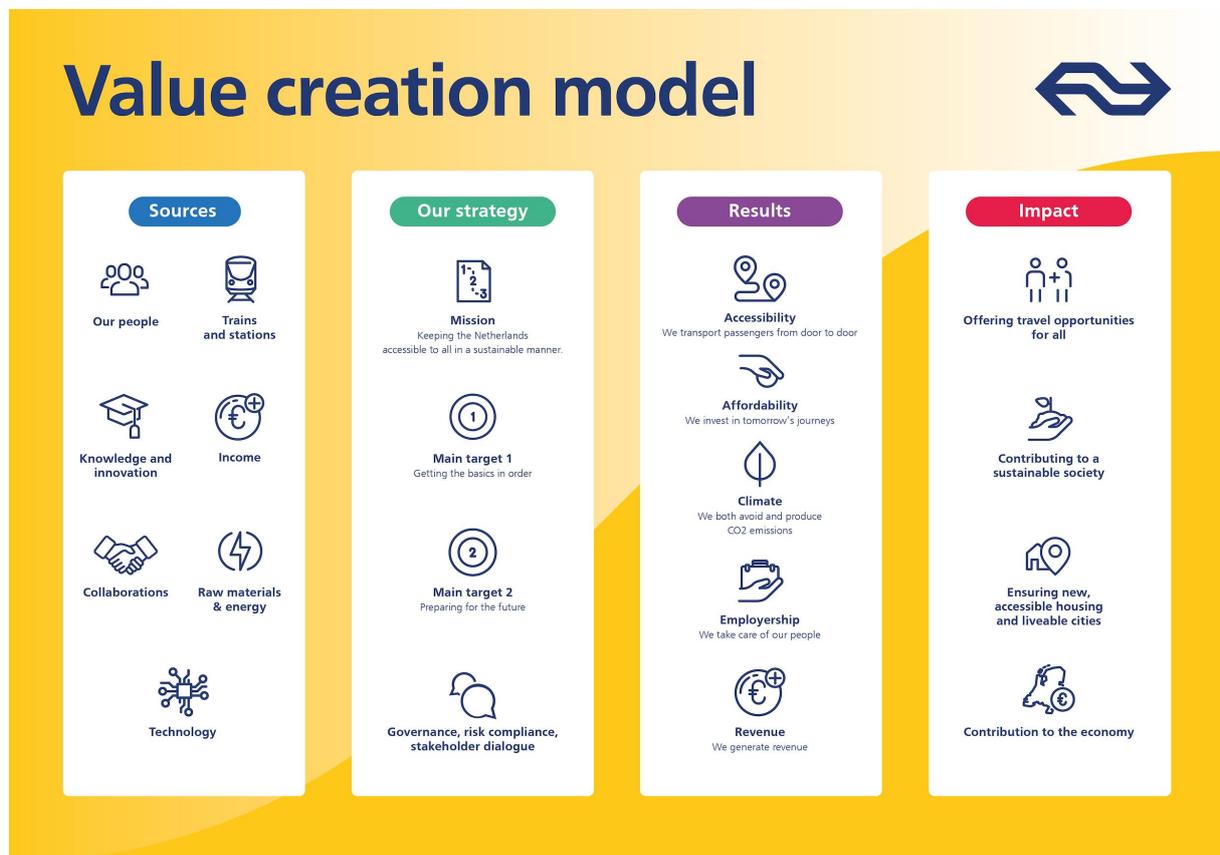
The main foundation of the value creation model is our business model. Our mission, ambition and underlying core activities serve as the input for our [strategy](#).

## Output

The activities in our business model have a variety of internal and external outcomes, such as our financial results. We provide an average of 1,085,000 train journeys per working day, we have high employee satisfaction scores and by far the majority of our trains run on time.

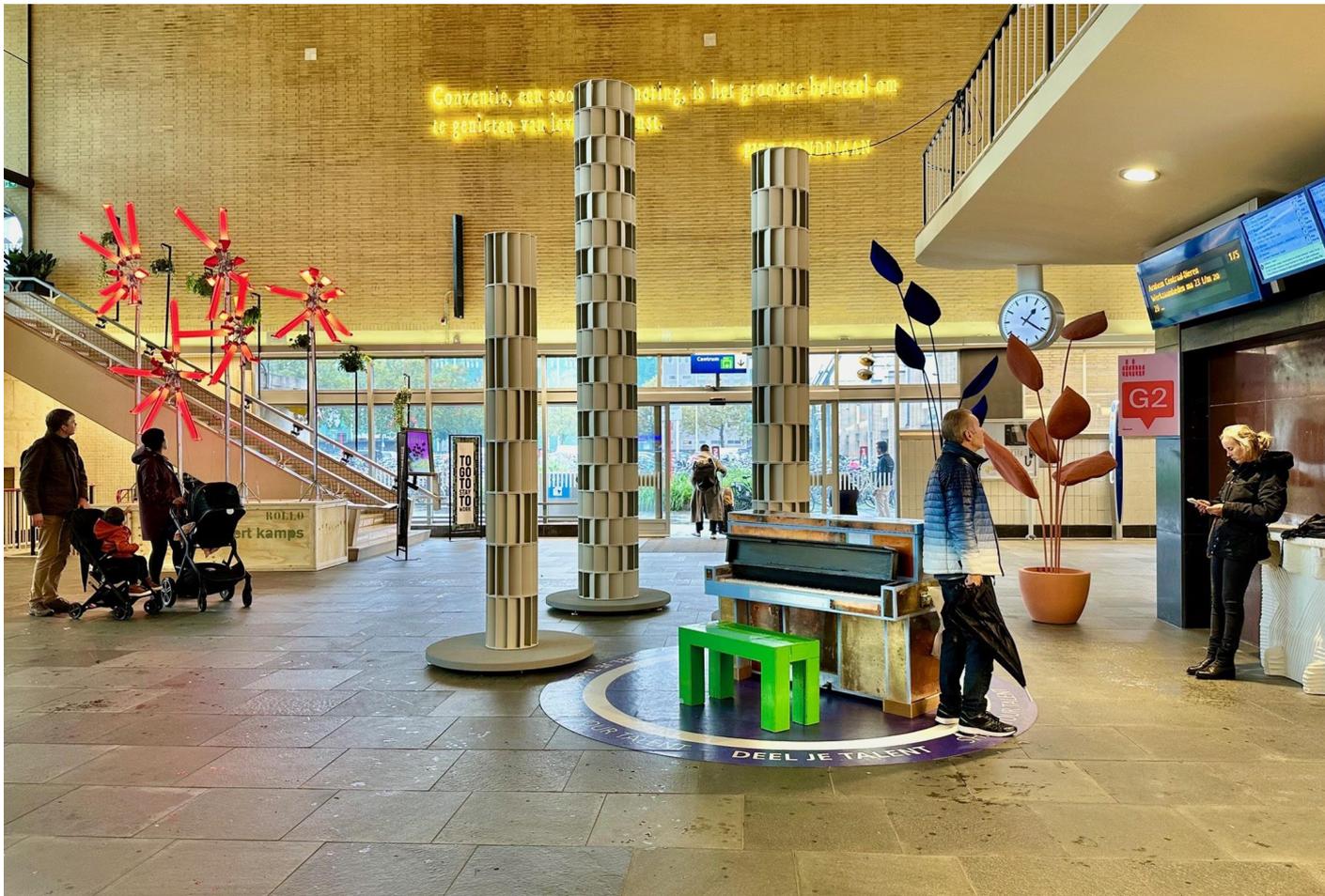
## Our impact

We aim to make a significant positive impact on our environment, given that sustainable mobility can generate huge economic and social benefits for the Netherlands. At the same time, however, we have an environmental footprint, as we use land and raw materials, and our passengers lose time by travelling. If we are to continue facilitating travel in future and keep the Netherlands mobile, it is important for us to understand the effects of our business model on society and to keep using that knowledge as a control parameter. We know, for instance, that the social costs of a train journey are lower than those of a trip by car or plane. We can improve our social return by getting people who would otherwise travel by car or plane to take the train.



# Trends, developments and strategy

# Trends and developments



Passengers at Eindhoven station were able to enjoy new designs and works of art during the Dutch Design Week (DDW) in October.

This chapter describes the demographic, economic, sociocultural, technological, environmental and political developments that have an impact on NS. For our response to these developments, see the chapter entitled [Our strategy](#).

## **Economy cooling off but purchasing power under pressure**

The Dutch economy grew slightly in the second half of 2023, after contracting in the first quarters. Although inflation fell, it remained high at 4.1%. The economy is now cooling off, but households are not yet noticing much of a difference: partly due to inflation, purchasing power has fallen by 1.6% over the past two years. Sustained inflation can have a negative impact on passenger numbers. At the same time, wages in collective labour agreements rose by 6.1% in 2023. This increase is the biggest in 40 years, and twice as high as a year earlier (2.7%).

## **Continuing labour market shortages**

Global commodity shortages combined with high inflation and high energy prices have led to higher costs and delays in all kinds of construction plans. Severe shortages in the Dutch labour market have reinforced this slowdown. Since 2022, there have been more than 120 vacancies for every 100 jobseekers. These labour market shortages have major implications for NS's services. In 2023, we were able to cope with the shortage of train drivers and main guards largely by hiring a substantial number of new staff and by implementing temporary solutions such as deploying office staff on trains. Due to the tight labour market, we still have shortages of mechanics, Safety & Service staff and logistics services staff including managers.

## **Ongoing impact of COVID-19 on travel patterns**

The last lockdown is now almost two years behind us, but many effects of the pandemic have proved to be lasting, including changed travel behaviour. While we have seen passengers return to our trains, their numbers are smaller than before and their travel patterns have changed. While passenger numbers in the weekends have almost returned to pre-COVID figures, on working days numbers are still lower than in 2019. NS has noticed that commuters tend to work at the office on Tuesdays and Thursdays and choose to travel during super-peak hours on those days. Spreading out passengers remains a big challenge.

## **Contribution of sustainable transport to the climate targets**

There is a growing awareness and willingness to combat climate change. Conscious and meaningful consumption is gaining popularity, with consumers seeking to find the optimal balance between convenience and value. The drive for a sustainable society is further supported by pressure from European regulations. The importance of the train as a sustainable mobility solution is obvious. Travelling by train is part of the solution to climate change.

At the same time, climate extremes are becoming increasingly problematic due to global warming. Long periods of heat and extreme rainfall are becoming more frequent and are threatening the railway infrastructure. Such developments call for further investment in climate adaptation and climate mitigation.

## **Population growth and composition of the population**

The Netherlands is expected to have a population of 19 million by 2037; over 1 million more than in early 2022. Population growth has also created a housing construction challenge: between now and 2030, we need to build 100,000 homes every year to meet housing demand. This population growth and the associated housing construction are concentrated in urban areas, increasing pressure on the Randstad conurbation and regional core areas. This housing construction is accompanied by a mobility challenge, since all of these new homes must be easily accessible.

Besides population growth, the composition of the population is changing as average life expectancy continues to increase. By 2040, an estimated 25% of the Dutch population will be more than 65 years old. These developments will have an impact on the size and composition of the mobility demand. Urban areas will see an increase in demand, and one of the possible effects of the ageing population is an increase in social and recreational travel.

## **Developments in the mobility market**

The government and new players in the mobility market have expressed considerable interest in Mobility as a Service (MaaS), the rise of shared transport (shared e-bikes, bicycles, scooters and cars) and the development of innovative concepts such as autonomous collective passenger transport. We are witnessing developments on various fronts: the growing popularity and availability of these forms of transport at the local level, and the proliferation of apps to make them more user-friendly. At the same time, local authorities are aware of the nuisance caused by illegal parking, while private car ownership has hardly decreased and the popularity of shared transport has so far remained modest.

Internationally, there is growing interest in sustainable alternatives and specifically in train travel. This is reflected in the introduction of 'climate tickets' in Germany, Austria and, next year, in France. With the growing desire to travel more sustainably, more and more people are opting for international rail connections. The growing supply of those connections is accompanied by increasing competition on and around the railways.

An increasing amount of infrastructure and station work is expected to be performed in the Dutch railway network over the next few years. Increasingly, such work is carried out during the day. This can be because adjustments are required for climate adaptation or the new train safety system (ERTMS). Another reason is that scheduled maintenance cannot always go ahead due to a lack of staff, trains or nitrogen emission rights. This increase in trackwork is unfortunately going to cause inconvenience to passengers. Together with ProRail, we will make every effort to minimise this inconvenience.

## **Technological developments in and around trains**

Technological innovations in and around trains impact NS and our partners in the rail sector. NS evaluates the opportunities offered by six relevant technological developments: artificial intelligence, 3D printing, 5G, sensorics, extended reality and process mining. These developments can potentially enhance decisionmaking processes, while increasing train speeds and accelerating train maintenance work. The most important technological development is AI. Last year saw plenty of experimentation with generative AI and the implementation of several use cases. This increase in digital capabilities is accompanied by an increase in regulations regarding privacy and data security. Finally, ERTMS and Automatic Train Operation (ATO) should make it possible for more trains to travel on the busy Dutch rail network, which will contribute to shorter travel times and higher levels of safety.

# Our strategy



On 11 September 1883, Vincent van Gogh disembarked at Hoogeveen station to work in the province of Drenthe. Exactly 140 years later, NS handed out sunflowers at the train stations of Assen and Hoogeveen.

'Together, we are making the Netherlands accessible in a sustainable manner – for everyone.' That is our mission, a mission that serves as the compass for our strategy for 2020-2025 and beyond.

Central to our current strategy is the transition of NS to a broad mobility company. With our trains and stations serving as the backbone of our business, we aim to ensure a smooth and comfortable door-to-door journey for all our passengers. This allows them to participate in society in a sustainable way. Our stations are hubs of mobility in a pleasant environment. With our NS App, we offer passengers an easy, attractive and personalised way to plan, book and pay for their journeys. To become a broad-based mobility company, we collaborate with mobility and partial mobility providers, such as TIER bikes and Check scooters. We use innovations to become more agile and data-driven. By sharing data, we can offer passengers multiple travel modalities that connect seamlessly.

## **Major challenges**

We have faced developments in recent years that require agility and continuous adjustment of our organisation. The COVID-19 crisis caused an unprecedented drop in passenger numbers, and travel patterns have changed permanently since then: we are welcoming fewer travellers on Mondays, Wednesdays and Fridays, while peak hours on Tuesdays and Thursdays are much busier compared to other weekdays than before. Weekends are also busier. This leaves NS with an even greater challenge of spreading passengers.

High inflation – combined with a scarcity of raw materials and volatile energy prices – has increased our costs. In addition, budgetary pressures are higher due to increases in maintenance and investments for track upgrades. These financial developments are making it harder for us to keep train fares affordable.

Attracting new staff in a persistently tight labour market remains a challenge. In particular, demand for technically skilled staff is high, making it difficult for us to find mechanics, for instance. Furthermore, public safety on trains and at the stations is deteriorating, partly due to a general decline in standards of public behaviour.

Other challenges include the large number of planned works in the coming years and our financial position: we have been posting negative operating results for years and are facing rising inflation, which we only partially pass on in ticket prices.

## **Getting the basics in order**

NS has anticipated these developments and is fully committed to addressing the consequences of the challenges they bring. For instance, we aim to provide a robust service of superior quality to travellers, ensure that current and future staff enjoy working at NS, attract more passengers and encourage them to avoid peak hours. As a company, we want to be financially sound and keep train tickets affordable.

### **Robust services**

In addition to our commitment to ensuring reliable and predictable train journeys, we are committed to providing our passengers with high-quality services that meet their needs. When train services are disrupted, we respond quickly and appropriately with the right travel information and aim to get everyone to their destinations.

### **A proud and healthy workforce**

We want all NS employees to be able to be proud of their work and of NS, to enjoy doing their work and to realise their potential to the full. We want to attract and retain high-quality professionals and ensure we have enough of them to offer an excellent passenger product.

### **Smart strategies for attracting passengers to trains and stations**

With a range of season tickets and other propositions, we intend to respond as effectively as possible to new passenger needs and travel patterns. We offer various types of season tickets and shared mobility in the app, and dynamic discounts with NS Voordeel, in order to attract more passengers and encourage them to avoid peak hours. Spreading passengers is also good for the climate, as it provides opportunities to use less energy with timetable adjustments.

### **Preparing for the future**

As well as addressing the challenges of today and tomorrow, we focus on longer-term ambitions. The ultimate goal – working together to make the Netherlands sustainably accessible for everyone – remains our central objective. We continue to serve the public interest; because of the housing challenge and increasing congestion in cities, NS aims to play a key role in providing sustainable access to residential areas and places of work. In addition, we remain aware of how important it is to ensure the accessibility of facilities in areas outside the Randstad conurbation.

### **Increasing the socio-economic impact of NS**

We want to further increase our socio-economic impact. First, by keeping the Netherlands sustainably accessible through a nationwide rail network. Even if all cars are electric, trains will still be most sustainable mode of transport for medium-distance journeys (up to 700 km). From next year, we will measure our contribution to a sustainable future more explicitly by monitoring the amount of CO<sub>2</sub> emissions avoided by passengers travelling by train instead of by car.

We are also committed to zero-emission, circular and green operations. NS aspires to achieve full circularity by 2030 in terms of procurement, maximum reuse of materials and zero waste in offices, workshops and trains. Together with ProRail, the Ministry of Infrastructure and Water Management and the Directorate-General for Public Works and Water Management (RWS), we are working on a joint ambition known as Zero Waste Stations 2040. In our operations, we save as much energy as possible and maximise the use of our land and buildings for sustainable energy generation.

However, our impact extends much further than the climate. We aspire to be a company of and for the Netherlands as a whole: an organisation that reflects all parts of society, where everybody feels at home and nobody feels excluded. This is how we contribute to the Paris Agreement and the Convention on the Rights of Persons with Disabilities, and to achieving nine Sustainable Development Goals.

### **International ambitions**

We have strong ambitions to increase our international services: we want to offer faster and more convenient connections between European capitals by providing more frequent services and adding new destinations. The train should become the logical choice for distances up to 700 kilometres. This can be achieved by improving the network, simplifying the booking system and increasing the frequency of services to relevant European destinations.

### **Stations as sustainable mobility hubs and vibrant spaces**

Together with ProRail, we invest in our stations to develop them into sustainable mobility hubs that contribute to a pleasant environment. We want stations to be accessible places for all passengers, where they enjoy smooth transfers and a pleasant atmosphere with excellent facilities, such as our high-quality retail chain stores and Station Living Rooms.

### **Developing a broad range of mobility options**

We continue to develop our own mobility offerings. This includes investment in the availability of public transport bicycles (traditional and electric) in both existing and new locations. We continue to develop the NS App to enable passengers to plan, book and pay for different modes of transport in a single app. In this way, we can offer passengers a complete travel package via the NS App, from their point of departure to their destination. This includes the transport options provided by our partners, such as the services added this year by shared transport providers TIER and Check. We are working hard to offer passengers more shared mobility options through the NS app.

### **Better forecasting**

We want to deploy and use stations, trains and our service and maintenance facilities as effectively as possible. We want to be able to respond faster to disruptions and other high-impact events. Digitalisation and technologies such as artificial intelligence (AI) and Augmented Reality (AR) play an important role in this context. See the [Innovation](#) section for information on how NS uses these technologies.

# Main rail network franchise 2025–2033

In late 2023, NS was officially awarded the franchise for the main rail network by the Ministry of Infrastructure and Water Management. Thanks to this decision, we can continue to offer sustainable rail journeys until 2033 and the Netherlands will retain a strong and coherent rail network. The franchise starts on 1 January 2025. NS is grateful for the trust placed in it. We regard this as an incentive for the over 20,000 NS employees to live up to all expectations. We aspire to offer more than 1 million passengers a comfortable, sustainable and reliable journey every single day.

NS ensured that the Central Works Council (COR) was closely involved in finalising the agreement between NS and the Ministry of Infrastructure and Water Management. We went through an intensive process with a dedicated Central Works Council committee, periodically involving the entire Central Works Council. The Central Works Council provided the capacity, thinking and flexibility that such a process requires. Partly for this reason, NS was able to follow a constructive process to reach a business decision.

The Supervisory Board also had a special, temporary committee during the establishment of the new franchise. The committee was regularly updated by the Executive Board on progress and bottlenecks and assisted the Executive Board by acting as an adviser, touchstone and challenger.

## **Details of the new franchise**

### **Timetable**

The 2024 timetable is the foundation for the schedules that NS will run during the new franchise period. We intend to gradually expand the 2024 timetable based on changes in passenger demand. The franchise includes more night trains and a higher level of service at many stations. We are also running double the number of trains to Brussels with Belgian rail operator SNCB, increasing from 16 to 32. From 2025, the travel time between Amsterdam and Brussels will be reduced by 45 minutes.

From 2025, the AirportSprinter will run eight times per hour between Amsterdam Central Station and Schiphol/Hoofddorp. Other examples of agreed improvements: more trains during off-peak hours between Apeldoorn and Deventer, Intercity trains at 180 km/h on the Hanze Line, third and fourth hourly Intercity services between Breda and Eindhoven and fifth and sixth hourly Sprinter services during peak hours between Hilversum and Utrecht. As soon as the infrastructure is in place, we will launch an Eindhoven-Aachen Intercity service.

International connections to Berlin, Frankfurt, London, Paris and Vienna, among other cities, are no longer part of the new main rail network franchise. NS has notified these open access connections to the Netherlands Authority for Consumers and Markets (ACM) and would like to continue operating them in partnership with DB, Eurostar Group, SNCB, ÖBB and SBB. We are waiting to see which connections will eventually be granted to us.

### **Performance agreements**

A number of the current performance indicators (PIs) have been retained in the new franchise, but for some others the level of ambition has been raised. For instance, the Punctuality PI has been tightened and the Seating Availability PI now distinguishes between peak and off-peak hours. For these two PIs, NS also reports on the five best and five worst-performing arrival stations.

Avoided CO<sub>2</sub> emissions, a new performance indicator, shows how many kilotonnes of CO<sub>2</sub> emissions have been avoided by passengers travelling by train instead of by car. Our own emissions are deducted from this. This PI is a measure of the extent to which train travel contributes to the government's climate targets. NS has undertaken to avoid at least 534 kilotonnes of CO<sub>2</sub> emissions per year. As regard overall customer satisfaction, we have agreed that from 2025, NS should achieve an average mark of at least 7.5 for its level of service every year.

### **Fares**

NS was keen to include in the franchise the possibility of setting the price of a train ticket based on time of day, distance, expected level of crowding, travel class and train speed. We believe this is an effective instrument to spread passengers. Under our proposal, train fares for average passengers are lower: affordability is our primary objective. For 80 per cent of passengers, train tickets would become cheaper. While some journeys would become more expensive, others would become cheaper. Our proposal was not intended to increase our profits. There appeared to be no political support for this new approach. However, peak-hour congestion remains an urgent issue and NS will continue to engage with stakeholders on options to spread passengers in other ways.

### **Working together**

One way of ensuring the success of the new main rail network franchise is to forge partnerships. Along with its key partners, NS is drawing up a cooperation strategy covering door-to-door travel, timetables, infrastructure investment, travel information and regional mobility issues, among other matters. NS will present the results of this strategy in the Transport Plan (*Vervoerplan*).

### **Grant instead of fee**

The franchise agreements were signed at a financially challenging time. NS has been struggling with lower passenger numbers since COVID-19. Instead of a fee paid by NS, the Ministry of Infrastructure and Water Management will pay a subsidy of €13 million per year over the term of the new franchise. Our shareholder, the Ministry of Finance, has accepted a lower expected return from NS. NS, the Ministry of Infrastructure and Water Management and the Ministry of Finance all worked together to bring the new franchise into being. However, the new franchise will demand a lot from NS, both operationally and financially.

## **Innovations**

In order to be and remain relevant for Dutch society, we are working hard to further optimise our performance. At the same time, we are focusing on the future. Innovations help us to make train travel more attractive and to make our employees' work more effective and more fun. We are also facing several major challenges where innovations can help. For instance, travel behaviour has changed dramatically since the COVID-19 pandemic. In addition, we will continue to be facing staff shortages in the coming years, there is a huge sustainability challenge to tackle and our financial situation is under pressure.

### **Innovation involves NS as a whole**

We will continue to innovate in all business areas. In this way, we aim to improve our passengers' journeys and to make the work of our employees easier and more enjoyable. Here are some of the most significant innovations.

- Since 2023, we have doubled the capacity of Amsterdam Bijlmer ArenA station to 25,000 train and metro passengers per hour during large-scale events. We achieved this using data-driven crowd management technology. This makes it even safer for event-goers to travel to and from the Bijlmer ArenA by public transport, and they can get home 30 to 60 minutes faster. We have also successfully implemented station crowd management for other major events, such as the Formula 1 Dutch Grand Prix in Zandvoort, the Nijmegen Four Days March, King's Day and Liberation Day.
- With the model we have developed, we can inform passengers about the number of available public transport bicycles at the time of their planned journey up to two days before they travel.
- We are also continuously working on digitalising certain inspections. We take photos of passing trains at two fixed locations in the infrastructure. We use the images for inspections of pantographs and wheelsets. The high-resolution images and the possibility to zoom in on details allow for better-quality inspections than can be achieved by a mechanic at night. We also look for opportunities to move work from night-time to day-time hours. These types of innovations allow us to make our employees' work easier and more enjoyable.
- We are increasingly confronted with illegal copies of electronic day tickets, particularly Young Person's Day Tickets. Thanks to a new way of working introduced in 2023, e-tickets offered on social media are blocked pre-emptively. By blocking e-tickets earlier, we prevent fraud, increase public safety for employees and passengers and increase our revenue.
- Over the past year, the use of artificial intelligence helped NS to improve its passenger forecasts and personalise marketing activities. In the future, we will also use artificial intelligence to improve the scheduling of rolling stock.

- The potential applications of 3D printing are becoming increasingly apparent. In collaboration with train manufacturer CAF, we are using 3D printing in the production of the new-generation double-decker trains. In 2023, we collaborated with various partners and invested in using a variety of materials, such as metal, for 3D printing. These steps contribute to a more sustainable world by reducing inventory and our dependence on external production chains.
- NS focuses on extended reality, including virtual reality, augmented reality and mixed reality. We are exploring the use of augmented reality glasses for remote technical support for mechanics. Through an interactive 3D model, virtual reality is part of employee training. In addition, for the students at the TechniekFabriek, we have developed an app that shows important but invisible parts of the climate control system in our trains. We use virtual reality to assess station renovation projects and make them more efficient.
- In the Automatic Train Operation (ATO) programme, we examine the potential significance of automated train driving for railway capacity, operational processes, safety and sustainability. We are studying this in collaboration with the railway sector and train drivers. For example, last year we set up a control centre in Zwolle from where train drivers can run automated train driving tests in shunting processes. The trains are controlled from Zwolle to perform shunting processes in the De Vork shunting yard near Groningen. This improves our insight into the interplay between people (train drivers) and machines (ATO).
- NS is exploring opportunities for 5G with parties including ProRail and the Ministry of Infrastructure and Water Management. Together, we launched the Rail FieldLab 5G in Amersfoort, which will open in 2024. In this facility, we are creating a physical 5G environment where the rail sector can run experiments with 5G.

## Innovating with others

NS wants to make the Netherlands accessible for all in a sustainable manner, but cannot do so on its own. This is why we are partnering with many other actors, including research universities and universities of applied sciences, as well as other players in the railway sector, such as ProRail and DB. To maximise our impact, combine our strengths and learn from each other, we are also participating in various multi-year programmes that aim to accelerate innovations:

- Together with ProRail, NS is a core member of Europe's Rail Joint Undertaking, a European research and innovation programme. This partnership, run by the European Commission and the European railway sector, provides grants to stimulate innovation in the railway network. Its purpose is to improve the interconnectivity of the various European rail systems, facilitate rail transport capacity growth after 2030 and make rail transport a more affordable and attractive proposition.
- The Stichting Kickstart AI foundation was set up to accelerate the adoption of artificial intelligence (AI) in the Netherlands. The partners in this initiative – AholdDelhaize, KLM, ING and NS – are convinced that AI is going to have a huge impact and that it can potentially make a positive contribution to society.
- The investment fund SHIFT Invest is an important tool to help accelerate innovations within NS. Since its incorporation, we have invested in 14 startups and introduced 11 startups to various business units.

Our activities and  
achievements in the  
Netherlands

# Overview of franchise indicators



In December, passengers could send Christmas cards from various stations in the Netherlands.

NS uses a range of indicators to measure the quality of its services on the main rail network and the high-speed line. Our key priorities include transporting passengers responsibly, safely and comfortably and keeping our staff safe.

## Performance indicators

Performance	Realisation in 2023	Realisation in 2022	Target value for 2023	Minimum value for 2023
Overall customer satisfaction score for main rail network*	-	7.7	7.5	7.3
Overall customer satisfaction with HSL services*	-	7.6	7.4	7.2
Customer satisfaction with public safety*	-	8.1	7.9	7.7
Punctuality for passengers (to 5 minutes) on the main rail network	89.7%	91.6%	91.5%	88.9%
Punctuality for passengers (to 15 minutes) on the main rail network	97.0%	97.3%	97.4%	96.7%
Punctuality for passengers (with a 5-minute margin) on the HSL	73.6%	82.0%	84.2%	82.1%
Quality of connections to other carriers	93.8%	95.5%	95.6%	94.0%
Seat availability at peak times (main rail network)	94.7%	96.6%	95.5%	94.3%
Seat availability on HSL at peak times	94.3%	98.0%	94.9%	91.2%
Number of crowded peak-hour trains per working week	94	51	100	110
User-friendly travel information	81.2%	81.7%	68.5%	65.0%

\* The overall customer opinion will be measured by the Public Transport Customer Barometer and published in late February 2024.

COVID-19 measures were in force for part of 2022, which affected public transport.

The indicator 'Punctuality for passengers (with a 5-minute margin) on the HSL' did not rise above the minimum value in 2023. Major causes include the temporary speed restriction at Rijpwetering and train cancellations due to the availability of rolling stock. NS and ProRail are doing all they can to improve performance on the HSL. The indicator 'Quality of NS connections to other carriers' also failed to meet the minimum value in 2023. This was partly due to the lack of punctuality of international trains from Germany, which were late entering the Netherlands. In addition, goods trains diverted due to trackwork in Germany caused disruption to passenger trains. NS is in talks with the Ministry of Infrastructure and Water Management with regard to its performance.

### Main rail network franchise for 2015–2024

The State Secretary for Infrastructure and Water Management awarded the rail transport franchise for the main rail network to NS in December 2014. The franchise runs from 1 January 2015 for a term of ten years. NS prepares an annual transport plan for the year ahead. In that plan, we link our aims and objectives to specific actions and performance indicators for the coming year. Definitions of the KPIs and descriptions of the measurement and calculation methods used can be found in the [2023 Transport Franchise Definitions](#) (in Dutch).

# Customer satisfaction

To provide a high-quality passenger experience, three core needs of passengers must be satisfied: they must feel that they have control over their journey, are free to make their own choices and are appreciated. We meet these core needs by providing high-value and personalised services.

## Customer satisfaction with the main rail network and the high-speed line

Since 2021, we have measured general customer satisfaction levels using the Public Transport Customer Barometer (OVKB). The figure for 2023 will be published on the [CROW](#) website in late February 2024.

### IT outage at ProRail in June

On 4 June, there was a failure in the ICT systems of ProRail's traffic control centre in Amsterdam. As a result, from 5 pm on that day until 9 am on Monday 5 June there were very few train services to or from Amsterdam. Despite the efforts of staff from NS, ProRail and our partners in the chain to fix the problems and assist passengers, the impact of this disruption was huge. Many passengers were unable to travel or did not arrive at their destinations. Around 4,000 passengers were stranded in Amsterdam, Utrecht, Rotterdam, The Hague or at Schiphol on the night of 4–5 June. This was obviously far below the level of service that passengers are entitled to expect from us. NS and ProRail have evaluated the events and are taking measures.

Both will implement improvements to reduce the risk of a recurrence, improve forecasts, resolve IT failures faster and inform and accommodate passengers more effectively.

### Clean trains

Passengers expect to travel in a clean train and are dissatisfied when they find the train to be dirty. Unfortunately, in 2023, both the interior and exterior of the trains were not always clean. This was partly due to the limited availability of cleaning staff and of the staff who take trains to the right place for cleaning, prepare for work to be done on a train or manage the logistics. We are also struggling with yards that are full to capacity, while several train-washing facilities are in need of an upgrade. Labour market shortages in the cleaning industry will remain a challenge in the years ahead. Together with our cleaning partners, we made a commitment to hire and retain more cleaners. This resulted in an increase in available capacity from September. Since then, we have been cleaning more often and in a more targeted way within the timetable.

### Customer service and social media interaction

In 2023, 74% of customers gave our Customer Service department a score of 7 out of 10 or higher (2022: 77%). Major disruptions in train services and higher passenger numbers compared with 2022 put additional pressure on Customer Service. Because of our desire to support our passengers as much as we possibly can, we decided to invest in self-service solutions. Examples include the implementation of a chatbot and the automated handling of refund requests in the event of delays.

Average number of contacts per month	Social media	Email	Chat	Telephone
	42,618	23,130	49,331	184,286

## Refunds in the event of delays

In 2023, NS refunded passengers when delays occurred and reimbursed the costs of alternative transport, taxi fares and hotel accommodation. Occasions in 2023 when NS compensated passengers included the outage at ProRail's traffic control centre. In total, NS accepted 288,345 refund claims due to delays in 2023 (totalling €3.1 million). Compensation for alternative transport, taxi fares and hotel accommodation was granted in 142,175 cases (totalling €3.6 million)

# Accessibility

NS wants travel in the Netherlands to be possible, affordable and sustainable – always and for everyone. This includes passengers with a disability. An accessible train journey is a basic passenger need. Therefore, accessibility is now an integral part of our design processes for new trains and we work with stakeholder organisations to further develop accessibility products and services. Since 2023, we have offered travel assistance for passengers with a disability at all stations made accessible by ProRail with a lift or ramp, where NS trains stop and where conditions on the platform allow. This covers 98% of the stations served by our trains. Travel assistance is available to passengers who need help getting on or off the train, changing trains or navigating through the station. We also made travel information more comprehensible in 2023: passengers who have difficulties processing information will find a special button on ns.nl for information in plain language.

As in 2022, broken lifts sometimes caused accessibility issues for passengers with disabilities. ProRail tries to fix breakdowns as quickly as possible. NS Customer Service looks at each situation to see how alternatives can be provided so travellers can still use the train.

All new ICNG trainsets have a sliding step for accessible boarding, wheelchair spaces in the passenger compartment and a wheelchair-accessible toilet. By the end of 2023, 40 of the 45 VIRM 2/3 trainsets had been upgraded and fitted with wheelchair-accessible toilets. By the end of December, all trains had toilets, of which 74% are wheelchair-accessible toilets meeting EU requirements.

# Operational performance



During Lost Cuddly Toy Week in December, NS aims to reunite all found cuddly toys with their owners.

Operational performance was below par for 2023 as a whole. Due to disruptions, train cancellations, more frequent withdrawal of rolling stock and reduced seat availability, passengers often did not get the service they are entitled to expect from us, especially in the second half of the year.

The disappointing performance can mainly be attributed to three separate causes. First, the temporary speed limits on the high-speed line (HSL) near Rijpwetering (South Holland), due to construction defects in the viaduct. For almost all of 2023, the maximum speed on this stretch was 80 km/h instead of 300 km/h. This had a major impact on the HSL timetable, which also affected the main rail network.

Second, fewer trains were available. As maintenance companies struggled with limited infrastructure capacity and shortages of mechanics and shunters, it took longer for trains to get back on track.

From spring 2023 onwards, there was also a shortage of trains on the HSL. This was mainly due to the delayed arrival of the new ICNG trains combined with the scheduled return of Traxx locomotives due to expiring leases. Furthermore, the ICNG trains – as might be expected when introducing new rolling stock – had teething problems. From September onwards, train availability improved, but we still faced frequent stoppages and disruptions.

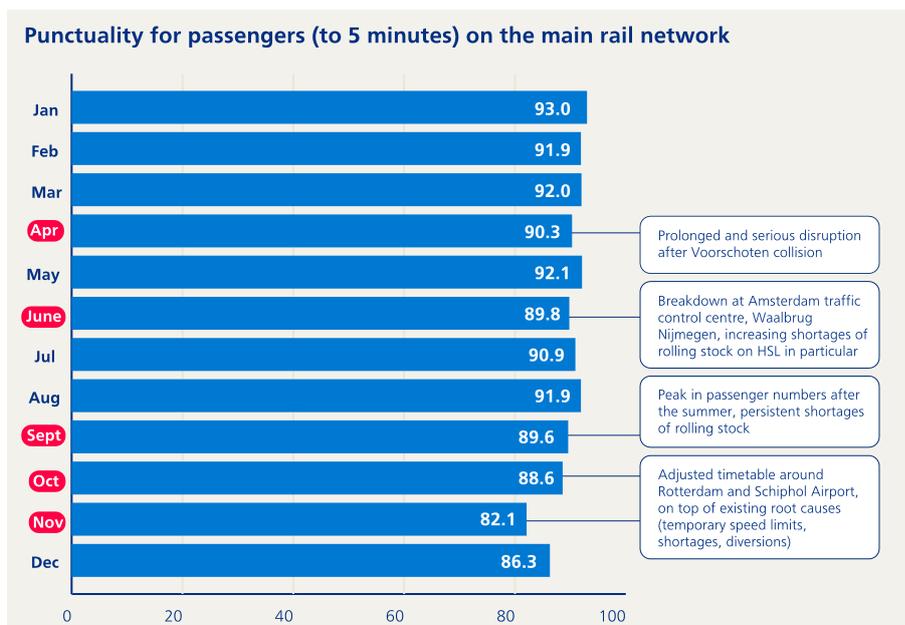
Extensive trackwork also had a major impact on performance last year. For example, at Gouda, Rotterdam and Schiphol Airport, NS was confronted with significant reductions in infrastructure availability. In addition, many freight trains were diverted via routes in North Brabant due to trackwork in Germany. These diversions caused delays, especially for the Intercity connection between The Hague Central Station and Eindhoven and on the Brussels Intercity route.

Other events that had a significant impact included stoppages due to badgers burrowing under the tracks and the IT outage at ProRail's traffic control centre in Amsterdam.

## Punctuality

Passengers attach great importance to reliability of service. This reliability is evidenced by the punctuality of trains. For passenger punctuality, we measure the difference between the scheduled and actual arrival time of the journey. Passenger punctuality is particularly affected by arrival punctuality, cancellations and missed transfers. In 2023, passenger punctuality was lower than in 2022. One of the reasons for the decline was an increase in crowding on trains. To avoid unplanned train cancellations and better match available staff to the changed passenger numbers after COVID-19, NS runs a timetable with fewer trains. Moreover, the delayed arrival of the ICNG trains and the foreseeable teething problems when those trains were put into service, coupled with the necessary return of TRAXX rolling stock, reduced train availability. The speed restriction at Rijpwetering and various trackworks also had a big impact on punctuality. The sum of these factors made us increasingly unable to cope with delays. Classic causes of temporarily lower punctuality, such as crowded trains after school holidays and seasonal effects in autumn, had much more impact than usual.

<b>Performance indicator</b>	<b>Realisation in 2023</b>	<b>Realisation in 2022</b>	<b>Target value for 2023</b>	<b>Minimum value for 2023</b>
Punctuality for passengers (to 5 minutes) on the main rail network	89.7%	91.6%	91.5%	88.9%
Punctuality for passengers (to 15 minutes) on the main rail network	97.0%	97.3%	97.4%	96.7%
Punctuality for passengers (with a 5-minute margin) on the HSL	73.6%	82.0%	84.2%	82.1%



The above charts show that punctuality figures were much lower in the second half of 2023 than in the first half of the year.

## Seat availability

Performance indicator	Realisation in 2023	Realisation in 2022	Target value for 2023	Minimum value for 2023
Seat availability at peak times (main rail network)	94.7%	96.6%	95.5%	94.3%
Seat availability on HSL at peak times	94.3%	98.0%	94.9%	91.2%
Number of crowded peak-hour trains per working week	94	51	100	110

This indicator shows the chance of a passenger having a seat throughout their journey if they board at a peak time. At the beginning of the year, we were able to adjust timetables and train lengths quite effectively to meet passenger demand, despite lower availability of main guards. From April onwards, by deploying office staff as ‘train assistants’ we were able to address the shortage of main guards on long trains. By the end of 2023, we had largely solved the shortage of main guards.

Furthermore, especially on days with busy events, such as Carnival, seat availability during peak hours was low. Seat availability was also low in connection with major train withdrawals causing restrictions in peak-hour transport capacity, such as between Gouda and Rotterdam and Rotterdam/The Hague in the autumn, and during large-scale disruptions to train services. Examples include the stoppage on the Den Bosch–Eindhoven section due to badgers burrowing in the railway embankment, and the accident at Voorschoten station. In both cases, it proved impossible to provide sufficient additional capacity on the alternative route.

Particularly in June and early September, the withdrawal of trains from the timetable seriously reduced seat availability. Using dedicated mathematical models, we distributed the available trains during those periods in a way that minimised the number of minutes for which passengers had no seat.

**Seat availability on the HSL**

The HSL had a relatively poor performance in 2023, with many delays and train cancellations (see also Passenger punctuality). As a result, the scheduled rush-hour capacity was not always achieved and a relatively high number of passengers had to stand at peak times.

During the long-term stoppage of train traffic between The Hague and Leiden, and during the major works around Gouda (July) and Rotterdam (October/November), the high-speed line often served as a logical and quick alternative route for many passengers. However, the HSL had very little extra capacity for this, as train frequencies on the line had already reached their maximum. This often led to reduced seat availability.

The new ICNG trains to replace the old Traxx trains started to arrive in 2023. The transition did not go as planned: the arrival of several ICNG trainsets fell behind schedule, while some of the old ICR trains were reaching the end of their useful life. As a result, single ICNG trainsets with five or eight carriages were regularly used in the autumn to replace the old Traxx trains, when double ICNG trainsets of ten or thirteen carriages were actually needed to cope with the volume.

**Number of crowded peak-hour trains per working week**

This indicator measures the number of trains occupied above the ‘full’ standard. This means that all regular seats are occupied and four passengers per square metre are standing in the vestibules. When passenger demand and train availability are well matched in terms of scheduling and execution, there are few ‘crowded trains’, if any. In 2023, the average number of crowded peak-hour trains per working week was 94.

**User-friendly travel information**

<b>Performance indicator</b>	<b>Realisation in 2023</b>	<b>Realisation in 2022</b>	<b>Target value for 2023</b>	<b>Minimum value for 2023</b>
User-friendly travel information	81.2%	81.7%	68.5%	65.0%

NS aims to give passengers more control over their door-to-door journey and more freedom of choice, irrespective of the means of transport or the carrier. High-quality travel information plays a key role here. 'User-friendly travel information' is a performance indicator we use to show the extent to which passengers have been provided with correct and timely information about platform changes, delays and train cancellations, and whether they received timely advice on alternative routes in the case of serious delays.

Good travel information is particularly crucial when a journey plays out differently due to an unexpected event, such as a disruption or withdrawal. Travel information has to be correct and up to date, so that passengers can make better choices both before and during their journey. Every year, NS sends millions of travel advice messages about rail travel, trackwork and disruptions.

Since 2023, passengers have been able to find additional information on our travel information boards, for example about the length of the train, the direction of travel and, if applicable, train sections that will remain at the station or be added. This allows passengers to line up better on the platform and board faster. Our evaluation shows this additional information has been successful. For international trains, all platform displays now show which letter signs the train will stop at, plus the relevant carriage numbers.

Furthermore, last year we added public transport bicycles, GreenWheels and TIER electric share bikes to 'In de Buurt', the map feature in the NS App and on the NS website. The NS travel planner has been expanded to include public transport bicycles and – for business users – TIER electric share bikes.

Since 2023, the 'Activate notifications' feature in the NS App provides transfer recommendations and notifications if passengers are likely to have to stand due to crowding. A pilot is also underway at six stations to guide users to parts of the train where they are most likely to find a seat.

## Withdrawal of trains from the timetable

In 2023, each day NS withdrew an average of 17.7% of its trains for maintenance, repairs and refurbishment. The logistical withdrawal of trains has increased due to shortages of maintenance and repair mechanics, shunters and managers, among other reasons. To increase the number of seats for passengers, we aim to reduce the number of train withdrawals. To this end, we are implementing measures to speed up maintenance and repairs, such as the introduction of camera inspections, 'first-time-right' repairs and network teams to handle repairs locally so trains do not have to go to a maintenance site first. By recruiting and training mechanics, we are expanding the pool of new mechanics and making it possible for our current mechanics to be deployed more flexibly.

## Collaboration in the context of scheduled and unscheduled withdrawals

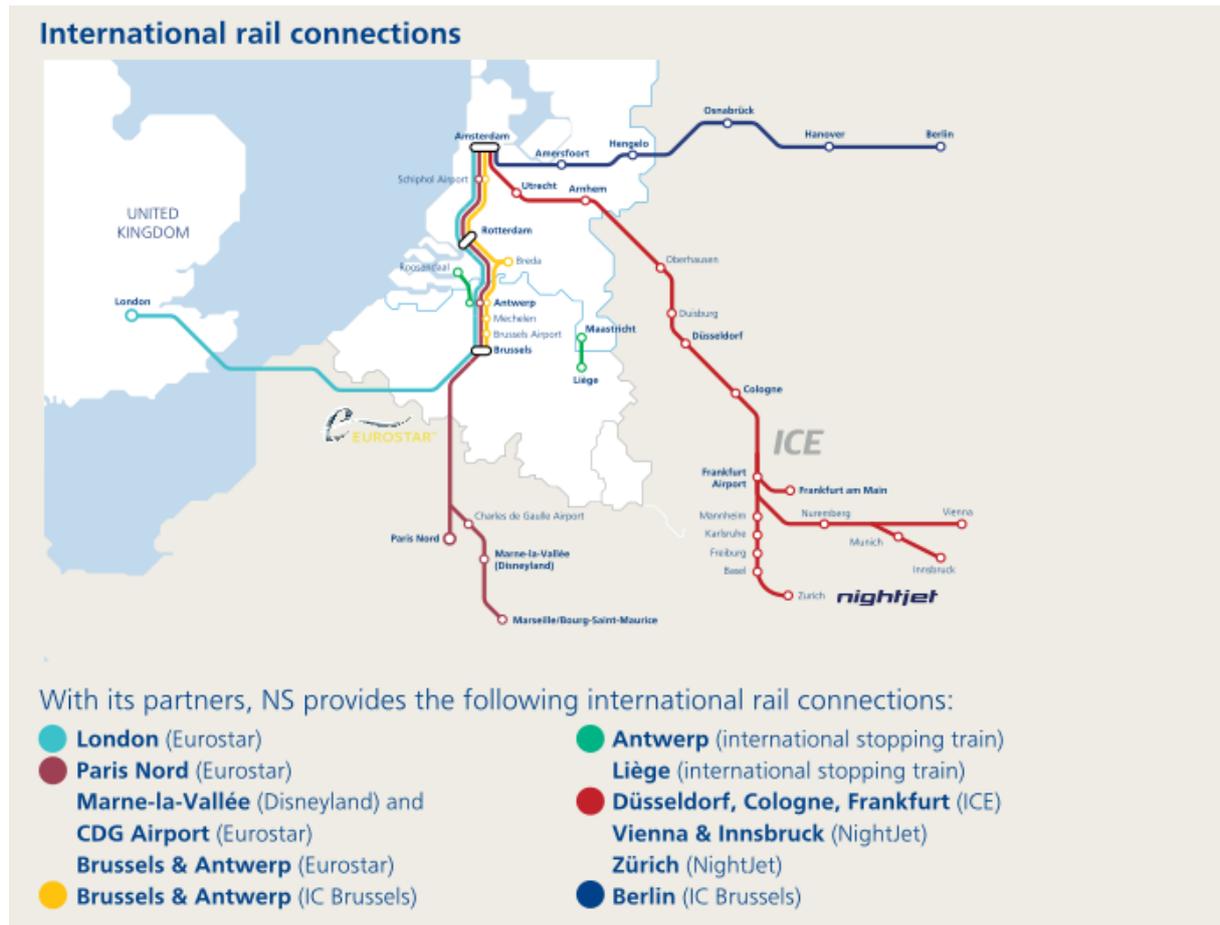
Track maintenance and retrofitting require train cancellations. ProRail and NS work together closely to minimise disruption and implementation costs. This is a huge challenge, especially given the combination of increased maintenance requirements, ambitions within the sector that require more infrastructure, increasing rail congestion, contractor capacity shortages and high cost pressure. The availability of alternative transport and capacity on alternative routes are also coming under increasing pressure.

Under the direction of ProRail, NS helped to streamline train withdrawals last year, for example during trackwork at Rotterdam, and trackwork at Amersfoort in 2024.

## International connections

Our ambition is to make international trains the logical preferred option for distances of up to around 700 km, irrespective of the carrier, and to make night trains the sustainable option for journeys in excess of 700 km. In 2023, we worked towards this ambition by improving travel information before and during international train journeys. Passengers now also have more opportunities to change or cancel tickets online. We also prepared for the arrival of new trains on routes between the Netherlands, Belgium and Germany.

In cross-border train services, NS International works with SNCB, Deutsche Bahn, ÖBB, SBB and Eurostar, connecting the Netherlands with major cities and regions in Belgium, Germany, France, Austria, the United Kingdom and Switzerland.



## Increase in international journeys

International train travel has been growing in popularity for years. In 2023, the number of international tickets sold was up 15% compared with 2022. International trains are becoming more crowded as more and more passengers want to travel sustainably. This is why, last year, we focused particularly on ensuring travel comfort and increasing the safety of passengers and staff. In doing so, we focused on improving self-service and travel support on international trains. This also meant that we did not launch any new train connections or add destinations to our booking system in 2023. In addition, we made seat reservation on ICE International journeys mandatory between 17 June and 18 August 2023. We also anticipated high passenger numbers on the IC Brussels by letting passengers with cheap Early Bird tickets choose a specific train. This is not a seat reservation, but it does ensure that passengers can only take the train for which they have purchased a ticket.

## Eurostar

Following the merger of Thalys and Eurostar, announced in 2019, it was revealed in early 2023 that the two carrier brands would continue as Eurostar from 1 October 2023. After 27 years, the Thalys brand now operates services to London, Brussels and Paris under this new name. The thalys.com and eurostar.com websites have merged into the new eurostar.com website and app. The underlying sales systems have been integrated.

In June 2023, it emerged that the rebuilding of Amsterdam Central Station for the purposes of the High-Frequency Rail Programme (PHS) would disable the secure departure process for Eurostar passengers from Amsterdam to London for some time. This is undesirable both for passengers and for the development of international train travel. All parties involved (Eurostar, NS, ProRail and the Ministry of Infrastructure and Water Management) spent months looking for a way to continue secure Eurostar departures without interruption. They did not find a solution. From June 2024, therefore, the terminal will close for about six months – which is less time than originally planned. However, it will still be possible to travel to the UK from the Netherlands, with transfer and check-in and border controls at Brussels South station. For passengers travelling from London to Amsterdam, three direct connections remain.

Travel time reduction, capacity expansion and enhanced travel comfort on Eurostar services from Amsterdam Central station to London and vice versa is part of 'Services to boost cross-border rail', an EU pilot initiated by DG Move.

The Eurostar's service quality is affected by the quality of the HSL at Rijkswetering. Due to soil conditions, speed restrictions were in place all year, affecting both the Eurostar and IC Brussels. It is not clear how long these restrictions will last. Since the end of January 2024, speed restrictions have been in place at several places on the HSL due to cracks in bridges and viaducts.

## IC Brussels

Last year, we prepared for the introduction of the IC Brussels with new trains from Alstom (ICNG-B). Starting in the autumn, several train tests were carried out on the Dutch and Belgian sections of the high-speed line. The ICNG-B is authorised in the Netherlands and Belgium. In August, we announced that, together with SNCB, we intend to offer faster (200 km/h instead of 160 km/h) and more frequent (from 16x a day to 32x a day) services between the Netherlands and Brussels. We will then run 16 times a day from Amsterdam to Brussels with 45 minutes less travel time, and 16 times a day from Rotterdam to Brussels. We are recruiting new staff for the doubling of the frequency of the IC Brussels. In doing so, we are committed to a mix of internal advancement and new staff.

## IC Berlin

The travel time for IC Berlin services between Amsterdam Central Station and Berlin has been reduced by 30 minutes, effective 10 December 2023. This reduction was made possible by deploying a new locomotive, adjusting the timetable (which included reducing the number of stops) and improving the infrastructure at Oldenzaal. We acquired Vectron locomotives last year that made the locomotive changeover at Bad Bentheim redundant. Since 10 December, the IC Berlin has had an additional first-class coach to replace the outdated bar coach. In 2023 NS, DB and Talgo examined and coordinated the authorisation process for new carriages (purchased by DB) in the Netherlands.

## ICE

NS and DB are making every effort to speed up the replacement of the current ICE trainsets. DB's new ICE BR 408 has been operating in Germany since 2023, and the first tests for authorisation in the Netherlands have been conducted. The introduction of new ICes represents a significant step forward in passenger comfort, improves operational performance and will ultimately ensure a more reliable timetable.

## Night trains

Together with its partner ÖBB, NS operates two night trains: via Germany to Innsbruck/Vienna and via Germany to Zurich. The operational performance of night trains came under pressure in 2023 due to large-scale trackworks in Germany. In 2023, night trains remained quite popular.

## Regional cross-border transport

NS worked with its partners Arriva and SNCB to create the Liège-Maastricht-Aachen three-countries connection by December 2023. Due to delays in the authorisation of Arriva trains, this target was not achieved. The three-countries connection is now expected to be launched in the first half of 2024.

## 2024 timetable: 1,800 additional trains

When the 2024 timetable takes effect, NS will run 1,800 additional trains per week. The new timetable is more aligned with the new travel behaviour of passengers since COVID-19. For instance, there are now fewer train passengers on Fridays, while off-peak and weekend passenger numbers are already back at pre-COVID-19 levels. Tuesdays and Thursdays have become busy commuter days. NS expects to be able to serve more passengers with this timetable.

Frequencies between major cities have returned to four Intercity trains per hour, including on weekends and during off-peak hours. In addition, we have increased the number of connections on popular routes. For example, the Intercity direct service on the high-speed line between Breda and Amsterdam is back. At quiet times, NS runs fewer Sprinters on a number of routes.

# Door-to-door journeys



In May, NS and ProRail made more than 75 wishes of rail and train enthusiasts come true. During the Spoorwensdagen (railway make-a-wish days), they are treated like real VIPs.

Passengers usually set out by bicycle, sometimes on foot, or by car or another form of public transport. The station itself is seldom their final destination. In collaboration with our partners, we want to offer passengers facilities that meet their need for a seamless and reliable door-to-door journey.

# Quality of NS connections to other carriers

Performance indicator	Realisation in 2023	Realisation in 2022	Target value for 2023	Minimum value for 2023
Quality of connections to other carriers	93.8%	95.5%	95.6%	94.0%

This performance indicator is closely related to the arrival punctuality of NS trains and is largely affected by the same developments and causes as the [Passenger punctuality](#) KPI. The poor result is partly due to international trains from Germany entering the Netherlands behind schedule. In addition, prolonged works in Germany made it necessary to divert a great deal of freight traffic from the Betuwe Line to the Brabant Line. Due to frequent delays, these freight trains caused disruption to passenger trains.

## Seamless travel

In order to keep rail travel a convenient and attractive option, we are investing in seamless door-to-door journeys.

### Bicycle parking

A large proportion of train passengers cycle to the station. We offer supervised parking spaces for around 198,000 bicycles (2022: 199,800), over 328,000 unsupervised parking spaces (2022: 305,000) and 10,400 bicycle lockers at stations (2022: 11,400). The latter decrease is because we are replacing bicycle lockers and other distribution points with so-called abris (recognisable parking and distribution structures) and carousels. In collaboration with municipalities and the Ministry of Infrastructure and Water Management, ProRail and NS Stations are developing facilities where train passengers can park their bikes easily and without hassle. For example, we offer free bicycle parking for the first 24 hours in 88 facilities (2022: 81), direct passengers to vacant parking spaces using digital signage, enable passengers to check in and out using their public transport smart card (OV-chipkaart), and have a uniform, recognisable house style for bicycle parking. In 2023, we opened upgraded bicycle parking facilities at Amsterdam Central Station: 7,000 spaces in the Stationsplein parking facility and 4,000 in the IJboulevard facility.

### New check-in and check-out zone

In 2023, we rolled out more new check-in and check-out zones in staffed bicycle parking facilities. The special bicycle tag or the OV-chipkaart allow passengers to check in and out automatically and park their bicycles faster and with less hassle. Staff at the parking facility also have more time to serve passengers. Passengers at the Zuidplein and Mahlerplein bicycle parking facilities at Amsterdam-Zuid, the Amsterdam RAI, Breda Centrumzijde and Belcrumzijde parking facilities and the four facilities at Amsterdam Central Station (Stationspleinstalling, Stationspleinstalling Oost, IJboulevard and IJ-zijde-West) have been checking in and out using the new zones since 2023. A new zone had already been opened at Zwolle Station in late December 2022. The introduction of the new zone at Arnhem Centraal will follow in 2024 after delays in the renovation of this bicycle parking facility this year. The check-in and check-out zone at Gouda Noordzijde is ready, but not yet in use. In 2024, we will also enter into agreements with other municipalities to roll out the check-in/check-out zones in new parking facilities. The bicycle tags for Amsterdam Central Station were developed in collaboration with the municipality of Amsterdam, and passengers can also use them in two municipal bicycle parking facilities.

### New staff in our bicycle parking facilities

On 1 October 2023, over 500 new NS employees started work in 51 bicycle parking facilities at stations and 5 repair hubs across the country. Previously, they worked for NS but were employed by the RataPlan Foundation or CPA. Our employees in the bicycle parking facilities have both the first and the last contact with our passengers. This contact is valuable for NS and we are happy with the new staff.

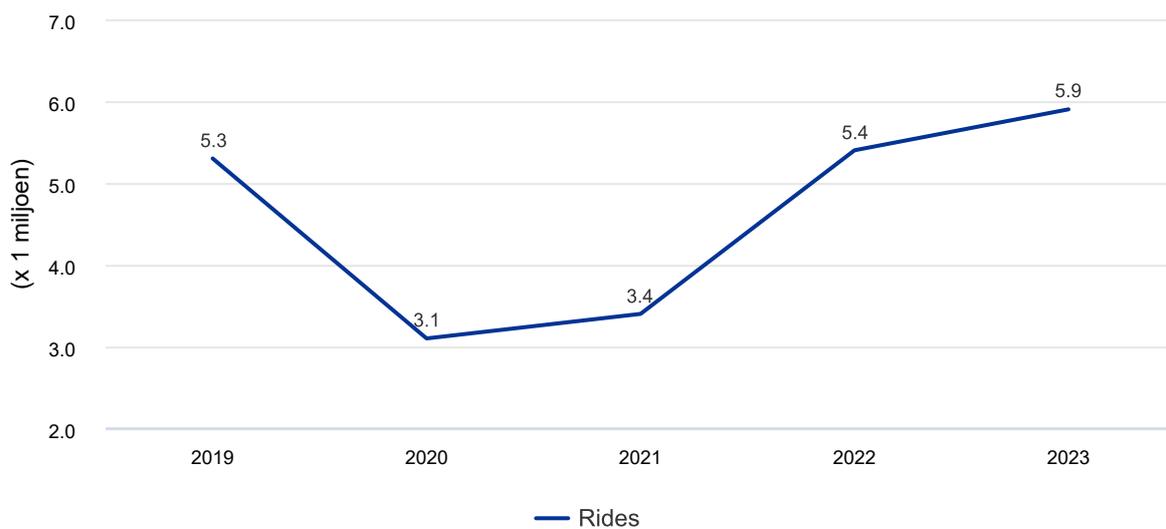
### Fiets & Service

Fiets & Service is a service chain for bicycle repairs, parts and accessories. There are 34 Fiets & Service repair shops in all (2022: 33) at 30 stations. In 2023, we opened one new shop, at Gouda station.

### Public transport bicycles

In 2023, passengers made 5.9 million trips (2022: 5.4 million) on public transport bicycles. That is the highest number of trips ever. In all, 22,500 public transport bicycles are available at 288 locations throughout the country. The customer satisfaction score for public transport bicycles was 7.9 in 2023 (2022: 8.0).

We completed the tendering procedure for fourth-generation public transport bicycles in 2023, but in the end we did not sign a contract with the selected bidder. NS is now exploring options to purchase public transport bicycles via a different procedure. We expect clarity on this issue in the first half of 2024.



### A second life for public transport bicycles

We repair our public transport bicycles in house, to ensure they can be quickly returned to passengers. If a bicycle can no longer be repaired, circular bike builder Roetz ensures that it is disassembled and fully reassembled. In 2023, 550 old bicycles were dismantled and refurbished into new public transport bicycles. In the process, over 70% of the old parts were reused for the new bicycles.

### New locks

In recent years, we have developed new smart locks for public transport bicycles that are opened using personal public transport smart cards; the rental starts instantly, without the intervention of an NS employee. By the end of 2023, we were using the new smart locks at 74 locations and on 60% of our bikes. The aim is for all bikes to be fitted with the new locks by the end of 2024.

### **New unstaffed distribution point**

In 2023, we built new, unstaffed public transport bicycle outlets at 48 locations. The roll-out of these outlets is expected to be completed in 2025.

### **Public transport ebikes**

In 2022, we launched a pilot with public transport electric bicycles (ebikes) in Driebergen-Zeist, Arnhem and Groningen, with Maastricht following in January 2023. The pilot involved a fleet of 30 ebikes at each of these stations for a period of one year. NS ran this pilot to find out whether ebikes are a valuable and feasible addition to our public transport bicycle concept. Over 30,000 trips were made with public transport ebikes in 2023. On average, the distances covered are longer than those covered with ordinary public transport bikes. This means that public transport ebikes are a meaningful addition to our existing range of shared mobility options. Passengers were positive about the public transport ebikes, awarding them an average score of 8.5 in three separate measurements. In late 2023, we decided to roll out public transport ebikes in phases.

### **Car parking**

In 2023, more than 2.1 million passengers used a regulated P+R facility (+33% compared with 2022). P+R zones at railway stations are an important link in our door-to-door journey proposition. Both regulated (barrier-protected) and unregulated (free) P+R received an average score of 7.6 from users in 2023. Since April 2023, P+R has been automatically included on the NS Flex pass as an integrated chain service, allowing passengers to easily pay on account.

## **Ease of payment in public transport**

NS is collaborating with Translink and all public transport companies in the Netherlands in a public transport payment programme to develop new forms of payment. These will be marketed under the OVpay brand name, offering passengers more choice and convenience when paying for their journeys.

### **Travelling with a debit card**

Since 31 January 2023, passengers have been able to check in and out using their debit card, credit card or smartphone across the entire NS network. The journey is then charged on the basis of a second-class ticket, without discount. This is an especially useful option for occasional travellers. More than 11 million journeys have now been made with NS using this payment method. Of all passengers who travel with NS, an average of 3% check in using a debit or credit card. Event visitors and weekend travellers in particular use this payment option.

### **OV Pass**

The technical development of the OV Pass (public transport pass), the successor to the current OV-chipkaart, is in full swing. The OV Pass will be available in both physical and digital form. Passengers using it will no longer need a card. They can also use the OV Pass to easily manage their journeys online. The OV Pass was developed because the technology of the OV-chipkaart will become obsolete in a few years and will need to be replaced. NS will test the OV Pass among passengers in phases from 2024, with a particular focus on passengers with season tickets. The pilots are being run later than originally planned

because, due to our reliance on third parties, we do not yet have all the desired functionalities. If, after the pilots, we are sufficiently confident that the OV Pass will work, we will go ahead and introduce the pass, inviting all customers with NS season tickets to switch. Ultimately, the entire public transport sector will say goodbye to the current OV-chipkaart.

# Stations and their environment



During the Week Without Waste in May, passengers at the four largest stations could win a reusable cup if they promised not to use disposable cups any more.

Stations are crucial hubs in sustainable mobility networks and in the urban development challenge; as such, they are a pillar of NS's strategy.

We want stations and station areas to be safe and meaningful centres of activity in society. High-quality stations, their surroundings and facilities are important components of the public transport system in the Netherlands and help passengers opt for the train. Together with ProRail, we again developed and realised the conversion and new construction of several stations in 2023, and worked with partners on area development projects. Together, we are continually improving the quality of facilities and services at our stations in the Netherlands. To this end, we have drawn up a Station Agenda together with the Ministry of Infrastructure and Water Management and ProRail. The State Secretary for Infrastructure and Water Management presented the Agenda to the House of Representatives in February 2023.

NS Stations works for all passenger transport providers in the Netherlands. NS supports daily operations at all stations in the country by keeping them clean, intact and safe. We do so in collaboration with ProRail. In addition, we will focus on the provision of services such as bicycle and car parking, public transport bicycles, toilets and luggage lockers, and commercial operations: leasing retail spaces and operating our own retail facilities. In doing so, we focus on the facilities that make the time passengers spend on our trains and at our stations more enjoyable, commensurate with the size of the station and the number of passengers.

The needs of passengers during the parts of their journey to and from the station are changing. With the rise of shared mobility and denser building in station areas, stations are increasingly becoming crucial transport hubs. NS has close ties of collaboration with its partners; after all, if we are to provide maximum convenience in the door-to-door journey, effective coordination among all parties involved is essential.

## Sustainable real estate

### Energy labels for buildings

NS wants all real estate to be sustainable. It is our ambition to meet the Paris Agreement commitments by 2050. To that end, in recent years we have worked hard to upgrade the sustainability of all the leased offices we own to at least Energy Label C. After surveying our property portfolio in 2022 for energy-saving measures, we translated that in 2023 into plans for implementing sustainability measures for our properties over the next four years. Using a portfolio approach, we agreed with the Ministry of Economic Affairs and Climate on a level of ambition for making buildings more sustainable that goes beyond the minimum legal standards, in exchange for more flexibility in the implementation and enforcement of energy saving measures. NS is one of 27 companies in the Netherlands participating in this approach. We also formulated a long-term strategy. In this context, we signed the Dutch Green Building Council's 'Paris Proof' commitment in 2023.

### Lease of former KPN building in Eindhoven

In 2022, NS found a new tenant for the former KPN building next to Eindhoven Central Station: Microstad. This enabled us to find a new use for this property with a floor area of around 23,000 m<sup>2</sup>. Microstad renovated the building last year and the first tenants moved in in September. The building, which accommodates workplaces, creative businesses, studios and hospitality outlets, will be a cultural and social meeting place in an area development known as 'Node XL'. The Eindhoven City Council intends to transform the entire station area into a zone with a mix of residential, work, social and recreational functions.

## Stations undergoing renovations

In 2023, together with ProRail and the relevant municipalities, we completed renovations on several stations. Examples include:

- Naarden-Bussum is a listed railway station that has undergone major improvements and renovations in phases over several years. By early 2023, all work had been completed: from modified tracks and platforms to a completely new entrance area, and from bicycle parking and a P+R facility to a fully renovated listed station building.
- Almere Centrum station has seen a complete renovation of its roof structure, and the platforms have been redesigned, offering new furnishings and more space for passengers. The lifts in the station hall have been renovated and made transparent to enhance visibility and public safety. The modernised station hall is larger, and boasts a mosaic floor that flows seamlessly into the revamped public space outside the station. The range of shops at the station has been expanded, and two supervised indoor bicycle parking facilities have been built under the tracks next to the station hall and platforms.
- Roermond station has undergone a major upgrade. The entrance from the bus station has been widened, giving passengers more space. Many historical elements have been restored to their former glory and a Station Living Room has been created in the former buffet area.
- The renovation project for Tiel station was completed in October 2023. The interior was thoroughly modernised and made more energy efficient. The external façade was partially restored, and new window frames were installed on the railway side, reflecting its original state. As Tiel Station is a listed building in the municipal register, specific guidelines were followed to preserve as many historical elements as possible.
- Holten station was renovated and completed last year.

Amsterdam Central Station (including relocation of the Eurostar terminal and renovation of the historic façades), Amsterdam Zuid, Schiphol, Groningen, The Hague HS, Ede-Wageningen and Maastricht stations were still undergoing renovations at the end of 2023. Unfortunately, these sometimes involve inconvenience for passengers, as is the case at Middelburg. An investment proposal for the renovation of Kampen station was approved in late 2023.

## Development of station areas

By developing station areas, we are stimulating the use of public transport and reducing pressure on other infrastructure. The focus in station area development is on urban functions such as living, working, recreation and education. As co-owners of the stations, we are involved in area development projects at Amsterdam Zuidas and at various stations along the Oude Lijn between Dordrecht and Leiden Centraal. NS is also contributing to the major sustainability and housing construction challenges facing the Netherlands by making its own lands available for such projects. The following projects were started in the period 2020–2023:

- The Cartesius Triangle in Utrecht is being redeveloped into a city district with 2,850 homes. The heritage-listed CAB building serves as the ‘living room’ for this city district and its surroundings (offering some 25,000 m<sup>2</sup> of facilities).
- A project for the Tweede Daalsedijk district in Utrecht includes the construction of 1,000 homes.

Construction at the EKP North site in Den Bosch’s railway zone is expected to start in 2024. A dynamic and creative living, working and learning area will be created here, including the Art Academy and more than 800 homes. This is a collaborative project between the municipality, PostNL, NS Stations and property developer SDK.

## Projects in 2025 and beyond

- The Wagenwerkplaats in Amersfoort is a city district that offers a mix of residential and work functions, cultural venues and events. It is a long and narrow piece of land between the railway and the Soesterkwartier district. The area will see the construction of around 1,100 homes and 8,000 m<sup>2</sup> and 38,000 m<sup>2</sup> of mixed functions (existing buildings and new construction).
- NS and the municipality of Zwolle are redeveloping the Zwolle Spoorzone district into a new station area with 1,000 to 1,500 homes and 80,000 m<sup>2</sup> for offices, education, culture and cafés/restaurants.
- Nieuwe Kern, a district between Duivendrecht station, the Johan Cruijff Arena, the A2 motorway and Amstel Business Park, is being redeveloped into an area accommodating 5,000 homes, 200,000 m<sup>2</sup> of office space, a 40,000 m<sup>2</sup> hotel, 38,000 m<sup>2</sup> of retail, leisure and a large city park.
- To the east of Laan van NOI in The Hague, NS and the municipalities of The Hague and Voorburg are developing 500–750 homes and 70,000 m<sup>2</sup> for offices and facilities.
- NS and the municipality of Beverwijk are developing around 100 homes in the Beverwijk Spoorzone district.
- For the Fuutlaan project in Eindhoven, initial plans have been made with the municipality to develop 50,000 m<sup>2</sup> for homes, offices and facilities.

## Building over the tracks

Building over and alongside the tracks near stations helps cities grow while remaining accessible in a sustainable manner. For example, together with the province of North Holland, the municipality of Amsterdam, Vervoerregio Amsterdam and ProRail, we have designed a development strategy for large-scale building projects over the tracks, combined with improvements to Amsterdam Sloterdijk station. On 19 January 2023, we signed a follow-up agreement with the Ministry of Infrastructure and Water Management to further examine the feasibility of these plans with partners.

## The station experience

Railway stations are an important link in a passenger's journey from door to door. Hence, it is important for NS to ensure that passengers experience the station as a pleasant environment. In 2023, the average passenger score for our stations was 7.2. This is lower than during the COVID-19 years (2020–2022: 7.3). This can largely be attributed to increased crowding and the return of commuters – who generally rate stations lower than other passengers. In 2023, the combined score for the 54 larger stations (where more than 10,000 passengers get on and off the train every working day) was 7.3 (2022: 7.4); the score for the smaller stations was 7.0 (2022: 7.1).

## Station facilities and services

We will continue to invest in facilities such as toilets and shared car facilities. For example, in 2023 we introduced new signposting for shared cars at P+R sites. Last year we noticed that tourists were returning after the COVID-19 crisis, as reflected in the intensive use of luggage lockers.

## Tendering procedure for media screens

As of 2023, for the first time since 2019, a market party is operating the media screens again at our stations.

## Tenants at the stations

Due to the growth in passenger numbers, station retail sales increased significantly in 2023 compared with 2022. From the summer months, revenues increased in line with rising passenger numbers. Despite challenges for businesses such as labour market shortages and rising energy prices, 88% of our tenants awarded a score of 7 or higher for the business climate at our stations (2023 Tenant Satisfaction Survey) (2022: 82%). Over the past year, we entered into new contracts with tenants at our stations for 65 shops. Several retail chains are investing in their future at our stations. Examples include the extension and refurbishment of HEMA shops, conversion of AKO shops to the Bruna brand and the opening of the first Coco & Sebas shops at our stations.

## Social and local engagement

NS Stations and ProRail are both eager to promote social initiatives at the stations. Dozens of social initiatives are currently running. For example, in 2023, Eritrean Nardos Aron launched her company 'NAS' at Alkmaar station, where people can meet for a chat or a formal meeting, drink coffee, buy gifts and buy and take away simple dishes. See [www.oponsstation.nl](http://www.oponsstation.nl) for a selection of social initiatives at various stations in the Netherlands.

## Retail at the station

Station visitors enjoy having a cup of coffee or buying themselves a treat. Large stations offer a convenient range with considerable variety; regional stations provide for basic needs. NS ensures that the retail offering provides sufficient variety and guarantees a basic range by operating several chain stores itself: Kiosk, AH to go, the Station Living Rooms and Julia's. We leave the rest to the market.

## Developments in 2023

- In 2023, four AH to go shops were renovated: Zwolle, Amsterdam Oosttunnel, Duivendrecht and Apeldoorn.
- Eight Kiosk shops were renovated and given a new layout and look in 2023: Amsterdam RAI, Groningen Bus Station, Nijmegen platforms 3/4a, Eindhoven platforms 3/4, Leeuwarden, Delft, Gouda and Weert. In 87 Kiosk shops, signs and posters have been replaced by digital displays for product information and promotions.
- We opened two new Station Living Rooms last year: one at Woerden station in June and the other at Deventer station in December. Previously, these were Kiosk shops. We also modernised the Station Living Room in Assen.
- The two Julia's outlets at Utrecht Central and The Hague Central underwent renovations at the end of 2023 and were given a new, modern look and fitted with 'place your order' columns and digital screens. Besides the usual pastas, passengers can now also enjoy a range of pizzas at these outlets.

## Range and convenience

NS Stations aims to adapt the range of retail chains to our passengers' needs. For instance, we are introducing more and more products to offer passengers a healthy alternative any time of the day, such as salads and poke bowls, and to surprise customers with a seasonal assortment. For example, in winter Julia's offers Tartufo Pastas and Kiosk has Winter Teas and Winter Cookies in its range.

## Collaboration with our partners

In 2020, the government decided that the roles, responsibilities and ownership arrangements for the stations will remain unchanged. In 2022, ProRail and NS Stations ratified their renewed collaboration initiative in a public-public partnership arrangement, and they will continue their joint efforts in the development, realisation and management of world-class stations.

In 2023, together with our partners we continued to work on the Toekomstbeeld OV 2040 (Vision for the Future of Public Transport up to 2040) and adopted and published the Action Agenda for Public Transport Hubs. This agenda was drawn up to streamline our collaboration in tackling the development challenges at and around public transport hubs, including railway stations.

# Travelling and working in safety



In April, NS started test runs with the ICNG in the domestic timetable; from October, this was expanded to Belgium.

## Public safety

Performance indicator	Realisation in 2023	Realisation in 2022	Target value for 2023	Minimum value for 2023
Customer satisfaction with public safety*	-	8.1	7.9	7.7

\* Customer satisfaction levels will be measured using the Public Transport Customer Barometer (OVKB) and published in late February 2024.

NS aims to provide a safe travel and work environment where passengers feel happy and employees are able to perform to the best of their ability. Unfortunately, the number of incidents involving aggression against NS staff rose again in 2023. The Employee Monitor survey conducted across the public transport sector last year also showed a sharp decline in perceived safety among public transport workers.

This is partly due to increasingly severe problems in society as a whole, such as the rise in the number of disturbed people, asylum-seeker issues and an overall increase in aggressive behaviour. Like many other organisations, NS is having to deal with this development. The trend towards more aggression and intolerance since the COVID-19 crisis is reflected in our public safety figures.

## Measures

NS is taking a variety of steps to improve public safety. Our measures mainly focus on stations and routes with relatively high numbers of public safety reports and incidents. Among other things, we deploy extra Safety & Service officers where required, run campaigns and step up security – sometimes with dogs – at our stations and on our trains. We also took several more drastic measures, such as closing entrances at Lelystad Centrum station, 100% entry control at Maarheeze station and night-time entry control at Amsterdam Central Station. We are aware that ‘softer’ measures can also be helpful. Together with the Central Agency for the Reception of Asylum Seekers (COA), we invite people with a refugee background to serve as hosts to help asylum seekers at Zwolle station in their own language. At several COA locations we explain how public transport works in the Netherlands, and at Zwolle station we have placed a money-changing machine to enable asylum seekers to exchange money to buy a ticket. Despite taking responsibility wherever possible, we are approaching the limits of what we can do – and are legally permitted to do – as a carrier. We urgently need our partners to help us find solutions, both at the government level and elsewhere. In response to increasing concerns surrounding public safety, NS has set up an action committee in which the Ministries of Infrastructure and Water Management and Justice and Security, the police and other carriers have joined forces with us to speed up the implementation of desired measures and to streamline collaboration among themselves and with other parties. However, we have not made a great deal of progress to date. NS’s wishes in this regard include access for its special enforcement officers (Safety & Security officers) to the driver licence register and access for main guards to the Personal Records Database (BRP).

## Safe transport during events

Since the end of the COVID-19 pandemic, major events such as concerts, festivals, sports competitions and protest marches have become even larger and more frequent than they were before the pandemic. Moreover, these events often take place at the same time, causing increasingly large peaks in passenger volumes on public transport. Together with other carriers and public service providers such as the police, NS plays a crucial role in facilitating safe outward and return journeys for event-goers. Our starting point is that safe passenger transport is only possible if the risks are sufficiently manageable. Passenger and staff safety are paramount in everything we do. We are quick to consult with the parties and event organisers involved at various levels to get a clear view of what is and isn’t feasible at event venues on busy days.

This is why we continue to urge municipalities and safety regions to ensure that NS is involved at an early stage in the licensing and organisation of events. This will help to avoid last-minute interventions, such as the forced closure of a station or the temporary shutdown of train traffic. NS is also in consultation about this issue with the event industry and the Royal Netherlands Football Association KNVB.

## Demonstrations at railway stations

Several stations, including Utrecht Central, Rotterdam Central, The Hague Central and Amsterdam Central, were the scene of demonstrations in late 2023. NS does not believe that a railway station is a suitable location for demonstrations, irrespective of what the demonstration is about. Demonstrators cause inconvenience to passengers and potentially endanger the flow of passengers at stations or in station halls. Demonstrations can lead to unsafe situations and make passengers and staff feel unsafe.

We do not authorise demonstrations, but we cannot prevent them either. Restricting or even banning demonstrations is the job of municipalities, the police and the Public Prosecution Service, the 'local competent authorities'. NS is in close contact with those authorities about appropriate frameworks and measures to ensure the safety of staff, passengers and property.

## Incidents involving aggression

Every single incident involving aggression has a considerable impact on the people who witness it. NS therefore encourages staff to report all such incidents. In all, 1,042 incidents of Category A physical or verbal aggression (the most serious type) against staff were reported in the past year – 8% more than in the previous year (2022: 965). The most common cause of such incidents on the train was ticket checks, increasing from 188 incidents in 2022 to 284 in 2023. Ticket checks at our stations were the cause of 111 Category A incidents last year (122 in 2022).

The incidents involved some form of threat (385), and physical violence was recorded in 331 incidents. Other incidents included spitting (188), resisting a public servant (100), threatening with a weapon (22), sexual physical violence (13) and employee discrimination (3).

The number of Category A incidents involving aggression on our trains has increased: from 355 in 2022 to 458 in 2023, an increase of 29%. The number of incidents in this category at stations decreased by 4% (to 581 in 2023, compared with 605 in 2022). Of our uniformed staff, 1,007 were involved in some form of physical aggression (2022: 936).

The number of cases involving injury increased by 14.5%: in 2023, 252 injuries as a result of aggression against staff were recorded (2022: 220). These were mostly minor injuries (88%). In 223 cases, these involved uniformed NS staff (2022: 198), of whom 141 were Safety & Service staff (2022: 131).

## Reporting nuisance or unsafe situations via WhatsApp or text message

We use media and stickers in our trains to highlight the option for passengers to contact the NS Control Centre via WhatsApp if they feel unsafe in our trains or to report nuisance.

Passengers used this accessible and discreet reporting option 4,449 times (2022: 4,693). This represents 5% of the total number of such reports received by the NS Control Centre (down 5% from 2022). Measures including an up-to-date overview of incoming reports and active camera surveillance enable us to deploy security staff where their presence is most helpful. In this way, we aim to prevent incidents and make people feel safer.

## Occupational safety

NS reports every workplace accident involving an injury that occurs. We express the number of accidents as the Total Recordable Rate (TRR): the number of injuries resulting in absence per million hours worked. The TRR for 2023 was 4.9 (2022: 4.0).

In 2023, NS conducted a risk assessment and evaluation (RAE) of psychosocial workload. This is a major underlying cause of workplace accidents, as are trips and falls. We improved the analysis of tripping accidents to increase the effectiveness of improvement measures. The focus on priority risks was postponed to 2024 due to ICT challenges.

## Railway safety

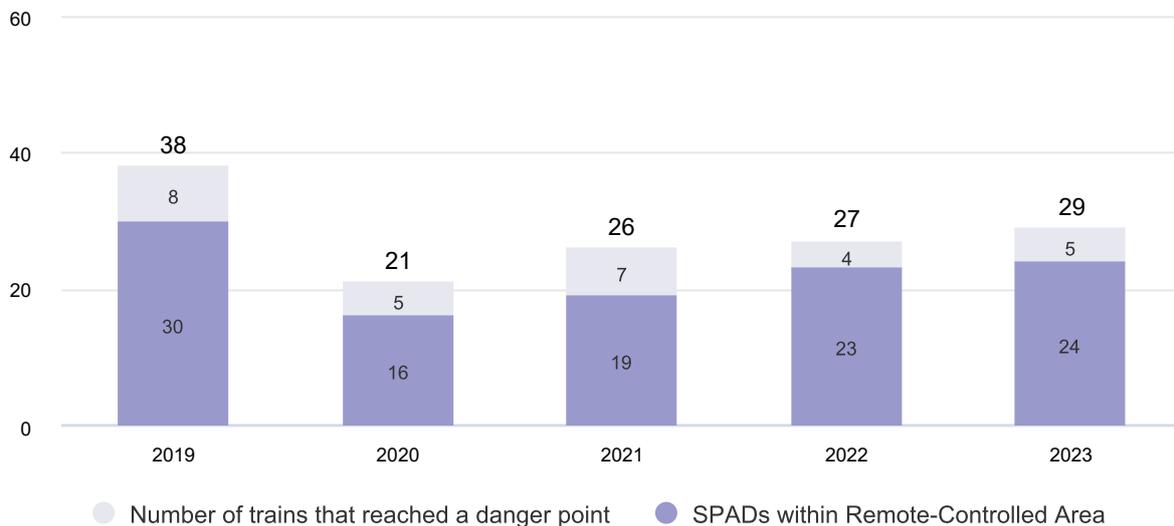
There were 109 railway safety incidents and 16 accidents in 2023. Among the 16 accidents were 4 collisions with a person (in which 2 people died; suicides not included), 4 accidents at a level crossing (in which 2 people died), 3 collisions with an object (one of which was the collision near Voorschoten in April 2023), 4 instances of a passenger falling while boarding or disembarking and 1 instance of fire on a train. To further improve railway safety, we have taken various measures including those listed below.

### Accident near Voorschoten

On the night of 3 to 4 April, a horrific train accident took place on the Leiden-Voorschoten line, killing an employee of a contractor. Trackwork was being carried out on this line at several places that night, which involved the use of a crane on trolleys. While replacing a rail, the crane inadvertently ended up on the active track before the requested service interruption was in force. This was followed by a collision with a freight train, in which the crane driver died. A few minutes later, an NS passenger train also collided with the crane, leading to derailment and injuries to the train driver, the main guard and 28 passengers. ProRail, DB Cargo, BAM and NS are jointly investigating the accident. In addition, independent investigations by the Dutch Safety Board, the Public Prosecution Service and the Netherlands Labour Authority are ongoing.

### Signals passed at danger (SPAD)

In 2023, a total of 29 SPAD (signal passed at danger) incidents within a Remote-Controlled Area (RCA) were registered. In 5 of these cases, the train reached a 'danger point': a point where the SPAD could actually have resulted in a collision, crash or derailment. In none of the incidents did this actually happen. The number of times the danger point was reached has stabilised since 2020. NS aims to reduce the number of SPAD incidents where a danger point is reached to zero.



NS monitors all SPAD incidents in order to learn from them by establishing their causes and identify further measures to prevent them.

## Risk management

NS aims to focus its risk management more on predictive indicators by developing clear frameworks and applying them effectively. In doing so, we use IT to control processes, risks and measures. In addition to continuously monitoring existing risks, our work in 2023 included:

- Organisation-wide improvement of the approach to risk management. To support the development of the so-called Rail System of the Future, for example, we provide unambiguous management guidelines and methods to achieve safety targets and ensure continuous improvement. In doing so, we help rail traffic grow in a demonstrably safe manner.
- Support for new and ongoing projects in establishing and implementing risk management. This covers the whole cycle from drafting plans to getting files approved by external bodies. Obviously, there is a considerable emphasis on major programmes like ERTMS, ATO and the introduction of the ICNG, but we also focus on risk management at major events such as the Dutch Grand Prix in Zandvoort.

## Gaining experience with ERTMS

ERTMS is regarded by the EU as the new standard for train safety. Unlike NS'54 and ATB, ERTMS allows active braking curve monitoring of the train. The outdated NS'54 and ATB will be replaced by ERTMS in the coming years. The Hanze Line and the Amsterdam-Utrecht track section will be equipped with a new version of ERTMS, in addition to the existing safety system (ATB). Trial runs on the Amsterdam-Utrecht track section ERTMS started in July 2023. On the Hanze Line, infrastructure conversion work has been plagued by delays. NS is aiming to start trial runs on that line too in 2024. These trial runs will enable train drivers, train dispatchers, mechanics and other staff to gain experience with ERTMS. Trained drivers will then be offered shifts on lines with ERTMS to apply the new rules and procedures.

## Human and Organisational Factors

The discipline of Human and Organisational Factors (HOF) is an integral part of the change development process. For instance, we specify HOF requirements, e.g. when developing new rolling stock or training for train drivers, and contribute to risk management from a HOF perspective.

A renewed NS vision for HOF was drawn up in 2023. HOF verifies specifications for new rolling stock on Human Factors aspects, as in the case of DDNG specifications and the VIRM conversion. Examples include specifications for the driver's desk and sight lines for signal observation. This allows train drivers to carry out their work safely. As a result, HOF allows us to influence processes from an early stage and contribute from a safety perspective to optimal performance. HOF is conducting several studies in connection with the ERTMS programme. In 2023, we completed a study to establish the extent to which train drivers are able to remember specific ERTMS knowledge when they are not actually using the system. This 'ERTMS forgetting curve study' shows how important it is for drivers to gain practical experience as soon as possible after training. The Human Factors perspective has also been integrated into the ERTMS driver training programme. The aim is for drivers to decide and act in full awareness of the situation while driving. Furthermore, HOF is involved in various safety issues, such as reassessment of the views on self-reliance in tunnel evacuation.

## Safety culture

NS promotes a proactive safety culture in which colleagues make a collective effort to create a safe working environment. We do so by listening to each other, being open about safety levels and being aware of the risks involved in our work and our working environment. In 2023, our policy to strengthen the safety culture featured the following key focus areas:

- Organisation-wide communication on safety, including a Safety Week and workshops on compliance with safety rules and protocols. In addition, the digital safety portal has been improved so that every employee can easily find up-to-date safety information.
- Conversations with employees about incidents and their causes. These conversations create awareness among employees and give them insight into NS's safety performance.
- Conversations between management and employees during workplace safety rounds. During these rounds, we consult employees to find out why safety rules are not complied with in certain situations, and then address the obstacles or issues identified.

## **STM ATB**

In 2023, NS and ProRail conducted a feasibility study on the added functionality in STM ATB (Specific Transmission Module – Automatic Train Protection). This solution uses transponders between the rails to gather and transmit train data, and substantially improves rail safety at a relatively low cost. STM ATB has made it impossible to pass a stop signal at high speed. To minimise safety risks, the addition of this functionality is very important for NS, partly because during the roll-out of ERTMS the ATB system will also remain in use for years to come. In consultation with ProRail, we have decided to build STM ATB with added functionality into the trains that will be equipped with ERTMS. NS will then instruct ProRail to install the transponders in the tracks. The condition is that this should not negatively affect trains that do not yet have this added functionality. Other carriers can also opt to make use of this STM ATB with added functionality.

## **Corporate Security**

### **Protecting property and resources**

NS protects property and creates a safe working environment for employees. NS offices, workshops, warehouses, maintenance facilities and closed sections of stations are protected from two Security Control Centres (SCCs) in Amsterdam and Utrecht. This is done remotely with cameras, intercom and alarm systems, sensors and access control. We are connecting more and more locations to the SCCs; in 2023 we added nine. We have also made an extra investment in combating graffiti in 2023 through better internal and external cooperation, deployment of specially trained dogs, sensors, improved camera systems and the use of more and improved data. In addition, we have decided to coordinate regularly with ProRail to jointly improve the safety of private premises. Finally, 2023 also saw work in connection with the planned introduction of the new European Critical Entities Resilience (CER) Directive in October 2024. This directive aims to protect and enhance the resilience of critical entities such as NS, which are of crucial importance to vital societal functions and economic activities.

### **Terrorism and extreme violence**

NS is always alert to terrorism and other forms of serious and extreme violence. Incidents involving suspected firearms or suspicious behaviour continued to impact our services in 2023, sometimes due to the large-scale deployment of police. With our external security partners, we have practised scenarios involving various types of extreme violence, at and around Utrecht Central Station and elsewhere.

In 2023, we signed agreements with the Ministry of Infrastructure and Water Management, the National Coordinator for Terrorism and Security (NCTV) and the police to ensure our resilience to extreme violence (including terrorism) in both the Crucial Rail programme and in legislation based on the Critical Entities Resilience (CER) Directive.

We contributed to internal security at NS in 2023 through screening and internal investigations.

## **Eurostar security**

In order to run the Eurostar, we have to meet the security requirements set by the Channel Tunnel Authority. At Amsterdam Central and Rotterdam Central stations, we perform security checks of all passengers and their baggage, as well as our own employees. In view of the upcoming conversion of Amsterdam's Amstelpassage into a Eurostar terminal and the expected growth in passengers, we will be stepping up security measures in the coming period.

## **Cyber security**

To ensure it can withstand the increasing cyber threats, NS is continuing to improve the security of its IT (information technology) and OT (operational technology) systems. We are conducting company-wide risk analyses of IT and OT processes and of high-risk incidents. We took further technological measures in 2023, based on our Cybersecurity Roadmap. We invested in company-wide cybersecurity awareness by running phishing simulations and awareness campaigns. We also developed a long-term strategy. The Executive Board appointed the Chief Information Security Officer (CISO) as the Director of Cyber Security to more explicitly integrate cybersecurity awareness and measures in the organisation. He was tasked with taking organisation-wide cyber-resilience to the next level.

## **Complying with the Wbni**

NS is a 'provider of essential services', as defined in the Network and Information Systems (Security) Act (Wbni). Partly based on the cybersecurity management system (CSMS), NS is now fulfilling the duty of care and notification required under the Wbni. We use that same CSMS to provide our business customers with assurance regarding the measures we have taken. This earned us a positive assessment in the exploratory inspection by the Human Environment and Transport Inspectorate (ILT) in 2023.

## **ISO27001 certification**

NS prolonged ISO27001 cyber certification for the service processes surrounding the NS Business Card in 2023. We also prepared for the implementation of two new EU directives in 2023: the NIS2 (Network and Information Security Directive 2) and the CER (Critical Entities Resilience Directive), which will come into force in 2024.

## **Sector-wide information sharing**

NS is participating in national and international initiatives to strengthen cyber security in the railway sector and in vital infrastructure more generally. In addition, in 2023, NS initiated the establishment of the European Rail CISO Forum. NS also participated in several simulations and exercises, including the national ISIDOOR cyber exercise in November.

# NS as an employer



NS starts recruiting new employees with its 'Top Team on the Train' campaign.

Proud and healthy employees are crucial to NS's ability to implement its strategy. In both 2022 and 2023, NS struggled with staff shortages and a high level of absences due to sickness. This had a huge effect on our staff and our services. Last year, we recruited many new staff and continued to develop the professionalism of our people and promote the advancement of particularly talented employees.

# Our staff

## Staff in the Netherlands



2022: 19,040 (17,089 FTEs)



Percentage of women: 30%

2022: 31%



Average age: 44

2022: 44



5.1% are temporary workers or contractors, mainly in IT, technology and office positions

2022: 6.4%

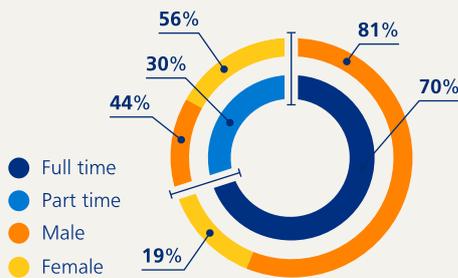


Vacancies filled in 2023: 5,434

Open vacancies as at 31/12/23: 1,434

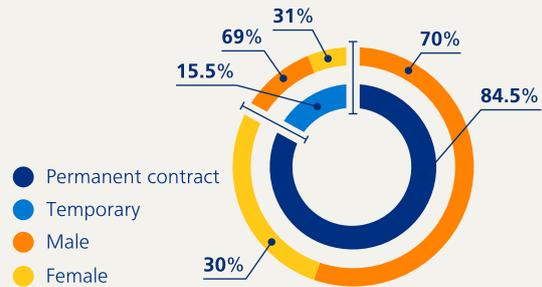
(2022: 5,162 filled)

### Full-time and part-time staff



2022: 70% full-time and 30% part-time

### Contracts:



2022: 88.5% permanent and 11.5% temporary

## New hires, departures and promotions

### New hires



### Departures:



### Internal promotions



## NS as an employer

It is important to NS to be a good and attractive employer for all the people who work for us, or would like to do so – irrespective of whether they are on a permanent or flexible contract. We want to offer our employees varied work that has an impact on society, as well as freedom and development opportunities. We provide attractive employment conditions and strive for equality in all respects. This is reflected, for instance, in the equal pay we offer men and women, in our proactive diversity policy, in our many long-term participatory jobs and in the opportunities and support we offer to asylum permit holders. NS is one of the largest and most popular employers in the Netherlands, and we work hard to ensure we retain that position. Every year, Intelligence Group publishes a list of the most popular employers in the Netherlands: in 2023, NS came 12<sup>th</sup> (2022: 8).

## Recruitment

In 2023, there were many vacancies at NS: 5,837 at vocational education level and 1,031 at higher professional or university graduate level. We received 58,256 applications and found suitable candidates for 5,434 positions: 733 main guards, 479 train drivers, 273 Safety & Service officers and 1,665 retail staff. 81% of the vacancies were filled with new hires, with the remainder filled through internal transfers. We offered placements to 30 trainees, and the hiring desk contracted 575 professionals for fixed-term projects.

Through large-scale recruitment drives, we managed to eliminate the shortages of guards, train drivers and retail staff over the past year, and the ongoing number of vacancies is stable. However, the recruitment of mechanics, IT professionals and Security & Service officers remains a major challenge. To fill all vacancies, we deploy mass media and regional recruitment campaigns and ensure a fast and pleasant application process. For many positions we explicitly focus on people's talents and skills rather than just their diplomas.

## Diversity and inclusion

NS believes it is essential to work with a rich diversity of people in terms of age, views, experience, background, gender, sexual orientation and character. There is room in our company for everyone. At NS, we ensure equal opportunities for all employees to fully develop their talents, as part of our effort to create an open, safe and inclusive working environment. We want to reflect society at all levels. We therefore encourage the recruitment and retention of women, people with a migration background and people with occupational disabilities. We expect our suppliers to do the same. They can find out more about this in the [Supplier Code of Conduct](#).

### Women at the top

At year-end 2023, women filled 35% of senior management positions at NS (2022: 37%). That is equal to our objective. At that time, the percentage of female members of the Supervisory Board was 50%. Following the early departure of a female board member, the Executive Board had no female members (0%). This means that NS does not comply with Art. 5.2.3 of the 2022 Government policy document on state-owned companies or the Ingrowth Quota Act. According to that policy, women should make up at least one-third of the Executive Board. NS is aware of this and, in time, it will again meet the set requirements through the selection procedure for new Executive Board members. Meanwhile, a female Financial Director has been appointed with effect from 1 March 2024.

## **Equal pay**

NS conducts a 'male/female' pay gap analysis every two years. The most up-to-date calculation from 2022 shows there once again is no gender pay gap at NS. From 2025, the new accountability directive, CSRD, will come into force and we will conduct this analysis annually.

## **Staff with occupational disabilities**

In 2023, NS had 159 employees with an occupational disability in what are known as participatory jobs (2022: 170). Of these employees, 141 were still in employment at the end of December. Due to the tight labour market, staff with disabilities are difficult to recruit. At the end of 2023, 4 job vacancies for this target group had not yet been filled. We train internal employees and managers in mentoring colleagues with an occupational disability. We also offer the latter career guidance sessions, workshops and training programmes to help them build their careers within NS or elsewhere.

## **Staff with a migration background**

NS continues to work on hiring and promoting employees with a migration background. To this end, we cooperate with UAF, Agora Network and the ECHO Foundation (organisations in the field of cultural diversity), among others. We also paid extra attention last year in management development processes to the hiring and promoting of people in these groups. Besides awareness workshops, we introduced anonymous job applications more widely and deployed unbiased selection and structured interviewing methods.

In addition to the technical apprenticeship programme for asylum permit holders in Haarlem, we started a similar programme together with Randstad Techniek at the maintenance company in Berkel-Enschot. As a result, a total of 17 asylum permit holders are now in a training programme to become train mechanics. We offer employees a learning track, support in specialist terminology, workplace guidance and development opportunities. Through RefugeeWork, municipalities and the Dutch Council for Refugees, we bring this apprenticeship programme to the attention of people with a refugee background. We also do this in our own TechniekFabriek vocational training programme, and for vacancies in the various retail chain stores. To increase their chances on the labour market, we organised a meet & greet for 150 asylum permit holders in Utrecht in October 2023.

In 2023, ten asylum permit holders started in a position at higher professional/university graduate level in a UAF Kickstart job. We also enhanced the Kickstart job programme by including various forms of guidance and training, and extended its duration to a maximum of three 1-year contracts. As a result, seven people have been able to move on to normal positions in our company. We also encourage the hiring of migrants for normal job vacancies and traineeships through intensive cooperation with UAF.

NS has had a Diversity in Senior Positions Committee since 2020. Since the committee was established, we have seen a 7.8% increase in staff with a migration background in senior management positions (up to 31 December 2023). Before we had this committee, that percentage was lower and there was practically no hiring or promotion of people in this category. Our original target was to have at least 10% of senior positions filled by employees with a migration background by 2025. That target has been revised upwards since 2022 in response to our wish to have a workforce that is more in line with current demographic proportions.

## Learning at NS

NS encourages employees to keep developing themselves, and to keep learning. We are convinced that this is good for our people and necessary for NS. The world around us is changing and offers opportunities and possibilities that we want to take advantage of, while learning and development ensure that our employees have the knowledge and skills required. In 2023, NS invested over €11.5 million in training programmes and other educational interventions (2022: €8.5 million). Employees can attend learning and development programmes both within their own job and in preparation for a new position. We train new employees at our own Learning Centre or facilitate their training via our Regional Training Centre (ROC) partners and STC training centre in Rotterdam. We also ensure that our staff remain up to date by practising their professional skills and acquiring new knowledge. In 2023, we started an induction programme for managers.

### Focus on professional expertise

In 2023, we developed a new learning programme for entry-level Safety & Service officers. 2023 also saw a redesign of the Basic Train Driver Learning Pathway for employees being trained as train drivers within NS. In addition, we trained office staff and agency staff to become train assistants. We also launched a new vocational education programme for train drivers at the Koning Willem I College in Den Bosch, and partnered with NOVA College in Haarlem for the train guard training programme. In 2023, 29 new students embarked on the Surveillance and Safety Enforcement Officer – Train Guard course, a vocational programme at MBO Amersfoort, NOVA College in Haarlem or Koning Willem I College in Den Bosch. NS hired 6 graduates from MBO Amersfoort (an institute for vocational education and training) in 2023. 54 train drivers joined NS in 2023 from the Regional Training Centres in Amsterdam and Twente and STC. In addition, 122 new first-year and 158 second-year vocational education students did their work placements at NS as part of their train driver programme. Internally, 531 main guards, 351 train drivers and 116 Safety & Service officers successfully completed their basic training. In addition, 120 employees were trained as station service staff. We are training 611 new staff for jobs at NS Customer Service.

### Rolling stock technology and TechniekFabriek

TechniekFabriek ('the technology factory') is our internal technical vocational programme for current and prospective train mechanics. In 2023, in cooperation with ROC Tilburg, we opened a new TechniekFabriek at the Component Workshop in Berkel-Enschot. We already had a TechniekFabriek in Zwolle and another in Amsterdam. With this new location, NS is now also offering students in the south of the country the opportunity to learn and work at NS, and our training capacity has increased. In September 2023, 53 students started their training programme at the TechniekFabriek. In 2023, 14 TechniekFabriek graduates progressed to jobs at NS Train Modernisation and NS Maintenance and Service. Technicians with backgrounds outside NS can join NS via our lateral entry programme. With help from ROCs across the country, the technicians in this programme are retrained as NS mechanics.

### Retail training

NS runs its own vocational training programme known as Stations Retail. This customised programme trains employees in combining speed and quality of service, which is essential in view of the fact that passengers generally spend little time at the station. In 2023, 13 employees completed their training as Retail Specialists or Retail Managers.

## Careers

NS offers its employees a wide variety of career options. A total of 2,493 staff have moved on to other positions within the company. For instance, in 2023, 42 main guards transferred internally to the position of train driver and 40 staff became main guards. In 2023, 432 staff completed a career orientation programme (2022: 403). This programme has also been available to Retail employees since 2023.

Through the online Career Platform, in addition to career coaching we offer employees a skills self-scan, labour market consultation and a CV check, among other things. Last year the career centre launched the development counter: a pilot to offer employees better access to development opportunities outside their current position.

### Preventing redundancies

In the event of organisational developments that have consequences for staff, NS ensures they receive guidance from an early stage in finding new employment within or outside NS. We do this to prevent redundancies. These employees come under the anticipatory job mobility measure and are entitled to benefit from the Social Plan. In 2023, there were no employees that came under the anticipatory job mobility measure. Of all the employees who had been made redundant before 2023 and were covered by the employment guarantee, 50% found alternative employment at NS or elsewhere within the guidance period.

## Industrial relations and employment conditions

NS consults with the employee participation bodies and unions on an ongoing basis. In 2023, key themes included the main rail network franchise, employee vitality, pressure on public safety, capacity measures and collective bargaining conditions. Below we will discuss three of these topics in further detail:

### Franchise

NS met regularly with the Central Works Council and went through the advisory process on the new main rail network franchise from 2025 and the organisation of the railway market.

### Capacity

Temporary capacity measures were introduced after consultations between the employee participation bodies, the unions and NS. The aim of the measures was to tackle capacity shortages among guards, reduce workloads and prevent further timetable adjustments. For instance, we deployed security and train assistants on a temporary basis. The deployment of office staff as train assistants generated positive responses from all concerned.

### A new collective labour agreement

NS implemented the 2022/2023 collective labour agreement last year. The agreement has been fully updated: NS employees have an up-to-date overview of their employment conditions. Negotiations on the collective labour agreement for 2024 started in the third quarter of 2023.

## Message from the Central Works Council

For NS's Central Works Council, 2023 was a turbulent year. There were highs, lows and major challenges that have not yet been fully tackled and will require a lot of attention in 2024 and beyond. Last year's main achievement was the award of the main rail network franchise to NS. We would like to continue the intensive cooperation with the employee representation bodies on this topic in 2024. Other key topics: employee vitality, recovery and reintegration, attracting sufficient staff, shortages on the labour market, the shift to people-oriented management, and undiminished focus on operational performance. These remain key challenges and topics for discussion between the Central Works Council and management. While passengers are returning to our trains in growing numbers, we are still far from the desired level. The financial pressure on NS remains considerable. As rate differentiation was abandoned, new challenges have emerged for management and the Central Works Council. The key challenge is to find solutions without major consequences for our colleagues. We look forward to continuing our collaboration in the coming years with confidence.

On behalf of the Central Works Council,  
Bas Kuperus, Chair

## Staff satisfaction

### Staff satisfaction survey

Every two years, NS conducts a staff satisfaction survey. The most recent survey was in 2022. Managers from each department discuss the results with their staff. Together, we decide what we will continue doing, and what we are going to do differently. We aim for a tailored approach, with the teams themselves taking the initiative. In this way, we can establish the specific requirements for each team and what they need in order to improve staff satisfaction scores.

## A healthy organisation and absences due to sickness

The rate of absences due to sickness at NS was 8.1% in 2023 (2022: 8.5%). NS has managed to reverse the upward trend but has not yet returned to pre-COVID-19 levels. The rate of absences due to sickness is too high. With a shift in management focus towards 'preventing absences due to sickness' and 'empowering people', NS expects that sickness absence figures will eventually fall. NS looks at employee vitality from four perspectives: physical wellbeing, mental wellbeing, social wellbeing and meaningful work. Among proud and healthy NS employees, these four elements are in balance. The working environment also plays an important role in the vitality of our employees. The joint approach by Board and employee representatives under the banner 'How to stay healthy together at NS' has generated a lot of attention for vitality, but also shows that more needs to be done and that this is a complex issue. After a year of learning, with many initiatives and pilots at the business unit level, NS is now sharpening its focus on addressing the root causes of absences due to sickness, again by business unit. Themes include workloads, limited development opportunities, inappropriate behaviour and the role of managers.

## Leadership at NS

NS is facing enormous short-term and long-term challenges. Our leaders play a major role in the transition to a sustainable mobility company and in keeping employees proud and healthy. NS updated its leadership vision in 2023, which is now being further developed through various channels, tools and target groups. We have also launched a new induction programme for newly hired and transferring managers. In it, we address topics such as

short-term and long-term organisational goals, diversity and inclusion, and what NS expects from managers.

In addition, in several meetings a year, the Executive Board and managers are challenged and inspired on current and strategic themes and on the responses expected from them as leaders.

### **Leadership development and talent development**

NS offers internal programmes to help our people advance smoothly through the various layers of management. Via the Trainee Programme, for example, NS maintains a regular supply of talented people in disciplines crucial to the company: IT, technology, procurement and operational management. In addition, NS has set up a number of specific talent development programmes. These programmes are a first step towards a different perspective on developing talent: expanding our focus from merely supporting talented people to fill key positions to achieving more diverse leadership styles, with the aim of promoting diversity at the top.

## **Organisational culture, integrity and compliance**

### **Corporate culture**

NS aspires to be an organisation characterised by an open and safe corporate culture where professional integrity is a matter of course. We attach great importance to results-oriented working practices that are consistent with the norms and values to which we have committed ourselves. To this end, we approach the risks and issues surrounding integrity and compliance in a controlled and balanced manner.

The conduct of NS's employees and the choices they make in their work are crucial to the integrity of the company. We promote a culture of openness and accountability. Our Code of Conduct forms the basis for the professional conduct of all NS employees, helping them to make the right decisions and deliberate choices in a variety of sometimes difficult situations. The Code of Conduct is available to all employees via the intranet. Since September 2023, we have been offering an online training module on the NS Code of Conduct, which employees take once every three years.

The Code of Conduct also forms the basis for handling integrity reports and investigations. The code is consistent with the relevant OECD guidelines and with the Dutch Corporate Governance Code. This means that there are also safeguards within NS for the protection of human rights. Based on the code, we have formulated policies on specific themes such as conflicts of interests, competition, information protection, the fight against corruption and fraud. Furthermore, we operate a national programme to improve workplace behaviours and combat harassment and racism, among other things. The NS Code of Conduct serves as the guiding document for this programme. In addition, NS has a planning and control system in place that helps to ensure integrity and compliance risks and issues within the organisation remain visible and manageable.

### **Governance and integrity**

The operational departments within NS are responsible for ensuring ethical business practices. Our Integrity department supports efforts to encourage desired behaviour, regulatory compliance and observance of the NS Code of Conduct. It develops policies, provides information on those policies, handles integrity violation reports, analyses trends, offers solicited and unsolicited advice and promotes integrity awareness within NS. Issues are submitted to confidential advisers within NS, if and to the extent permitted by confidentiality

rules. To escalate integrity issues, the Integrity department also has a direct line of communication with the chair of the Executive Board and the Supervisory Board. NS has an Integrity Committee, whose members include the Directors of HR, Legal, Security and Risk. This committee assesses new integrity policies and provides advice on integrity issues.

### **Advice and information for employees**

On the Integrity Portal on the intranet, employees can find information about integrity and NS's policy in this regard. In addition, employees are welcome to submit concrete issues and dilemmas to the Integrity department. They can ask questions by email or by telephone. The department advises employees about possible solutions and actions. In 2023, the NS Integrity Department answered 218 questions (2022: 297).

### **Integrity Desk and Regulations for Reporting Integrity Issues**

The Regulations for Reporting Integrity Issues (including whistleblower reporting) guarantee that employees can report actual or suspected irregularities, that NS will deal with these reports carefully and confidentially and that employees will not experience any adverse consequences as a result of having reported an incident. Employees have several options for reporting integrity issues or abuses (anonymously or otherwise): via the Integrity Desk on the internal network, via a special app, by email, by telephone or in a one-on-one conversation. An integrity violation report may result in a recommendation to the person who reported the issue, and to the managers involved, on any subsequent steps or measures. It may also be decided to ask NS Security to conduct an independent fact-finding investigation, with NS taking measures based on the outcomes. A total of 99 integrity violation reports were received in 2023 (2022: 82). Of all finalised reports in 2023, 24% were wholly or partially upheld.

Employees may seek support from one of NS's confidential advisers if they want to report an integrity violation (or another issue). This option was used 151 times in 2023 (2022: 163). External stakeholders can report issues to NS via a special desk. This option was used twice in 2023.

In autumn 2023, NS revamped its reporting scheme to be compliant with Whistleblowers Protection Act. The new NS scheme is called the Integrity Issues Reporting Scheme.

## **Compliance**

As a state-owned company, NS must set a good example. We must be transparent about our regulatory compliance and we must act with integrity at all times. We are therefore keen to ensure that we adhere to all the applicable laws and regulations and abide by the standards and values in force. In other words, that we are 'compliant'. The body of rules and obligations, both internal and external, is extensive and complex: for example, we have to comply with external laws and regulations, such as the Railways Act, the Competition Act, the Working Hours Act and the Working Conditions Act. In addition, we apply internal policy frameworks such as the NS Code of Conduct, the procurement regulations and the train drivers' manual.

### **Compliance management structure**

NS has set up a compliance management structure to ensure that we keep abreast of this multitude of rules, standards and norms and are able to bring our social responsibility into practice. Primary responsibility for compliant working practices rests with the NS business units. They can seek advice from various compliance knowledge centres, such as NS Legal and Quality, Health, Safety & Environment (QHSE). The Risk & Compliance department oversees this structure and reports on its findings to the Executive Board and Supervisory Board.

## **Compliance vision**

NS has formulated a comprehensive compliance vision, which sets out the key challenges and priorities for operational compliance up to 2025. Legal requirements have been translated into performance indicators and norms regarding aspects such as competition, tendering procedures, privacy and safety. There is also NS-wide reporting on the key risks and issues regarding compliance and an overview of the relevant KPIs. In addition, we provide training courses in all parts of the company to keep our employees' knowledge of laws and regulations up to date.

## **Privacy**

For NS, the need to handle our passengers' and employees' personal data carefully is self-evident. To remain compliant with privacy legislation, NS has set up a privacy structure and governance arrangement. We also ensure a permanent focus on education and awareness around privacy, including through e-learning modules, training courses and newsletters. Last year we once again appointed 'privacy champions': employees who, in addition to their regular work, answer questions and serve as the eyes and ears of the Privacy Office within their respective business units. Together with the Data Protection Officer and Privacy Officers, these privacy champions make up the privacy function within NS. In late 2023, there were 96 active privacy champions within NS (2022: 92).

## **Processor data breaches**

Despite our careful handling of customer and employee data, two major data breaches occurred in 2023. In March 2023, the software system of market research firm Blauw, an NS partner, was hacked. A data breach at another NS processor took place in late April 2023. NS became aware of this data breach in late August 2023. In both cases, NS reported the data breaches to the Dutch Data Protection Authority and the data subjects.

## **Privacy by design**

Effective and careful data processing starts with privacy by design. This means that we recognise the need to protect the privacy of data subjects right from the initial design phase of a product or service. We also carry out numerous assessments in which we check the impact of data protection. This allows us to identify risks to data subjects and take measures to manage those risks at an early stage.

## **Follow-up research on the Second World War**

In late 2022, NS asked the NIOD Institute for War, Holocaust and Genocide Studies to follow up on the preliminary research by the institute on NS's role during the Second World War. NS made this request with a view to gaining further historical insight and encouraging reflection on its actions during the war years.

# Our sustainability performance



On 20 June, King Willem-Alexander and Queen Máxima travelled by royal train from Den Haag Holland Spoor station to Belgium for their state visit. This was its last ride. The royal train has reached the end of its useful life and has been offered to the Railway Museum.

Travelling on an NS train is carbon neutral: since 2017, all our trains have been powered by 100% green electricity from Dutch and Swedish wind farms that generate power almost exclusively for NS.

Since last year, we have also been receiving electricity from Dutch solar farms. Research agency CE Delft concluded last year that our trains produce CO<sub>2</sub> emissions of 0 g CO<sub>2</sub>-eq/passenger-kilometre, excluding emissions from electricity generation infrastructure. Since 2019, we have also offered carbon-neutral replacement bus services during emergencies and breakdowns: these buses run directly and indirectly on renewable fuels. However, the biggest climate impact NS makes is getting people to travel by train instead of by car. Despite the fact that our trains do not emit CO<sub>2</sub> directly, there is still room for improvement. After all, manufacturing trains does involve CO<sub>2</sub> emissions, for example through the use of steel and energy. We also emit CO<sub>2</sub> by heating our buildings. We are therefore taking steps not only to offer carbon-neutral transport, but to become carbon-neutral as a company, and also include our supply chain in this effort. We are taking steps to achieve and promote zero-emission, circular and green enterprise for ourselves and our partners in our supply chain.

**New method for calculating CO<sub>2</sub> emissions**  
At NS, we have been using a new method since 2023 to calculate how much CO<sub>2</sub> passengers avoid if they travel by train instead of by car. We also calculate how much CO<sub>2</sub> NS emits in its business processes. This provides an insight into how we are performing against our targets. It also allows us to more effectively manage our efforts to reduce CO<sub>2</sub> emissions. This will enable us to continue our role as a leader in offering sustainable mobility.

**Avoided CO<sub>2</sub> as a performance indicator in the new franchise**  
The new main rail network franchise includes a new performance indicator: ‘avoided CO<sub>2</sub> emissions’. This increases the focus on improving occupancy rates where and when possible, and on reducing our own CO<sub>2</sub> emissions. For this PI, we use the guidelines from the Greenhouse Gas Protocol, the global standard for determining greenhouse gas emissions at a company level.

# Zero-emission operations



NS aims for its operations to be entirely fossil-free by 2040. This means we will use green electricity at all times of the day and every day of the week for running our trains as well as for our buildings and offices. To achieve that, we focus on what is known as the energy triad:

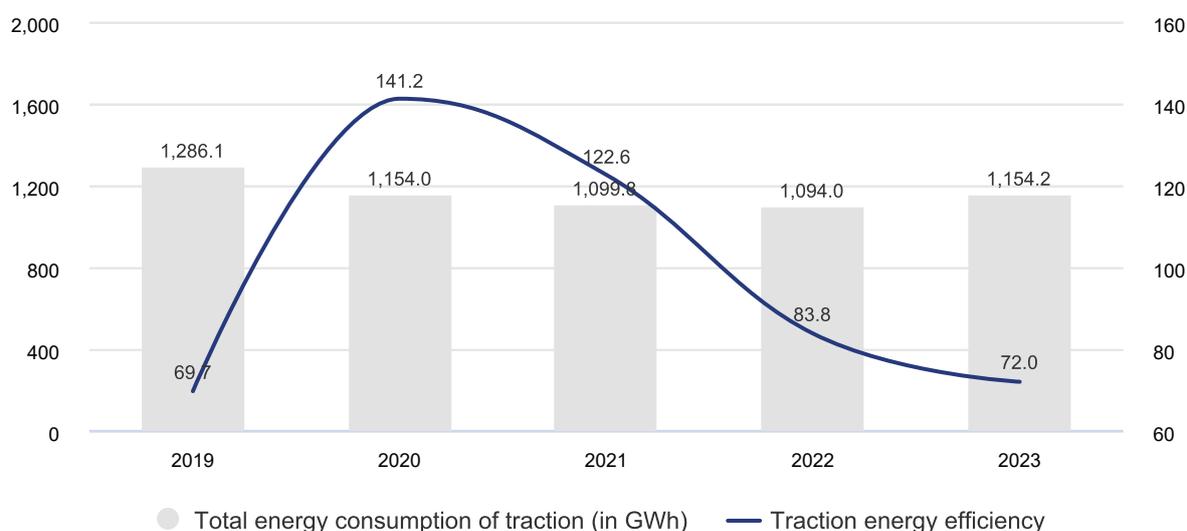
- Energy efficiency
- Sustainable generation on our own land and buildings
- Purchase of zero-emission energy

**NS is a member of the Netherlands Association for Sustainable Energy (NVDE)**  
Collaboration with partners is essential to enable progress on all these themes. Within the NVDE, we and the other members highlight the switch from car to train as an indispensable solution for achieving climate targets. We also harness the knowledge of the NVDE and its members to develop a long-term energy strategy, in which we aim to fulfil our role as a leader in sustainable mobility.

## Energy consumption by NS

In 2023, NS consumed 1,212 GWh of electricity, 21 TJ of heat and 5.6 million m<sup>3</sup> of gas for trains, stations, workshops and offices. Our bus suppliers used 2 million litres of diesel. This comes to a total of 1,293 GWh of energy (2022: 1,230 GWh). This increase is explained by higher energy consumption by trains. With our thermal energy storage system, we generated the equivalent of 21 GWh of heat and cold at 6 stations.

At NS, we use the term 'energy efficiency of traction' to refer to the energy consumption of our trains per passenger-kilometre. The diagram presents the energy efficiency of traction plus the total energy consumption of our trains (including replacement bus services). The number of passenger-kilometres in 2023 was 15.5 billion, up 17% compared with 2022. Improved train occupancy figures mean we used much less energy per passenger-kilometre. In 2023, energy consumption per passenger-kilometre was 72.0 Wh, which is an improvement on 2022 (83.3 Wh/rkm).



## Total CO<sub>2</sub> emissions of NS

When measuring CO<sub>2</sub>, we distinguish between Scope 1, 2 and 3 emissions in accordance with the GHG Protocol. In this annual report, we report on Scope 1, Scope 2 and some Scope 3 emissions.

- Scope 1: Emissions we cause ourselves, such as gas-fired heating in buildings.
- Scope 2: Emissions generated in the production of the energy NS uses. This includes the electricity we buy for our trains and buildings.
- Scope 3: Emissions generated by the activities of other chain parties as a result of NS's operations, e.g. in the manufacture of trains or building materials for station renovations. Scope 3 also covers replacement bus services (since NS does not own the buses).

### Calculating Scope 2 emissions

Scope 2 emissions are calculated in two ways: location-based and market-based. We also use another method that takes generation and consumption matching into account:

- **Location-based:** The total CO<sub>2</sub> emissions from the energy NS consumes per year, in a situation in which we do not purchase any sustainable energy. Using this measurement method, our total CO<sub>2</sub> emissions in 2023 would have amounted to approximately 410 kilotonnes: 372 kilotonnes from running trains and 38 kilotonnes from our buildings. The decrease in emissions compared with 2022 is the result of a new emission factor. For the 2023 calculations, we used newer, more up-to-date figures released in January 2024 for the CO<sub>2</sub> emissions from electricity per unit of energy. These figures are lower because the proportion of renewable energy in the Dutch energy mix has increased. Absolute energy consumption in 2023 is higher than in 2022 but much lower per passenger-kilometre.
- **Market-based:** This method takes into account the contractual instruments used by NS to purchase electricity, including any guarantees of origin that prove the electricity was generated from renewable sources. In 2023, the amount of electricity NS consumed on an annual basis was equal to the amount of renewable electricity produced by our energy supplier and allocated to us. This resulted in net emissions of almost 0 kilotonnes of CO<sub>2</sub> for train operations.
- **Matching:** The CO<sub>2</sub> emissions from the hours when we consumed more energy than was generated from renewable energy and thus relied on fossil sources. In 2023, traction hour-matching was around 60%. This means that last year we relied on fossil electricity sources about 40% of the time (in hours), which corresponds with hour-matching emissions of around 172 kilotonnes of CO<sub>2</sub>.

### Scope 3

Last year, we identified our full Scope 3 emissions for the first time as part of our commitment to the Science Based Targets initiative (SBTi) from 2021. This is necessary to ensure that our company-wide emission reductions are in line with the latest IPCC climate science in both the short and long term, with the aim of limiting the global temperature increase to 1.5°C. We submitted the documentation to SBTi for validation in mid-2023. The results have not yet been received. We are also preparing to report our climate mitigation and adaptation plans next year according to the CSRD guidelines (where possible). In the table below, for Scope 3 we only include emissions from replacement bus services because we can already see these values.

Since 2019, we have offered carbon-neutral replacement bus services that run directly and indirectly on renewable fuels. After adjusting the emission factor for renewable fuels in 2021, we also offset the remaining emissions of CO<sub>2</sub> equivalents through Gold Standard's Verified Emission Reductions, specifically with 700 tonnes of CO<sub>2</sub> in credits from the 2016 Kayseri Molu Landfill Gas-to-Energy Project in Turkey.

## NS's total CO<sub>2</sub> emissions, by method (in kilotonnes of CO<sub>2</sub>)

Greenhouse gas emissions NS (scope 1, scope 2 and part scope 3**)* in kilotons CO <sub>2</sub> emissions	2021	2022	2023
<b>Emissions from running trains</b>			
Scope 1 (diesel trains)	0	0	0
Scope 2 (electric trains)			
<i>Location-based</i>	515.0	458.6	371.9
<i>Matching</i>	206.0	183.5	148.8
<i>Market-based</i>	0.0	0.0	0.0
Scope 3 (train replacement bus transport without offsetting remaining CO <sub>2</sub> eq emissions)	0.06	0.08	0.07
Scope 3 (train replacement bus transport with compensation)	0.0	0.0	0.0
<b>Emissions from stations and buildings</b>			
Scope 1	2.8	2.4	12.0
Scope 2			
<i>Location-based</i>	28.5	33.9	26.0
<i>Matching</i>	11.7	14.0	10.7
<i>Market-based</i>	0.5	0.6	0.5

\* The figures are based on CO<sub>2</sub> equivalents, so other greenhouse gases with Global Warming Potential are included where possible.

\*\* Scope 3 in the above table only relates to replacement bus services.

The following table shows the CO<sub>2</sub> emissions per passenger-kilometre (market-based). This allows us to compare emissions from train journeys with other modes of transport.

Emissions per p-km from running trains (scope 1, scope 2 and scope 3) (market-based*)	2021	2022	2023
Scope 1, 2 and 3 CO <sub>2</sub> emissions per passenger-kilometre	0	0	0
Passenger-kilometres in the Netherlands (in millions)	8.630	13.310	15.536

\* The figures are based on CO<sub>2</sub> equivalents, so other greenhouse gases with Global Warming Potential are included where possible.

## Sustainable generation from own land and buildings

NS uses its land and buildings to generate sustainable energy. There are around 3,000 solar panels on the roofs of several NS maintenance facilities. There are around 3,000 solar panels on the roofs of several NS maintenance facilities. In 2023, we measured renewable energy generation of more than 590,000 kWh, equivalent to the annual energy consumption of 190,000 households. The Nieuwe Hemweg wind farm near Amsterdam Sloterdijk station was opened in 2021. Its six wind turbines generate energy for about 10,000 households on an annual basis. Our aim is to continue to increase the share of renewable energy from our own generation facilities.

## Purchase of zero-emission energy

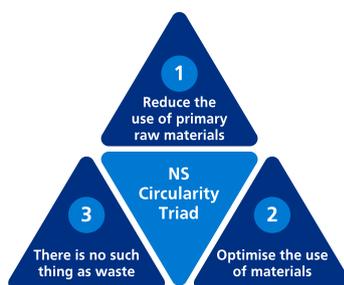
NS purchases energy from energy suppliers. We have several contracts to ensure the supply of power for trains and buildings and natural gas to heat our buildings. Our current contract for the supply of electricity for our trains expires at the end of 2024. In anticipation of that, in 2023 we issued a call for tenders for electricity and guarantees of origin (GOs) for running trains on behalf of the rail sector (under the name 'VIVENS cooperative'). PZEM and Shell will supply NS with renewable electricity and GOs respectively for three years from 1 January 2025.

NS's preference was for all renewable energy to be generated in the Netherlands. Unfortunately, we couldn't ask for that. Given the size of the contract, we were obliged to call for tenders from all across Europe, and as a result, the energy can come from anywhere in Europe. NS also would have preferred to negotiate a new contract independently rather than with the industry, since 85% of the total size of the contract concerned energy for NS. Unfortunately, an independent contract starting in 2025 was infeasible, as it is not yet technically possible to determine exactly how much energy each carrier consumes.

We are pleased to have been able to find new partners in the difficult energy market. Expectations are that technological opportunities for energy generation and storage will increase substantially in the coming years. NS is preparing to reduce its dependence on fossil back-up after this contract for those times when there is no sunshine and no wind. We aim to do so using storage capacity and 'hour-matching', a method in which the time of generation and the time of use are closer together. Moreover, last year we replaced a number of wind farms in the power-for-trains contract with two solar farms in the Netherlands for more effective hour-matching.

Since 2023, we no longer purchase GOs for natural gas. These certificates have become scarce and expensive. In the current market, buying green-gas GOs gives only a limited incentive to market players to install more green-gas plants. The impact on the permitted reportable emissions of no longer purchasing GOs for natural gas can be seen in the table above. Scope 1 emissions for stations and building were 12 kilotonnes of CO<sub>2</sub> in 2023 compared with only 2.5 kilotonnes in 2022.

## Circular operations



For NS, circular operations mean minimising the use of primary raw materials, maximising the use of our own materials and not creating any waste. NS aspires to achieve full circularity in terms of procurement, maximum reuse of materials and zero waste in offices and workshops and from trains. In this way, we contribute to the climate agreement and the European Green Deal as well as to SDG 12 and SDG 13. Together with ProRail and the Ministry of Infrastructure and Water Management, NS is also working to achieve the Waste-

Free Stations 2040 ambition.

## **Inflow versus outflow**

By inflow, we mean all physical resources entering our company. This includes new trains and spare parts, maintenance supplies, company clothing, IT hardware and so on. Inflow is circular if it does not contribute to resource depletion, for example because it has been used before (reused or recycled) or because it is replenished (from a sustainably managed biological source).

By outflow, we mean our physical assets leaving our company and the waste thrown away by passengers on trains and at our stations. Outflow is linear if the materials are landfilled or incinerated and circular if the materials are not lost but reused. This only works if it is technically possible to reuse, convert, recycle or compost those materials and if there is a party that is able and willing to do so.

For definitions of inflow and outflow we align with the World Business Council for Sustainable Development's Circular Transition Indicators (CTI) framework.

## **Limiting the use of raw materials**

Applying circularity principles in design and procurement will enable us to become smarter in the use of materials and to reduce the use of raw materials. We have laid down our circular procurement principles in our Socially Responsible Commissioning and Procurement policy. In high-impact tendering procedures, we include circularity as a criterion in the selection and award phase. In 2023, this included tenders for wheels, magnetic brakes and cabling. In connection with the purchase of New Generation Double-Decker (DDNG) trains, we devoted attention specifically to reducing the weight of the trains so that less material is needed to build them and less energy is needed to run them. In addition, the manufacturer shares a materials passport of the proposed design. This allows us to jointly select circular materials that do not contribute to resource depletion and can be dismantled and recycled after the train's lifetime. By requiring a materials passport and high recyclability rates, NS is among the leaders in the European railway sector.

### **Inflow measurement**

To effectively manage and promote the circular use of materials, NS applies a permanent 'inflow measurement' method that allows us to analyse and record the composition of the materials we procure. In 2023, this covered a total of 8,420 tonnes (2022: 7,381 tonnes), or 46% of all materials we purchased (2022: 43%). This increase is due to an expansion of the number of materials we measure. In inflow measurement, 34% was circular (2022: 78%). This decrease is largely due to the completion of a major construction project for a new train shed in Haarlem. This project involved the re-use of many materials, leading to a higher percentage in 2022.

We have incorporated inflow measurement into our procurement processes and templates, which are available to all suppliers. In 2023, we continued our efforts to automate inflow measurement. With the help of our suppliers, we enrich the material data of coded train-related items, such as spare parts. We also use artificial intelligence to digitise technical drawings. In addition, it remains important to educate and train the NS employees involved in procurement processes, and to collaborate with our suppliers. This allows us to identify opportunities and challenge the market to become more circular.

### **Circular offerings for passengers**

While reducing the use of primary resources, we are developing circular offerings for passengers in our stations. We are examining whether single-use packaging is really necessary. For example, we only offer coffee cups with a lid if passengers specifically ask for one. We are making packaging more sustainable by including renewable and recycled materials. In 2023, we replaced plastic-coated bread sheets with paper and started the transition from bags with a plastic window to paper bags. However, we are reaching the limits of what is possible: a great deal of plastic has already been phased out or cannot be replaced. For paper laminates, for instance, in many cases the market does not yet offer good alternatives that are heat-resistant and food-safe. We encourage our suppliers to keep innovating and we are monitoring the market closely. In addition, NS is pushing for other strategies, such as Bring Your Own (BYO).

### **Reusable cups**

In 2023, we promoted the use of reusable cups. For this purpose, we repeated the 2022 'The Way To Go' campaign in the spring of 2023, in cooperation with almost all tenants at the major stations. This campaign won the 2023 Green Giraffe award for the highest-impact marketing event. Since 1 July, when the statutory SUP (Single-Use-Plastics) surcharge on disposable packaging was introduced, NS Retail has charged over €500,000 for plastic packaging. This includes €0.10 for a cup, €0.35 for meal packs and €0.05 for pre-packed items.

In 2023, this resulted in a reduction of 442,884 disposable cups at our own Kiosk, Julia's and Station Living Room retail outlets. The surcharge will benefit sustainability initiatives for NS Retail. One example is a loan system to replace disposable cups for hot drinks with a deposit system for cups. This system will be piloted in Rotterdam in early 2024. In addition, NS switched from plastic lids to a more sustainable variant in late 2023. As the new lid contains much less plastic, it contributes to a substantial reduction of plastic in the chain.

### **Optimum use of rolling stock**

We take good care of our rolling stock by focusing on effective maintenance and timely repairs so as to extend its service life. For instance, we are upgrading our 20-year-old double-decker trains for another 20 years of service. In 2023, we upgraded 16 VIRM2/3-type double-deckers with 96 coaches. In the process, 99% of these trains get a second life. We upgrade 86% of the 20-year-old train components internally and reintegrate them in our trains for another 20 years of service. 13% of all materials get a second life elsewhere. In our repair and maintenance work, we aim to extend the life of all train components. For instance, 11% of all train components qualify as 'reuse components'. This means that in the event of a malfunction, these components are repaired or overhauled rather than thrown away. This helps prevent the need to buy new products and the accumulation of waste.

### **Outflow of trains**

When a train series is approaching the end of its service life, we identify any components of which we can extend the life by reusing them in another series. There was no outflow of trains in 2023. We did prepare for the outflow of our ICM-type trains in 2024 by sharing a 'harvest book' with our partners that allowed them to see which train components NS will offer for reuse. Interested parties could see the components in real life on a viewing day on the train.

## There is no such thing as waste

If we have no further use for products and cannot reuse them, we still want to keep them in the cycle as high-value materials. We first try to find a new destination for the product as a whole. If that proves impossible, we find a new destination for the individual components. If the components cannot be reused, we separate them for recycling purposes as effectively as possible. In 2023, we were able to repurpose 3,322 tonnes of materials within and outside our organisation. For example, old upholstery from our trains is turned into shoes, inner tyres of public transport bicycles are used to make travel bags, and departure time displays are transformed into bird boxes. In 2023, we opened the seventh NS Upcycle Shop at Utrecht Central Station, where we sold collectors' items from trains and NS Upcycle products.

Through four auctions, we found new uses for old or surplus NS materials in 2023. In total, hundreds of items (and 50.9 tonnes of materials) found a new purpose in this way. In 2023, the KaNScentraal Foundation sold 3.6 tonnes of collectors' items from our trains to raise funds for disadvantaged children.

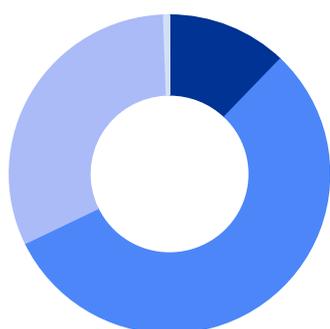
### Collection of bottles and cans

In 2023, we increased the number of deposit machines at the 5 largest stations to 13. Since April, these machines also accept deposit cans. The number of deposit bottles and cans returned in 2023 was 782,540. Our ambition was to expand the number of stations with a deposit return machine from 5 to a total of 22 by the end of 2023. However, this expansion was postponed due to the limited use of these machines. We think it is important to first find out why the collection of deposit items at our stations is making so little progress. We will use the results of this study to identify what action is needed.

### Food waste

All AH to Go outlets are partnering with Too Good To Go to prevent food waste. Too Good To Go is a service that uses an app to connect customers with restaurants and shops that have surplus unsold food. Our Kiosk and Station Living Room outlets joined the scheme in September 2023.

## Outflow results



- Reuse (3,322 tonnes)
- Recycling (15,183 tonnes)
- Incineration (8,621 tonnes)
- Landfill (152 tonnes)

In 2023, we disposed of 27,278 tonnes of materials (2022: 24,540 tonnes). 67.3% of this volume was recycled or reused. Hazardous waste made up 32% of the total outflow. This is related to the disposal of contaminated soil from the demolition of a building in Haarlem.

To increase the circular outflow percentage, we have made the collection points smarter so as to separate more material flows. We track the separation rate for each site using dashboards.

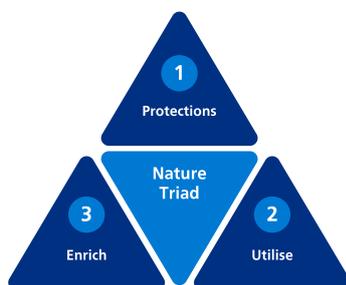
We have taken several measures at the stations to increase circular outflow. For instance, at the largest stations we facilitate and encourage in-store separation at source. In 2023, we separated 35% of all station waste. This puts us on track towards our ambition of 100% waste-free stations by 2040. For this, we rely in part on post-separation of residual flows, of which we achieved 12.3% in 2023. We are committed to working with our waste processor to increase the outflow rate of post-separation.

To reduce hazardous waste, we launched a study in 2023 looking at the impact of hazardous waste in the biggest flows and whether we can avoid it. We expect the results of this study in 2024.

## Promoting the sharing and worldwide upscaling of knowledge

We have learnt lessons from the circular modernisation and dismantling of our trains and translated these lessons into specifications for the acquisition of new trains. We applied these lessons in the call for tenders for DDNG trains. To bring about real change in the market, however, it is important to ensure that other railway businesses also know and apply these lessons. For that reason, we are scaling up these specifications at the European level through Eurospec. This is a collaboration between six European railway companies (NS, DB, SNCF, ÖBB, SBB and RDG) that aims to align needs and specifications in order to reduce costs throughout train lifecycles, reduce delivery times and accelerate innovation. In early 2023, these circular specifications were published for the first time, including a standardised template for a 'materials passport'.

# Green enterprise



## Protecting and enriching nature

At and around stations across the Netherlands, we maintain and improve 65 hectares of green space together with ProRail:

- We planted new prairie species, perennials and mixed flower seeds and installed bird boxes and insect hotels at several of our stations. Last year, at the Driebergen-Zeist, Castricum and Rotterdam Alexander stations, we ran a pilot with the Netherlands Society for the Protection of Birds that included insect hotels, bird boxes and a house sparrow shelter. The insect hotels attract many solitary bees in particular, and over 70% of the bird boxes were occupied last year.
- Dutch Butterfly Conservation commissioned NS to survey 45 NS sites last year to identify the potential for biodiversity improvement. This exercise produced several practical measures, which will be implemented from 2024.
- In 2023, we developed the EcoCheck, a measurement tool we can use ourselves to measure biodiversity levels at NS sites. A baseline measurement of the EcoCheck at our stations will start in spring 2024. Measuring and mapping biodiversity levels at NS sites will help us identify measures to improve those levels.

## Harnessing nature

Due to climate change, we are facing more extreme weather conditions, such as flooding and extreme heat. As part of the solution, we are creating additional green spaces by planting trees to prevent heat stress and using natural water drainage through 'wadis' and green roofs. In 2023, for example, we planted veteran trees on land owned by NS in Dalen. An 'inspiration document' for climate-adaptive station design was produced, commissioned by ProRail, NS Stations and Bureau Spoorbouwmeester. In it, green space is featured as a solution for mitigating the effects of climate change in our building designs.

# NS: a sustainable brand

In 2023, NS dropped from 8th to 12th in the list of brands perceived as making a positive contribution to solving problems in society (source: Monitor Merk & Maatschappij, 2023, B-open, Marketresponse).

The weight given to sustainability in the decision to use public transport remains considerable. Last year, over two-thirds of consumers considered sustainability to be important or very important. One in six Dutch people say they use public transport more often because it is more sustainable than some other types of transport.

Over half of consumers believe there is an urgent need for action to combat climate change in the Netherlands and appreciate information on the CO<sub>2</sub> emissions of products and services. Consumers also acknowledge their own responsibility to choose sustainable products or services (70%). This is why they want companies to communicate about their sustainability efforts. In this context, they attach great importance to honest communication and the substantiation of claims.

# Sustainable procurement

Every year, NS purchases goods and services worth an average of €1.2 billion. In 2023, we had ties with over 2,800 suppliers in 24 countries. 80% of our total procurement is from 100 suppliers. Goods and services purchased by NS mainly comprise staff, financial and facility services, IT, construction, communication, energy, trains, train components and transport.

## Socially responsible commissioning and procurement

Our Socially Responsible Commissioning and Procurement policy covers all parts of our procurement process. The purpose of this policy is to make our supply chain and services more sustainable. At the heart of the policy is the principle that sustainable choices are a criterion in our decision-making. Their weight increases in proportion to their impact on NS's sustainability targets. We have included our socially responsible commissioning and procurement requirements in the procurement governance rules and embedded them in our General Terms and Conditions of Purchase ([www.nsprocurement.nl/en/](http://www.nsprocurement.nl/en/)). Successful examples of sustainable choices in our procurement processes in 2023 include:

**Zero emissions:** We used a carbon footprint model as an award criterion in the tendering procedure for SNG train wheels. Using that model, we considered carbon emissions from material use, energy consumption and transport. We have integrated this carbon footprint model into our working method for the future.

**Circular:** A rare-earth metal called neodymium is used in magnets that form part of the braking system of double-decker trains. We have purchased a total of 3,000 kilos of neodymium. In the tendering procedure, as well as price, we also considered circularity: as a result, new magnets will consist of 100% recycled material from June 2024.

In 2023, we also procured electric charging poles consisting mostly of recycled aluminium. They are modular in construction, which makes them easier to maintain and minimises material use throughout their lifetime.

**Social return:** In 2023, our supplier of domestic train cleaning services recruited more than twenty people with limited opportunities on the labour market to clean our trains. They receive guidance from a buddy.

**Supply chain responsibility:** Company clothing is a high-risk procurement category due to the likelihood of environmental pollution and labour hazards in its production. We agreed with the clothing supplier on additional precautions and due diligence in the supply chain. For example, the supplier has commissioned an independent party, Fairwear, to audit all factories involved in the production of these products.

### **Monitoring sustainability**

When procuring goods and services, we applied various sustainability standards, tools and monitoring systems in 2023:

#### ***Railsponsible Climate Pledge***

NS is a member of Railsponsible, the sustainability initiative for the railway sector. Together with other international carriers, we aim to lead the way in making the entire rail supply chain carbon neutral, for example through the international Science Based Targets initiative.

#### ***Ecovadis***

We subject our major suppliers to a Corporate Social Responsibility (CSR) assessment. All members of Railsponsible have agreed to use the Ecovadis standard for this purpose. This involves assessing the supplier's environmental impact, labour and human rights record, business ethics and sustainable procurement. In 2023, the minimum required score was 50 points out of 100. We ask suppliers who fail to achieve this score to submit an improvement plan and apply for reassessment.

#### ***Code of Conduct***

Through our Code of Conduct, we communicate to our suppliers the CSR standards and values we apply when doing business. No cases of suppliers not complying with or violating the code were reported in 2023.

#### ***Wizzr***

Wizzr is a monitoring system we use to track agreements with suppliers on Social Return. Both suppliers and NS have access to this system.

#### ***Socially responsible commissioning and procurement KPI***

Socially responsible commissioning and procurement is a KPI introduced in 2023 that allows us to monitor whether tendering procedures are rolled out in line with our Socially Responsible Commissioning and Procurement policy. Since its implementation, all tendering procedures have been found to be compliant.

# SDGs

The SDGs (Sustainable Development Goals) are 17 goals formulated by the United Nations to build a better world by 2030. NS contributes to these goals and has included them in its sustainability strategy. Our focus is on our contribution to solving the climate crisis (particularly by avoiding and reducing CO<sub>2</sub> emissions) and on how we can increase our positive social impact. Climate change is one of the greatest challenges of our time, but also an issue where NS can make a real difference for future generations. Our approach is based on five key focus areas: zero emissions, circular and green enterprise, by everyone and for everyone. NS contributes to solutions for several other major challenges in the Netherlands. We need to make choices not only to reduce CO<sub>2</sub> emissions, but also to solve the nitrogen deposition issue, facilitate housing construction, address social inequality and increase the liveability of our cities.



In 2022, together with our stakeholders, we identified the SDGs of particular relevance to them that could benefit from additional future contributions by NS. This resulted in a list of nine SDGs that are relevant for our organisation. These did not change in 2023. We will reassess the SDGs with our stakeholders in 2024, including as part of the CSRD dialogue.

NS strategy	Contributes to these sub-goals of the SDGs	Impact on SDG sub-goal is measured by this indicator	How will NS measure its impact?	This is how NS knows its impact on SDG:
<b>Zero-emission Enterprise</b> 	7.2 By 2030, increase substantially the share of renewable energy in the global energy mix	7.2.1. Renewable energy share in the total final energy consumption	<ul style="list-style-type: none"> <li>→ % Matching power consumption with green generation</li> <li>→ Number of MWh generated on NS land/buildings</li> <li>→ The number of m3 gas consumption</li> </ul>	7, 9 and 13**
	7.3 By 2030, double the global rate of improvement in energy efficiency.	7.3.1. Energy intensity measured in terms of primary energy and GDP	→ Energy consumption per passenger-kilometre	7, 9 and 13**
	9.4 By 2030 upgrade infrastructure and retrofit industries to make them sustainable.	9.4.1. CO2 emissions per unit of value added	→ CO <sub>2</sub> emissions per passenger kilometre	7, 9 and 13**
<b>Circular Enterprise</b> 	12.2 By 2030, achieve the sustainable management and efficient use of natural resources	12.2.1. Material footprint, material footprint per capita, and material footprint per GDP	→ % circular inflow	12
		12.2.2. Domestic material consumption, domestic material consumption per capita/GDP.	→ % circular inflow	12
	12.4. By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle.	12.4.2. Hazardous waste generated per capita and proportion of hazardous waste treated	→ Kg of hazardous waste generated	12
	12.5. By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse	12.5.1. National recycling rate, tonnes of material recycled	→ % circular outflow	12, 13**

<b>Green Enterprise</b> 	12.2 By 2030, achieve the sustainable management and efficient use of natural resources	12.1.1. Sustainable consumption and production 12.2.1. Material footprint, material footprint per capita, and material footprint per GDP	→ % vegetable supply → Indicator under development*	12 12
	By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses	12.3.1. Global food loss index	→ Indicator under development*	12, 13**
	15.5 Significant action to reduce the loss of biodiversity	15.5.1. Red List Index	→ Indicator under development*	15
<b>For &amp; by everyone</b> 	11.2 Provide access to safe, affordable, accessible and sustainable transport systems for all by 2030.	11.2.1. Proportion of population that has convenient access to public transport, by sex, age and persons with disabilities	→ % main rail network stations with travel assistance → Independently accessible rolling stock: % of sprinter fleet	11
	11.7 By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities	11.7.2. Proportion of persons victim of physical or sexual harassment, by sex, age, disability status and place of occurrence.	→ % main rail network stations with travel assistance	11
	5.1 End all forms of discrimination against all women and girls everywhere	5.1.1. Non-discrimination framework/code	→ % share of women in senior management positions	5
		5.1.2. Women by level of responsibility	→ Pay gap monitoring	
	5.4 Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate	5.4.1. Parental leave options for all employees	→ Parental leave	
	5.5 Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life	5.5.1. Women by level of responsibility	→ % share of women in senior management positions	
		5.5.2. Non-discrimination framework/code	→ Pay gap monitoring	
	8.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value		→ # sustainable jobs	8
	8.6 By 2020, substantially reduce the proportion of youth not in employment, education or training			
	8.8 Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment			
<b>Sustainable Mobility</b> 	10.2 By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status	10.2.1. Job opportunities for highly educated refugees 10.2.2. Women by level of responsibility	→ # work experience placements UAF → % share of women in senior management positions	10
	10.2 By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status	10.2.3. Proportion of employees with multicultural background	→ NWA interventions	
	10.3 Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard	10.3.1. Non-discrimination framework/code		
	9.1.2. Passenger and freight volumes, by mode of transport	→ We annually measure the impact of NS on society by means of the True Value Model	7,9,11,12 en 13**.	

## **CSRD**

In 2023, we started implementing the new CSRD directive. This means that in 2026, NS's annual report for 2025 will have to be fully compliant with the CSRD requirements.

# Our activities and achievements abroad

# Abellio



Abellio passengers in Germany.

Abellio Transport Holding BV and ATH Rail Transport Beteiligungsgesellschaft GmbH (collectively: Abellio) are wholly owned subsidiaries of NS and active in the passenger transport market in the UK (until 28 February 2023) and Germany.

The newly formed entity Transport Holding Germany BV regained control of the restructured German operations (WestfalenBahn, Abellio Rail Mitteldeutschland and service provider PTS) in the course of 2022, following the completion of insolvency proceedings. On 28 February 2023, Abellio Transport Holding BV sold its investment in Abellio UK (Abellio Transport Group Ltd and its group companies) to the incumbent management via a management buyout.

## **Management Buyout of Abellio UK**

Abellio UK generated cumulative profits and contributed positively to NS's results. However, market conditions in the British railways have been challenging at times, especially given the relatively unstable political context and unfavourable economic situation in recent years. NS received a cumulative dividend of around €230 million. The revision of the strategy for foreign operations in 2018 meant that Abellio UK was no longer of strategic importance to NS. Since then, NS has been working towards exiting the UK market. This took some time, due to the uncertain UK public transport market, the effects of the COVID-19 pandemic and NS's outstanding guarantees for British rail contracts (originally for around €0.5 billion).

Since 31 May 2022, Abellio Transport Group Ltd and its group companies have been classified as 'assets and liabilities held for sale' and are no longer consolidated. Abellio UK's net result has since been accounted for in the annual report as 'result from discontinued operations'. The transaction was completed on 28 February 2023 with the transfer of the shares to Transport UK Group Limited, a British entity owned by local management.

Following completion of the transfer, the British management will oversee settlement of the terminated franchise agreements, including NS's remaining outstanding guarantees for these franchises of around €0.3 billion as at the date of the transfer and remaining claims on NS's behalf. NS has retained a share with special rights ('special share') in Transport UK Group Ltd to ensure the orderly resolution of outstanding items. Full settlement of latent receivables and liabilities is expected to take until at least 2025. In 2023, NS received €54 million as repayment of loans and receivables that had been successfully settled. As of 31 December 2023, NS had a claim on outstanding loans of €119 million and outstanding guarantees of around €0.2 billion relating to the three terminated franchises in the UK: Greater Anglia, East Midlands and West Midlands. Most of those outstanding guarantees are expected to be released by the UK Department for Transport in 2024, after final settlement of the old franchise agreements.

## **Restructuring of Abellio Germany**

The German regional transport market has been difficult to operate in. This is due not only to the aftermath of the COVID-19 pandemic, but also to other external factors beyond the control of carriers, such as an increase in trackwork. These have led to replacement transport costs, fines for not meeting punctuality performance targets and service cancellations. Collective labour agreements for train crew and labour market developments have also resulted in higher staff and training costs. These cost increases are not sufficiently covered by the transport agreements indexation mechanism and are not otherwise compensated. Abellio Germany is therefore likely to face losses in the long term, until the end of the franchise agreements in 2032. This situation was not sustainable without significant financial support or the adjustment of transport agreements. Abellio Germany's shareholder financed the losses on the assumption that a long-term solution would be found for these structurally loss-making franchise contracts. In July 2021, after negotiations with major public transport

authorities had failed, Abellio Germany initiated *Schutzschirmverfahren* (special insolvency proceedings under German law) to find a viable long-term solution by restructuring the activities and loss-making contracts of all entities of Abellio Germany. These insolvency proceedings offered the opportunity to work on an entity-by-entity solution with the major public transport authorities, rather than a solution for the Abellio Germany as a whole.

Over the course of 2022, the restructuring process for some of the operational entities was completed and the shares of the entities concerned were acquired by a new German holding company within the NS Group (ATH Rail Transport Beteiligungsgesellschaft Deutschland GmbH), headquartered in Berlin. With the completion of the insolvency proceedings, financial control was regained over PTS GmbH (from 1 February 2022), WestfalenBahn GmbH (from 1 March 2022) and Abellio Rail Mitteldeutschland GmbH (from 1 July 2022). WestfalenBahn will continue to operate the Emsland and Mittelland contract until the original end date in December 2030, and Abellio Rail Mitteldeutschland will continue transport services within the STS network until the same date (December 2030). The loss-making DISA contract will be terminated early (in December 2024 instead of 2032) under the restructuring agreement with the public transport authorities. In summer 2023, the public transport authorities in central Germany announced that the railway company Regionalverkehre Start Deutschland GmbH will take over transport on the diesel network in Saxony-Anhalt (DISA) from Abellio in December 2024. This was preceded by a call for tenders issued by the public transport authorities in which, as agreed, Abellio could not participate.

The operations in North Rhine-Westphalia were terminated, and in February 2022 the contracts were transferred to various carriers designated by the public transport authorities, as no agreement was reached on additional compensation for these contracts. The entity in North Rhine-Westphalia (Abellio Rail NRW) will be liquidated by the trustee. The Baden-Württemberg entity was taken over by state-owned operator SWEG in 2022 after a failure to agree with the public transport authorities on additional compensation for the Stuttgarter Netz contract.

In July 2023, a settlement was reached with the trustee of the former German holding company, Abellio GmbH, which was approved by creditors. The insolvency/restructuring procedure for Abellio GmbH is expected to be completed in 2024, after approval of the insolvency plan. NS will review its strategy for its remaining operations in Germany.

To date, NS has invested €460 million in Abellio Germany (including its financial contribution to the restructuring). As of 31 December 2023, NS/Abellio has outstanding guarantees of €118 million in respect of Abellio Germany.

# Abellio in Germany



An Abellio employee assists a passenger with buying a train ticket.

## Market context

The German economy contracted by 0.3% in 2023. High inflation affects private households' net income as well as their savings and purchasing power.

In an attempt to mitigate the impact of higher prices – especially of energy, food and mobility – the German government has provided various support and stimulus packages. One of the measures was the introduction of a €9 ticket for regional transport. This was valid throughout the country during the summer of 2022 – an initiative that continued from May 2023 in the form of a monthly ticket for €49 (the 'Deutschlandticket').

Despite economic weakness, the labour market remained robust in 2023. Demand for labour remains high, due to a lack of qualified workers and general labour market shortages.

## 'Deutschlandticket': 25% more passengers in Germany

Since 1 May 2023, passengers have been able to use the Deutschlandticket on all forms of regional public transport (second class) throughout Germany for €49 a month. This initiative is a follow-up to the successful €9 ticket that was available for three months in the summer of 2022. Since the introduction of the Deutschlandticket, all regional railway companies in Germany have reported a significant increase in passenger numbers. At both WestfalenBahn and Abellio Rail Mitteldeutschland, passenger numbers increased by around 25% on average. On certain routes, passenger numbers even doubled.

The increase in passenger volumes was particularly strong on high-demand routes (e.g. between Hanover and Braunschweig and between Halle and Erfurt). There was also a significant increase in weekend passenger numbers on routes popular among tourists, such as the Emsland line to the North Sea and connections to the Harz mountains or in the Saale valley. On tourist routes, capacity was not always sufficient, meaning that not all bicycles could be taken on board the train. The sharp increase in passenger volumes has led to additional pressure on customer service staff and train guards in particular.

Initial evaluations show that many commuters in central Germany and the WestfalenBahn region have also switched to the train thanks to the Deutschlandticket. In view of the increased passenger numbers in central Germany, Abellio was instructed by the public transport authorities to increase capacity within the STS network. Three additional trains (Alstom's Talent 3 model) entered service in December 2023. On the Emsland line (WestfalenBahn), additional services with double traction have been running since December 2023 to create more capacity for passengers with bicycles. Additional costs are reimbursed by the public transport authorities.

## The German railway market in a nutshell

The German regional market was deregulated in 2003, with responsibility for its organisation falling on the 16 federal states of Germany. Each state has its own approach to managing its regional market for public rail transport. This has led to the creation of 27 regional public transport authorities, all operating their own procurement regimes, with a significant number of potential franchises. There is a constant stream of public calls for tenders on the market.

In Germany, regional public rail transport is subsidised by the state and federal governments. This is in contrast to long-distance public transport (Fernverkehr), which is not subsidised. Abellio has gross contracts with the public transport authorities, which means that Abellio Germany is paid for its services per train-kilometre.

Abellio currently has a 3.4% share of the regional market for public rail transport in Germany, and ranks fourth among the privately owned railway companies in Germany.

In Germany, the rail passenger transport market is dominated by Deutsche Bahn and its regional transport subsidiary DB Regio AG, including Regionalverkehre Start Deutschland GmbH ("Start"). Start aims to win back regional contracts for DB. Deutsche Bahn is also responsible for the railway network and stations with infrastructure divisions DB Netz and DB Station und Service, both part of DB Group.

In 2023, it was decided to merge these two DB Group infrastructure divisions. This resulted in a new infrastructure company called DB InfraGO AG, which has been operating since 1 January 2024. DB InfraGO AG is implementing a comprehensive modernisation programme for both the rail network and stations over the next few years. This includes the renovation and upgrading of high-performance corridors by 2030, a project for which the German government has now made available some €40 billion of additional funding for the period to 2027.

## Abellio's rail franchises in Germany

Abellio currently operates 28 lines in 3 rail franchises in 8 federal states. Abellio Germany's head office is in Berlin, with regional offices in Halle (ABRM), Bielefeld (WfB) and Neuss (PTS). In central Germany, Abellio operates the Saale-Thüringen-Südharz (STS) network and the Sachsen-Anhalt diesel (DISA) network through Abellio Rail Mitteldeutschland GmbH. WestfalenBahn GmbH runs the Emsland and Mittelland network in North Rhine-Westphalia and Lower Saxony. In addition, in Germany Abellio owns the cleaning and security services company PTS, located in Neuss, which provides services to various franchises operated by Abellio and other train operators in Germany.

Franchise	Company	Start	End	Train kilometres per year, x 1 million	Punctuality (with a 5-minute margin)	Trains
Saale-Thüringen-Südharz-Netz (STS)	ABRM	2015	2030	9.2	85.4%	38
Dieselnetz-Sachsen-Anhalt (DISA)	ABRM	2018	2024	9	86.5%	54
Emsland-/ Mittelland-Netz (EMIL)	WfB	2015	2030	5.4	86.0%	28

### Abellio Rail Mitteldeutschland GmbH



Abellio plays an important role in central Germany. Abellio's trains have been running on the STS electric network since 2015 and on the DISA network since 2018. Thousands of passengers are able to travel with Abellio in the Harz and Börde regions and as well between the major cities of Erfurt and Magdeburg.

### WestfalenBahn GmbH



The company is based in Bielefeld and connects the cities of Braunschweig and Hanover in Lower Saxony with Bielefeld and Rheine in North Rhine-Westphalia. From Münster, there is a direct line via Meppen and Leer to Emden on the North Sea.

## Operational performance

In central Germany, the STS franchise entered its ninth year of operation in December 2023. WestfalenBahn has also now been operating the Emsland and Mittelland network for nine years. Both companies have built a strong reputation among both passengers and public transport authorities thanks to their solid operational performance in recent years. Overall, however, operations were extremely challenging in 2023. The significant intensification of track maintenance and construction work and staff shortages (including at DB Netz) led to a sharp drop in punctuality in 2023 compared with previous years. This decline, as well as an increase in train cancellations, can also be attributed to the limited availability of infrastructure: unmanned signal boxes or short-term closure of sections of

track by DB Netz.

On top of that, collective bargaining took place in 2023 between DB and two railway unions, Eisenbahn- und Verkehrsgewerkschaft (EVG) and Gewerkschaft Deutscher Lokführer (GDL). These led to several strikes, which also affected Abellio in Germany. Abellio also conducted collective bargaining with EVG and GDL. Talks with EVG were completed by Abellio in June 2023 and those with GDL in January 2024, without resulting in a strike.

## Staff shortages and the need for skilled employees

The German labour market is still very tight. The demand for guards, train drivers and mechanics remains as high as ever. Experienced train drivers are scarce and it is not easy to recruit qualified specialists from other sectors. All players in the sector face the challenge of finding solutions to the growing shortage of skilled workers. The entire rail sector is competing with other sectors for these people, making it increasingly difficult to win them for the railways. The new collective agreement agreed with GDL includes a gradual reduction of the working week from 38 to 35 hours from January 2028. That means recruiting and training even more guards and drivers, in the tight labour market. This will lead to higher costs and possibly more train cancellations.

Infrastructure operator DB InfraGO AG is also increasingly struggling to fill shifts. This has already led Abellio to cancel numerous train services in central Germany, especially at night and in the weekends.

In 2022, Abellio launched a large-scale branding and recruitment campaign for all operating companies, which was further stepped up in 2023. The aim of that campaign was to position Abellio as an attractive employer in the regions where it operates. Abellio is also explicitly focusing on retaining existing employees. Staff turnover at Abellio was therefore lower than the sector average in 2023. Still, there are many vacancies, due to an involuntary interruption of recruitment during insolvency proceedings. The overall shortage of skilled staff affects us as much as other companies.

## Maintenance work

The German rail network is overloaded, with too many trains on certain main axes. Many places also have outdated and poorly maintained infrastructure that urgently needs to be upgraded, expanded and digitised. As a result, we are seeing an increase in maintenance work to get the network back into shape. The resulting bottlenecks in the rail network are leading to widespread delays. Besides the planned construction work to modernise the infrastructure, the closure of a number of routes has also led to additional pressure on the network.

## Financial result

Abellio Germany	Revenue in 2023 (in millions of €)	Number of employees (end of December 2023)
Abellio Rail Mitteldeutschland	271.4	977
WestfalenBahn	122.9	342
PTS	13.4	278
Head office	6.5	23
Total before intercompany elimination	414.1	1,620
Intercompany elimination	-10.8	
<b>Total</b>	<b>403.3</b>	<b>1,620</b>

In 2023, Abellio Germany reported revenue from operations of €403 million (2022: €253 million, not a fully consolidated year). Abellio Germany's consolidated underlying operating result in 2023 was €5 million negative excluding an impairment and other incidental items (2022: €2 million negative, not a fully consolidated year). The underlying loss in 2023 is mainly due to the high fine amount of €42 million (2022: €21 million) and general cost increases. Those fines were mainly due to the aforementioned maintenance work and staff shortages, which led to reduced punctuality and increased train cancellations. Most of the fines were beyond Abellio's control, but Abellio is only compensated for this to a limited extent. Besides the negative impact of fines, higher future staff costs due to the new collective labour agreements (leading to higher wages and increasing staffing needs given the phased transition to a 35-hour working week), the volatile energy market and general cost increases have resulted in a negative outlook over the remaining contract period. The unfavourable developments are not fully compensated under the contracts with the public transport authorities. The expected negative financial impact is therefore reflected in an asset impairment of €121 million in 2023 (2022: €10 million).

In 2022, the restructured German entities were consolidated again after gaining control. PTS has been consolidated since 1 February 2022, WestfalenBahn (WfB) since 1 March 2022 and Abellio Rail Mitteldeutschland (ABRM) since 1 July 2022. This means that the figures for 2023 (the first full year of consolidation) cannot be compared with those for 2022. Abellio GmbH (the former holding company) is not yet consolidated as the insolvency proceedings are ongoing.

The acquisition of control in 2022 resulted in a positive accounting result of €108 million due to acquisition accounting rules, under which assets and liabilities are reassessed. Former shareholder loans and certain the creditor liabilities were released in accordance with agreements made in the insolvency plan. The accounting result achieved in 2022 is recognised as the 'financial result'. In 2023, after completion of the process, a correction to this result was incorporated with a negative impact of €5 million on the 2023 financial result.

## Outlook for 2024

Staff availability, sharply rising labour and energy costs and infrastructure maintenance work are also going to have a major impact on operational and financial performance in 2024 and subsequent years. In 2023, an asset impairment of €121 million has already been recognised for this purpose. Abellio is continuing its recruitment campaign and aims to have enough staff in 2024. In addition, Abellio is targeting a smooth transfer of the DISA network to the new carrier, Start, in December 2024. All DISA employees can join Start without changing their employment contract. Nevertheless, the upcoming transfer may have a negative impact on staff turnover and performance in the final year of operations.

Given the significant investments in expansion and upgrade projects and in the digitalisation of railway infrastructure, many constraints have to be taken into account. In the period to 2030, 40 sections will be extended in phases to create a high-performance network with a total of 9,000 kilometres of track. Part of this includes the replacement of obsolete switches, track sections and viaducts. This will lead to months of track section closures in almost all German regions, affecting millions of commuters. According to the German government, this general modernisation is a prerequisite for the envisaged 'Deutschlandtakt', a plan that should lead to better-coordinated connections between major cities by 2030. Passenger transport should double over that period.

The German government and the federal states have agreed to continue offering the Deutschlandticket in 2024. Besides the Deutschland ticket and the expected increase in passenger numbers, funding for regional public transport (the 'regionalisation fund') has been increased by €1 billion a year.

Regarding Abellio's business activities, the strategy currently is to optimise the existing contracted services while also seizing opportunities that fit in well with existing business activities and can offer synergistic benefits. The restructuring of the German operations (including former German holding company Abellio GmbH) is expected to be fully completed by the end of 2024. At that time, the DISA contract will also have been terminated and transferred to Start under the restructuring plan.

# Financial performance

# Finances in brief



Train journeys to Berlin are faster since December. The new journey time between Amsterdam and Berlin is 5 hours and 52 minutes. Thanks to changes to the Dutch railway infrastructure, a new timetable and the use of other trains, the journey time on the IC Berlin has been reduced by half an hour.

## Improvement in financial performance visible, but still insufficient

In 2023, NS had an underlying result from operating activities<sup>[1]</sup> of -€191 million (2022: -€421<sup>[2]</sup> million, 2021: -€952 million, 2020: -€890 million). This is an improvement on previous years since the COVID-19 pandemic, but still manifestly inadequate for a financially sound NS. The results are inadequate partly because of structurally lower passenger numbers than before the COVID-19 pandemic, especially for commuters, now that it has become common practice to work from home. In addition, NS has raised fares for most train tickets and season tickets by less than the inflation NS has faced in recent years. The 'indexation gap' incurred since 2021 is 8.9%. NS recognised a Transition Fee for Public Transport (TVOV) of €45 million in 2023, as well as a €14 million adjustment to the Public Transport Availability Payment (BVOV) for 2022. In 2022, the recognised BVOV amount was €274 million. As the new franchise for the main rail network (HRN) for the period 2025–2033 shows limited earning capacity with a below-market return, an impairment on non-current assets of €402 million has been recognised. Together with the lower depreciation due to the HRN impairment recognised in 2020 due to the COVID-19 pandemic, the net effect of the HRN impairments on the result from operating activities amounts to -€318 million. An impairment loss of €121 million was also recognised in Germany, due to a downward adjustment of the forecasts to 2030 for the current franchises in Germany. Impairments do not cause cash flows but reflect reduced earning capacity in the future. Together with other non-recurring and exceptional accounting items, the result from operating activities is -€540 million (2022: €391 million). On balance, NS was left with a net loss of -€380 million in 2023 (2022: €574 million net profit).

In 2023, NS invested<sup>[4]</sup> a total of €548 million (2022: €431<sup>[3]</sup> million), mainly in purchasing new trains and upgrading existing trains. The operating cash flow from operating activities<sup>[5]</sup> came to €229 million (2022: €366 million) and, as in previous years, is therefore insufficient to cover capital expenditure. Net debt<sup>[6]</sup> has risen to €973 million (2022: €755 million) over the past few years, despite government support measures in connection with the COVID-19 pandemic. If NS is to continue investing in mobility for the future, it is important to improve the results and operating cash flows from operating activities.

We expect to see further financial challenges in the years ahead. NS will have to continue to borrow in the coming years to fund all of its investments and to refinance existing loans as they expire. We will continue our efforts to adjust the cost level in line with the downward adjustment of passenger revenues, thereby improving results and cash flows. A financially healthy NS is essential if we are to continue serving the public interest and achieve our ambitions for mobility in the Netherlands.

At the request of the House of Representatives, the government released €120 million to allow NS to postpone a proposed 8.7% increase in rail fares and season tickets in 2024. While this measure brings immediate relief, it is not a long-term solution. NS will therefore be forced by rising costs and the 'indexation gap' already accumulated over the past few years to implement the delayed fare increase in 2025, on top of the normal inflation adjustment. That could mean an increase of more than 10% in 2025.

- 1 *Result from operating activities adjusted for the effect of non-recurring and exceptional accounting items.*
- 2 *In NS's 2022 annual report: -€304 million. Temporary additional costs due to a 2022 revision of the capitalisation and depreciation method for IT expenses (development environments) were classified as a one-off exceptional item in 2022 (-€117 million) for comparability with 2021.*
- 3 *In NS's 2022 annual report: €450 million. The value now refers to investments in continuing operations only.*
- 4 *Capital expenditure exclusively concerns the acquisition of tangible and intangible non-current assets and property.*
- 5 *Operating cash flow from operating activities serves as a year-on-year comparable indicator of the cash-generating capacity of operating activities. This indicator is derived from the consolidated cash flow statement in the financial statements and concerns the result after adjustments, after deduction of income tax paid/received and after redemption of lease obligations.*
- 6 *Net debt relates exclusively to private loans as disclosed in the financial statements, after deduction of cash and cash equivalents (excluding security deposits for energy contracts), money market funds and short-term deposits.*

# Financial results

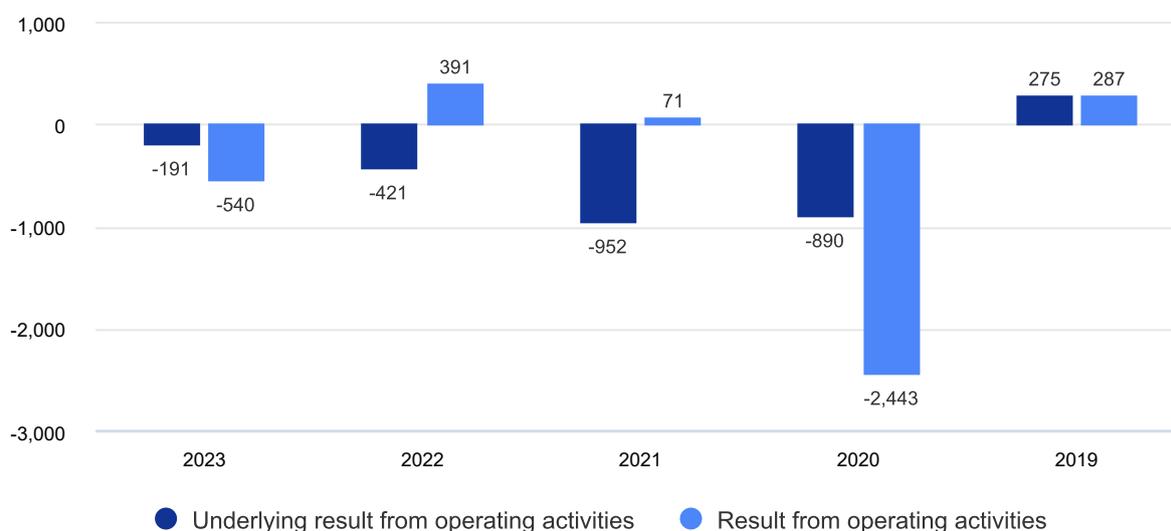
## Another negative underlying result from operating activities

Below, we present the income statement plus explanatory notes, up to the result from operating activities, differentiating between our activities in the Netherlands and those in Germany. In the income statement, revenue and expenses were adjusted for government compensation provided to help us continue the timetable when there were significantly fewer passengers and other non-recurring and exceptional accounting items such as HRN franchise impairments, and were then reconciled to the result from operating activities as reported in the financial statements.

Income statement part 1/2 (in millions of euros)	NS		The Netherlands		Germany	
	2023	2022	2023	2022	2023	2022
Train-related transport	3,268	2,618	2,877	2,362	391	256
Station development and operation	483	437	483	437	-	-
<b>Revenue (excluding TVOV, BVOV and NOW)</b>	<b>3,751</b>	<b>3,055</b>	<b>3,360</b>	<b>2,799</b>	<b>391</b>	<b>256</b>
Personnel costs	1,672	1,461	1,587	1,412	85	49
Depreciation charges	553	578	496	514	57	64
Use of raw materials, consumables and inventories	341	293	303	270	38	23
Own capitalised production	-72	-68	-72	-68	-	-
Costs of subcontracted work and other external costs	500	431	463	414	37	17
Infrastructure levy	432	343	271	249	161	94
Franchise fees	192	172	192	172	-	-
Other operating expenses	322	265	304	254	18	11
<b>Operating expenses (excluding non-recurring and exceptional accounting items)</b>	<b>3,940</b>	<b>3,475</b>	<b>3,545</b>	<b>3,217</b>	<b>396</b>	<b>258</b>
Share in result of investments (accounted for according to the equity method)	-1	1	-1	1	-	-
<b>Underlying result from operating activities</b>	<b>-191</b>	<b>-421</b>	<b>-185</b>	<b>-419</b>	<b>-5</b>	<b>-2</b>
Transition fee (TVOV) / Availability payment for public transport (BVOV)	59	274	59	274	-	-
Temporary emergency bridging measure for sustained employment (NOW)	1	12	1	12	-	-
Impact on the result impairments	-439	535	-318	535	-121	-
Balance of miscellaneous	31	-10	18	-14	13	4
<b>Effect of non-recurring and exceptional accounting items</b>	<b>-348</b>	<b>811</b>	<b>-240</b>	<b>807</b>	<b>-108</b>	<b>4</b>
<b>Result from operating activities</b>	<b>-540</b>	<b>391</b>	<b>-425</b>	<b>389</b>	<b>-114</b>	<b>2</b>

The result from operating activities amounts to -€540 million (2022: €391 million). However, this result is heavily influenced by non-recurring and exceptional accounting items. This is why the development of the underlying result from operating activities is a more reliable measure of our financial performance. The underlying result from operating activities reflects the result from operating activities net of non-recurring and exceptional accounting items and amounted to -€191 million in 2023 (2022: -€421 million). While less negative than in previous years since the outbreak of COVID-19, the result remains far too low.

The following chart shows the changes in the underlying result from operating activities in the period 2019–2023, in millions of euros.



An important note on the underlying result from operating activities is that, to better reflect current IT developments, NS has changed the way it works within the IT domain. Since 2022, this has reduced the amount of IT expenditure that can be capitalised. This has temporarily led to higher costs (estimate for 2023: €120 million, 2022: €117 million) compared with previous years, but due to lower depreciation, the cumulative effect of this change on the result will fall to zero in the next few years.

### Passenger numbers after the COVID-19 pandemic

NS was granted compensation by the Dutch government over the period 2021–2023 to continue the timetable as fully as possible while passenger numbers were significantly lower than before the start of the COVID-19 pandemic. In 2023, this compensation (TVOV) was recognised in the amount of €45 million. An adjustment to the 2022 BVOV of €14 million has also been recognised. The State Secretary for Infrastructure and Water Management imposed a financial measure on NS, in the form of a €1.5 million fine, for its decision to scale down the timetable in the second half of 2022. A provision was made for the fine at year-end 2023. NS is required to use the amount for the benefit of passengers. NS has drawn up a plan for this and will report on it following implementation.

Ordinary revenue in the Netherlands from passenger transport increased by 22% to €2.887 billion (2022: €2.362 billion) and revenue from Stations increased to €483 million (2022: €437 million). The increase is mainly due to the fact that 2023 was the first full year without COVID-19 measures, which were still in force in 2022 (until February of that year). The number of passenger kilometres in 2023 was 89% of the figure for 2019, the last year before the COVID-19 crisis (2022: 76%). This appears to be the new normal in terms of passenger numbers since COVID-19. Now that working from home has become commonplace, passenger numbers, especially for commuters, remain behind 2019 levels.

### Inflation

The inflation rate in the Netherlands for 2023 was 3.8%. Over the same period, we increased the price of most train tickets and season tickets by an average of 4.3%. This slightly reduced the 'indexation gap' incurred over the period 2021–2022, from 9.4% to 8.9%. The indexation gap widened sharply in 2021–2022 as inflation significantly outpaced the increase in the price of train tickets and season tickets.

Adjusted for non-recurring items, operating expenses in the Netherlands increased by approximately 10% to €3.545 billion (2022: €3.217 billion). Personnel expenses, which account for almost half of operating expenses, rose to €1.587 billion (2022: €1.412 billion) due to the filling of the many vacancies, especially among onboard staff, that were still open at the end of 2022 (the average staffing level increased by 930 FTEs), in addition to the increase in wages in the collective labour agreement (5% on 1 July 2022 and 3.45% on 1 January 2023). In addition, the recognised franchise fee and high-speed line fee payable to the Ministry of Infrastructure and Water Management increased to €192 million (2022: €172 million) and the infrastructure fee payable to ProRail increased to €271 million (2022: €249 million). Finally, 2023 saw sharply rising energy prices in relation to stations, workshops and offices, with energy costs rising to €25 million (2022: €9 million). As regards traction energy for its rolling stock at €108 million (2022: €102 million), NS had limited exposure to the sharp rise in market prices. This limited increase in spite of the significantly higher energy prices is due to a hedging strategy under which we purchased much of the required traction electricity for the period up to 2024. From 2025, the cost of traction electricity will be sharply higher.

### **HRN franchise impairment**

In December 2023, the Ministry of Infrastructure and Water Management awarded NS the main rail network (HRN) franchise for 2025–2033. This award, combined with the adjusted outlook regarding passenger development and increased interest rates, necessitated a reassessment of the HRN franchise impairment. This reassessment of the HRN franchise agreement up to 2033 resulted in an HRN franchise impairment on non-current assets of €402 million. This impairment is mainly due to the limited earning capacity of the new HRN franchise for the period 2025–2033 compared with the market return. Together with the lower depreciation due to the HRN franchise impairment recognised in 2020, which NS had to recognise due to the impact of the COVID-19 pandemic on NS, the combined net effect of the HRN franchise impairment amounts to -€318 million. The HRN franchise impairment does not generate any cash flows.

### **Limited negative operating result in Germany**

The situation in Germany is challenging. Many fines are being imposed for train cancellations and low punctuality. To a large extent, this poor operational performance is caused by infrastructure outages and extensive trackwork. Abellio is only partly compensated for these fines. Staff shortages and a high sickness absence rate also cause train cancellations and thus keep Abellio from running a full schedule.

The result from operating activities in Germany before non-recurring and exceptional accounting items is -€5 million (2022: -€2 million). Due to the restructuring operation in Germany, the results for 2023 and 2022 cannot be compared because NS regained control over the various companies during 2022, and they were therefore not recognised for the whole of 2022. The expected future results have been revised downwards. This is partly due to higher penalties for train cancellations and low punctuality resulting from large-scale infrastructure work. Sharply increased costs due to inflation and increased energy prices, for which only partial compensation is provided, will also negatively affect future results. Finally, future results have also been negatively affected by the reduction of the working week from 38 to 35 hours as a result of the new collective labour agreement for train staff, for which NS will not be compensated. Due to the sharp downward revision of the expected results for the current franchises up to 2030, an asset impairment of €121 million was recognised. Including this impairment, and various other exceptional items with a net positive effect of €13 million, the result from operating activities is -€114 million (2022: €2 million).

Provisions made in 2021 for restructuring and write-downs have been partially released. This involves an amount of €74 million (2022: €77 million), most of which is recognised under finance income. This follows an agreement with creditors and the trustee in relation to the insolvency proceedings of the holding company Abellio GmbH. The final insolvency plan is yet to be determined and approved by creditors and the court.

## Net loss

The second part of the income statement is presented below.

### Income statement (part 2/2)

(in millions of euros)

	2023	2022
<b>Result from operating activities</b>	<b>-540</b>	<b>391</b>
Finance income	101	206
Finance expense	-58	-33
<b>Net financing result</b>	<b>43</b>	<b>173</b>
<b>Result before income tax</b>	<b>-497</b>	<b>564</b>
Income tax	107	-37
<b>Result from continuing operations</b>	<b>-390</b>	<b>527</b>
Result from discontinued operations, after tax	10	54
<b>Result for the reporting period</b>	<b>-380</b>	<b>581</b>
Minority interest	0	7
Attributable to the company's shareholder	-380	574

The result from discontinued operations relates to Abellio in the UK. In 2018, NS changed its foreign strategy, deciding that foreign activities should always contribute to the interests of Dutch passengers. Due to the considerable uncertainties in the UK railway market and the impact of COVID-19 on passenger numbers, the exit from the UK market took a long time. In August 2022, NS agreed that Abellio UK would be sold to its UK management. Following approval by the commissioning parties in the UK, including the Department for Transport, and various agencies, the sale process was completed on 28 February 2023. This means that the focus of NS is now mainly on Dutch passengers, in both the domestic and international context. The net effect on the result of the discontinued operations for the first two months was €10 million.

Thanks to the result from operating activities and the exceptional items it includes, in combination with the above, NS is reporting a net loss of -€380 million (2022: €574 million profit).

# Cash flows and financial position

## Borrowing funds for investments

An adjusted and condensed cash flow statement is shown below.

### Income and expenditure

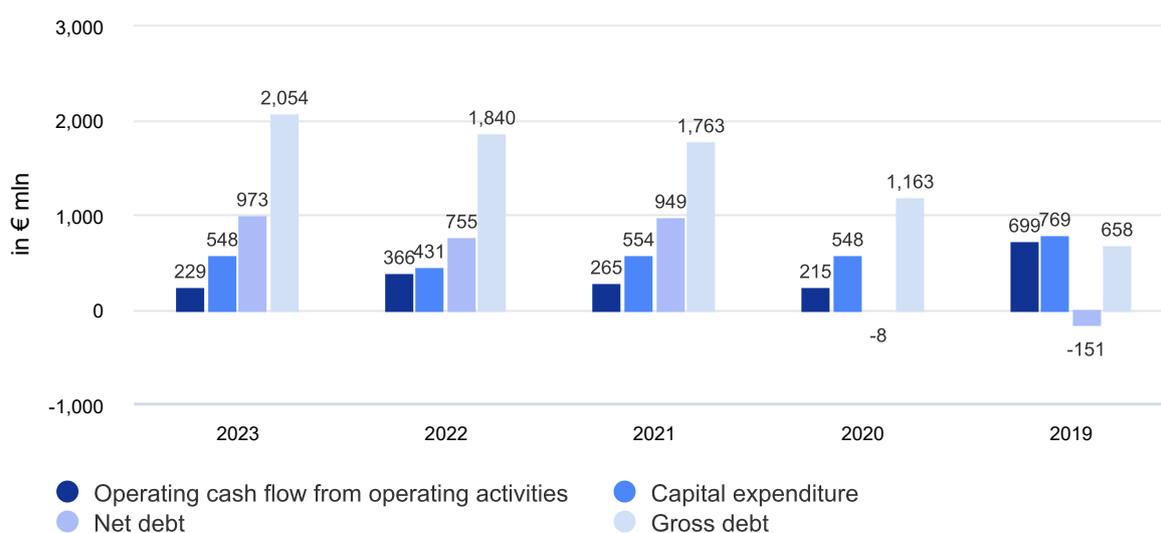
(in millions of euros)

	2023	2022
Operating cash flow from operating activities <sup>5</sup>	229	366
Capital expenditure <sup>3,4</sup>	-548	-431
<b>Interim balance</b>	<b>-319</b>	<b>-65</b>
Working capital changes	-75	461
Balance of finance expenses and finance income	-20	-3
Net acquisition/disposal of financial fixed assets	163	-307
Net repayment/drawdown of loans	256	78
Miscellaneous	-242	-122
<b>Interim balance</b>	<b>82</b>	<b>107</b>
<b>Total cash flow</b>	<b>-237</b>	<b>42</b>

In 2023, NS invested €548 million (2022: €431 million) in the purchase of new trains and the upgrading of existing trains, maintenance and sustainability improvements to workshops, offices and station real estate, improvements to retail chain stores at stations, and in IT to support and implement train services, operations and customer contacts.

The net acquisition/disposal of non-current financial assets mainly concerns the sale of investments of temporarily surplus cash in money market funds. The negative balance of 'Other' is mainly attributable to the sale of Abellio UK.

The operating cash flow from operating activities is €229 million (2022: €366 million) and, as in previous years, insufficient to cover capital expenditure. The operating cash flows from operating activities, the capital expenditure and the development of the debt position in the period 2019–2023 are presented below, in millions of euros. Below that chart, the composition of the net debt is displayed.



<b>Net debt</b>		
(in millions of euros)	<b>2023</b>	<b>2022</b>
Private loans <sup>6</sup> (gross debt)	2,054	1,840
(-/-) Cash and cash equivalents <sup>6</sup>	1,081	1,085
<b>Net debt</b>	<b>973</b>	<b>755</b>

NS has continued to invest in recent years, in spite of the drop in revenue. Over the period 2019–2023, cumulative capital expenditure exceeded the operating cash flow from operating activities by over €1 billion. Notably, that led to a sharp increase in net debt by over €1.1 billion to €973 million (2022: €755 million) as well as a sharp increase in gross debt by €1.4 billion to over €2 billion (2022: over €1.8 billion). If NS is to continue investing, it is important that operating results and the resulting operating cash flows from operating activities increase.

## Creditworthiness remains stable

Standard & Poor's (S&P) is an independent credit rating agency that has assessed NS's creditworthiness for quite a few years now. One important indicator is the ratio between cash flows from operating activities and the company's debt position. The fact that the Dutch State is the shareholder of NS is a positive factor in S&P's assessment of our creditworthiness. In the most recent assessment (July 2023), the rating was an A with a stable outlook, unchanged from the assessment in June 2022.

## Sale of Abellio UK leads to balance sheet contraction

Below is an adjusted and condensed balance sheet of NS.

<b>Balance sheet</b>				
(in millions of euros)	<b>2023</b>	<b>2022</b>		<b>2023</b> <b>2022</b>
Non-current assets	4,507	4,851	Equity	1,914      2,304
Current assets (excl. cash)	1,408	1,641	Non-current liabilities	2,263      2,384
Cash	460	396	Current liabilities	2,198      2,329
Assets held for sale	-	1,476	Liabilities held for sale	-      1,347
<b>Total assets</b>	<b>6,375</b>	<b>8,364</b>	<b>Total equity and liabilities</b>	<b>6,375</b> <b>8,364</b>

NS's assets include trains, inventories, software, company buildings and land for train maintenance activities and the accommodation of staff. In addition, we own properties that we lease out to third parties, for example to accommodate retail outlets at our stations. NS's liabilities include private loans to banks, lease obligations and creditors.

The balance sheet total decreased sharply in 2023, mainly due to the completion of the sale of the operations of Abellio UK.

The size of the HRN franchise impairment was €1.197 billion at year-end 2023 (€879 million at year-end 2022). Combined with the related deferred tax asset, the impact on the balance sheet total is -€888 million (year-end 2022: -€652 million).

# Looking ahead

We expect to see further financial challenges in the years ahead. This is due to high inflation rates, the long-term drop in passenger numbers and the end of the support measures that were introduced in connection with the COVID-19 pandemic. In the coming years, NS will have to continue borrowing to fund all of its investments, even though the company's debt has already risen significantly in recent years. To improve financial performance, we will continue our efforts to reduce the cost level and bring it into balance with the passenger forecast, which has been adjusted downwards. These efforts should also help to keep train fares affordable.

## Taxes

Taxes are the primary source of income for the government, and are used to fund general facilities. This includes the railway infrastructure, which is of crucial importance to NS. As a state-owned company, NS wants to be fully transparent as regards the money flows associated with taxes. The table below shows the amounts paid (positive) or received (negative) for corporate income tax, turnover tax and payroll tax.

Taxes paid (in millions of euros)	Corporate income tax		Value-added tax		Wages and salaries tax	
	2023	2022	2023	2022	2023	2022
The Netherlands	-	-	49	66	472	416
The United Kingdom	1	1	-51	-333	39	221
Germany	-	-	-37	-14	7	4
<b>Total</b>	<b>1</b>	<b>1</b>	<b>-39</b>	<b>-281</b>	<b>518</b>	<b>641</b>

From a tax perspective, NS incurred a loss in the Netherlands in recent years. This situation is mainly due to the fact that the reversal of the HRN franchise impairments was not recognised for tax purposes. As a result, no income tax (corporate income tax) was paid in the Netherlands in 2023. The 2023 result for tax purposes in the Netherlands was also negative. Tax losses were also incurred in Germany, and no income tax was paid.

In the UK, the turnover tax rate on transport is 0%. In Germany, subsidies are exempt from turnover tax and the rate on ticket sales is 7%. Accordingly, more turnover tax was recovered on purchases in both the UK and Germany.

NS Group

# Report of the Supervisory Board



Since October, 537 new colleagues have joined NS. Previously, they were employed by the RataPlan Foundation or CPA Services. In 51 bicycle parking facilities, employees with and without a distance to the labour market are working closely together.

Operational challenges, staff shortages and negotiations on a new main rail network franchise were among the key issues on the Supervisory Board's agenda in 2023.

## Franchise 2025–2033

In 2023, NS intensively negotiated the 2025–2033 main rail franchise with the Ministry of Infrastructure and Water Management. It was one of the most important issues last year for the Supervisory Board, which had set up a special committee for this purpose. The committee was regularly updated by the Executive Board on progress made and bottlenecks encountered. The Supervisory Board served as advisor, touchstone and challenger to the Executive Board. Key themes of the franchise negotiations were possible rate differentiation, international connections, performance indicators and the franchise subsidy. The viability and long-term perspective of NS were paramount considerations for the Supervisory Board in advising on and assessing the contractual negotiations between NS and the Ministry of Infrastructure and Water Management.

The Supervisory Board is satisfied with the final award of the main rail network franchise to NS. Nevertheless, the Supervisory Board sees considerable operational and financial challenges for NS in getting through this new franchise period, including with a view to remaining the carrier of choice on the main rail network after the next franchise period. This will benefit Dutch passengers and the Netherlands as a whole, so the organisation should continue to work on this from 2024 onwards. One challenge is to keep the franchise affordable, especially since the government, much to the Supervisory Board's regret, has decided against rate differentiation. This could have taken some of the pressure off the system at peak times, with the ability to reduce fares on quieter routes at peak and off-peak times and attract additional passengers to the train. Instead, NS must continue to tailor the size of its investments to the busiest times in the morning rush hour, which will not result in optimal deployment of rolling stock; meanwhile, the costs involved are significant. The organisation must make more savings, while at the same time continuing to invest to deliver good performance. NS will have to perform well and demonstrate that an undivided main rail network provides the most benefits for passengers, including after 2033.

The Supervisory Board was in regular contact with the shareholder last year about the financial side of the negotiations. Due to the limited earning capacity of the new contract, it has been agreed that the shareholder's return requirements can be revised downwards. This is in the interests of passengers, NS staff and public transport in general

## Staff matters

The Supervisory Board is updated on staff matters within the organisation at every meeting. Key issues last year were staff shortages and workloads in a number of positions. The Supervisory Board is concerned about high workloads, which partly stem from the intrinsic motivation of NS staff to provide the best possible service to our passengers: due to staff shortages, many staff did their level best to fill in the gaps. This is understandable, but unsustainable in the long term – as reflected, for example, in the persistently high rate of absences due to sickness. The staff shortages also made the Supervisory Board reflect on its own role. We concluded that, as an organisation, we had failed to anticipate the impending shortages in time.

Fortunately, last year NS was able to fill thousands of vacancies, both with external applicants and through internal transfers. Nevertheless, there are still short and long-term challenges in maintaining staffing levels, especially with regard to Safety & Security and technical staff. This makes it all the more important for NS to be a people-oriented organisation, offering jobs at an organisation that matters to society and that engages and motivates staff. The Supervisory Board believes that NS must continue to invest in its people, by offering attractive jobs, rosters that take employees into account, an effective deployment model and sufficient opportunities for advancement.

## Operational performance

Although the minimum standards were met, in many respects operational performance in 2023 was not good and passengers often experienced train delays and cancellations. This was a key focus for the Supervisory Board. The main causes of these issues were shortages of staff and rolling stock, and trackwork. Teething problems with the new ICNG trains and speed restrictions on part of the high-speed line also had a negative impact. With an adjusted timetable and intensive staff recruitment campaigns, NS tried to deliver as good and predictable a product as possible. These efforts were only partly successful. At the same time, we are aware of the many challenges awaiting us in the coming years. In particular, the necessary trackwork carried out by ProRail, which increasingly takes place in the daytime, puts considerable pressure on the timetable. This work mostly concerns overdue maintenance that is essential if train travel is to remain attractive in the longer term.

Eurostar's international connection between Amsterdam and London will also come under pressure next year. In 2023, the Supervisory Board had many discussions with the Executive Board on the temporary closure of the terminal at Amsterdam Central Station and contributed ideas on alternatives. Unfortunately, it failed to solve this problem in a way that took account of the requirements of all stakeholders. From June 2024, therefore, the terminal will close for about six months – However, it will still be possible to travel to the UK from the Netherlands, with transfer and check-in and border controls at Brussels South station. For passengers travelling from London to Amsterdam, three direct connections remain.

## Stations and broad mobility

For NS, investing in broad mobility is an important prerequisite for keeping rail transport attractive and, as such, an essential part of its strategy. The Supervisory Board is regularly updated on progress on this issue. For example, NS is successfully running the public transport bicycle project, with its blue and yellow bikes increasingly visible on streets in all parts of the country. Following a successful pilot, scaling up the public transport ebike project is the logical next step. After initially lagging behind – for example with Mobility as a Service – NS is now catching up. Particularly in the business market, NS Go made several highly effective customer acquisitions. It is good to keep investing in this area in the long term.

NS stations play a pivotal role in broad mobility services for passengers but also for other carriers. This can create dilemmas: for example, if a carrier wants an overnight train to stop at an NS station, NS has to provide staff capacity. It is important for the dialogue with the requesting parties on topics of this kind to be conducted in a proper and businesslike manner.

The property portfolio of NS Stations is under pressure. Although NS is participating in numerous projects and despite the great need for new houses to be built in the Netherlands, factors such as high interest rates and low yields are causing delays in new housing construction in many locations.

## Abellio

NS transferred the UK franchises to the management of Abellio UK through a management buyout at the end of February 2023. This is the result of the international strategy that NS settled on several years ago, and according to which international operations should contribute to the interests of the Netherlands and Dutch passengers. Given that the rail franchises in the UK could not reasonably be said to meet this requirement and that their added value, both in financial and substantive terms, was limited, NS decided to sell its subsidiary Abellio UK.

### Abellio Germany

The German rail networks continue to cause headaches. Due to frequent trackwork and signal and infrastructure breakdowns, train services have had to be cancelled and replacement bus services arranged. As a result, fines are imposed because punctuality is too low and train cancellations too high, even though the cause is largely beyond Abellio's control. Abellio is only partially compensated for the costs associated with the fines and replacement bus services. In addition, Abellio is facing staff shortages in Germany due to the tight labour market and high rates of absences due to sickness.

Importantly, we were able to put a stop to the bankruptcy proceedings after a settlement was reached with the trustee in the summer following agreement from creditors. The final insolvency plan is yet to be approved by the court, but it has removed the uncertainty surrounding the outcome of the bankruptcy proceedings in Germany, allowing management to focus fully on the business. A reconsideration of our activities in Germany from the point of view of actual added value for passengers in the Netherlands will be made in the near future, and will obviously take into account the interests of Abellio Germany employees.

## Safe travel

Both employees and passengers want a safe environment in which to work and travel. Safety comes first at NS under all circumstances, and we never compromise on that principle. Supervisory Board members also participate in 'safety walks'. In addition, there is a lot of focus on the topic of safety during Supervisory Board meetings.

Despite NS's considerable focus on safety, incidents unfortunately do occur every year. A horrific collision with fatalities took place near Voorschoten in 2023. The Supervisory Board was immediately informed of the circumstances and was kept closely involved by the Executive Board. We also deeply regret another fatal collision that occurred near Maarn, in which a train driver was killed.

Public safety at our stations and on our trains is under pressure. Passengers and staff are increasingly confronted with aggression. This is a problem in society as a whole, and there are limits to NS's ability to solve it. The Supervisory Board therefore supports the Executive Board's efforts to get more support from the government.

Another type of safety issue occurred in the form of a hardware failure at ProRail's traffic control centre on 4 June. Many passengers were affected by the disruption on that day, unable to continue their journey or forced to spend the night at the station or a shelter. NS made serious errors in this incident. ProRail and NS have evaluated the events and measures are being taken. The Supervisory Board appreciates this as a sign of a learning culture.

## Investments and financial position

NS is facing major investments in IT and new trains, among other things. Both are necessary to continue providing reliable services to passengers in the long term. In 2023, the Supervisory Board considered, among other things, investments in IT infrastructure, modernisation of the VIRM4 and a tendering procedure for new double-decker DDNG and Sprinter S5G trains.

NS realised a net loss of -€380 million for 2023. The result from operating activities was -€540 million. NS will continue to face major challenges in the years ahead, including, in particular, a new main rail network franchise with limited earning capacity.

## Corporate governance

### Changes in the Executive and Supervisory Boards

#### ***Supervisory Board***

Chair Gerard van de Aast left NS last year. We would like to thank Gerard for his huge contribution and commitment to NS and the Supervisory Board. He led the Supervisory Board during difficult and hectic years, kept everyone alert and had an unfailing eye for safety. We are also grateful to Marike van Lier Lels and Nebahat Albayrak for their commitment to NS in recent years. The Supervisory Board welcomed Ron Teerlink and Pamela Boumeester as new members in 2023.

#### ***Executive Board***

After serving for more than seven years as CFO and a brief interim term as CEO, Bert Groenewegen will hand over his role as Executive Board member and CFO from 1 March 2024. The Supervisory Board is extremely grateful to Bert for the way he has fulfilled his duties, his tremendous commitment and his contributions to the company. We are pleased to welcome Angelique Magielse as Bert's successor and are happy with this internal transfer. Angelique will continue to serve as Managing Director of Abellio until 1 March 2024. The Supervisory Board also thanks Anneke de Vries, who retired from NS in 2023. The search for a fifth member of the Executive Board is currently ongoing.

### Performance of the Supervisory Board

Once every three years, the Supervisory Board commissions an external agency to examine its performance. A self-assessment took place in 2023. One of the outcomes is that the Supervisory Board wishes to meet at least twice a year at an NS location other than Utrecht so as to increase the connection with NS as a whole. Furthermore, the Supervisory Board has decided to split the Risk and Audit Committee (RAC), which is quite large in its current form, into an operational committee and a financial committee. This will enable the Supervisory Board to increase its focus on operational challenges, which is one of the focus areas in its supervision strategy.

### Performance of the Executive Board and collaboration with the Supervisory Board

The Executive Board's performance has been satisfactory. The Executive Board is carrying out its tasks effectively, under difficult circumstances. The relationship between the Supervisory Board and the Executive Board is professional and good. The Supervisory Board is involved in major and complex decisions in a timely and effective manner. Discussions also cover specific dilemmas. The Supervisory Board has confidence in the Executive Board and professional relations between the two boards are good. Both the Supervisory Board and the Executive Board keep to their roles in the performance of their tasks.

## Supervisory Board meetings

In total, the Supervisory Board met 10 times last year. Virtually all of these meetings were attended by all Supervisory Board Members, with an average attendance rate of 86%. The Supervisory Board has two permanent committees: the Risk and Audit Committee, and the combined Remuneration and Appointments Committee.

### Risk and Audit Committee

The Risk and Audit Committee (RAC) consists of all Supervisory Board members and has been chaired by Ron Teerlink since 1 July 2023 (previously by Herman Dijkhuizen). The committee met five times. The CEO, members of the Executive Board for Finance and Risk & Compliance, Audit Director, Group Control & Expertise Director and external auditor were also invited to these meetings. The external auditor attended all RAC meetings.

Depending on the agenda, other individuals – such as the directors of Legal Affairs and Sustainable Enterprise – were also invited. In 2023, the committee discussed the financial statements, the annual report, the yearly reporting for the Ministry of Infrastructure and Water Management, the six-monthly figures, the budget, risk management and risk appetite, the group plan for 2023–2027, periodic reporting by the Risk & Compliance department, plans and reports from the Internal Audit department, reports prepared by the external auditor, finding a new external auditor, Abellio and cybersecurity issues.

The RAC also discussed rolling stock reports and the performance of the external audit function. A key focus of the RAC, based in part on HR reports, was the progress made in addressing inappropriate behaviour and preventing nuisance.

Key points from the external auditor's management letter include internal control, the disposal of Abellio UK, the handling of the insolvency proceedings in Germany, IT and cyber security and the CSRD.

The main topics from the auditor's end-of-year report that were discussed related to NS's results, solvency, financing and continuity, the valuation of assets in Germany and the impairment of the main rail network as a result of the new franchise that was agreed.

Over the course of the year, the Chair of the Supervisory Board and the Chair of the RAC held several consultations separately with the external auditor and the shareholder.

### Remuneration and Appointments Committee (combined)

The combined Remuneration and Appointments Committee is chaired by Janet Stuijt, and its members are Pamela Boumeester, Herman Dijkhuizen, Marieke Lier Lels and Pim van der Feltz. The committee met three times in 2023. The topics discussed include talent and leadership development, succession planning and remuneration for the Executive Board. The committee also considered the remuneration report, target letters, the appraisal process, the rate of absences due to sickness and succession processes. The Supervisory Board as a whole is independent within the meaning of the Dutch Corporate Governance Code. The Supervisory Board broadly subscribes to best practice stipulations 2.1.7 to 2.1.9 in the 2016 Code.

## Shareholder

The Supervisory Board maintained good relations and regular contact with the shareholder. In 2023, for instance, we discussed the new franchise, Abellio and changes in the composition of the Executive Board and Supervisory Board, among other things.

## **Employee participation**

The Supervisory Board had frequent contact with the Central Works Council in 2023, including through the standing SB-COR Committee, which meets four times a year. Themes discussed included the new franchise, operational performance, safety and finding successors for Bert Groenewegen and Anneke de Vries. The appointment of new Supervisory Board members Ron Teerlink and Pamela Boumeester was also discussed. The Supervisory Board also had two 'Section 24 Works Council Act meetings' with the Central Works Council and the Executive Board. The Supervisory Board appreciates the atmosphere of constructive cooperation and confidentiality in which these meetings are held.

## **Relationship with the external auditor**

The external auditor routinely attends all meetings of the Risk and Audit Committee. The external auditor also attends the meetings of the full Supervisory Board at which the financial statements and six-monthly figures are discussed. In addition, the RAC consults with the external auditor without the Executive Board being present. Every year, the RAC evaluates the external auditor's performance and issues a report to the Supervisory Board.

2023 was the last year in which EY served as the external auditor. The Supervisory Board would like to take this opportunity to thank EY for its professional services and cooperation. KPMG will take over the auditing of the financial statements of NS in 2024.

## **About this report**

The financial statements for 2023, as prepared by the Executive Board, were discussed by the Supervisory Board in the presence of the external auditor. The financial statements are accompanied by the Executive Board's report. We propose that the General Meeting adopt the 2023 financial statements. We also request our shareholder to discharge the Executive Board and Supervisory Board from their liabilities.

The Supervisory Board would like to give special thanks to all employees, the employee participation bodies and the Executive Board of NS. Despite the multitude of operational and staff-related challenges, all staff served with full commitment throughout the year. 2024 will once again require a great deal of resilience on the part of our people, but passengers will always be able to count on NS.

Utrecht, 20 February 2024

# Personal details – Supervisory Board

## **Herman Dijkhuizen (b. 1960), Dutch nationality (m), Chair**

- Appointed on 1 January 2020, reappointed until 2028
- Background: Previously CFO and vice-chair of the executive board of NIBC Holding N.V. and NIBC Bank N.V.
- Other positions: Member of the supervisory board of the World Wildlife Fund, chair and member of the supervisory board of Kröller-Müller, member of the supervisory board of KPN.



## **Marieke van Lier Lels (b. 1959), Dutch nationality (f), Deputy Chair**

- Appointed on 3 February 2016, reappointed until 2024
- Background: COO of Schiphol Group until 2005, followed by various supervisory board memberships
- Other positions: Member of the supervisory board of PostNL, member of the supervisory board of Dura Vermeer, non-executive director of RELX PLC



## **Janet Stuijt (b. 1969), Dutch nationality (f)**

- Appointed 15 August 2016, reappointed until 2024
- Background: General Counsel, Corporate Secretary of NN Group NV, member of the management board of NN Group NV
- Other positions held: Member of the Advisory Board for the Master's in Finance & Law at the University of Amsterdam



## **Pim van der Feltz (b. 1964), Dutch nationality (m)**

- Appointed on 1 May 2017 until 2021, reappointed until 2025
- Background: Managing director of Natuurmonumenten
- Other positions: Member of the advisory board of the Dutch Research Council (NWO)



## **Ron Teerlink (b. 1961), Dutch nationality (m)**

- Appointed on 1 April 2023 until 2027
- Background: Previously a member of the executive board of ABN AMRO N.V., among other companies.
- Additional positions: Chair of the supervisory board of Stichting VU, member of the supervisory board of JustEatTakeaway.com N.V.



## **Pamela Boumeester (b. 1958), Dutch nationality (f)**

- Appointed on 1 September 2023 until 2027
- Background: Various supervisory board memberships, former director of NS Stations
- Additional functions: Chair of the supervisory board of WPG Uitgevers, member of the K.F. Hein Foundation, member of Stak Merweoord, chair of the Boumeester Foundation, partner at De Bestuurskamer, member of the Enterprise Division Council.



The remuneration of Supervisory Board members can be found [here](#).

<b>Name</b>	<b>First appointment</b>	<b>Reappointment</b>	<b>Retiring at the latest on/reappointed on</b>
Mr H.H.J. Dijkhuizen	1 januari 2020	1 januari 2024	General Meeting of Shareholders 2028
Ms. M. van Lier Lels	3 februari 2016	3 februari 2020	3 februari 2024
Ms. J.L. Stuijt	15 augustus 2016	15 August 2020	15 augustus 2024
Mr. W.J. van der Feltz	1 mei 2017	1 May 2021	1 mei 2025
Mr R. Teerlink	1 april 2023	-	1 April 2027
Ms P. Boumeester	1 september 2023	-	1 September 2027

## **Departures in 2023**

### **Gerard van der Aast**

Stepped down as Chair and member of the NS Supervisory Board on 2 March 2023, having served on the Supervisory Board for nine years.

### **Nebahat Albayrak**

Stepped down as a member of the Supervisory Board on 1 June 2023 after her term expired.

# Executive Board remuneration report

## Composition of the Executive Board

The members of the NS Executive Board are nominated by the Supervisory Board and appointed by the shareholder, the Ministry of Finance, for a period of no more than four years. Reappointments can be made for subsequent four-year periods. Anneke de Vries left NS with effect from 15 October 2023. The other directors took over her duties under the Articles of Association. In 2023, the Executive Board comprised the following members:

	<b>Position</b>	<b>First appointment</b>	<b>End of appointment</b>
Wouter Koolmees	CEO	1 November 2022	31 October 2026
Bert Groenewegen	Finance Director	15 September 2016	1 March 2024
Tjalling Smit	Commerce & Development Director	1 April 2017	31 March 2025
Anneke de Vries	Stations Director	15 October 2019	14 October 2023
Eelco van Asch	Director of Operations	1 March 2021	28 February 2025

## Remuneration policy

Effective 1 January 2020, the Minister of Finance, on behalf of the Dutch State, adopted the remuneration policy for the NS Executive Board. The policy helps the Supervisory Board attract and retain highly qualified directors (as both internal and external appointments). The remuneration policy is required to support the objectives and strategy of NS and reflect the public nature of the company. It is based on the principles of the remuneration policy for state-owned companies and complies with the best practice provisions on remuneration laid down in the Dutch Corporate Governance Code.

### Levels of remuneration

The pay ratio within the Executive Board is in line with common practice in the external market. We use the Hay method to determine the job load, which also plays a role in determining remuneration levels for board members. Remuneration levels are determined based on a comparison with public and semi-public companies, comprising state-owned companies and transport companies in the Dutch market (BNG Bank, Covra, FMO, Gasunie, Havenbedrijf Rotterdam, NWB Bank, Amsterdam Airport Schiphol, TenneT, ProRail, RET, GVB and HTM), and the private companies KLM and Thales, with board-level positions with similar job loads to those at NS. The guiding principle for the variable and non-variable remuneration of Executive Board members is the median, with a ratio of 60% for the public and semi-public sector and 40% for the private sector. We chose the median of these two markets as the basis because it is more stable across job loads than higher or lower market levels. In addition, given the public nature of NS, the 60%/40% weighting for public/semi-public versus private takes into account a lower market level than the median relative to the overall Dutch market.

### Impact of value creation on remuneration policy

The non-variable remuneration of Executive Board members is based on 100/120<sup>th</sup> of their income, and the remuneration policy's impact on long-term value creation is taken into account. For NS specifically, this means having regard to NS's position in society, its obligations under the franchise and the long-term challenges for mobility in the Netherlands.

## Termination of employment contracts

On premature termination of an employment contract at the initiative of NS, a severance payment cannot exceed one year's base salary. The Supervisory Board decides whether a severance payment is to be paid and, if so, what the amount should be. Executive Board members who are not reappointed will not receive a severance payment, unless the law provides otherwise.

## Performance agreements for Executive Board members

The Executive Board has drawn up performance agreements that comprise collective and individual targets as laid down in target letters. While the results do not give entitlement to any reward, they do form part of the assessment process. The individual targets are related to the portfolio for which the Executive Board member concerned is responsible. The joint targets for 2023 were as follows:

Objectives	KPI	Target	Realisation
<b>People</b>	Overall customer satisfaction score for main rail network (based on And How Is Your Trip)	7.5	7.3
	Satisfaction with working at NS (% > 8, pulse)	60%	57%
	Employee feels valued by his/her manager	75%	75%
	Sickness absence Netherlands (% in Q4 2023)	<8%	8.1%
	Average number of deployable FTEs HC in Q4 2023 (February 2023: 2,446)	2,730	?
<b>Planet</b>	Avoided CO <sub>2</sub> emissions from passengers (kilotons/y):	785	799
	CO <sub>2</sub> emissions of NS operations and in the chain excluding NS Stations and pre/post transport (kilotons p/y):	196.7	197
<b>Profit</b>	Underlying result from operating activities NS Netherlands (€m, incl. management approach, excl. imp. HRN)	-50	-94
<b>Miscellaneous</b>	Station Experience Monitor (1-10)	7.2	7.2
	Number of crowded trains at peak times per working week in main rail network (#):	100	94
	Seat availability at peak times on HSL (%):	97%	94.3%
	Punctuality for passengers (with a 5-minute margin) on main rail network (%)	91.5%	89.7%
	Punctuality for passengers (with a 5-minute margin) on HSL (%)	82.5%	73.6%
	Passengers back on trains, increase in passenger kilometres compared to 2022 = 100% (%)	114.76%	116.9%
	RepTrak score (1-100)	62	62.5

The targets set by NS for the various objectives are ambitious. As a result of daytime trackwork and speed restrictions on the high-speed line, the passenger punctuality target has not been achieved. By contrast, the number of passengers has increased but seat availability has decreased, contributing to lower-than-desired customer satisfaction scores. The financial target was not met, but NS performed better in reducing CO<sub>2</sub> emissions from passengers.

## Structure of the remuneration package

In response to the proposal submitted by the Remuneration and Appointments Committee and upon the voluntary request of the Executive Board, in June 2020 the Supervisory Board decided to temporarily reduce the base salary of Executive Board members by 10%, for the period from 1 July 2020 to 31 December 2021. This reduction was continued in 2022 and 2023 due to financial circumstances at the time. In accordance with the remuneration policy, the pay increases under the collective labour agreement were implemented.

In the financial statements, the section entitled [Remuneration of the Executive Board](#) includes a table showing the overall remuneration for 2023.

### Non-variable remuneration

In 2023, the agreed gross annual base salary including holiday allowance for the members of the Executive Board was as follows:

	Position	Fixed annual remuneration on 31 December 2023 (€)	Received fixed remuneration for 2023 (€)
Wouter Koolmees	CEO	509,758	458,782
Bert Groenewegen	Finance Director	419,803	377,823
Tjalling Smit	Commerce & Development Director	419,803	377,823
Anneke de Vries*	Stations Director	419,803	282,710
Eelco van Asch	Director of Operations	419,803	377,823

\* With effect from 15 October 2023, Anneke de Vries retired from service

The difference between the annual base salary and the base salary actually received for 2023 is explained by the wage restraint measure (10% reduction).

### Variable remuneration

In their employment contracts, all members of the Executive Board waived any entitlement to variable remuneration. They did not receive any compensation for this via their base salary. In accordance with the remuneration policy, the Supervisory Board can consider granting variable remuneration again in the future. Variable remuneration cannot exceed 20% of the annual base salary.

### Pensions

The members of the Executive Board are also members of the NS pension plan. The employer pays two-thirds of the total pension costs. The tax-facilitated pension accrual has been capped since 1 January 2015. The capping threshold for 2023 is €128,310 gross. All new and existing employees, including Executive Board members, whose remuneration exceeds that amount will receive a gross allowance of 12% on the part of their non-variable remuneration in excess of that threshold.

### Other benefits

The other benefits are the same as those that apply to all NS employees. Executive Board members are additionally entitled to an appropriate expense allowance, a lease car (or mobility budget allowance) and the use of communication devices. For business-related travel, two chauffeur-driven directors' cars are available to all Executive Board members. NS considers 'business-related travel' to include trips not directly associated with the relevant member's appointment, but where private use is unavoidable given the combination with

the obligations associated with that member’s position at NS. All Executive Board members are subject to an additional tax liability for use of the directors’ cars. Given that private use of those cars is unavoidable and arises from the relevant member’s position with NS, they will receive a net allowance that equals the wage tax due on the amount of the addition. NS has not extended any loans, advances or guarantees to the Executive Board.

**Pay ratios**

As of 2021, under the Corporate Governance Code the pay ratios are calculated on the basis of the remuneration of the Chair and CEO and the average annual pay<sup>1</sup>. This has resulted in a pay ratio for 2023 of 7.3. In 2022, the internal pay ratio was 7.4.

The internal pay ratios for previous years were:

	<b>Pay ratio</b>
2022	7,4
2021	7,7

*1 The average annual remuneration of NS and Abellio Nederland employees for the 2023 calendar year is determined by dividing the total wage costs in the financial year concerned by the average number of FTEs during that year. With effect from 2021, costs of external staff are included in this calculation, where external staff were hired for at least three months of the financial year. The pay ratio was calculated on the basis of Dutch employees. In line with the strategy, which provides that NS’s international operations should benefit the interests of Dutch passengers, foreign employees have not been included, as deemed appropriate in Article 3.4.1 of the Corporate Governance Code. For this reason, we focus exclusively on the pay ratio of Dutch employees and do not include employees of our foreign companies. For the years 2018–2020, NS is unable to present a pay ratio as referred to in Article 3.4.1 of the Corporate Governance Code because for these years the median was presented and the necessary data to recalculate the pay ratio is not available.*

# Personal details – Executive Board

## **Wouter Koolmees (b. 1977), Chair and CEO, Dutch nationality**

- Focus areas: Communication and corporate affairs, audit, legal and board secretariat, risk & compliance, HR, NS Stations
- Other positions held: Chair of the temporary Energy Emergency Fund, member of the executive board and general council of VNO-NCW, chair of the supervisory board of the Anne Frank Foundation
- Main background: Economics (Utrecht University)
- Career highlights: Ministry of Finance, Member of Parliament, Minister of Social Affairs and Employment and second Deputy Prime Minister.



## **Bert Groenewegen (b. 1964), Finance Director, Dutch nationality**

- Focus areas: Finance, Abellio, IT and data, procurement, accommodation, new trains. Security, data innovation & analysis
- Other positions held: Member of the supervisory board of Coolblue, member of the supervisory board of Teslin Participaties, member of the supervisory board of the Dutch Railway Museum
- Background: Business Economics (Tilburg University)
- Career highlights: Exact Software, General Atlantic Partners, PCM Uitgevers, Ziggo



## **Tjalling Smit (b. 1977), Director of Commerce & Development, Dutch nationality**

- Focus areas: Strategy and innovation, network development, sustainability, commerce
- Other positions held: Member of the executive committee of Coöperatie OV Bedrijven
- Background: Business Administration (Nyenrode) and Hotel Management School
- Career highlights: Transavia, Air France/KLM



## **Eelco van Asch (b. 1972), Director of Operations, Dutch nationality**

- Focus areas: Operational control, service and operations, maintenance, train modernisation, engineering, QHSE operations, public safety, International
- Other positions held: -
- Main background: VU Amsterdam, IMD Lausanne, Stanford University
- Career highlights: KLM, Air France/KLM, Delta Lloyd



## **Departures in 2023**

Anneke de Vries (1964), Dutch nationality, left NS effective 15 October 2023 following the expiry of her term of appointment under the Articles of Association.

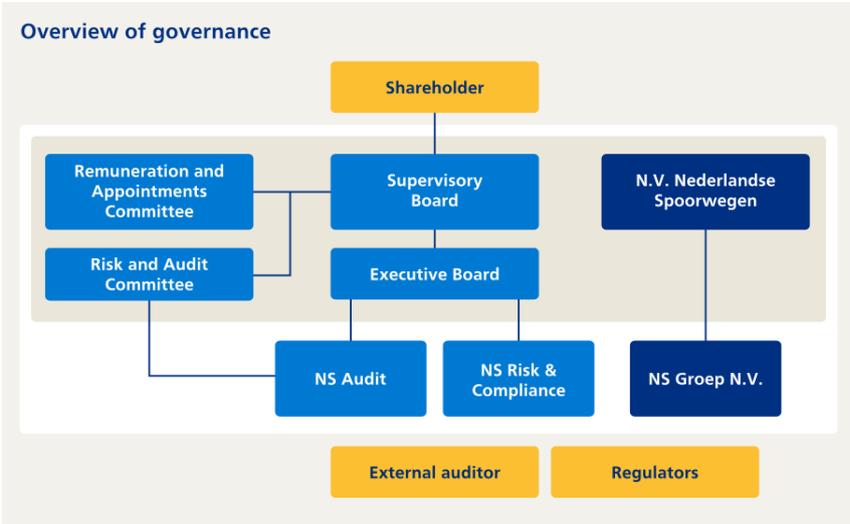
# Corporate governance



Passengers, gift buyers and train enthusiasts could indulge in the NS Upcycle Shop with a wide variety of sustainable gifts and collectors' items made from reused NS materials.

NV Nederlandse Spoorwegen is a public limited company under Dutch law. Its registered office is in Utrecht. NV Nederlandse Spoorwegen is the holding company of NS Groep N.V. NS is a state-owned company.

The governance of NS is based on the modified two-tier company regime. NS is managed by the Executive Board, which consists of the same people for NS Groep N.V. and NV Nederlandse spoorwegen (a common board). The Supervisory Board oversees the Executive Board.



**Governance framework**

**Laws and regulations**

NS’s governance structure is based on Book 2 of the Dutch Civil Code and the Corporate Governance Code. The structure is detailed in NS’s Articles of Association and various internal regulations. The Railways Act, the Competition Act and the Policy document on state-owned companies also contain provisions that are relevant to NS’s governance. The Articles of Association and various regulations can be found on the [NS website](#).

**Corporate Governance Code**

As a major enterprise with a significant role in Dutch society, NS attaches great value to a high-quality governance structure. Although not a listed company, it still applies the Dutch Corporate Governance Code 2022 (“the Code”), partly in light of the Policy document on state-owned companies. Given that NS is not a listed company and does not have a one-tier management structure, several elements of the Code do not apply to it. The NS website presents an [overview](#) of how NS complies with the provisions of the Code.

**Shareholder**

The sole shareholder of NV Nederlandse Spoorwegen is the Dutch State. The role of shareholder is performed by the Minister of Finance. The Annual General Meeting takes place within six months after the close of the financial year. The Annual General Meeting discusses the annual report and adopts the financial statements, approves the profit appropriation (if applicable), decides whether to discharge the members of the Executive Board from liability for their policy work and the members of the Supervisory Board from liability for their supervision. The Executive Board, the Supervisory Board and the shareholder are free to convene extraordinary general meetings as often as they wish. Resolutions can also be adopted outside of meetings.

Key powers of the shareholder under the Dutch Civil Code include appointing and dismissing members of the Supervisory Board and, under the mitigated structure regime, appointing and dismissing members of the Executive Board on the recommendation of the Supervisory Board, determining the remuneration policy, approving major investments, adopting the financial statements and approving the proposed profit distribution/transfer to reserves. Additionally, NS's Articles of Association stipulate that the shareholder is to be consulted in the formation of the strategy.

## **Executive Board**

### **Tasks and responsibilities**

The Executive Board is responsible for the continuity and sustainable long-term value creation of the company and its affiliated enterprise. To that end, the Executive Board develops the vision and the associated mission, strategy and objectives of NS. The Supervisory Board is involved in a timely manner and adopts the strategy after consulting the shareholder. The Executive Board is also charged with and responsible for managing the business and implementing its strategy. In addition, the Executive Board is responsible for compliance with all relevant laws and regulations, risk management and financing of the company. Annually, the Executive Board evaluates the risk appetite, which is set by the Supervisory Board.

In carrying out its duties, the Executive Board takes the sustainability aspects of the business and the impact of sustainability issues on NS into account. NS discusses these issues with stakeholders and carefully weighs their interests. This means that when developing strategy and making decisions, in addition to finance, the Executive Board also considers aspects such as safety, impact on people and the planet, and NS's role in the provision of sustainable mobility. The Executive Board reports to the Supervisory Board and the General Meeting.

### **Regulations of the Executive Board**

In addition to legal requirements and the Articles of Association, the Executive Board is bound by its own regulations. These regulations include provisions on its composition, duties and powers, and on meetings and decision-making. In addition, the regulations contain provisions on conduct and culture, on its relationship with the Supervisory Board and how information is provided, and procedures in the event of actual or potential conflicts of interest.

Pursuant to the Articles of Association of NV Nederlandse Spoorwegen, the Executive Board Rules of Procedure and the Supervisory Board Rules of Procedure, certain decisions by the Executive Board must be submitted for approval to the Supervisory Board and/or the General Meeting.

### **Appointment and dismissal**

Executive Board members are appointed by the General Meeting on the recommendation of the Supervisory Board. The Supervisory Board decides on the number of members of the Executive Board and the distribution of portfolios. Members of the Executive Board can be suspended or dismissed by the General Meeting. Members of the Executive Board are appointed or reappointed for a period of no more than four years. The Executive Board and Supervisory Board strive to achieve a level of diversity appropriate for NS, in terms of expertise, experience, skills, other personal qualities, gender or gender identity, age, nationality and cultural or other background. Both the Executive Board as a whole and each individual Executive Board member are authorised to represent NS. On 15 October 2023,

Anneke de Vries stepped down as a member of the NS Executive Board due to the expiry of her term. The Supervisory Board expects to be able to appoint a replacement soon. Angelique Magiels will be appointed to the Executive Board as Finance Director effective 1 March 2024. She succeeds Bert Groenewegen, who will step down as Finance Director on that date.

### **Interests**

The Articles of Association and Executive Board regulations contain instructions on how to deal with conflicts of interest. Decisions by the Executive Board to enter into transactions involving, among other things, conflicts of interest that are of material significance to NS and/or a member of the Executive Board require the prior approval of the Supervisory Board. Such transactions are published in the report of the Executive Board, stating the conflicting interests. There were no such transactions in 2023.

### **Remuneration**

The remuneration and terms of employment of Executive Board members are established by the Supervisory Board with due regard for the remuneration policy adopted by the General Meeting.

## **Supervisory Board**

### **Tasks and responsibilities**

The Supervisory Board's tasks include supervising the Executive Board's policies and the general affairs of the company and its affiliated enterprise. It also advises the Executive Board. In performing its duties, the Supervisory Board focuses on sustainable long-term value creation for the company and its affiliated enterprises, taking into consideration the interests of the company's stakeholders. The Executive Board promptly provides the Supervisory Board with the information and resources it requires in order to properly perform its role. If the Supervisory Board or one of its members consider it necessary, they can obtain information from the Executive Board, NS Audit, the external auditor, NS Risk & Compliance, the Central Works Council or other officials and external advisers to NS. Every year, the Supervisory Board evaluates the performance of the Executive Board as a collective and that of the individual directors. The Supervisory Board reports to the General Meeting.

### **Regulations of the Supervisory Board**

The division of duties within and working methods of the Supervisory Board are laid down in the Supervisory Board Regulations. These regulations also cover its relationship with the Executive Board, the General Meeting and the employee participation bodies, the relationship with NS Audit and the external auditor, and procedures in the event of actual or potential conflicts of interest. The Supervisory Board is bound by these regulations as well as by statutory regulations and NS's Articles of Association.

The Supervisory Board as a whole is responsible for the proper implementation of its tasks. The Supervisory Board conducts an annual self-assessment, periodically under the guidance of an external expert.

### **Appointment and dismissal**

Supervisory Board members are appointed by the General Meeting, on the recommendation of the Supervisory Board, with due observance of the job profile and after consulting the Central Works Council. The Central Works Council has enhanced powers of recommendation covering the nomination of one-third of the Supervisory Board members. The Supervisory Board has at least five members and no more than nine. The Supervisory Board had six members as at 31 December 2023.

The Supervisory Board has drawn up a profile for its size and composition, taking account of the nature and activities of the company and the desired expertise and backgrounds of its members. The Supervisory Board aims for a mixed composition of its members with regard to, among other things, expertise, experience, skills, other personal qualities, gender or gender identity, age, nationality and cultural and other background. Supervisory Board members can be appointed for two terms of four years each. After that period, they can be reappointed for a maximum of two terms of two years each. Reappointment after a period of eight years must be justified by the Supervisory Board in its report. In 2023, Supervisory Board Chair Gerard van de Aast and Supervisory Board member Nebahat Albayrak stepped down due to the expiry of their respective terms. Herman Dijkhuizen was appointed Chair of the Supervisory Board in 2023. Ron Teerlink and Pamela Boumeester were appointed to the Supervisory Board last year, the latter subject to the enhanced powers of recommendation of the Central Works Council. Pamela Boumeester previously served as Director of NS Stations. The Supervisory Board's retirement schedule is published on the NS website.

### **Interests**

Members of the Supervisory Board will not participate in discussions and decision-making around any matter or transaction where their direct or indirect personal interests conflict (or could potentially conflict) with the interests of NS. In 2023, this situation occurred once.

## **Committees of the Supervisory Board**

In view of its size and the diversity and complexity of the matters it has to handle, the Supervisory Board has set up a Risk and Audit Committee and a combined Remuneration and Appointments Committee. The Supervisory Board can also establish temporary committees. In 2023, the Supervisory Board worked with such a committee in connection with the new franchise. The composition of these committees is determined by the Supervisory Board. The committees advise the Supervisory Board and prepare its decisions. The Supervisory Board as a whole remains responsible for the decisions that have been prepared by a committee.

For each of its two standing committees, the Supervisory Board has adopted regulations which lay down the responsibilities, duties, working methods and composition.

### **Risk and Audit Committee**

The Risk and Audit Committee (RAC) advises the Supervisory Board and prepares the Supervisory Board's decisions with respect to monitoring the integrity and quality of NS's financial and sustainability reporting and assessing the effectiveness of NS's internal risk management and control systems. The RAC Rules of Procedure stipulate that the RAC must have at least three members who are also members of the Supervisory Board. The RAC had six members as at 31 December 2023.

### **Remuneration and Appointments Committee**

The Remuneration and Appointments Committee (Remomco) prepares the decisions of the Supervisory Board in areas such as the appointment of Executive Board and Supervisory Board members, the performance of the Executive Board and the Supervisory Board, and the formulation, implementation and monitoring of the remuneration policy for the Executive Board. The Remomco Rules of Procedure stipulate that the Remomco must have at least three members who are also members of the Supervisory Board. The members of the Supervisory Board appointed on the recommendation of the Central Works Council as referred to in Book 2, Article 158(6) of the Dutch Civil Code are automatically part of the Remuneration Committee and thus of Remomco. On 31 December 2023, the committee consisted of five Supervisory Board members.

## External auditor

The General Meeting appoints the external auditor on the recommendation of the Supervisory Board. The external auditor reports to the Supervisory Board and the Executive Board with regard to the audit it has conducted. After the examination and audit, the external auditor issues an opinion on the integrity of NS's annual report and financial statements.

The RAC reports annually to the Supervisory Board on the functioning of and developments in the relationship with the external auditor. The external auditor attends the meetings of the Supervisory Board in which its report on the audit of the financial statements is discussed, and is also available for the General Meeting at which the financial statements are adopted. The external auditor also attends the meeting of the Supervisory Board held to discuss the six-monthly figures. In principle, the external auditor attends RAC meetings, unless the RAC determines otherwise. EY has been NS's external auditor since the 2014 financial year. In 2020, the appointment of EY in that role was extended by two years to cover the period up to and including the 2023 financial year, in line with the rule regarding the maximum term of office of an external auditor. KPMG is the new external auditor of NS with effect from 1 January 2024.

## Three lines of defence

NS has designed its risk governance approach using the 'three lines of defence' model. The guiding principle in this model is that the first line of defence (line management) is responsible for risk management by properly embedding it in processes and clearly assigning responsibilities. The second line of defence, comprising Risk & Compliance, provides support and advice and makes sure that line managers are fulfilling their responsibilities as intended. Furthermore, partly due to advice from the second line, risks are explicitly and demonstrably considered in decision-making. The third line of defence, comprising NS Audit, carries out independent audits to make sure that the risk management and internal control system is working properly. Finally, safeguards have been put in place to ensure that NS will learn from incidents, thus promoting the continuous improvement of risk management processes.

## NS Audit

NS Audit provides independent and objective assurance and advice on the adequacy of governance, risk management and internal control measures in view of the need to support NS's objectives and promote continuous improvement. Every year, NS Audit draws up an annual audit plan that is adopted by the Executive Board and the Supervisory Board. NS Audit is immediately subordinate to the Executive Board. The NS Audit Director reports to the Chair and CEO. The NS Audit Director also reports to the chair of the RAC. The NS Audit Director has direct access to the NS Chair and CEO, the chair of the RAC, the members of the Executive Board, the members of the Supervisory Board and the external auditor. The NS Audit Director attends RAC meetings.

## NS Risk & Compliance

NS Risk & Compliance (R&C) supports the Executive Board and management in achieving business objectives by providing insight into risks and compliance issues in relation to NS's strategy and operations and by issuing advice on control and other measures to be taken.

R&C is immediately subordinate to the Executive Board. The R&C Director reports to the Chair and CEO. In addition, the R&C Director has regular meetings with the RAC chair. R&C provides high-quality quarterly risk reports to the Executive Board and the RAC. The R&C Director attends RAC meetings.

## Regulators

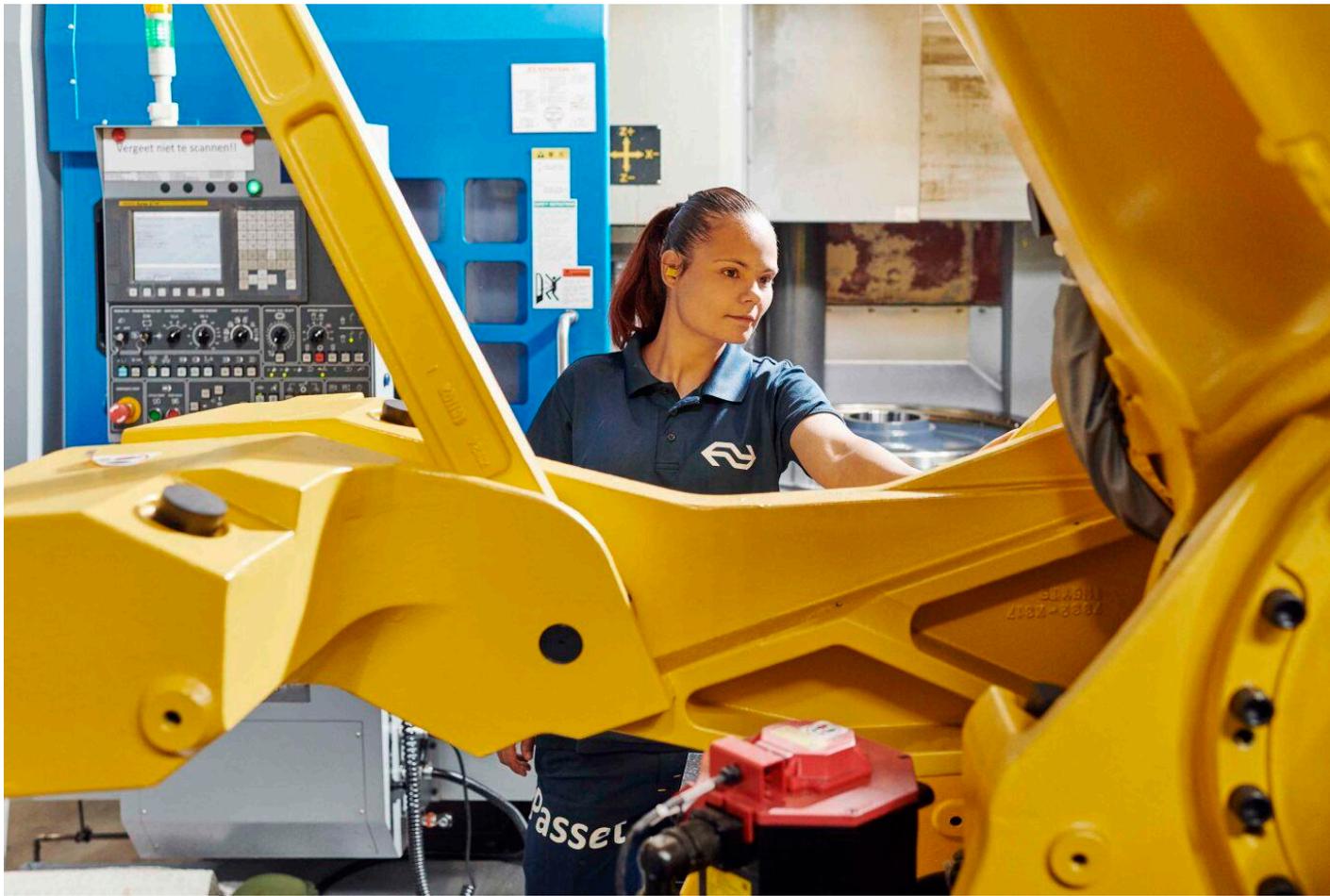
NS has to deal with external regulators who, among other things, monitor NS's compliance with specific laws and regulations. The most relevant of these regulators for NS are:

- The Netherlands Authority for Consumers and Markets (ACM), which monitors compliance with the Competition Act and, specifically in relation to NS, compliance with the Railway Act and the Passenger Transport Act 2000.
- The Dutch Data Protection Authority (AP), which monitors compliance with statutory rules on the protection of personal data.
- The Human Environment and Transport Inspectorate (ILT), which oversees the safety of passenger transport and maintenance operations.
- The Netherlands Labour Authority, which monitors compliance with laws and regulations of the Ministry of Social Affairs and Employment, including working conditions.
- The Dutch Authority for the Financial Markets (AFM), which supervises insurers and other financial service providers. With its internal insurance business, NS falls under the Financial Supervision Act and AFM supervision.
- The Netherlands Food and Consumer Product Safety Authority (NVWA), which monitors compliance with laws and regulations of the Ministry of Agriculture, Nature and Food Quality (LNV), including the Commodities Act.

## Sustainable enterprise

The CSR (Corporate Social Responsibility) Council is NS's policy preparation body for sustainable enterprise. The Council comprises the business unit and staff department directors and its meetings are chaired by the Commerce & Development Director. Where necessary, proposed decisions and policies are submitted for approval to the Executive Board. Progress and development in sustainability results are monitored and managed through the regular planning, control and reporting cycle. Every two months, the CSR Council discusses the KPI reports on sustainability performance. In accordance with the Code, the Executive Board is responsible for the aspects of Corporate Social Responsibility that are relevant to NS. The Executive Board reports on these matters to the Supervisory Board and the General Meeting.

# Risk management



The TechniekFabriek is our own technical course at MBO level for train mechanics. With the new location in Berkel-Enschot, NS is now also offering students in the south of the country the opportunity to learn and work at NS, and our training capacity has increased.

Our business operations involve a number of uncertainties. Risk management is all about targeting uncertainties that could impede the achievement of the strategic objectives.

### Organisation of risk management

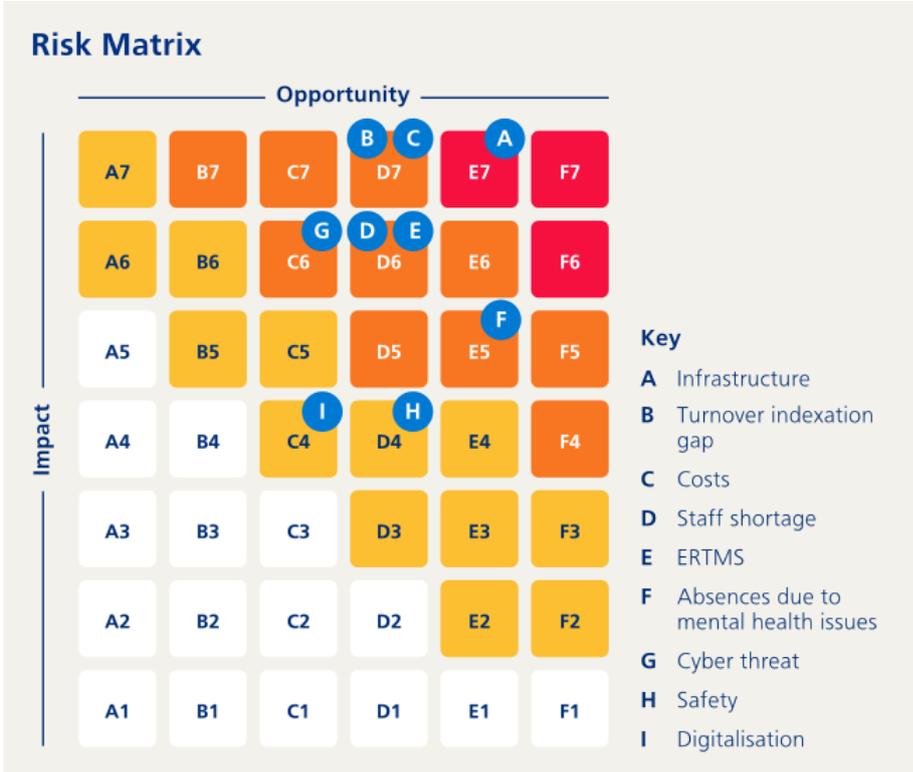
To ensure ongoing and comprehensive management of risks, we ensure that our risk management system keeps pace with internal and external developments. We use planning schedules and analyses to present a realistic picture of the future impact of uncertainties and risks, so as to gain better insight into the reliability of project-related plans, policy choices and risk budgets. This supports our decision-making.

### Recording and reporting

We have recorded identified risks, including the risk owners, in risk registers, and we assign quantitative scores to those risks using a single, uniform risk matrix. On a quarterly basis, we report on the main risks by business unit to the Executive Board, which discusses these risks as part of the planning and control cycle. Any risks that fall outside our risk appetite are reported immediately and escalated where necessary. The Executive Board reports on and, in turn, renders account for the risk management and internal control system to the Supervisory Board after discussing it in the Risk and Audit Committee.

### Risk appetite and risk tolerance

The risk appetite and risk management we are aiming for in six risk themes at NS (safety, compliance, operations, finance, reputation and CSR) can be found in our 'risk appetite statements'. We have linked each risk theme to specific performance indicators with a quantitative bandwidth. Every year, the Executive Board evaluates and, if necessary, adjusts the risk appetite for each theme. The risk appetite of NS in 2023 has not changed compared with 2022. Periodically, we evaluate fraud scenarios (both internal and external) based on a risk matrix. This is measured against the NS-wide risk matrix below and measures are taken to mitigate risks where necessary. In line with previous years, we have not identified any fraud risks within our top-9 group risks as listed below.



An explanation of the risks appears as a pop-up when clicking on a risk in the diagram below.

The individual risks have been included in a risk matrix. The more to the right the risk is positioned (from A to F), the more likely it is to materialise. The higher its position in the matrix (from 1 to 7), the greater its impact on NS's objectives should the risk materialise. The colours show how each risk relates to NS's risk appetite and at which level within NS any residual risk should be accepted if no further mitigating measures can be taken.

## **Key changes in the risk profile compared with 2022**

The risk profile in the themes of operations, safety and finance remains high. The themes of compliance, reputation and CSR do not contain risks that fall in the top 10 but are in the lower risk categories.

- **Operations:** The main risks are in the area of infrastructure, leading to increasing disruption and impact on product steps and rolling stock, especially due to the delayed introduction of the ICNG trains and unexpected cancellations. The staff shortage risk decreased slightly for NS in 2023 as we improved our operations accordingly. The combination of risks within this theme makes operations highly vulnerable.
- **Finance:** In 2023, revenue developed more strongly than expected. However, passenger-kilometres are still lower than before the COVID-19 pandemic. In addition, the cost of salaries, rolling stock, materials, components and financing increased in 2023 due to inflation and rising interest rates. The 'indexation gap' incurred since 2021 is 8.9%.
- **Safety:** Train travel remains one of the safest forms of mobility. However, we are noticing the effects of increasing rudeness and aggression in society and internal staff shortages on public safety. In addition, cybersecurity-related risks are increasing.

# Group risks

Group risk	Development 2023	Control measures
<p><b>A. Infrastructure:</b> The risk that the implementation of the timetable and the realisation of our ambitions will be negatively affected by infrastructure bottlenecks.</p> <p>2023: E7 (dark red) 2022: E6 (red) 2021: E6 (red)</p>	<p>The (demonstrable) quality of infrastructure is under pressure and infrastructure projects cannot be realised or are delayed, partly due to staff shortages at our contractors. Pressure on the existing infrastructure is growing. This is reflected, for example, in the temporary speed restriction on the high-speed line near Rijpwetering, issues with track stability, demonstrable safe usability of the tracks and the many (lengthy) withdrawals from service. In addition, too many ambitions that do not fit together are 'stacked' due to nitrogen, staff shortages at contractors, budget issues, ERTMS, etc.</p>	<ul style="list-style-type: none"> <li>• We coordinate measures for removing future infrastructure bottlenecks within the Medium-Term Process with ProRail and the Ministry of Infrastructure and Water Management.</li> <li>• NS is in talks with ProRail (including the joint Executive Boards) at all levels and covering all periods.</li> <li>• We influence the planning of service disruptions to limit passenger inconvenience.</li> </ul>
<p><b>B. Turnover indexation gap:</b> The risk of the indexation gap widening from 2025 onwards, due to NS not being allowed/able to raise fares in line with inflation and not being compensated for this, or only in part.</p> <p>2023: D7 (red) 2022: D7 (red) 2021: D7 (red)</p>	<p>Sales developed better than expected in 2023, partly due to an overall increase in travel. However, passenger kilometres are still lower than before the COVID-19 pandemic. One major cause is that it has become common practice for many people to work from home at least one day a week. In addition, many people's purchasing power has decreased, leading them to travel less. To remain financially sound as a company and continue our ability to make long-term investments, we need to keep our fares in line with cost increases and reduce our costs where possible (see also risk 3 regarding costs). From a societal point of view, we very well understand there is political pressure to limit the increase of train fares. After all, we want to keep public transport affordable for everyone. In business terms, however, this is a risk. This is why the government will need to make a financial contribution if train fares are allowed to follow inflation only to a limited extent. The government has made this contribution available for 2024. However, it is uncertain whether it will continue to do so for the years beyond.</p>	<ul style="list-style-type: none"> <li>• We conduct research on an ongoing basis to improve our insight into travel behaviour (customer behaviour), draw up passenger forecasts (customer demand) and understand customer opinion (customer value). These insights help us increase the added value for our customers.</li> <li>• With the introduction of NS Voordeel, we are making our product more affordable and are also trying to attract additional off-peak passengers.</li> <li>• NS is consulting with the Ministry of Infrastructure and Water Management on the dilemma of keeping train travel affordable, on the one hand, and retaining our financial health, on the other, in order to continue to serve our passengers in the future and make the necessary investments to keep the Netherlands mobile.</li> </ul>
<p><b>C. Costs:</b> Risk of train product becoming unaffordable due to sharp increase in costs.</p> <p>2023: D7 (red) 2022: E6 (red) 2021: E6 (red)</p>	<p>The costs of salaries, rolling stock, materials, components and financing continued to increase in 2023 due to inflation and rising interest rates.</p>	<ul style="list-style-type: none"> <li>• Tight monitoring of savings initiatives.</li> <li>• Additional savings targets, as part of agreements for the new main rail network franchise.</li> <li>• Energy costs are covered until 31 December 2024.</li> <li>• The new energy contract signifies the start of efforts to also cover energy costs for 2025 and beyond.</li> <li>• Agreements to mitigate any sharp increases in certain costs.</li> </ul>

**D. Staff shortage:**

The risk that we do not have enough skilled and healthy employees.

2023: D6 (red)  
2022: F6 (dark red)  
2021: C5 (yellow)

Labour market shortages are slightly decreasing and we are also witnessing a slightly higher outflow and transfer of employees in specific target groups. Sickness absence remains high, partly due to increased workload. This risk has decreased slightly in 2023, as we have improved our operations accordingly.

- Limit staff outflow through better retention policies (including later retirement, flexibility of rosters) and focus on employee experience and enhanced vitality.
- Increase inflow through employer branding, proactive recruitment and further scaling up of training capacity.
- More robust timetable, allowing us to deal with shortages better and more predictably.
- Adjust the deployment model, in consultation with social partners, with measures for the long term.
- Third TechniekFabriek opened in the south of the Netherlands.

**E. ERTMS:**

The risk that the implementation of ERTMS in line with the programme decision is not feasible due to the inability to realise the necessary changes in time, combined with undue inconvenience for passengers.

D6

In 2023, ERTMS deployment proved to be more complex than anticipated, partly due to the many dependencies between technical and operational adjustments required for the introduction of ERTMS at NS, other carriers and the infrastructure manager.

- The ERTMS programme directorate, NS, ProRail and the other transport operators are working on an alternative test track section (instead of the Hanze Line) to create one that is feasible for NS with less inconvenience to passengers.

**F. Sickness absence due to mental issues:**

The risk of psychosocial complaints.

2023: E5 (red)  
2022: E5 (red)  
2021: E4 (yellow)

Sickness absence figures are showing a positive development in the form of a decreasing trend. Long-term absenteeism remains the biggest challenge for NS, partly caused by line manager issues, personal development and undesirable behaviour. We can also identify a societal cause, reflected in a rising trend of psychosocial complaints nationwide.

- Monitor the follow-up of results and actions in response to MBO 2022 and NS-wide in-depth risk analyses (RI&Es PSA).
- Training of line managers in timely recognition and response to psychosocial complaints.
- Reporting on psychological absence with Arbo Unie to enable targeted (collective) actions.

**G. Cyber threat:**

The risk of a cyber attack due to mounting threat and because NS fails to meet the compliance or security requirements for IT or OT (= IT on and around the train).

2023: C6 (red)  
2022: C6 (red)  
2021: C6 (red)

NS has taken further control measures, but in the meantime the threat level has risen due to further (chain) digitalisation and cyber threats are increasing, partly due to the hybrid war from Russia, which also targets vital infrastructures.

- Implementation of the NS Cyber Security Management System (CSMS) and ISO27001 certification on NS Business Card processes.
- Increased focus on a cyber-safe culture, including through anti-phishing campaigns, NS-wide knowledge sessions and our own Cybersecurity Academy.
- Cyber roadmap with measures to intrinsically reduce the cyber-vulnerability of NS, based on a secure-by-design set-up and architecture.
- Further development of human and technological capacity for early detection and follow-up of cyber incidents.
- Provide management focus by means of a newly developed cybersecurity strategy 2027
- Practise incident handling, including through participation in national ISIDOOR exercise.
- Strengthen integrated IT architecture and processes.

**H. Safety:**

The risk that NS does not take adequate measures to prevent safety incidents or inadequately fulfils its duty of care.

2023: D4 (yellow)  
2022: D4 (yellow)  
2021: B6 (yellow)

NS has 10 safety domains and proactively manages the risks within them. In 2023, the risk management focus was on public safety and cybersecurity. For public safety, the combination of increasing aggression in society and internal staff shortages has resulted in a higher risk profile within this domain.

- In the area of public safety, NS is working with partners such as ProRail, public bodies, local authorities, the police and other carriers on specific measures. NS depends on other parties in its efforts to solve societal problems. NS is collaborating with relevant government ministries and local authorities.

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**I. Digitalisation:**

The risk that the customer relationship deteriorates and that operational agility fails to improve because we do not realise digitalisation projects.

2023: C4 (yellow)  
2022: C4 (yellow)  
2021: not in top-10

Insufficient availability of IT personnel and high complexity of IT systems have a negative impact on the acceleration of digitalisation processes.

- Staff-related and physical measures. Targeted deployment of Security & Service officers and external security guards. Measures coordinated with NS Stations, ProRail and (local) partners. For example, 100% entry checks, night-time closure of stations and modification of station design are additional measures taken at high-risk stations. This makes it easier to implement targeted actions.
  - The most important critical systems in train logistics control have been replaced. The large operational legacy systems, including the travel information system and Data Warehouse systems, are in transition for replacement. The (historical) data has been accessed and archived.
  - Strategic plan for recruitment of IT personnel and strategic personnel planning.
  - Internal training programmes for talented data specialists and IT staff have been implemented.
  - Development of effective target architecture and governance is in place.
  - Plan for a digital commercial strategy about, among other things, standardising digital distribution channels.
  - Research and implement new technologies.
  - Further optimise implemented joint steering (business, IT and Data) on realisation of roadmaps and benefits.
-

# Dialogue with our stakeholders in the Netherlands



People with a mild intellectual disability may find it a bit frightening to travel by train. To give those people extra help, NS has launched the 'Train Training Package'.

In addition to daily contact with passengers, NS maintains close relations with many different partners and stakeholders. This dialogue, which is based on trust, enables us to seize opportunities together, identify potential risks at an early stage and manage them where possible.

Discussions with our stakeholders generate valuable knowledge and ideas for our organisation and contribute to improved and sustainable passenger services. This ongoing dialogue provides input for the steps we are considering to keep the Netherlands accessible in a sustainable manner, for everyone.

## **Our stakeholders**

NS's stakeholders are all the people and groups who are influenced by our actions and who, in turn, influence our organisation and services. NS is continuously monitoring who those stakeholders are. The nature of our contacts with stakeholders is determined in some cases by legislation (as in the case of government ministries and regulators), in some cases by collaboration in the transport sector (with carriers and ProRail) and in other cases by the public nature of our service (passengers, politicians, the media and interest groups). Some stakeholders are on the scene only temporarily in connection with specific subjects, but their input too can be relevant and we take it seriously. We organise sessions with stakeholders on specific themes and engage in broad dialogue with them on the direction of NS and indeed of public transport as a whole. Themes in last year's dialogue included the new franchise, rate differentiation and the impact of inflation on train fares. Dialogue with our stakeholders occurs at various levels within the organisation, with the Executive Board often being involved.

## **Collaboration in the transport sector**

We work with partners in the transport sector to ensure an optimum door-to-door journey for our passengers. This collaboration features prominently at all levels of our organisation, in terms of strategy as well as operations, and with due regard for the long-term vision drawn up in the Mobility Alliance on improving and optimising mobility within the Netherlands.

## **Vision for the Future of Public Transport up to 2040**

National and regional parties have joined forces to contribute to the societal challenges associated with accessibility and liveability in the Netherlands. NS has made a major contribution to the reassessment of the Vision for the Future of Public Transport (TBOV2040) programme: due to persistent behavioural effects of the COVID-19 pandemic and rising prices, public transport is facing lagging demand and increasing costs. This is why the public transport sector has discussed additional policy options that could be added to the Vision for the Future of Public Transport development agenda.

In addition, NS is closely involved in establishing the new Circular Public Transport workflow and in the creation of the Bus Rapid Transit (BRT) action agenda. BRT is a bus system that operates at high frequency and high speed, combines reliable journey times with high transport capacity, offers comfort and is easily recognisable as a high-quality transport product. Governments and transport operators can use the action agenda to make joint agreements to remove barriers to BRT and speed up the creation of BRT connections and corridors.

We also participated in and provided input to knowledge sessions with partners on public transport hubs and contributed to a digital tool for creating an action perspective for such hubs.

## Tailored regional solutions

NS attaches great importance to regional accessibility. Every year, regional administrators and the NS Executive Board discuss their shared ambitions and challenges and collaboration between the various regions and NS.

Over the past year, we continued our consultations with regional authorities about the development of the timetable and the railway and public transport infrastructure, and about the role of train services in accessibility and mobility issues. The regional authorities are also greatly interested in hub development (partly with a view to the urgent housing construction task), international railway connections and affordability.

We also maintain our focus on the continued development of public transport and rail infrastructure and the role of the train in accessibility programmes. Regional authorities in the Netherlands are facing major tasks and complex challenges, such as housing construction and the associated accessibility and mobility issues. NS can make a key contribution to help solve these issues. NS is keen to intensify its collaboration with provincial and regional authorities by jointly developing plans and implementing measures.

## Dilemmas in discussions

By sharing dilemmas with stakeholders at an early stage, we seek to provide insight into our considerations and jointly reach solutions. We provide our stakeholders with feedback on their ideas and recommendations and show the effects of the dialogue on NS policy, both in regular discussions and thematic sessions and in reports. The aim is that passengers overall should benefit, although there will inevitably be passengers for whom any given choice has an adverse effect. There may also be an impact on NS's financial position, in view of its franchise obligations. We discuss these dilemmas with consumer organisations. Over the past year we consulted with our stakeholders on a range of issues, including the timetable, fares and accessibility.

## Consultations with trade unions

NS attaches great importance to maintaining good relations with trade unions. In September 2022, NS agreed with the trade unions on a new collective labour agreement that would run from 1 July 2022 until 1 January 2024. Last year, NS talked to the unions about the implementation of the collective labour agreement, various organisational changes, temporary and permanent measures to address the capacity problem, and the pension scheme. On 10 October 2023, NS entered into talks with unions on a new collective labour agreement for 2024 and beyond.

### Case study: Public safety

Since the COVID-19 pandemic, public safety in public transport has deteriorated. NS sees this reflected in an increase in the number of reports of aggression and violence towards our staff. This picture is confirmed by the rating given by our employees to public safety: subjective safety dropped from a score of 6.3 in 2020 to 5.5 in 2022 (this is a biennial measurement).

NS is taking a range of measures to reverse this trend. These include full entry checks, night-time closure of stations and modifications to station design. We do this in close consultation and coordination with municipalities, the police, ProRail and the Central Agency for the Reception of Asylum Seekers (COA), among others. However, there are limits to what NS can do and is permitted to do. NS is therefore consulting with ministries and politicians on what the government should do to improve public safety. We have joined forces with the unions and with other carriers in these efforts. NS is also seeing more and bigger events being organised compared with pre-COVID-19 times. These can create crowd control problems on our trains and at our stations. To reduce this risk, NS frequently consults with event organisers and venue managers, as well as organisations such as the Royal Netherlands Football Association (KNVB).

## Case study: Accessibility

People with a mild intellectual disability sometimes find it stressful to travel by train. They may have questions about how to buy a ticket, or where to go if they need help. NS has designed and developed the TreinTrainPakket specifically for and with people from this target group. The package consists of an online explanation and practice module, a 'Steffie' welcome booklet using images rather than text, and a Virtual Reality game in which users can practise travelling by public transport at different levels. In an experiential journey, an NS staff member gives participants a tour of a station then travels with them for a while, virtually.

Wouter Koolmees handed out the first TreinTrainPakketten in January 2023. There was considerable interest in this event from within the target audience and from stakeholders. Besides a large number of people with mild intellectual disabilities and their carers, the gathering included some forty stakeholders from several government ministries (Infrastructure and Water Management, Finance, Health, Welfare and Sport and Foreign Affairs), provinces, transport regions and interest groups for people with disabilities. In addition, several large companies were represented at the event.

TreinTrainPakketten have now been handed out several times, and 21 schools for special secondary education and care institutions have worked with the packages. There are also applications for 2024.

## Stakeholder dialogue diagram

European	Nature of dialogue	Content of dialogue	- Effects of the dialogue on NS policy
<b>EU institutions, CER, UIC, ERA</b>	Informational, creation and to determine standpoints	4, 5, 6, 7, 10  Promote sustainable mobility in Europe and a level playing field in relation to other modes of transport such as air and road, stimulate international rail traffic (for distances up to 700 km), investments and co-financing, stimulate innovation, facilitate international door-to-door travel, improve international ticketing and customer services	<ul style="list-style-type: none"> <li>- Strengthening the position of national and international passengers</li> <li>- Optimising cooperation between European railway companies and institutions</li> <li>- Sustainable investments in the railway sector that contribute to climate objectives by encouraging the modal shift from air to rail</li> <li>- NS's reputation as a sustainable partner</li> </ul>
<b>National (NL)</b>	<b>Nature of dialogue</b>	<b>Content of dialogue</b>	<b>- Effects of the dialogue on NS policy</b>
<b>Customers (consumers and businesses)</b>	Informational, creative, monitoring	1, 2, 4, 6, 11, 12  Timetable, public transport card (OV-chipkaart), customer satisfaction, handling complaints and inquiries, consumer portfolio, corporate portfolio, collaboration with bus, tram and metro companies, accessibility, public safety	<ul style="list-style-type: none"> <li>- NS Voordeel pilot has been continued on several routes. The discount per train journey is determined by our crowd data and can be as much as 60%.</li> <li>- The travel information boards visualise how long a train is, the direction of travel and which train section, if any, will remain at the station or be added.</li> <li>- Innovation in Mobility-as-a-Service: with TIER as the first sub-modality to be offered fully integrated via RiVier through the NS App. Furthermore, Hely has launched a new share bike programme.</li> <li>- Checking in and out by (contactless) debit card, credit card or mobile.</li> <li>- In the purchase flow of partners buying train tickets. Travellers can purchase a group ticket in the app since this year, travellers can buy e-tickets 90 days in advance in the NS app.</li> <li>- Services to international travellers have been improved by making it easier to cancel or change tickets online.</li> <li>- Improve range of mobility services for business market, with a focus on eliminating administrative hassle (NS Go)</li> <li>- Expand the number of stations where travel assistance is offered (+27 stations)</li> <li>- Introduction of a TreinTrainPakket aimed at teaching clients with mild intellectual disabilities to travel by train.</li> <li>- Verification of accessibility specifications Double-Decker New Generation (DDNG) with interest groups and accessibility experts.</li> <li>- Explore accessibility specifications for new ticket vending machine.</li> <li>- Further professionalise the NS Control Room.</li> <li>- Integrated approach to 'nuisance asylum seekers on public transport'.</li> </ul>
<b>Shareholder Ministry of Finance</b>	Intensive involvement	3, 5, 6, 8  NS operations, remuneration, strategy, appointments, major investments, main rail network franchise 2025-2033, financial management, CSR, international operations	<ul style="list-style-type: none"> <li>- Practical implementation of financial policy in connection with the 2022 Policy Document on State Participations</li> <li>- Appointment of new Supervisory Board members and Executive Board members</li> </ul>

**N.B. Some customer groups are represented by interest groups. See also LOCOV**

			<ul style="list-style-type: none"> <li>- Management remuneration</li> <li>- Transparent reporting according to GRI</li> <li>- Progress GRC measures and saving efficiency measures</li> <li>- Investment decision on S5G</li> <li>- Recalibration of strategy</li> <li>- Restructuring and winding down of foreign activities</li> <li>- Shareholders' resolution on main rail network franchise 2025-2033</li> <li>- Follow-up CSR policy in connection with 2022 Policy Document on State Participations (including CSRD)</li> </ul>
<b>Ministry of Infrastructure and Water Management</b>	Intensive involvement	1, 4, 6, 7, 8, 11, 12  Main rail network franchise 2025-2033, NS performance, door-to-door journey, travelling and working in safety, international connections, HSL South train services, personal and railway safety, OVpay, accessibility, timetable, transparency, sustainability, accessibility	<ul style="list-style-type: none"> <li>- Transport Plan 2024, half-yearly and annual report for 2023</li> <li>- Timetable for 2024-2025 and beyond</li> <li>- NS staff shortage, integrated approach to staff shortage, consequences for timetable</li> <li>- Preparation for new franchise, Schedule of Requirements</li> <li>- KPIs/fulfilment of franchise obligations</li> <li>- International train services</li> <li>- Passenger spread</li> <li>- International benchmark</li> <li>- Availability payment and Transition plan 2023</li> <li>- Supporting accessibility measures 2023-2024</li> </ul>
<b>National political bodies</b>	Informational, intensive involvement	1, 2, 3, 4, 5, 6, 8 10, 11, 12  Draft main rail network franchise, operational performance, public transport affordability, ERTMS, accessibility, public safety, regional accessibility, staff shortage, space and mobility	<ul style="list-style-type: none"> <li>- Finalise trajectory of new main rail network franchise from 2025 to 2033</li> <li>- Follow up recommendations of review report on disruption 4 June with ProRail</li> <li>- Greater focus on public safety, both for staff and passengers on the train and at the station</li> <li>- Commitment to improve connections to and from regions</li> <li>- Various measures to reduce staff shortages and optimise timetables</li> <li>- Follow-up study into acceleration and expansion of international, cross-border connections, including to Aachen and via the Utrecht-Arnhem-German border corridor</li> <li>- Follow-up study for the Lely Line</li> <li>- Accessibility of rolling stock increased, Administrative Agreement on Accessibility concluded and various studies are being carried out to improve services for passengers with a disability</li> </ul>
<b>Regulators – ACM, IL&amp;T, Dutch Data Protection Authority</b>	Involvement, consultation ('guidance') and information	4, 7, 11, 12  Responding to regular and ad hoc requests for information. Discussing topical subjects such as achieving a more professional safety culture, market issues, acceptance of rolling stock, safety incidents, incident investigations, clarification of new regulatory requirements, and providing input for market studies and consultations.	<ul style="list-style-type: none"> <li>- Improve execution and service provision</li> <li>- Continue to promote compliance</li> <li>- Transparency</li> <li>- Position statements</li> <li>- Increasing safety on the track, both for NS and throughout the sector</li> </ul>
<b>ProRail</b>	Intensive involvement	1, 4, 5, 7, 9, 10, 11, 12	<ul style="list-style-type: none"> <li>- Cooperation on seasonal measures, e.g. implementation of winter weather scenarios</li> </ul>

		Long-Term Rail Agenda, timetable development, performance of the rail system, availability of infrastructure, planning of future rail maintenance and improvement, safety, accessibility, station development, ERTMS, sustainability, joint performance indicators (in the new franchise)	<ul style="list-style-type: none"> <li>- Cooperation in the field of security (policy)</li> <li>- Cooperation on sustainable business practice and accessibility</li> <li>- Cooperation with regard to stations (management, maintenance, development and new construction)</li> <li>- Better alignment between infrastructure and the timetable</li> <li>- Cooperation with regard to the planning of large infrastructure works</li> <li>- Cooperation on start-up after major disruptions and communication to passengers</li> <li>- Cooperation with regard to sustainable development and placing it on the political agenda</li> <li>- Cooperation on joint performance indicators in the new franchise</li> </ul>
<b>LOCOV</b>	Intensive involvement	1, 2, 4, 6, 7, 12	<ul style="list-style-type: none"> <li>- Better train product by incorporating suggestions from consumer organisations in theme sessions and advice (timetable, pricing policy, accessibility, communication, etc.)</li> </ul>
<b>LOCOV (National Public Transport Users' Forum)</b>		NS timetable, fares, travel information, service delivered to passengers, transport plan, new rolling stock, customer satisfaction, punctuality, rolling stock, accessibility, international connections, HSL services	<ul style="list-style-type: none"> <li>- Adoption of some opinions regarding the 2024 Timetable (such as between Amsterdam and Deventer and between Utrecht and Driebergen-Zeist)</li> <li>- Adoption of several recommendations regarding NS's general terms and conditions.</li> <li>- Adoption of Rover proposal regarding spending discount on BVOV.</li> </ul>
<b>Interest groups, NGOs, green partners such as the NVDE</b>	Involvement, consulting and information	1, 2, 4, 5, 6, 7, 9, 12	<ul style="list-style-type: none"> <li>- Identify existing barriers for people with disabilities and jointly improve products and services by solving identified barriers</li> <li>- Discussions with NGOs and partners about the procurement of traction energy and the accessibility of the Netherlands, resulting in useful feedback and, where possible, appreciation for NS's sustainable direction and strengthening the mutual relationship</li> </ul>
<b>Trade unions</b>	Intensive involvement	3, 7 Negotiating new collective agreement 2024, pension scheme, employee interests, labour market issues, personnel and social consequences of organisational changes	<ul style="list-style-type: none"> <li>- Implementation of CLA</li> <li>- Various organisational changes</li> <li>- (Temporary) measures for capacity issues</li> </ul>
<b>Suppliers, subcontractors</b>	Consulting, negotiating	1, 5, 7, 8, 9, 10 Operational performance, sustainable business practice, innovation, financial performance, integrity and compliance, risk management, quality assurance	<ul style="list-style-type: none"> <li>- Focus on cost reduction for NS as a result of financial situation</li> <li>- Focus on reliability, availability and costs of products and services for business-critical processes</li> <li>- Encouraging cooperation and innovation with suppliers, including to make the supply chain more sustainable</li> </ul>
<b>Media</b>	Informational, intensive involvement	All NS-related subjects	<ul style="list-style-type: none"> <li>- Position statements</li> <li>- Improving NS image in line with operational performance</li> </ul>
<b>Regional authorities and official representatives of the provinces, metropolitan regions and municipalities, other carriers and consumer organisations</b>	Informing, negotiating, collaborating	1, 2, 4, 5, 6, 7, 8, 9, 11, 12	<ul style="list-style-type: none"> <li>- New, more modern stations and redevelopment of the station environment, including chain facilities</li> </ul>

- Quality of train services, crowded trains, mobility behaviour/ spreading passengers, punctuality, network development, redevelopment of existing stations, public transport and railway discussion platforms, advisory body on the Multi-annual Programme for Infrastructure Space and Transport for the northwest Netherlands (BO MIRT NWNL), vision of the future of public transport and the public transport development agenda, national environmental strategy, timetable, cross-border transport, personal/railway safety, transport sector-wide agreements, regional franchises, noise nuisance near the railways, hub development
- Quality of train services, crowded trains, punctuality, network development, development and redevelopment of existing stations, public transport and railway discussion platforms, vision of the future of public transport and the public transport development agenda, national environmental strategy, timetable, cross-border transport, personal/railway safety, transport sector-wide agreements, regional franchises, noise and vibration nuisance near the railways, hub development
  - Regional customisation for train replacement bus transport in the event of train withdrawals
  - Joint public transport development agendas for attractive stations and better accessibility from door to door
  - Customisation in the main rail network timetable and improved connections to regional public transport
  - Various bicycle parking facilities free for first 24 hours, expansion of P+R locations
  - Collaborating on regional challenges and ambitions for Vision for the Future of Public Transport
  - Door-to-door journey (including MaaS projects)
  - Collaborate and explore options with municipalities on large-scale housing construction around stations as part of national-regional programmes such as Uned (Utrecht), Samen Bouwen aan Bereikbaarheid (SBaB), MoVe (Zuid-Holland), SmartwayZ, Spoorzone Zwolle
  - Measures around Meppel for more reliable and faster connections between the north of the Netherlands - Randstad
  - IC Randstad-Aachen and accelerating Berlin train
  - Intensification of cooperation with stakeholders based on our commitment to broad mobility, deployment of extra mobility developers
  - Cooperation in the region on, among other things, availability payment, passenger spread (education and business) and sustainable recovery

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**Internal: central and local works councils, vocational training**

[See: NS as an employer](#)

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# Strategy and material themes diagram

Strategic priorities	Indicators with a quantitative target value	Objectives	Results	Risk factors	Result/ prospects	Contribution to global objectives		
Themes	Material topics	KPI	2024	Objectives 2023	Achieved in 2023	Risks	Social impact	SDG
A responsible and comfortable journey	Operational performance	Punctuality for passengers (with a 5-minute margin) on the main rail network	91.5%	88.90%	89.7%	Infrastructure / Digitalisation / Staff shortage	Mobility / Travel time	SDG 9 / SDG 11
		Punctuality for passengers (with a 15-minute margin) on the main rail network	97.4%	96.70%	97.0%			
		Punctuality for passengers (with a 5-minute margin) on HSL South	84.2%	82.1%	73.6%			
		Seat availability at peak times (main rail network)	95.5%	94.30%	94.7%			
		Seat availability at peak times (HSL)	94.9%	91.20%	94.3%			
		Number of crowded trains at peak times per working week	100	110	94			
		User-friendly travel information	68.5%	65.0%	81.2%			
		Customer satisfaction	General customer satisfaction with the domestic main rail network	7.5	7.3			
		General customer satisfaction with HSL South services	7.4	7.2	nbn			
		Reputation (RepTrak score)	--	64	62.5			
Travelling and working in safety	Customer satisfaction with public safety		7.9	7.7	nbn	Safety	Health and safety	SDG 8
		SPADs where danger point has been reached	--	0	5			
		TRR	--	--	4.9			
Accessibility	Stations with travel assistance	--	88.0%	89.0%	Infrastructure	Mobility	SDG 10	
Focusing on broad mobility services	Door-to-door journey / Collaborating with stakeholders	Quality of connections to other carriers	95.6%	94.0%	93.8%	Infrastructure	Mobility / Travel time	SDG 9 / SDG 11
	World-class stations	Customer satisfaction with stations	--	7.2	7.3	Safety / Infrastructure / Digitalisation	Expenditure	SDG 11
Sustainable accessibility, nationally and internationally	International journeys	Increase in international ticket sales	--	--	15.0%	Infrastructure	Mobility / Travel time / Environment	SDG 11
	Sustainable enterprise	Energy efficiency of traction	--	--	72 Wh	Non-compliance	Environment	SDG 7 / SDG 12 / SDG 13 / SDG 15
An agile organization	Attractive and inclusive employership	% women in senior management positions	--	--	35%			
		% with a score >7 for working at NS		80%	not measured			
	Innovation	Perception of NS as an innovative company (RepTrak score)	--	60	55.6	Infrastructure / Digitalisation / Cybersecurity	Expenditure	
	Financially healthy organisation	Revenue (in € million)	--	--	3,761	Revenue / Costs /	Expenditure	SDG 8
Investments (in € million)		--	--	548				

## Our performance in a wider context

### Reputation

NS commissions the RepTrak Company ([www.reptrak.com](http://www.reptrak.com)) to gauge its reputation. Using a stakeholder survey, the RepTrak model reveals which factors influence the reputation of an organisation or brand and to what extent. NS's average is made up of the four quarterly figures. The 2023 RepTrak score (62.5) remained stable compared with 2022 (62.9) and was below the target of 64.0. Operational performance is the biggest determining factor for NS's reputation and showed a slight decline. Last year, NS faced concerns and complaints about overcrowded trains, disappointing punctuality and a large number of disruptions combined with the then-potential fare increase.

### Benchmarking against other carriers

As agreed with the Ministry of Infrastructure and Water Management in the main rail network franchise, we compare NS's level of service with that of other European rail operators. We monitor our performance and gather input to improve our services. We completed the benchmark survey for the 2017–2021 period in 2023. The results were heavily influenced by the COVID-19 pandemic. NS saw a sharper decline in passenger numbers than other carriers, partly due to relatively strict lockdowns and the shift among commuters towards working from home. By shortening trains in response to lower passenger numbers, we were able to save more costs than other carriers.

Compared with other countries, the Netherlands is the country where passengers make the largest financial contribution. In other countries, the government funds more of the costs of the rail system.

Partly due to the continuing supply of transport during the COVID-19 pandemic and high punctuality rates, NS and other carriers enjoyed high and rising customer satisfaction scores. The benchmark further shows that other carriers adjust for disruptions differently. We are analysing those differences.

Compared with other carriers, we are one of the leaders in sustainability. The lower number of passengers travelling with NS did result in more energy consumption and CO<sub>2</sub> emissions per passenger-kilometre. All carriers and rail operators are facing risks from climate change, such as increased risk of flooding, overheated tracks and overheated trains.

### Transparency

NS is transparent about its performance. Every month, it reports via [www.ns.nl](http://www.ns.nl) on the latest scores for the KPIs that have been set for the main rail network franchise, with detailed supporting evidence.

## Notes on the material themes

NS has been preparing for the Corporate Sustainability Directive (CSRD) since 2022. This means that in 2026, NS's annual report for 2025 will have to be fully compliant with the CSRD requirements. The materiality analysis concerns topics in connection with which NS has an impact on society or topics with a potential impact on NS.

The material topics provide insight into the impact of NS on societal issues (impact materiality) and, conversely, the way in which such issues influence the development, performance and position of NS (financial materiality). The materiality analysis exclusively concerns topics in connection with which NS has an impact on society or topics with a potential impact on NS. We have included both positive and negative impacts. Examples of

positive impacts include improving accessibility and contributing to climate targets by providing safe, sustainable and accessible national and international travel. Potential negative impacts include restrictions to participation in social and economic life due to faltering public transport facilities. We also looked at potential opportunities and risks arising around the various impacts.

In 2023, we recalibrated the material themes with various internal stakeholders. We report on objectives and results for all material topics included.

#	Theme	Definition
1	Operational performance	The extent to which NS is committed to achieving operational performance agreements on the main rail network and the high-speed line, such as punctuality and seat availability.
2	Customer satisfaction	The extent to which NS meets the core needs of travellers with respect to their travel experience.
3	Attractive and inclusive employership	The extent to which NS can offer its current and future employees an attractive (employment conditions and development) and inclusive (open and safe, diversity, equality) working environment where everyone can be themselves, and encourages being a good employer in the chain.
4	Door-to-door journeys	The extent to which NS facilitates customised door-to-door travel for all public transport passengers in all regions of the Netherlands. Where possible with our own physical and digital services, but also through other providers.
5	Sustainable enterprise	The extent to which NS contributes to the climate (agreement) by offering sustainable mobility and making it more sustainable by operating zero-emission, circular and green business practices and accepting its responsibility to make the chain more sustainable.
6	International journeys	The extent to which NS works together with partners and implements improvements to international travel, among other things to offer an attractive alternative to short-haul flights and cars.
7	Collaborating with stakeholders	The extent to which NS assumes a coordinating role in the mobility sector through reliable, open and accessible cooperation and knowledge sharing with (inter)national and regional stakeholders in order to shape sustainable mobility in the Netherlands.
8	Financially healthy organisation	The extent to which NS is able to achieve a financial return now and in the future so that it can continue to invest in improving its services.
9	Travelling and working in safety	The extent to which NS is committed to safety for passengers, colleagues and employees of partners.
10	World-class stations	The extent to which NS is committed to working with our partners in the region to provide world-class stations by creating functional and valued hubs for mobility and quality of life.
11	Innovation, digitalisation and data-driven operations	The extent to which NS continues to innovate, digitalise and provide data-driven operations in order to optimise our services, the quality of our products and efficient business operations and thus increase passenger satisfaction with their journey, now and in the future.
12	Accessibility	The extent to which NS is committed to seamless travel in order to make its products and services available and accessible to all.

## Changes to themes

The material topics and associated definitions are unchanged from 2022. Compared with 2022, the theme of 'Travelling and working in safety' (9) has increased in importance as a result of the focus on public safety. In terms of NS's impact on people and the environment, the importance of the themes 'Collaborating with stakeholders' (7), 'Financially healthy organisation' (8) and 'Accessibility' (12) has increased. This did not change their positions relative to other themes. The increase in importance of the theme 'Collaborating with stakeholders' follows the trend of the environment becoming more complex. The rise of the theme 'Financially healthy organisation' stems from the increased importance of affordability and increased inflation and transport poverty. The increase in importance of 'Accessibility' (12) reflects the growth of societal and political expectations regarding accessibility: accessible public transport and participation are increasingly becoming the norm.

## Evaluation of our management approach

We use our objectives and results to conduct an annual evaluation of our management approach to the various material topics. In this regard, we also discuss the effectiveness of our actions and consider any lessons we might learn from the results obtained. For 'Operational performance' (1), 'Customer satisfaction' (2) and 'Door-to-door journey' (4), for example, we use the performance indicators from the 2023 Rail Transport Franchise Definitions. For the other material topics, we use our own performance indicators. In addition, we try to manage our own positive and possible negative impacts on the various topics. The objective is to increase our positive impact on people and the planet where possible, and mitigate and reduce our negative impacts. We report on any adjustments to our management approach that result from the evaluation, and for each material topic we provide insight into how we manage our impacts and mitigate them where necessary.

# Statement by the Executive Board

The Executive Board is of the opinion that the risk management and internal control systems concerning the financial reporting risks in the year under review functioned satisfactorily and give a reasonable degree of assurance that the financial reports do not contain any material misstatements. The report therefore gives sufficient insight into the functioning of said systems. The Executive Board states that, as far as it is aware:

- the financial statements give a true and fair view of the assets, liabilities, financial position and profits of NS and the companies included in the consolidation as a whole;
- the annual report gives a true and fair view of the situation on the balance-sheet date and the course of business during the financial year;
- given the current state of affairs, the preparation of the financial reports on a going concern basis is justified;
- the annual report specifies the material risks and uncertainties that are relevant to expectations about the company's continuity for a period of twelve months after the compilation of the report.

Note that the above does not mean that those systems and procedures provide absolute assurance as regards the achievement of operational and strategic objectives, nor that they will necessarily be sufficient to prevent any and all inaccuracies, errors and cases of fraud and failure to comply with laws and regulations. Neither can they provide assurance that we will be able to reach our objectives.

Given the above, the Executive Board is of the opinion that it satisfies the requirements of best practice provision 1.2 of the Dutch Corporate Governance Code.

# About the scope of this report

NS is a company based in the Netherlands and has a single, Dutch shareholder, the Dutch State. In this annual report, which was published on 27 February 2024, we primarily render account to our Dutch stakeholders for our potential impact in the Netherlands. Even so, we also report on our international operations and have included a separate chapter for that purpose. NS focuses on passengers and enabling them to enjoy a comfortable door-to-door journey. To that end, NS's main priority is to improve operational performance on the railways, supported by the provision of, for instance, bicycle facilities and station services and by optimised door-to-door journeys thanks to public transport bicycles and collaboration with partners in the public transport sector and elsewhere. In addition, we aim to remain financially healthy so as to be able to continue investing in services to meet the growing mobility needs in the Netherlands, and to keep train fares affordable. Indeed, this is what our stakeholders expect from us. They also want to see accountability for our sustainability performance in the Netherlands.

NS carries out international operations through Abellio Germany. We monitor the extent to which our results in Germany add value for passengers in the Netherlands, in terms of cross-border travel, for example. Our international activities have to benefit the interests of our stakeholders in the Netherlands. In the annual report, data for Abellio Germany is not included in the calculations of our sustainability performance indicators; it is reported separately in our 'Abellio' section.

In addition to the financial statements, auditor's report and assurance report, the NS 2023 Annual Report includes other information:

- The Report of the NS Executive Board, which has the following chapters: Foreword by the CEO, Profile of NS, Dilemmas, How NS adds value to society, Trends and developments, Our strategy, Main rail network franchise 2025–2033, Activities and performance in the Netherlands, Activities and performance abroad and Finances in brief, as well as the following sections included in the NS Group chapter: Corporate Governance, Risk management, Group risks, Dialogue with our stakeholders in the Netherlands, Statement by the Executive Board, About the scope of this report, and Scope and reporting criteria;
- The Report of the Supervisory Board;
- Other data, in accordance with Title 9 of Book 2 of the Dutch Civil Code.

This annual report is subdivided into three blocks:

- The core report with the Foreword by the CEO, Profile of NS, Dilemmas, How NS adds value to society, Trends and developments, Our strategy, Main rail network franchise 2025–2033, Our activities and performance in the Netherlands, Our activities and performance abroad and Finances in brief. For the operational results, the core of the report consists of the results that we have achieved within the franchise agreements with the Ministry of Infrastructure and Water Management for the Dutch main rail network.
- A section with other information including Corporate governance, Risk management, Group risks, Dialogue with our stakeholders in the Netherlands and the Statement by the Executive Board.
- Financial statements.

# Scope and reporting criteria

In the annual report, NS presents its operational and financial performance and the associated social aspects with the highest possible degree of integration. Our reporting method complies with the 'in accordance with' option of the 2021 GRI Standards.

To provide assurance regarding the reliability of the information included, NS instructed EY to perform an audit with a limited level of assurance, with a focus on sustainability information, in the following chapters: In brief, Foreword by the CEO, Profile of NS, Dilemmas, How NS adds value to society, Our strategy, Overview of franchise indicators, Customer satisfaction, Operational performance, Door-to-door journeys, Stations and their environment, Travelling and working in safety, Our sustainability performance, NS as an employer, Dialogue with our stakeholders in the Netherlands, About the scope of this report, and Scope and reporting criteria.

## GRI indicators

The selection of GRI indicators is based on the 2021 GRI Standards method, the 2023 Transport Plan, discussions with our stakeholders and the resulting material relevance matrix. The reported data is derived from measurements, calculations, third-party reports and internal systems. Any changes in definitions or inherent limitations in the data compared with last year are highlighted in the report. The GRI index can be found on the [annual report website](#).

Definition cards for performance indicators from the Transport Plan and the reporting criteria can be viewed via the [CSR calculations](#) and [2023 Transport Plan performance indicator definition cards](#).

## Scope

- NS reports on topics from the material relevance analysis, which also serves as the basis for choices regarding the level of detail and limits of our reporting. Abellio provided regular input during the stakeholder dialogue. Our reporting of sustainability information about NS only includes data about our Dutch entities. Abellio does not fall within the reporting scope for any of our material topics. Abellio is therefore not included in our sustainability information and indicators.
- This report primarily concerns NS's activities in the Netherlands. The activities in Germany are discussed where they involve operations in which NS held a stake of more than 50% in the reporting year.
- All data is derived from measurements, unless stated otherwise in the description of the method. Any estimates are made using the relevant procedures in our Reporting Manual.
- Uncertainties in the data with regard to the quantification of our impact are explained at [www.ns.nl](http://www.ns.nl).
- We report on the transport supply chain as a whole where procurement is concerned or where our process of value creation gives reason to do so. The choices we have made in this regard are specified where relevant.
- Acquisitions are included in both the financial and sustainability data from the date of acquisition; disposals are included until the date of disposal, unless stated otherwise.
- The definitions of the KPIs and the descriptions of the measurement and calculation methods used can be found in the [2023 Transport Franchise Definitions](#) (in Dutch).

# Financial statements

These financial statements are an English translation of the financial statements prepared on 20 February 2024. In case of any discrepancies or possible differences in interpretation between the English translation and the financial statements prepared on 20 February 2024, the latter prevail. The original Dutch version of the financial statements are available at the chamber of commerce.

# Consolidated financial statements

## Consolidated income statement 2023

(in millions of euros)	2023	2022*
2 Revenue	3,763	3,055
2 Additional government contributions related to COVID-19	60	286
<b>Total revenue</b>	<b>3,823</b>	<b>3,341</b>
3 Personnel costs	1,673	1,466
4 Depreciation, amortisation and (reversal of) impairment losses	995	43
5 Use of raw materials, consumables and inventories	341	292
6 Own capitalised production	-72	-68
7 Costs of subcontracted work and other external costs	500	431
8 Infrastructure levies and franchise fees	634	515
9 Other operating expenses	291	271
<b>Operating expenses</b>	<b>4,362</b>	<b>2,950</b>
16 Share in result of investments accounted for using the equity method	-1	-
<b>Result from operating activities</b>	<b>-540</b>	<b>391</b>
Finance income	101	201
Finance expense	-58	-28
27 Net financing result	43	173
<b>Result before income tax</b>	<b>-497</b>	<b>564</b>
10 Income tax	107	-37
<b>Result from continuing operations</b>	<b>-390</b>	<b>527</b>
<b>Discontinued operations</b>		
1 Result from discontinued operations, after tax**	10	54
<b>Result for the period</b>	<b>-380</b>	<b>581</b>
Attributable to:		
The company's shareholder	-380	574
Minority interest	-	7
<b>Result for the period</b>	<b>-380</b>	<b>581</b>

\* Due to adjustment of the value of negative goodwill within one year of acquisition, financial income was retrospectively adjusted by €5 million negative. The comparative figures for 2022 have been adjusted for this. See note 32.

\*\* Of the profit from discontinued operations of €10 million (2022: profit of €54 million), an amount of €10 million is attributable to the company's shareholder (2022: €47 million).

# Consolidated statement of comprehensive income for 2023

(in millions of euros)

	2023	2022*
<b>Result for the period</b>	<b>-380</b>	<b>581</b>
<b>Comprehensive income to be reclassified to the income statement in subsequent periods</b>		
Currency translation differences on foreign activities	-	1
Changes in measurement at fair value through other comprehensive income	1	1
Effective portion of changes in fair value of cash flow hedges	-38	36
<b>Comprehensive income reclassified to the income statement in the current period</b>		
1 Currency translation differences on foreign activities	31	-
1 Effective portion of changes in fair value of cash flow hedges	-3	-
10 Taxes	-	-
	<b>-9</b>	<b>38</b>
<b>Comprehensive income not to be reclassified to the income statement in subsequent periods</b>		
29 Actuarial result of defined benefit plans	-2	-6
Taxes	1	2
	<b>-1</b>	<b>-4</b>
<b>Total comprehensive income for the period</b>	<b>-390</b>	<b>615</b>
Attributable to:		
The company's shareholder	-390	608
Minority interest	-	7
<b>Total comprehensive income for the period</b>	<b>-390</b>	<b>615</b>

The above table includes the result from discontinued operations, as explained in more detail under the income statement on the previous page and in note 1.

\* Due to adjustment of the value of negative goodwill within one year of acquisition, financial income was retrospectively adjusted by €5 million negative. The comparative figures for 2022 have been adjusted for this. See note 32.

# Consolidated balance sheet as at 31 December 2023

before profit appropriation

(in millions of euros)		31 December 2023	31 December 2022*
<b>Assets</b>			
12	Property, plant and equipment	3,317	3,442
13	Investment property	122	119
14	Intangible assets	203	319
31	Right-of-use assets	268	446
16	Investments recognised using the equity method	12	12
23	Other financial assets, including investments	157	197
11	Deferred tax assets	428	316
<b>Total non-current assets</b>		<b>4,507</b>	<b>4,851</b>
17	Inventories	177	220
18	Trade and other receivables	516	676
	Income tax receivable	-	-
23	Other current financial assets, including investments	715	745
19	Cash and cash equivalents	460	396
<b>Total current assets</b>		<b>1,868</b>	<b>2,037</b>
1	Assets held for sale	-	1,476
<b>Total assets</b>		<b>6,375</b>	<b>8,364</b>
<b>Equity and liabilities</b>			
24	Equity		
	Issued share capital	1,012	1,012
	Other reserves	44	70
	Retained earnings	1,238	647
	Unappropriated result	-380	574
<b>Capital and reserves due to shareholder</b>		<b>1,914</b>	<b>2,303</b>
	Third-party minority interests	-	1
<b>Equity</b>		<b>1,914</b>	<b>2,304</b>
28	Deferred income	123	128
25	Loans and other financial liabilities, including derivatives	1,672	1,505
31	Lease liabilities	315	377
29	Employee benefits	58	55
30	Provisions	87	310
20	Accruals and deferred items	8	9
11	Deferred tax liabilities	-	-
<b>Total non-current liabilities</b>		<b>2,263</b>	<b>2,384</b>
25	Loans and other financial liabilities, including derivatives	387	296
31	Lease liabilities	89	87
	Income tax payable	13	11
21	Trade and other liabilities	1,004	1,306
22	Deferred income	590	565
30	Provisions	115	64
<b>Total current liabilities</b>		<b>2,198</b>	<b>2,329</b>
1	Liabilities held for sale	-	1,347
<b>Total liabilities</b>		<b>4,461</b>	<b>6,060</b>
<b>Total equity and liabilities</b>		<b>6,375</b>	<b>8,364</b>

\* Due to adjustment of the value of negative goodwill within one year of acquisition, financial income was retrospectively adjusted by €5 million negative. The comparative figures for 2022 have been adjusted for this. See note 32.

# Consolidated cash flow statement for 2023

(in millions of euros)

	2023	2022*
<b>Result from continuing operations</b>	<b>-390</b>	<b>527</b>
<i>Adjustments for:</i>		
Income tax	-107	37
Result from investments recognised using the equity method	1	-
12,13,14,31 Depreciation and amortisation	472	428
12,13,14,31 Impairment losses and reversals	523	-385
Net financing result	23	-104
Change in provisions	-172	20
Change in non-current liabilities not resulting in cash flows	14	-52
Change in deferred credits	-37	-33
	<u>717</u>	<u>-89</u>
<b>Result after adjustments</b>	<b>327</b>	<b>438</b>
Change in inventories	43	-50
Change in trade and other receivables	159	303
Change in current liabilities	-277	208
<b>Movements in working capital</b>	<b>-75</b>	<b>461</b>
Interest paid	-35	-14
Income tax received/paid	-	-
Net cash flow from discontinued operations	37	181
	<u>2</u>	<u>167</u>
<b>Net cash flow from operating activities</b>	<b>254</b>	<b>1,066</b>
Finance income received	15	11
Disposal/acquisition of subsidiaries (net of cash disposed of/acquired)	-	9
12,14 Acquisition of intangible assets and property, plant and equipment	-539	-429
13 Acquisition of investment property	-9	-2
Receipts (payments) from other investments	-	-
Acquisition of non-current financial assets, including investments**	-778	-1,687
16,23 Disposal of non-current financial assets, including investments**	941	1,380
Disposal of intangible assets, property, plant and equipment and investment property	2	-7
12,13,14		
Net investment cash flow from discontinued operations	-244	-15
	<u>-612</u>	<u>-740</u>
<b>Net cash flow from investment activities</b>	<b>-612</b>	<b>-740</b>
<b>Net cash flow from operating and investment activities</b>	<b>-358</b>	<b>326</b>
Repayment of borrowings	-644	-50
Repayment of lease liabilities	-99	-72
New borrowings	901	129
Net financing cash flow from discontinued operations	-37	-291
	<u>121</u>	<u>-284</u>
<b>Net cash flow from financing activities</b>	<b>121</b>	<b>-284</b>
Net decrease/increase in cash and cash equivalents	-237	42
Cash and cash equivalents as at 1 January***	700	680
Effect of exchange rate fluctuations and translation differences on cash held	-3	-22
Cash and cash equivalents classified as held for sale as at 31 December	-	-304
	<u>460</u>	<u>396</u>
<b>Cash and cash equivalents as at 31 December</b>	<b>460</b>	<b>396</b>

\* Due to adjustment of the value of negative goodwill within one year of acquisition, financial income was retrospectively adjusted by €5 million negative. The comparative figures for 2022 have been adjusted for this. See note 32. Also, comparative figures for 2022 have been adjusted for comparison purposes.

\*\* This mainly concerns the acquisition and disposal of money market funds during 2023.

\*\*\* Includes €304 million cash and cash equivalents classified as held for sale (see note 1).

## Consolidated statement of changes in equity

(in millions of euros)	Issued capital	Other reserves	Retained earnings*	Unappropriated result	Total	Minority interests	Total equity
<b>Balance as at 1 January 2022</b>	<b>1,012</b>	<b>36</b>	<b>308</b>	<b>339</b>	<b>1,695</b>	<b>-6</b>	<b>1,689</b>
Result	-	-	-	574	574	7	581
Non-realised profit	-	34	-	-	34	-	34
<b>Total comprehensive income for the period</b>	<b>-</b>	<b>34</b>	<b>-</b>	<b>574</b>	<b>608</b>	<b>7</b>	<b>615</b>
Dividend paid to shareholders	-	-	-	-	-	-	-
Discontinued operations	-	-	-	-	-	-	-
Other movements	-	-	339	-339	-	-	-
<b>Balance as at 31 December 2022*</b>	<b>1,012</b>	<b>70</b>	<b>647</b>	<b>574</b>	<b>2,303</b>	<b>1</b>	<b>2,304</b>
Result	-	-	-	-380	-380	-	-380
Non-realised profit	-	-10	-	-	-10	-	-10
<b>Total comprehensive income for the period</b>	<b>-</b>	<b>-10</b>	<b>-</b>	<b>-380</b>	<b>-390</b>	<b>-</b>	<b>-390</b>
Dividend paid to shareholders	-	-	-	-	-	-	-
Discontinued operations	-	-	-	-	-	-	-
Other movements	-	-16	591	-574	1	-1	-
<b>Balance as at 31 December 2023</b>	<b>1,012</b>	<b>44</b>	<b>1,238</b>	<b>-380</b>	<b>1,914</b>	<b>-</b>	<b>1,914</b>

The reserve for discontinued operations held for sale is included in the other reserves at year-end 2022. This includes the actuarial reserve, hedging reserve and translation reserve classified as discontinued operations (see note 24).

\* Due to adjustment of the value of negative goodwill within one year of acquisition, financial income was retrospectively adjusted by €5 million negative. The comparative figures for 2022 have been adjusted for this. See note 32.

# Notes to the 2023 consolidated financial statements

The notes are divided into six sections. The notes contain the relevant information as well as a description of the specific accounting policies applied in the case of the subject of that particular note.

## Section 1 General information and material accounting policies

### General Information

NV Nederlandse Spoorwegen has its registered office on Laan van Puntenburg in Utrecht, the Netherlands (Chamber of Commerce number 30012558). The company's consolidated financial statements for the 2023 financial year include the company and its subsidiaries (hereinafter referred to as the 'Group') and the Group's share in associates and companies that it controls jointly with third parties. NV Nederlandse Spoorwegen is the holding company of NS Groep NV, which in turn is the holding company of the operating companies that carry out the Group's various business operations. The figures for the consolidated financial statements of NS Groep NV are materially the same as the consolidated figures for NV Nederlandse Spoorwegen. The operating companies of NS Groep NV are listed in note 34. The Group's activities consist mainly of passenger transport, the management and development of property and the operation of station locations.

The Executive Board prepared the financial statements on 20 February 2024. In its preliminary report to the General Meeting of Shareholders, the Supervisory Board advised that the financial statements should be adopted unaltered. On 20 February 2024, the Executive Board and Supervisory Board approved the publication of the financial statements. Adoption of the financial statements is on the agenda of the General Meeting of Shareholders on 6 March 2024.

In accordance with Section 402(1) of Book 2 of the Dutch Civil Code, the company financial statements of NV Nederlandse Spoorwegen only include an income statement in abbreviated form.

### Acquisition and disposal of companies

On 28 February 2023, the group transferred its shares in Abellio Transport Group Ltd to Transport UK Group Ltd, a British entity owned by local management. As of the transfer date, Abellio Transport Group Ltd and its group companies are no longer consolidated. See note 1 for a further explanation.

The notes to the financial statements have been prepared exclusive of discontinued operations, unless stated otherwise.

### Material accounting policies

Below is a description of the material accounting policies for consolidation, the measurement of assets and liabilities and the determination of the result of the Group. These policies are in accordance with IFRS, insofar as they are accepted by the EU, and are applied consistently to all information that is presented. Furthermore, insofar as applicable, the financial statements comply with the legal regulations as included in Title 9 of Book 2 of the Dutch Civil Code. The Group applies the historical cost price system as measurement basis, unless stated otherwise.

### **Valuation of provision for soil decontamination**

For the provision for soil remediation, NS applies a change in accounting estimate, based on experience figures, to better align with the actual time period for which pollution cases are remediated. Practice shows that the timing of remediation of soil contamination cases is further into the future than initially estimated. The soil remediation burden has been calculated in the past by discounting the remediation burden over a period up to and including 2030. Based on experience figures, this assumption is no longer realistic. Contamination cases whose schedule is unknown are discounted over 15 years from 2023, until the end date of these cases is in sight. From that point on, the end date will be used.

The change in estimate resulted in a release of the provision of €2 million in 2023. The release consists of two opposite effects: the change in estimate increases the cost of indexation in future years by €10 million on the one hand, and the discounting of the provision over a longer period decreases the provision value at 31 December 2023 by €12 million on the other. The present value effect will lead to higher interest expenses in the future, up to and including 2038, of €12 million as well.

### **Important (result) developments**

The structurally changed passenger behaviour after the COVID-19 pandemic and high inflation affected the 2023 result. The UK business was sold with effect from 28 February 2023. The results for 2022 and 2023 are presented under discontinued operations (see note 1).

The Group's result from continuing operations is €390 million negative partly due to impairment losses in the Netherlands for a net amount of €318 million (consisting of an impairment of €402 million and a lower depreciation charge of €84 million) and Germany for €121 million (note 15). In addition, the result from continuing operations was positively impacted by the release of provisions amounting to €136 million (note 30) and additional contributions from the Dutch government amounting to €60 million (note 2).

The net financing result amounts to €43 million positive (2022: €173 million positive). The positive financing result is largely caused by a release of anticipated liabilities and guarantees in relation to the insolvency proceedings in Germany of €66 million (2022: €77 million).

A tax income of €107 million has been recognised (2022: € 37 million tax expense). The effective tax rate differs slightly from the regular tax rate. This is mainly caused by the aforementioned financing results (Germany) not being taxed (see note 10) and the non-measurement of the deferred loss compensation of the German operations.

The following events have had a substantial impact on the Group's financial figures:

- In response to changed economic conditions in the Netherlands and following the signing of the main rail network franchise for the period 2025-2033, a reassessment of the impairment losses recognised in 2020 took place in 2023 (see note 15). This reassessment led to an impairment loss of € 402 million.
- Since 31 May 2022, Abellio Transport Group Ltd and its group companies (hereinafter 'Abellio UK') have been presented as 'assets and liabilities held for sale'. On 28 February 2023, the transaction was finalised with the transfer of the shares in Abellio Transport Group Ltd to Transport UK Group Ltd, a British entity owned by local management. As of the transfer date, Abellio UK is no longer consolidated. The net results of the discontinued operations in the United Kingdom are stated under 'Result from discontinued operations' (see note 1). See note 23 for information about the assets that have arisen since the termination of operations in the United Kingdom.
- In Germany, it was deemed necessary to effect a restructuring operation by means of insolvency proceedings instituted by the company itself, with effect from 30 June 2021, in order to prevent continuation of loss-making operations. Under these preliminary proceedings, the former shareholders lost their control of the company. In 2022, Abellio Germany finalised its restructuring operation for several entities and NS, by repurchasing the shares, regained control over PTS GmbH (as at 1 February 2022), WestfalenBahn GmbH (as at 1 March 2022) and Abellio Rail Mitteldeutschland GmbH (as at 1 July 2022). Since then, these entities have been re consolidated. The onerous DISA contract will be continued by Abellio Rail Mitteldeutschland until December 2024, at NS's expense. The activities in North Rhine-Westphalia and Baden-Württemberg were terminated in January 2022 and transferred to operators appointed by the Passenger Transport Authorities (PTAs), as an agreement could not be reached with the PTAs on additional compensation for operating the franchises. The allocation of the purchase price of PTS GmbH, WestfalenBahn GmbH and Abellio Rail Mitteldeutschland GmbH was finalised in 2023. The resulting negative effect of €5 million has been taken retrospectively to the 2022 net financing result. For further explanation, see note 32.
- Pressure on operating results in Germany due to poor operating performance, combined with the negative impact of higher personnel and energy costs on operating results after 2023, prompted an impairment test. This resulted in an impairment loss of €121 million (see note 15).
- In the insolvency proceedings regarding the former German holding Abellio GmbH, the trustee has reached agreement with the creditors and NS. The agreement will serve to settle the bankruptcy, a process that will take some time. The provision as at 31 December 2023 has been aligned with the outcome of the proceedings; see note 30 for further explanation.

A more detailed analysis of the result is included in the 'Finance in brief' section of the NS Annual Report.

### ***Going concern assumption***

The Group prepared the financial statements for the 2023 financial year on a going concern basis, which assumes the continuity of ongoing business activities and the realisation of assets and settlement of liabilities as part of its normal business activities.

The Group has prepared financial forecasts, among other things for the 12 months from the date of approval of these financial statements. The Group has concluded that it is appropriate to prepare the financial statements on a going concern basis and that there is no material uncertainty. To reach this conclusion, the Group has calculated several scenarios, and there is room in each of the scenarios for possible disappointing revenues and/or expenses.

The key assumptions and uncertainties in the Group's liquidity forecast relate to:

- lower revenues from passengers relative to 2019 as a result of changes in passenger demand. For 2023, the Ministry of Infrastructure and Water Management has pledged to provide a one-off transition safety net of €150 million for the entire sector. NS's share is expected to amount to €45 million. No pledges have been made for the period thereafter. An 80% advance of the public transport safety net was received in 2023. The Group expects to receive the remaining 20% in 2024;
- compensation for a foregone 2024 fare increase for the amount of €120 million in 2024;
- uncertainties about cost levels due to shortages on the labour market, raw material prices and inflation;
- positive cash flows from the settlement of the old franchises and claims in the UK amounting to around €90 million;
- the student public transport contract. The point of departure is that this will continue in its regular form, and these revenues for 2025 will be received in full in advance in the financial forecast period;
- timing and scope of investments in new rolling stock.

The liquidity available to the Group at the end of 2023 amounts to €1,074 million. This amount includes investments in two money market funds amounting to €614 million. The Group arranged two loans totalling €170 million in 2023 on a 'forward' basis for deposit in 2024, of which €50 million will be paid by 30 April 2024 and €120 million by 2 July 2024.

The Group can also make use of credit facilities totalling € 830 million. Of these credit facilities:

- €500 million relates to a so-called revolving credit facility (available until 20 December 2027);
- €200 million relates to a credit facility (available until 12 May 2024). This facility is used to raise a long-term loan repayable in parts with a maturity of four years;
- €130 million relates to a financing facility (available until 17 December 2024), under which one or more straight-line repayable long-term loans can be raised with a maximum maturity of 15 years.

The Group expects to be able to make use of alternative financing options should the situation so require.

Based on the above, the Group concludes that it is appropriate to prepare the financial statements on a going concern basis and that there is no material uncertainty.

#### ***New standards and amendments to standards that are mandatory from 2023***

As of 1 January 2023, the Group has adopted the following new standards and amendments to standards, including all consequent changes deriving from them in other standards. These new or amended standards have not had a significant impact on the Group's consolidated financial statements:

- amendments to IAS 1 Presentation of Financial Statements and IFRS Practice Statement 2: Disclosure of accounting policies (effective 1 January 2023);
- amendments to IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors: Definition of accounting estimates (effective 1 January 2023);
- amendments to IAS 12 Income Taxes: Deferred tax in respect of assets and liabilities arising from a single transaction (effective 1 January 2023);
- IFRS 17 Insurance contracts; including amendments to IFRS 17 (effective 1 January 2023);
- amendments to IFRS 17 Insurance contracts: Initial application of IFRS 17 and IFRS 9 – Comparative figures (as at 1 January 2023);
- international tax reform— Second pillar model rules – Amendments to IAS 12. The changes to IAS 12 were introduced in response to the OECD's Pillar II BEPS rules and include:
  - a mandatory temporary exception to the recognition and disclosure of deferred taxes resulting from jurisdictions' implementation of the second-pillar model rules; and
  - disclosure requirements for covered entities to help users of financial statements better understand an entity's exposure to second-pillar income taxes arising from that legislation, particularly before its effective date. The mandatory temporary exception – the use of which must be made public – applies immediately. The other disclosure requirements apply to annual reporting periods beginning on or after 1 January 2023.
- Pillar two legislation is in force in the jurisdictions in which the Group operates. The legislation will be effective for the Group's financial year beginning 1 January 2024. The Group has estimated its potential exposure to pillar two taxes. This assessment is based on the latest available information on the financial performance of the constituent entities in the Group. Based on the assessment conducted, NS will use the temporary safe harbour arrangement in the countries where it operates.

#### ***New standards and amendments to standards that are mandatory from 2024 or later***

The Group has not voluntarily applied new standards, amendments to existing standards or interpretations that are mandatory only with effect from the financial statements for 2024 or later.

The following new or amended standards have no significant impact on the consolidated financial statements of the Group:

- amendments to IAS 1 Presentation of Financial Statements classification of liabilities as current or non-current (effective 1 January 2024);
- amendments to IFRS 16: lease liability in a sale and lease back (effective 1 January 2024);
- amendments to IAS 7 The statement of cash flows and IFRS 7 Financial instruments: Disclosure: Supplier finance agreements (issued 25 May 2023);
- Amendments to IAS 21 The Effects of Changes in Foreign Exchange Rates: Lack of redeemability (issued 15 August 2023).

#### ***Estimates and assessments***

The preparation of the financial statements requires the Executive Board to make judgements and estimates that affect the application of accounting policies and the reported value of assets and liabilities and of income and expenses. The estimates and corresponding assumptions are based on experiences from the past and various other factors that could be considered reasonable under the circumstances. The actual results may differ from these estimates. The estimates and underlying assumptions are reviewed on a regular basis. Revisions of estimates are recognised in the period in which the estimate is revised or in future periods if the revision relates to those periods.

The most important estimates and assessments concern:

- going concern assumption (as included above in the 'Going concern assumption' section);
- expected cash flows due to discontinuation of UK operations (note 1);
- impairments (note 15);
- deferred tax assets (note 11);
- trade and other receivables (note 18);
- other provisions and off-balance sheet arrangements (note 30 and note 33).

The policies for financial reporting set out below have been applied consistently to all the periods presented in these financial statements.

## **Accounting policies for consolidation**

### ***Subsidiaries***

The Group has control over an entity if its involvement with that entity means that the Group is exposed to or is entitled to variable returns and that it has the power to influence those returns by virtue of its say in that entity. The financial statements of the subsidiaries are incorporated in the consolidated financial statements as from the date on which control commences until the date on which control ceases.

In the event of a loss of control over the subsidiary, the subsidiary's assets and liabilities, any minority interests and other equity components associated with the subsidiary are no longer recognised in the balance sheet. Any surplus or deficit is recognised in the income statement. If the Group retains an interest in the former subsidiary, that interest is recognised at fair value as at the date on which control ceases.

### ***Acquisition of subsidiaries***

Business combinations are recognised according to the acquisition method as at the date on which control is transferred to the Group. The remuneration for the acquisition is assessed at its fair value, as are the net identifiable assets that are acquired. Any goodwill deriving from this is assessed annually for impairments. Any book profit from a bargain purchase is recognised directly in the income statement. Transaction costs are recognised at the time when they are incurred.

### ***Elimination of transactions on consolidation***

Intra-group balances and transactions plus any unrealised gains and losses on transactions within the Group or revenues and expenses from such transactions are eliminated. Unrealised gains arising from transactions with investments accounted for using the equity method are eliminated in proportion to the Group's interest in the investment. Unrealised losses are eliminated in the same way as unrealised gains, but only insofar as impairment is not indicated.

### ***Assets held for sale and discontinued operations***

The Group classifies non-current assets and groups of assets disposed of as held for sale if their carrying amount will be recovered principally through a sales transaction and not through their continued use. Non-current assets classified as held for sale are recognised at the lower of carrying amount and fair value less costs to sell. The criteria for classification as held for sale are considered met only when the sale is highly probable and the asset or group of assets being disposed of is immediately available for sale in its current condition. Actions required to complete the sale must indicate that it is unlikely that significant changes will be made to the sale or that the decision to sell will be reversed. Management must be committed to the plan to sell the asset, and the sale is expected to be completed within one year of the date of classification.

An activity is disclosed as a discontinued operation if it is a part of the Group that has either been disposed of or classified as held for sale, represents a separate major line of business or geographic area of operations and is part of one coordinated plan to dispose of a separate major line of business or geographic business area.

Tangible, intangible and right-of-use assets are not written down once they are classified as held for sale. Assets and liabilities classified as held for sale are presented separately as current assets or current liabilities.

Discontinued operations are excluded from the results of continuing operations and are presented as a single amount as profit or loss after tax from discontinued operations in the income statement.

Additional information is provided in note 1. All other notes to the financial statements contain amounts for continuing operations, unless otherwise stated.

### **Foreign currency**

#### ***Foreign currency transactions***

Transactions denominated in foreign currency are translated to the functional currency of the Group entity concerned at the exchange rate prevailing on the date of the transaction. Monetary assets and liabilities that are denominated in foreign currencies are translated to the functional currency at the exchange rate prevailing on the balance sheet date. Non-monetary assets and liabilities denominated in foreign currency that are measured at fair value are translated to the functional currency using the exchange rates that prevailed at the dates when the fair values were determined. Non-monetary assets and liabilities denominated in foreign currency that are measured at historical cost are not retranslated.

The exchange rate differences arising on translation of the following items are recognised in other comprehensive income:

- financial liabilities that are designated as a hedge of the net investment in a foreign operation;
- qualifying cash flow hedges, insofar as the hedge is effective.

#### ***Foreign operations***

The assets and liabilities of foreign operations, including goodwill and fair value adjustments arising on consolidation, are translated into euros at the exchange rates prevailing on the reporting date. The revenues and expenses of foreign operations are translated into euros at the average exchange rate, which approximates the exchange rate on the transaction date.

Currency translation differences are included in the other comprehensive income and accounted for in the translation reserve. If the Group ceases to have control, significant influence or joint control due to the disposal of a foreign operation, the cumulative amount in the translation reserve will be reclassified to profit or loss when the profit or loss from the disposal is recognised. If the Group only sells part of its interest in a subsidiary, while retaining control, a proportionate share of the cumulative amount will be reassigned to the minority interest. If the Group only sells part of its interest in an associate or joint venture, while retaining significant influence or joint control, a proportionate share of the cumulative amount will be re-allocated to the income statement.

#### ***Determination of fair value***

A number of the Group's accounting policies and disclosures require the determination of fair value, for both financial and non-financial assets and liabilities. Fair values for measurement and/or disclosure purposes were determined using the following methods:

**Investment property**

In view of the nature, diversity and locations (station areas), the fair value of the investment property portfolio is not determined on a regular basis unless impairment is indicated. The fair value is expected to exceed the carrying amount of the investment property. Investment property is measured at cost less accumulated depreciation and accumulated impairment losses.

**Investments in non-current financial assets**

The fair value of investments in debt instruments is determined using the price on the reporting date. The fair value of the equity investment (Eurofima) has been determined on the basis of the latest available financial statements.

**Derivatives**

The fair value of derivatives is based on derivative market quotations, taking account of current interest rates and the estimated creditworthiness of the contract counterparties.

**Assets held for sale**

The assets held for sale are stated at fair value, with the fair value being based on the direct realisable value less expected costs to sell.

**Non-derivative financial liabilities**

The fair value of non-derivative financial liabilities is determined for disclosure purposes and is calculated based on the present value of future repayments and interest payments, discounted at the market interest rate as at the reporting date.

**Segmented information**

The Group is under no obligation to comply with the requirements of IFRS 8 because it is not listed on a stock exchange. Segment information with a breakdown of revenue and FTEs by geographical area has been included in order to comply with the requirements of Dutch legislation and regulations.

**Accounting policies for the consolidated cash flow statement**

The cash flow statement is drawn up using the indirect method, using a comparison between the initial and final balances for the financial year in question. The result is then adjusted for changes that did not generate revenue or expenses during the financial year. The cash flows from discontinued operations are included separately in the cash flow statement in order to reconcile with the various items in the financial statements.

## Section 2 Result for the year

### 1. Assets and liabilities held for sale/Discontinued operations

In line with its strategy, which dictates that international activities should be in the interest of passengers in the Netherlands, NS has been preparing its departure from the British market with the consent of the shareholder. As at 31 May 2022, Abellio Transport Group Ltd and its group companies were presented as 'held for sale'.

On 28 February 2023, the Group transferred its shares in Abellio Transport Group Ltd to local management for an initial selling price of £16.5 million (€19 million). Additional agreements have been made on the following subjects:

- Settlement of potential and realised benefits arising from past outstanding claims by local management. After settlement, these benefits, net of a percentage management fee, accrue to NS.
- Settlement and transfer of assets of the terminated franchises and settlement of the associated guarantees for a guarantee value of €0.3 billion. Potential benefits from the settlement accrue to NS.
- Earn-out scheme. Under an earn-out scheme over the period 2022–2025, NS is entitled to a share of the joint profits achieved on the Merseyrail franchise and London Bus business up to a maximum of £10 million.
- Special share. The Group has retained one share in Abellio UK to which specific rights are attached (the 'special share'). Through the special share, the Group retains its entitlement to potential gains from the settlement of claims and discontinued franchises.

NS is entitled to the value of the former franchises and claims settled by local management for NS. In addition, on behalf of NS, local management will see to the proper settlement of the discontinued franchises. Successful settlement will result in the release of guarantees issued by NS (see note 33 for an explanation). See note 23 for information about the assets that have arisen since the termination of operations in the United Kingdom.

As of the shares transfer date, Abellio UK is no longer consolidated. As at 28 February 2023, the assets and liabilities of the entities held for sale can be broken down as follows:

(in millions of euros)

28 February 2023 31 December 2022

	28 February 2023	31 December 2022
<b>Assets held for sale</b>		
Property, plant and equipment	23	24
Intangible assets	-	-
Right-of-use assets	672	681
Investments recognised using the equity method	13	12
Other financial assets, including investments	8	15
Deferred tax assets	20	19
<b>Total non-current assets</b>	<b>736</b>	<b>751</b>
Inventories	12	13
Trade and other receivables	417	388
Income tax receivable	19	18
Other financial assets, including investments	5	2
Cash and cash equivalents	304	304
<b>Total current assets</b>	<b>757</b>	<b>725</b>
<b>Total assets</b>	<b>1,493</b>	<b>1,476</b>
<b>Liabilities held for sale</b>		
Loans and other financial liabilities, including derivatives	89	41
Lease liabilities	481	497
Employee benefits	-	-
Provisions	11	10
Deferred tax liabilities	2	1
<b>Total non-current liabilities</b>	<b>583</b>	<b>549</b>
Loans and other financial liabilities, including derivatives	-	1
Lease liabilities	176	219
Income tax payable	3	3
Trade and other liabilities	556	538
Deferred income	27	28
Provisions	18	9
<b>Total current liabilities</b>	<b>780</b>	<b>798</b>
<b>Total liabilities</b>	<b>1,363</b>	<b>1,347</b>

As at 31 May 2022, the Group ceased to depreciate all the property, plant and equipment of Abellio UK. Until 28 February 2023, this had resulted in €42 million lower costs in 2023. The assets and liabilities are stated at the carrying amount.

The Group had outstanding intercompany loans to Abellio UK of €173 million, which are not presented in the above overview because they were eliminated in the consolidation until the moment of sale. At the moment of transfer of the shares of Abellio Transport Group Ltd, these loans, subject to the depreciation of €85 million as recognised in 2022, were transferred to Transport UK Group Ltd. From that moment, the loans qualify as loans to third parties presented as non-current financial assets; see note 23. During 2023, loans amounting to €85 million were actually waived.

The result from discontinued operations can be broken down as follows:

(in millions of euros)	2023	2022
Revenue	368	2,460
Operating expenses	-331	2,251
Share in result of investments accounted for using the equity method	1	10
<b>Result from operating activities</b>	<b>38</b>	<b>219</b>
Impairment recognised in the remeasurement at fair value less costs to sell*	-	-157
Result from sale of participating interest	-38	-
Net financing result	10	-7
<b>Result before income tax</b>	<b>10</b>	<b>55</b>
Income tax	-	-1
<b>Net result from discontinued operations</b>	<b>10</b>	<b>54</b>

\* No income tax has been recognised on this impairment.

The net financing result from discontinued operations includes an intercompany interest expense of €1 million until 28 February 2023 (2022: €10 million). This interest expense is not presented in the above overview because it was eliminated in the consolidation. The recycling of revaluation reserves at sale date and changes in the value of financial fixed assets are part of net finance result.

The result on the sale of Abellio UK is €38 million negative as at 28 February 2023. The result is negative because, at the moment of sale, the net carrying amount of assets and liabilities of Abellio Transport Group Ltd and its group companies exceeds the realisable value (minus the expected selling costs). This negative result is caused primarily by the termination of depreciation.

In summary, the result from discontinued operations can be presented as follows:

(in millions of euros)	2023	2022
Result of Abellio UK before termination of depreciation	-5	55
Effect of termination of depreciation	42	146
Impairment to fair value	-	-157
Intercompany interest	1	10
Result from sale of participating interest	-38	-
Recycling of revaluation reserves at date of sale	-28	-
<b>Result up to date of sale</b>	<b>-28</b>	<b>54</b>
Changes in value of non-current financial assets of Transport UK Group Ltd (including interest)	39	-
<b>Result after date of sale</b>	<b>39</b>	<b>-</b>
Income tax	-1	-
	<b>10</b>	<b>54</b>

## 2. Revenue

In the following table, revenues are broken down into a combination of transport type and geographic area.

(in millions of euros)	External revenue	Additional contributions by governments	2023
Train-related transport in the Netherlands	2,877	59	2,936
Station development and operation in the Netherlands	483	1	484
Train-related transport in Germany	403	-	403
<b>Total revenue</b>	<b>3,763</b>	<b>60</b>	<b>3,823</b>

(in millions of euros)	External revenue	Additional contributions by governments	2022
Train-related transport in the Netherlands	2,362	274	2,636
Station development and operation in the Netherlands	437	12	449
Train-related transport in Germany	256	-	256
<b>Total revenue</b>	<b>3,055</b>	<b>286</b>	<b>3,341</b>

#### **Additional government contributions (train-related transport in the Netherlands)**

Based on the 2022 Public Transport Availability Payment Scheme (BVOV) as issued by the Ministry of Infrastructure and Water Management, NS was entitled to compensation for the full year of 2022 for the loss of revenue it suffered as a result of the pandemic. The compensation equals 93% of the indexed 2019 cost level for the 2022 availability payment, less 100% of the realised revenues. In 2022, NS recognised compensation in the amount of €274 million. Eligibility for the BVOV is subject to specific conditions, such as operating a suitable timetable (which is at least comparable to 2021), compliance with the applicable procurement legislation, a dividend ban, a ban on severance payments to Dutch senior executives and a ban on bonuses to senior executives and board members within the Dutch entities. NS has concluded that the 2022 availability payment could be justified by testing it against the applicable conditions. Due to the scale-down of rolling stock in 2022, the timetable in that year was, at certain points in time, less extensive than in 2021. NS has accounted for that by means of a proportionate adjustment to the 2022 financial statements.

In June 2023, the BVOV payment for 2022 was definitively set at €301 million. The Minister for the Environment awarded NS the full BVOV payment but also imposed a financial measure on the company (a €1.5 million fine, which is provided for at year-end 2023) for its decision to scale down the timetable in the second half of 2022. NS is required to use the amount for the benefit of passengers. NS has drawn up a plan for this, which will be accounted for on completion.

Due to adjustments, including the lapse of the proportional adjustment that was applied in 2022, a total of €14 million in BVOV payments was recognised in the revenue in 2023.

The Ministry of Infrastructure and Water Management made available a 'public transport transition safety net' (TVOV) for the benefit of the entire sector in 2023. The TVOV is subject to conditions similar to those that apply to the BVOV. It is also subject to a transition plan, which NS has already submitted (along with the application). In 2023, NS recognised €45 million in compensation.

***Temporary emergency bridging measure for sustained employment (Noodfonds Overbrugging Werkgelegenheid; NOW)***

For the activities relating to station development and operation in the Netherlands, the so-called NOW compensation (operating company scheme) was applied for in 2022 and recognised as revenue for the amount of €12 million. In order to claim the NOW compensation, conditions apply, such as the ban on management bonuses, dividend payments and agreement by the employee representative body. The applicable conditions have been reviewed by NS, and on this basis, NS has concluded that the NOW compensation can be justified in 2022. NOW 1.0 and 2.0 have now been definitively adopted. The amount in 2023 represents a correction of a NOW application from 2022.

***Miscellaneous***

Station development and operation in the Netherlands includes an amount of €17 million (2022: €42 million) relating to development activities.

## Accounting policy

### Revenue

Revenue is recognised on the basis of the fee established in a contract with a customer. The Group recognises revenue when it transfers control of a good or service to a customer. Revenue includes transport revenue including additional contributions from governments within the framework of COVID-19 and revenue from other business activities after deduction of discounts and VAT.

### ***Provision of services and sale of goods***

Revenue from the sale of travel rights is recognised when the travel right arises. Subscription revenue is recognised in the income statement over time and distributed over the validity of the subscription period.

Revenue from the sale of goods is recognised in the income statement when control of the goods has been transferred to the buyer, recovery of the consideration due is probable and the associated costs or any returns of goods can be reliably estimated.

Fees from the government or similar bodies arising from transport contracts or transport franchises are recognised in the income statement over the period to which the fee relates.

### ***Additional contribution by governments***

Government contributions in the context of COVID-19 are determined on the basis of individual arrangements with various government agencies and are intended to cover costs incurred or to compensate for loss of revenue during all or part of the financial year. The final amount of these contributions for 2023 will be determined in 2024, but the contributions are sufficiently certain to be recognised in the financial statements on the basis of IAS 20. Contributions have been allocated to the period to which they apply. The transitional allowance in the Netherlands was set on the basis of the technical note.

### ***Rental income***

Rental income from property is recognised in the income statement over time, based on the duration of the rental period. Commitment costs incurred as an incentive to enter into lease arrangements are recognised as an integral part of the total rental income and spread on a straight-line basis over the contract period. Rent reductions granted as a result of lower passenger numbers during current contracts for services to be provided are spread on a straight-line basis over the contract period. Rent reductions granted retroactively for services already rendered are not deducted from revenue but are included in the assessment of expected credit losses under IFRS 9.

### ***Development revenues***

Development revenues are recognised in proportion to the performance contractually agreed with the customer.

### 3. Personnel costs

(in millions of euros)	2023	2022*
Salaries	1,138	1,016
Social security contributions	178	155
Contributions to defined contribution plans	131	112
Contributions to defined benefit plans	8	4
Other personnel expenses	66	51
Hiring of external staff	152	129
<b>Total</b>	<b>1,673</b>	<b>1,466</b>

\* Comparative figures 2022 have been adjusted for comparison purposes. This concerns a shift between categories.

The average staffing level was as follows, with personnel expenses in the UK being included in the result from discontinued operations:

(in FTEs)	2023	2022
The Netherlands	17,903	16,973
Germany*	1,483	921
United Kingdom	-	11,908
<b>Total</b>	<b>19,386</b>	<b>29,802</b>

\* Germany's average staffing level is based on the average staffing level for 2022.

The average staffing level at the end of the financial year was as follows, with personnel expenses in the UK being included in the result from discontinued operations:

(in FTEs)	2023	2022
The Netherlands	18,657	17,074
Germany	1,550	1,457
United Kingdom	-	10,563
<b>Total</b>	<b>20,207</b>	<b>29,094</b>

## Remuneration of directors

(in euros)	Basic salary	Alternative for the cap on pension accrual *****	Payment of lease amounts	Allowance for additional tax liability for director's car	Miscellaneous fees	Pension costs	2023 Total
Mr W. Koolmees	458,782	45,714	7,262	3,654	4,368	19,123	538,903
Mr H.L.L. Groenewegen	377,823	34,919	16,920	3,654	4,368	19,123	456,807
Mr T.B. Smit	377,823	34,919	-	3,654	4,368	19,123	439,887
Ms A.M.E. de Vries*	282,710	25,718	2,443	2,860	126,549	15,062	455,342
Mr E.F.W. van Asch	377,823	34,919	-	3,654	4,368	19,123	439,887
<b>Total</b>	<b>1,874,961</b>	<b>176,189</b>	<b>26,625</b>	<b>17,476</b>	<b>144,021</b>	<b>91,554</b>	<b>2,330,826</b>

(in euros)	Basic salary	Alternative for the cap on pension accrual *****	Payment of lease amounts	Allowance for additional tax liability for director's car	Miscellaneous fees	Pension costs	2022 Total
Mr W. Koolmees**	73,913	7,558	2,820	609	728	2,668	88,296
Ms M.E.F. Rintel***	221,741	24,563	-	1,827	2,184	8,005	258,320
Mr H.L.L. Groenewegen****	356,526	33,753	16,920	3,958	4,368	16,010	431,535
Mr T.B. Smit	356,526	33,753	-	3,958	4,368	16,010	414,615
Ms A.M.E. de Vries	356,526	33,753	3,102	3,958	4,368	16,010	417,717
Mr E.F.W. van Asch	356,526	33,753	-	3,958	4,368	16,010	414,615
<b>Total</b>	<b>1,721,758</b>	<b>167,133</b>	<b>22,842</b>	<b>18,268</b>	<b>20,384</b>	<b>74,713</b>	<b>2,025,098</b>

\* Ms de Vries left NS with effect from 15 October 2023 after her term of appointment expired and received a supplement until her second year of illness amounting to €122,181 on departure.

\*\* Mr Koolmees took office as CEO with effect from 1 November 2022.

\*\*\* Ms Rintel stepped down as CEO on 19 May 2022 and left on 1 July 2022.

\*\*\*\* At his own request, Mr Groenewegen did not receive any additional remuneration for the period as deputy CEO in 2022.

\*\*\*\*\* Calculated on the fixed salary.

From 1 July 2020 to 31 December 2021, the fixed income was temporarily reduced by 10% at the voluntary request of the Executive Board. This reduction has continued in 2022 and 2023. The increase in salaries from the CAO (collective labour agreements) have been applied in accordance with the remuneration policy.

The members of the Executive Board jointly use two company cars. Mr Groenewegen does not have a lease car, and the mobility budget (which also applies to the other board members) has been paid out in full to him. The other directors have a leased car. The remainder of the mobility budget, which was not used for the lease car, was paid gross to Mr Koolmees and Ms De Vries.

Please refer to the chapter 'Remuneration of the Executive Board' in the directors' report for more details of the remuneration policy for the Executive Board.

## Remuneration of key management personnel (excluding the Executive Board)

(in euros)	Fixed and variable remuneration	Pension costs	Total
<b>2023</b>	1,595,522	92,428	1,687,950
<b>2022</b>	2,218,778	108,753	2,327,531

These are managers with powers under the Articles of Association and managers with a specific portfolio. From March 2023, the Director of Stations has been added. Rewards to managers of ATH Rail Beteiligungsgesellschaft Deutschland are included in remuneration during 2022. The remuneration to the manager of Abellio UK has been recognised as result from discontinued operations until the sale of the business.

## Remuneration of the Supervisory Board

The remuneration of members of the Supervisory Board for 2023 paid by the company totalled €232,052 (2022: €232,370). The remuneration consists of a fixed fee and an allowance for participating in one or more committees. The amounts for each member of the Supervisory Board are as follows:

(in euros)	2023	2022
G.J.A. van de Aast <i>Chair of the Supervisory Board, member of the Risk and Audit Committee and member of the Remuneration and Appointments Committee. Appointment ended with effect from 3 March 2023.</i>	8,008	45,226
H.H.J. Dijkhuizen <i>From 1 July 2023, Chair of the Supervisory Board, from 1 April, member of the Remuneration and Appointments Committee. Until 1 July 2023, chair of the Risk and Audit Committee, from 1 July 2023, member of the Risk and Audit Committee.</i>	44,496	37,372
N. Albayrak <i>Member of the Risk and Audit Committee and member of the Remuneration and Appointments Committee. Appointment ended with effect from 1 June 2023.</i>	15,210	34,702
M.E. van Lier Lels <i>Deputy Chair of the Supervisory Board and, between 3 March and 1 July 2023, Acting Chair of the Supervisory Board. Member of the Risk and Audit Committee and member of the Remuneration and Appointments Committee.</i>	44,434	40,327
J.L. Stuijt <i>Chair of the Remuneration and Appointments Committee and member of the Risk and Audit Committee</i>	42,425	40,041
W.J. van der Feltz <i>Member of the Risk and Audit Committee and member of the Remuneration and Appointments Committee</i>	36,768	34,702
R. Teerlink <i>Appointed on 1 April 2023 as a member of the Risk and Audit Committee. Chair of the Risk and Audit Committee from 1 July 2023.</i>	28,422	-
P. Boumeester <i>Appointed on 1 September 2023 as a member of the Risk and Audit Committee and member of the Remuneration and Appointments Committee</i>	12,289	-
<b>Total</b>	<b>232,052</b>	<b>232,370</b>

The average allowances for the various roles (excluding expense allowances) are as follows:

(in euros)	2023	2022
Chair of the Supervisory Board	39,602	37,377
Deputy Chair of the Supervisory Board	35,075	33,105
Member of the Supervisory Board	29,418	27,766
Chair of the Risk and Audit Committee	8,486	8,009
Member of the Risk and Audit Committee	2,829	2,670
Chair of the Remuneration and Appointments Committee	8,486	8,009
Member of the Remuneration and Appointments Committee	2,829	2,670

From 1 July 2020 to 31 December 2021, the remuneration of the Supervisory Board was temporarily reduced by 10% at its own request. This reduction has continued in 2022 and 2023. In accordance with the remuneration policy, the pay increases resulting from collective bargaining were implemented.

No loans, advances or guarantees have been provided by the company for the benefit of members of the Executive Board or Supervisory Board.

All shares of NV Nederlandse Spoorwegen are held by the State of the Netherlands. Members of the Executive and Supervisory Boards and staff members have not been granted rights to hold or acquire shares in the company.

## 4. Depreciation and amortisation costs and (reversal of) impairment losses

(in millions of euros)	Note	2023	2022
Depreciation of property, plant and equipment	12	249	231
Depreciation of investment property	13	7	7
Amortisation of intangible assets	14	125	131
Depreciation of right-of-use assets	31	91	59
<b>Total cost of depreciation and amortisation</b>		<b>472</b>	<b>428</b>
Impairments/reversal of impairments of property, plant and equipment	12	379	-340
Impairments/reversal of impairments of intangible assets	14	23	-33
Impairments/reversal of impairments of right-of-use assets	31	121	-12
<b>Total impairments/reversal of impairments</b>	15	<b>523</b>	<b>-385</b>
<b>Total</b>		<b>995</b>	<b>43</b>

For information on impairments of non-current assets and reversal of these impairments, please refer to note 15.

## 5. Use of raw materials, consumables and inventories

(in millions of euros)	2023	2022
Materials used	201	179
Energy consumption	140	113
<b>Total</b>	<b>341</b>	<b>292</b>

## 6. Own capitalised production

Own capitalised production 2023 of €72 million (2022: €68 million) mainly relates to the overhaul of trains.

### Accounting policy

The own capitalised production comprises the directly attributable personnel expenses, costs of materials and attributable indirect costs incurred in the construction of assets for own use.

## 7. Subcontracted work and other external costs

(in millions of euros)	2023	2022
Costs of subcontracted work	72	42
Cleaning costs	102	93
Maintenance work	95	86
Automation costs	231	210
<b>Total</b>	<b>500</b>	<b>431</b>

The costs of subcontracted work are the costs relating to the execution of assignments by third parties that are not covered by the other items in this category.

## 8. Infrastructure levies and franchise fees

(in millions of euros)	2023	2022
Dutch train franchises	473	421
German train franchises	161	94
<b>Total</b>	<b>634</b>	<b>515</b>

### Accounting policy

#### Adjustment mechanisms for main rail network franchise

The implementation agreement with the Ministry of Infrastructure and Water Management includes a number of adjustment mechanisms for determining the franchise price. The adjustment relating to the average profitability during the franchise is recognised as a receivable when the right arises in accordance with the calculation system, as laid down in the implementation agreement. The adjustment is recognised on a straight-line basis over the term of the franchise. Other payments, one-off or otherwise, under the agreement are recognised on a straight-line basis over the term of the franchise.

## 9. Other operating expenses

Other operating expenses include insurances, costs of accommodation and inventory, auditor's fees, publicity costs, maintenance costs of operating assets and additions to provisions.

### Auditor's fees

(in millions of euros)	2023	2022
Statutory audits	2.5	4.4
Other assurance engagements	0.7	0.5
Tax advisory services	-	-
Other services	-	-
<b>Total</b>	<b>3.2</b>	<b>4.9</b>

The auditor's fees include the fees of both the services in the Netherlands and those of the foreign network (in 2022, this includes the United Kingdom, which is presented as results from discontinued operations). The share of the foreign network in the statutory audits for 2023 is €0.1 million (2022: €2.0 million).

## 10. Income tax

(in millions of euros)	2023	2022
<i>Reconciliation with effective tax rate</i>		
<b>Profit before tax from continuing operations</b>	<b>-497</b>	<b>564</b>
Income tax based on Dutch corporate income tax rate (25.8%)	128	-146
Impact of rate differences for foreign entities	7	-
Addition of mixed costs, investment tax credit, etc.	5	-1
Change in valuation of deferred tax assets	-9	74
Unrecognised deferred claims for loss compensation in Germany	-41	-
Permanent difference: Untaxed results of restructuring and settlement in Germany	17	39
Other effects	-	-3
<b>Total income tax</b>	<b>107</b>	<b>-37</b>

Corporation tax is calculated based on the applicable tax rates in the Netherlands and Germany, taking into account the tax rules that give rise to permanent differences between the determination of the profit for commercial purposes and the determination for tax purposes. The tax provisions include the participation exemption and the limitation of deductible expenses.

The effective tax rate for profit before corporation tax was 22% (2022: 7%).

For the Dutch fiscal entity, there is agreement with the tax authorities on the tax returns up to and including 2021. A final assessment has been received for 2021, but not yet for the subsequent years. In the financial statements for this year and previous years, tax is recognised on the basis of the tax returns submitted up to and including 2022, the underlying principles adopted in those tax returns and any adjustments to previous years.

### Accounting policy

Tax on the profit or loss for the financial year comprises the income tax that is payable or can be offset in the reporting period and deferred taxation. Income tax is recognised in the income statement except to the extent that it relates to items recognised directly in equity through other comprehensive income, in which case it is recognised in equity through other comprehensive income. All tax items are stated at nominal value.

The tax to be paid or offset for the financial year is the expected tax charge on taxable profit for the financial year, calculated using the tax rates prevailing on the balance sheet date, plus adjustments to tax payable for prior years.

Almost all subsidiaries belonging to the Group are included in the NS fiscal unity for corporate income tax purposes, with the exception of foreign group companies.

## 11. Deferred income tax

The changes in deferred tax assets and liabilities are as follows:

(in millions of euros)	Net balance as at 1 January 2023	Recognised in income statement	Recognised in other comprehensive income	Held for sale	Net positions as at 31 December 2023	Deferred tax assets	Deferred tax liabilities
Property, plant and equipment	242	53	-	-	295	295	-
Intangible assets	29	13	-	-	42	42	-
Right-of-use assets	-37	10	-	-	-27	-27	-
Non-current financial assets	-	-	-	-	-	7	7
Receivables	-3	1	-	-	-2	-2	-
Provisions	-	-	-	-	-	-	-
Deferred income	10	-	-	-	10	10	-
Loans and other financial liabilities	-	-	-	-	-	-	-
Lease liabilities	23	8	-	-	31	31	-
Other items	4	-	1	-	5	5	-
Loss compensation	48	26	-	-	74	74	-
Deferred tax assets (liabilities)	316	111	1	-	428	435	7
Netting of receivables and liabilities						-7	-7
<b>Deferred tax assets (liabilities) after netting</b>						<b>428</b>	<b>-</b>

(in millions of euros)	Net balance as at 1 January 2022	Recognised in income statement	Recognised in other comprehensive income	Held for sale	Net positions as at 31 December 2022	Deferred tax assets	Deferred tax liabilities
Property, plant and equipment	298	-53	-	-3	242	242	-
Intangible assets	27	2	-	0	29	29	-
Right-of-use assets	-172	1	-	134	-37	-37	-
Non-current financial assets	-3	4	-	-	-	17	17
Receivables	-2	-1	-	-	-3	-3	-
Provisions	2	-3	-	1	0	0	-
Deferred income	-7	17	-	-	10	10	-
Loans and other financial liabilities	-	-	-	-	-	-	-
Lease liabilities	180	-23	-	-134	23	23	-
Other items	4	-1	2	-	4	4	-
Loss compensation	39	26	-	-17	48	48	-
Deferred tax assets (liabilities)	365	-32	2	-19	316	333	17
Netting of receivables and liabilities						-17	-17
<b>Deferred tax assets (liabilities) after netting</b>						<b>316</b>	<b>-</b>

A review of projected profits over the years up to 2033 has taken place. This has led to a write-down of the tax asset temporary differences and losses offset against tax in the amount of €9 million (2022: an upward revaluation of €74 million). The total amount of recognised deferred tax assets in the Netherlands is €428 million. For an explanation of the tax rate, see note 10.

### **Unrecognised deferred tax assets**

Deferred tax assets have not been recognised in respect of the following items because it is unlikely that there will be taxable profit in the future against which the Group can utilise the benefits. The unrecognised deferred tax assets by country are as follows:

(in millions of euros)	<b>Tax- deductible losses</b>	<b>Temporary differences</b>	<b>Total</b>
The Netherlands	-	139	139
Germany	4	39	43
<b>Total</b>	<b>4</b>	<b>178</b>	<b>182</b>

### **Accounting policy**

The deferred tax assets and deferred tax liabilities arise from temporary differences between the carrying amount of assets and liabilities in the financial reporting and their tax base. These are calculated on the basis of the tax rates that are expected to apply when the temporary differences are reversed, using tax rates enacted or substantively enacted as at the reporting date.

Deferred tax assets, including those deriving from tax loss carry-forwards, are measured if it is probable that sufficient tax profits will be available for setting off the losses and if possibilities for offsetting losses can be utilised.

Deferred tax assets and liabilities are offset if the entity has a legally enforceable right to set off current tax assets against current tax liabilities – and the deferred tax assets and the deferred tax liabilities relate to income taxes levied by the same taxation authority on the same taxable entity.

## Section 3 Non-current assets and investments

### 12. Property, plant and equipment

(in millions of euros)	Land	Buildings	Other fixed installations	Rolling stock	Parts	Plant and equipment	Assets under construction	Total
<b>Composition as at 1 January 2022</b>								
Purchase price	143	850	281	6,699	59	368	734	9,134
Accumulated depreciation and impairments	52	464	196	5,090	47	312	-	6,161
<b>Book value as at 1 January 2022</b>	<b>91</b>	<b>386</b>	<b>85</b>	<b>1,609</b>	<b>12</b>	<b>56</b>	<b>734</b>	<b>2,973</b>
<b>Changes in 2022</b>								
Investments	-	-	-	-	-	-	389	389
Capitalisations	6	15	16	265	-	22	-324	-
Business acquisitions	-	13	-	-	-	10	-	23
Held for sale	-4	-12	-	-4	-	-4	-3	-27
Depreciation	-2	-24	-12	-180	-2	-15	-	-235
Disposals	-1	-	-1	-1	-	-	-	-3
Reversal of impairment losses	3	12	7	217	2	5	94	340
Other movements	1	-2	4	1	-	-12	-10	-18
<b>Total changes during the financial year</b>	<b>3</b>	<b>2</b>	<b>14</b>	<b>298</b>	<b>-</b>	<b>6</b>	<b>146</b>	<b>469</b>
<b>Composition as at 31 December 2022</b>								
Purchase price	145	881	272	6,836	58	297	880	9,369
Accumulated depreciation and impairments	51	493	173	4,929	46	235	-	5,927
<b>Book value as at 31 December 2022</b>	<b>94</b>	<b>388</b>	<b>99</b>	<b>1,907</b>	<b>12</b>	<b>62</b>	<b>880</b>	<b>3,442</b>
<b>Changes in 2023</b>								
Investments	-	-	-	-	-	-	506	506
Capitalisations	1	8	11	175	-	34	-228	1
Depreciation	-3	-24	-14	-185	-3	-20	-	-249
Disposals	-1	-	-	-	-	-1	-	-2
Impairment losses	-4	-15	-9	-238	-1	-7	-105	-379
Other movements	-	-	2	-	1	-3	-3	-3
<b>Total changes during the financial year</b>	<b>-7</b>	<b>-30</b>	<b>-10</b>	<b>-248</b>	<b>-3</b>	<b>3</b>	<b>170</b>	<b>-125</b>
<b>Composition as at 31 December 2023</b>								
Purchase price	144	867	293	6,867	60	311	1,050	9,592
Accumulated depreciation and impairments	57	509	204	5,208	51	246	-	6,275
<b>Book value as at 31 December 2023</b>	<b>87</b>	<b>358</b>	<b>89</b>	<b>1,659</b>	<b>9</b>	<b>65</b>	<b>1,050</b>	<b>3,317</b>

For information on impairments and the reversal of these impairments, please refer to note 15.

## Accounting policy

Property, plant and equipment are measured at cost, less accumulated depreciation and accumulated impairment losses. The cost of self-produced assets includes the cost of materials, direct labour costs, a reasonable portion of the indirect production costs and capitalised borrowing costs. Where relevant, the estimated costs of dismantling and removing the asset and the costs of restoring the site where the asset was located are added to the total cost.

Computer software that is an integral part of the computer equipment is capitalised as part of the equipment in question. Only assets for which the Group holds the beneficial ownership are recognised on the balance sheet.

Gains and losses on the sale of an item of property, plant and equipment are determined by comparing the sales proceeds with the carrying amount of the item of property, plant and equipment and are recognised net under income in the income statement.

### Components

If property, plant and equipment consist of components with different useful lives, these components are accounted for as separate items under property, plant and equipment.

The carrying amount of an item of property, plant and equipment is adjusted for the cost of replacing all or part of that asset when such costs are incurred and if it is likely that the replacement will result in future economic benefits. All other costs of maintaining the assets are recognised as an expense in the income statement as incurred.

### Depreciation

Depreciation of property, plant and equipment is applied on a straight-line basis, less residual value and on the basis of the estimated useful life of each individual item of property, plant and equipment. Depreciation is charged to the income statement.

Land is not depreciated, with the exception of street paving. The estimated useful life for different types of property, plant and equipment is as follows:

Asset type	Depreciation period
Buildings	broken down into components (15–100 years); average of 40 years
Other fixed installations	10–25 years
Trains	20 years
Buses	6–15 years
Plant and equipment	3–10 years

The specified useful life is an average for the assets concerned and for any components of which those assets consist. The depreciation method, remaining useful life and residual value are reviewed each year.

If an item of property, plant and equipment is designated as investment property due to a change in use, or if an item of property, plant and equipment is designated for own use, transfers are made to investment property or property, plant and equipment respectively. Since the measurement of both categories of non-current assets is the same, the transfer is made at the carrying amount.

## 13. Investment property

(in millions of euros)

**Total**

### Composition as at 1 January 2022

Purchase price	263
Accumulated depreciation and impairments	-139
<b>Book value as at 1 January 2022</b>	<b>124</b>

### Changes in 2022

Investments	2
Depreciation	-7
Disposals	-1
Impairment losses	-
Reversal of impairment losses	-
Other movements	1
<b>Total changes during the financial year</b>	<b>-5</b>

### Composition as at 31 December 2022

Purchase price	263
Accumulated depreciation and impairments	-144
<b>Book value as at 31 December 2022</b>	<b>119</b>

### Changes in 2023

Investments	9
Depreciation	-7
Disposals	-
Impairment losses	-
Reversal of impairment losses	-
Other movements	1
<b>Total changes during the financial year</b>	<b>3</b>

### Composition as at 31 December 2023

Purchase price	273
Accumulated depreciation and impairments	-151
<b>Book value as at 31 December 2023</b>	<b>122</b>

In addition to business premises on behalf of third parties, investment property includes other properties that are leased to third parties or held as strategic real estate. In addition, the Group has real estate for its own use that is recognised under property, plant and equipment. The rental agreements usually contain a period of several years during which notice of termination is not possible. These real estate objects and property, plant and equipment (real estate for own use) are not part of the Main Rail Network cash-generating unit (as described in note 15).

In view of the nature, diversity and locations (station areas), the fair value of the investment property portfolio is not determined periodically, unless there is an indication of impairment. Based on management estimates, combined with valuations obtained in 2023, there are no indications of impairment on this portfolio. Further impairment analyses have therefore not been performed.

As a result of lower passenger numbers, discounts amounting to €3 million (2022: €9 million) were granted over 2023. These discounts are amortised over the remaining term of the rental contracts.

The total contractual rent until the end of the leases was approximately €413 million at the end of 2023 (2022: €299 million). No contingent rent is charged. The term of the contractual lease is as follows:

(in € million)	< 1 year	1–2 years	2–3 years	3–4 years	4–5 years	> 5 years	Total
Rental income	90	75	57	51	46	94	413

The direct rental income was €32 million (2022: €27 million). Direct rental costs include maintenance costs, property charges and direct management costs totalling €9 million (2022: €9 million).

## Accounting policy

Investment property includes real estate held to earn rental income, for capital appreciation, or both. Investment property is measured at cost less accumulated depreciation and accumulated impairment losses. The cost of self-produced assets includes the cost of materials, direct labour costs, a reasonable portion of the indirect production costs and borrowing costs. Where relevant, the estimated costs of dismantling and removing the asset and the costs of restoring the site where the asset was located are added to the total cost.

The following accounting policies apply to investment property:

### Components

If investment property consists of components with different useful lives, then these components are accounted for as separate items under investment property.

The carrying amount of investment property includes the cost of renewing all or part of the asset when that cost is incurred and when it is probable that the renewal will lead to future economic benefits. All other costs of maintaining the assets are recognised as an expense in the income statement as incurred.

### Depreciation

Depreciation of investment property is applied on a straight-line basis, less residual value and on the basis of the estimated useful life of each individual item of property, plant and equipment. Depreciation is charged to the income statement.

**The estimated useful life for different types of investment property is as follows:**

Asset type	Depreciation period
Foundations and underlying land	100 years
Structure and core	50 years
Façades and outer walls	33 years
Roofing	15 years
Interior finishing	15 years
Technical systems	15 years

The specified useful life is an average for the assets concerned and for any components of which those assets consist. The depreciation method, remaining useful life and residual value are reviewed each year.

## 14. Intangible assets

(in millions of euros)	Goodwill	Software	Total
<b>Composition as at 1 January 2022</b>			
Purchase price	11	827	838
Accumulated amortisation and impairments	-	493	493
<b>Book value as at 1 January 2022</b>	<b>11</b>	<b>334</b>	<b>345</b>
<b>Changes in 2022</b>			
Investments	-	46	46
Business acquisitions	-	28	28
Held for sale	-11	-1	-12
Amortisation	-	-133	-133
Disposals	-	-2	-2
Reversal of impairment losses	-	33	33
Other movements	-	14	14
<b>Total changes during the financial year</b>	<b>-11</b>	<b>-15</b>	<b>-26</b>
<b>Composition as at 31 December 2022</b>			
Purchase price	-	898	898
Accumulated amortisation and impairments	-	579	579
<b>Book value as at 31 December 2022</b>	<b>-</b>	<b>319</b>	<b>319</b>
<b>Changes in 2023</b>			
Investments	-	34	34
Business acquisitions	-	-	-
Amortisation	-	-125	-125
Disposals	-	-	-
Impairment losses	-	-23	-23
Other movements	-	-2	-2
<b>Total changes during the financial year</b>	<b>-</b>	<b>-116</b>	<b>-116</b>
<b>Composition as at 31 December 2023</b>			
Purchase price	-	912	912
Accumulated amortisation and impairments	-	-709	-709
<b>Book value as at 31 December 2023</b>	<b>-</b>	<b>203</b>	<b>203</b>

For information on impairments and the reversal of these impairments, please refer to note

15.

## Accounting policy

### Goodwill

All business combinations are accounted for using the acquisition method. Goodwill is the amount resulting from the acquisition of subsidiaries. Goodwill represents the difference between the cost of the acquisition and the fair value of the identifiable assets and liabilities acquired at the time of the acquisition. Goodwill is measured at cost less accumulated impairment.

Negative goodwill arising on an acquisition is recognised directly in the income statement.

### Other intangible assets

Other intangible assets with a finite life acquired or produced by the Group are stated at cost less accumulated amortisation and accumulated impairment losses.

After initial recognition, expenditure on capitalised intangible assets is only capitalised if it leads to an increase in the future economic benefits embodied in the specific asset involved. All other expenditure, including internally generated goodwill and trademarks, is recognised as an expense in the income statement as incurred.

Amortisation is charged to the income statement on a straight-line basis over the estimated useful life of the intangible assets, except goodwill, from the date they are available for use. The estimated useful lives are as follows:

- Software 3–10 years

## 15. (Reversal of) impairments of non-current assets/onerous contracts

The Group has determined that there are indicators for (reversal of) impairment of assets of some of the Group's cash-generating units (CGUs). First of all, the various CGUs were identified by the Group, after which the assets of these CGUs were assessed for possible impairment. It was then assessed whether, in addition to the possible impairment to be recognised, the formation of a provision for onerous contracts was necessary.

The recoverable amount of the CGU was then determined based on the higher of the value in use or the fair value less costs to sell. The value in use was determined by discounting the expected cash flows at the balance sheet date.

The discount rate is determined after tax on the basis of the interest rate of government bonds issued by the most creditworthy government in the relevant market and in the same currency as the cash flows, adjusted by a risk premium to reflect both the increased risk of investing in shares in general and the risk of the specific CGU.

For each country, the following discount rate after taxation was employed:

	31 December 2023	31 December 2022
The Netherlands	5.7%	7.0%
Germany	5.0%	7.0%

The review resulted in the following impairments broken down by the Netherlands and Germany:

(in millions of euros)	31 December 2023	31 December 2022
The Netherlands	402	-385
Germany	121	-
<b>Total</b>	<b>523</b>	<b>-385</b>

Impairment losses in 2023 were recognised in the following categories (in 2022: reversals of impairment losses):

(in millions of euros)	2023	2022
Property, plant and equipment	379	-340
Intangible assets	23	-33
Right-of-use assets	121	-12
Receivables	-	-
<b>Total</b>	<b>523</b>	<b>-385</b>

### The Netherlands

The COVID-19 crisis forced the Group to perform an impairment analysis in 2020. This led to an impairment loss of €1,562 million at the end of 2020. This impairment is attributed proportionally to all non-current assets. A reassessment of the impairment was carried out as at 31 December 2022, resulting in reversal of the impairment in the amount of €385 million. At the end of 2022, it was assumed that the main rail network contract would be awarded for the period beyond 2024 under conditions that would enable NS to earn the 'cost of capital'. The reversal of the impairment as at 31 December 2022 therefore applied to the years 2023 and 2024.

At the end of 2023, the Group entered into the franchise for the main rail network (HRN) in the Netherlands for the period 2025–2033. In addition, changed assumptions on passenger forecast estimates apply for 2024. These are triggers to reassess the impairment at the end of 2023, with an impairment test based on the most likely scenario. At year-end 2023, the impairment test was performed on the basis of the following assumptions:

- For the Netherlands, the main rail network (HRN) contract has been designated as one cash-generating unit.
- The current franchise runs until the end of 2024.
- At the end of 2023, the franchise for the period 2025–2033 was awarded to NS by the Ministry of Infrastructure and Water Management; the financial return over this period is expected to be lower than the 'cost of capital' according to market standards. Key elements in the concession with potential financial impact are:
  - NS receives an annual subsidy of €5.5 million to implement the Franchise. This amount is supplemented by a sum of €7.5 million per year the costs incurred by NS in managing the national travel information system.
  - The franchise includes agreements on risk sharing at the time when the number of passenger kilometres deviates from lower and upper limits. This reduces the risk (both upward and downward) for NS. The projected cash flows underlying the impairment test assume that these lower and upper limits will not be touched.
  - NS will be given room to incorporate the financial impact of sharply rising energy costs (exceeding the CPI development) in its fares.
  - NS will be given room to raise fares by an extra amount from 1 January 2025 and 1 January 2026, on top of the regular indexation that NS is allowed. Part of the reason for this is that, in 2021, 2022 and 2023, the costs of NS, like those of other transport companies, have increased sharply, but fares could only be increased by a limited amount in those years. Costs are also expected to rise in 2024. In line with the demand of the Lower House, fares will not be increased in 2024. NS will receive compensation amounting to €120 million for this.
- The fair value of the assets in question cannot be reliably determined, as the assets are strongly linked to the HRN contract, the trains are specifically produced for the Dutch railway network and no active market exists for these specific trains.
- Expected revenues from passenger transport over the remaining contract term. The development of passenger transport partly depends on macroeconomic factors such as economic growth, congestion and trends in travel behaviour.
- The income from passenger transport partly depends on the choices regarding the timetable, which are coordinated with the Ministry of Infrastructure and Water Management.
- Continuation of the current student public transport passes contract.
- The production assets can be transferred at book value to the successor franchisee at the end of the concession period when it is not NS. At the time when, at the end of the franchise period, all or part of the franchise is structured differently (e.g. through Open Access), NS and the Ministry of Infrastructure and Water Management will make process and other agreements on how to deal with the transition of the associated production assets.

The sensitivity of the cost of capital and recovery of passenger revenue is as follows:

- An increase in the cost of capital by half a percentage point has a negative effect of approximately €125 million in relation to the recognised impairment.
- Lower passenger kilometres up to the lower limit of risk sharing with the Ministry of Infrastructure and Water Management with unchanged cost levels in the coming years result in a negative impact of around €700 million compared to the recognised impairment.

The Group notes in this connection that the underlying analyses include significant estimation uncertainties. The realisation may differ, and the impairment may have to be adjusted in the future with a positive or negative result effect.

In 2023, due to the impairment, an amount of €84 million less was written off (2022: €150 million) compared to the situation before this impairment.

The reassessment as at 31 December 2023 led to an additional impairment loss for an amount of €402 million. At year-end 2023, the carrying amount of the impairment was €1,197 million (2022: €879 million).

The recognised impairments have been proportionally deducted from the carrying amounts of the assets of the main rail network. The revised carrying amounts are depreciated over the remaining life of the assets.

No impairments have occurred in the other activities in the Netherlands (station development and operation).

## Germany

At year-end 2022, the group created a provision for onerous contracts in the acquisition balance sheet in the amount of €10 million at the start of operations in Germany. Based on a renewed understanding, the provision was adjusted and recognised in the comparative figures as an impairment of the right-of-use assets.

In 2023, poor operational performance in Germany, largely caused by infrastructure outages and numerous track maintenance works, resulted in fines that are only partially compensated. Staff shortages and a high sickness absence rate also caused train cancellations and thus prevented the running of a full timetable. In addition, operating results for the years after 2023 are negatively affected by higher personnel and energy costs. This prompted the conduct of an impairment test.

The following assumptions were used:

- The legal entities WestfalenBahn GmbH and Abellio Rail Mitteldeutschland GmbH are each considered independent cash-generating units (CGUs).
- The cash flows are based on the current business plan taking into account the most recent insights regarding personnel costs (based on collective labour agreement negotiations) and energy costs.
- The fair value of the assets in question cannot be reliably determined given the assets' strong links to concession contracts.
- The WestfalenBahn franchise runs until 2030. The franchises in Mitteldeutschland run until 2024 (DISA) and 2030 (STS) respectively.

The reassessment as at 31 December 2023 led to a reversal of the recognised impairment loss for an amount of €121 million.

The sensitivity of the cost of capital and expected impairment results is as follows:

- An increase in the cost of capital by half a percentage point has a negative effect of approximately €3 million in relation to the recognised impairment.
- A decrease in expected cash flows from operating activities by 5% has a negative impact of around €3 million compared to the recognised impairment.

The Group notes in this connection that the underlying analyses include significant estimation uncertainties. The realisation may differ, and the impairment may have to be adjusted in the future with a positive or negative result effect.

## Accounting policy

The carrying amount of the Group's non-current assets is reviewed on every reporting date in order to determine whether there are indications of impairment. If such indications are found, an estimate is made of the recoverable amount of the asset concerned. For goodwill and intangible assets that are not yet available for use, the recoverable amount is estimated at each reporting date.

The recoverable amount of an asset or a cash-generating unit is the higher of the value in use and the fair value less costs to sell. In assessing the value in use, the present value of the estimated future pre-tax cash flows is calculated using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. For the purpose of impairment testing, assets are grouped together into identifiable groups of assets that generate cash flows from continuing use and that are largely independent of other assets or groups of assets ('cash-generating units'). In impairment testing, the goodwill acquired in a business combination is allocated to the cash-generating units that are expected to benefit from the synergies of the combination.

An impairment loss is recognised if the carrying amount of an asset or the cash-generating unit to which it belongs exceeds its estimated recoverable amount. Impairment losses are recognised in the income statement. Impairment losses recognised in respect of cash-generating units are first deducted from the carrying amount of any goodwill allocated to the units and then deducted from the carrying amount of the other assets in the unit or group of units on a pro rata basis.

After impairment, the remaining carrying amount is written down over the expected useful life of the related asset.

Impairment losses in respect of goodwill are not reversed. In respect of other assets, impairment losses recognised in prior periods are assessed at each reporting date for any indications that the loss has decreased or no longer exists. An impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortisation, if no impairment loss had been recognised.

## 16. Investments recognised using the equity method

The investments that are accounted for using the equity method, with a carrying amount of €12 million (2022: €12 million), are included below.

(in millions of euros)	2023	2022
Current assets	17	14
<i>of which Cash and cash equivalents</i>	7	7
Non-current assets	25	9
Current liabilities	8	4
<i>of which current financial liabilities</i>	-	-
Non-current liabilities	-	-
<i>of which non-current financial liabilities</i>	-	-
Net equity (based on 100%)	35	21
<b>Book value of investments recognised using the equity method as at 31 December</b>	<b>12</b>	<b>12</b>
Revenue	28	19
Depreciation, amortisation and impairments	3	2
Result from operating activities	-3	-3
Finance income	-	-
Finance expense	-	-
Income tax	-	-
Profit for the period	-3	-
Total comprehensive income for the period	-3	1
<b>Share in result of investments accounted for using the equity method</b>	<b>-1</b>	<b>-</b>
Share in other comprehensive income	-	-
<b>Share in comprehensive income of investments recognised using the equity method</b>	<b>-1</b>	<b>-</b>
Dividend received	-	-

As regards the investments accounted for using the equity method, there are no material contingent assets and/or liabilities. As regards the valuation of the interests in the joint ventures, there are no significant estimates or assessments.

Pursuant to Sections 379 and 414 of Book 2 of the Dutch Civil Code, a complete list of the Group's subsidiaries, associates and joint ventures has been filed with the office of the Trade Register in Utrecht.

## Accounting policy

The Group's interests in investments accounted for using the equity method consist of interests in associates and joint ventures.

Associates are entities in which the Group has significant influence on the financial and operational policy, but which it does not control. A joint venture is an agreement through which the Group shares in the control and in which the Group has rights to the net assets of the arrangement rather than rights with respect to the assets and obligations with respect to the liabilities.

Associates and joint ventures over which control is exercised jointly are accounted for using the equity method and measured at cost upon initial recognition. The cost of the investment includes the transaction costs. After initial recognition, the consolidated financial statements include the Group's share in the total comprehensive income of the investments accounted for using the equity method, up to the date on which it ceases to exercise significant influence.

## Section 4 Working capital

### 17. Inventories

(in millions of euros)	31 December 2023	31 December 2022
Maintenance materials	153	148
Projects under construction, unsold	20	18
Trade goods	4	54
<b>Total</b>	<b>177</b>	<b>220</b>

The inventories of maintenance materials consist of raw materials and other materials for the production and maintenance of finished and semi-finished products for the maintenance centres. In 2023, the write-down of inventories to the net realisable value, which was recognised as an expense, amounted to €9 million (2022: €7 million). The accumulated impairment, after withdrawals, came to €102 million at year-end (2022: €101 million).

#### Accounting policy

Inventories are stated at the lower of cost and net realisable value. The net realisable value is the estimated selling price in the ordinary course of business less the estimated costs of completion and the costs to make the sale.

The cost of the inventories is based on the purchase prices or costs and includes expenses incurred in acquiring the inventories and the associated costs of purchase. The cost of inventories of finished products and work in progress includes a reasonable portion of the indirect costs based on normal production capacity.

### 18. Trade and other receivables

(in millions of euros)	31 December 2023	31 December 2022
Receivables	162	276
Unbilled revenue	147	130
Other taxes and social security charges	-	36
Other receivables	207	234
<b>Total</b>	<b>516</b>	<b>676</b>

Trade and other receivables includes an amount of €31 million (2022: €117 million) relating to ProRail and the Dutch central government.

The ageing of receivables as at the reporting date was as follows:

(in millions of euros)	31 December 2023		31 December 2022	
	Gross	Provided for	Gross	Provided for*
Not past due	63	-	240	-
Past due 0–30 days	58	1	28	1
Past due 31–120 days	11	2	8	1
Past due 121–180 days	25	1	2	1
Past due 181–360 days	9	2	4	2
Past due more than one year	8	6	5	5
<b>Total</b>	<b>174</b>	<b>12</b>	<b>286</b>	<b>10</b>

\* Comparative figures for 2022 have been adjusted for comparison purposes. This concerns a shift between categories.

### Impairment losses

Movements in the provision for impairments of trade receivables during the year were as follows:

(in millions of euros)	2023	2022
Balance as at 1 January	10	87
Additions	7	10
Use	-3	-11
Release	-2	-64
Held for sale	-	-8
Exchange differences	-	-4
<b>Balance as at 31 December</b>	<b>12</b>	<b>10</b>

### Accounting policy

Trade and other receivables are stated at fair value plus any directly attributable transaction costs upon initial recognition. After initial recognition, they are recognised at amortised cost using the effective interest method.

The Group has formed a provision for impairment equal to the size of the estimated credit losses from trade and other receivables. The most important elements of this provision are a specific loss provision for significant individual positions and a group loss provision for groups of comparable assets concerning losses that are expected but have not yet been identified. The group loss provision is determined on the basis of historic payment data for comparable financial assets.

Provisions for trade receivables are made in the case of an impairment, unless the Group is certain that it will not be possible to recover the amount owed. In that case, the amount is considered irrecoverable and is written off directly against the financial asset concerned.

## 19. Cash and cash equivalents

Cash and bank balances at 31 December 2023 amounted to €460 million and were fully at the free disposal of the company (31 December 2022: €396 million, fully at the free disposal of the company).

The Group's interest rate risk and a sensitivity analysis for financial assets and liabilities are given in note 26.

## Accounting policy

Cash and cash equivalents are stated at fair value, which is normally the same as the nominal value.

## 20. Accrued and deferred items

Accruals and deferred income as at 31 December 2023 amounted to €8 million (31 December 2022: €9 million).

## 21. Trade and other liabilities

(in millions of euros)	31 December 2023	31 December 2022
Trade payables	182	219
Current portion of deferred income	36	35
Other taxes and social security charges	99	103
Other liabilities	671	839
Accruals and deferred liabilities	16	110
<b>Total</b>	<b>1,004</b>	<b>1,306</b>

Trade and other liabilities includes an amount of €29 million (2022: €24 million) relating to ProRail and the Dutch central government. At year-end 2023, NS did not receive any collateral in the form of margin money from Eneco (year-end 2022: €360 million, recognised under other liabilities).

The decrease in accruals is due to the unwinding of positions in the German entities as part of the adoption of the acquisition balance sheet.

The Group's liquidity risk due to trade and other payables is stated in note 26 and the continuity section.

## 22. Deferred income

The deferred income of €590 million (2022: €565 million) consists mainly of amounts for student public transport passes received in advance and season ticket payments received in advance in the Netherlands.

## Accounting policy

This income concerns amounts received in a single payment under agreements with terms extending to future years. The income is credited to the income statement over the term of the agreements to which the income relates. The income is measured at amortised cost.

## Section 5 Financing, financial risk management and financial instruments

### 23. Other financial assets, including investments

(in millions of euros)	31 December 2023	31 December 2022	Valuation principle
<b>Other financial assets included in non-current assets</b>			
Interest in Eurofima	90	90	Fair value recognised in comprehensive income – equity investment
Interest in bonds	-	27	Fair value recognised in comprehensive income – investment in debt instruments
Interest rate derivatives	-	38	Derivatives – Fair value
Interest in Transport UK Group Ltd	5	-	Fair value through profit or loss
Long-term receivables Transport UK Group Ltd	6	-	Fair value through profit or loss
Long-term loans Transport UK Group Ltd	7	-	Amortised cost
Other non-current financial assets	49	42	Amortised cost
<b>Total</b>	<b>157</b>	<b>197</b>	
<b>Other financial assets included in current assets</b>			
Interest in money market funds	614	745	Fair value through profit or loss
Interest in Transport UK Group Ltd	49	-	Fair value through profit or loss
Short-term receivables Transport UK Group Ltd	3	-	Fair value through profit or loss
Short-term loans Transport UK Group Ltd	49	-	Amortised cost
<b>Total</b>	<b>715</b>	<b>745</b>	

The interest in Eurofima is measured at fair value. The net asset value based on the most recently available financial statements of this interest has been used as the best approximation of the fair value.

The carrying amounts of the financial assets and liabilities recognised in the balance sheet do not differ materially from the fair values.

The interest rate derivatives at year-end 2022 are forward starting swaps to hedge the interest rate risk on future financing (see note 26). Derivatives are measured at fair value, which is based on valuation techniques in which all significant data required are derived from observable market data (Level 2).

The amount of the interest in money market funds must be seen in conjunction with the size of the cash balance. The choice of the money market fund instrument, which is highly liquid and can therefore be withdrawn on a daily basis, to hold surplus funds is related to a desired diversification of funds as well as the expectations of when funds must be deployed.

Due to the sale of Abellio UK, the Group has recognised non-current financial assets in the amount of €119 million as at 31 December 2023. These consist of:

- Interest in Transport UK Group Ltd (special share; €54 million, of which €49 million is current). The special share entitles the holder to future cash flows from the settlement of former franchises and claims by local management that cannot be recognised as repayment on the loans. This is either because the existing loan has already been repaid or because the entity has no outstanding loan to NS Groep in its books. The special share is a non-marketable equity instrument carried at fair value through profit or loss. The fair value was determined with reference to the projected future cash flows (Level 3). In 2023, a revaluation took place in the amount of €45 million, which was recognised in the result from discontinued operations, and an amount of €5 million was received.
- Receivable earn-out Transport UK Group Ltd (€9 million, of which €3 million is current). Under an earn-out scheme over the period 2022–2025, NS is entitled to a share of the joint profits achieved on the Merseyrail franchise and London Bus business up to a maximum of £10 million. The receivable is carried at fair value, calculated on the basis of the projected future cash flows (Level 3). During 2023, a revaluation took place in the amount of €3 million, which was recognised in the result from discontinued operations, and an amount of €2 million was received.
- Loans to Transport UK Group Ltd (€56 million, of which €49 million current), measured at amortised cost using the effective interest method, including:
  - Loans provided by the Group to the operating companies of Abellio UK in the past. With the sale of Abellio UK, these loans were transferred to Transport UK Group Ltd. The part of the loans that is expected to be non-recoverable based on the projected cash flows has been written down. The loans are repaid out of future cash flows from the settlement of former franchises and claims by local management. The loans have a period to maturity ranging from 2024 to 2028, at 4% interest. These loans are expected to be repaid early in 2024.
  - Loan to Abellio Transport Holding Group with a period to maturity until 1 July 2024, at 4% interest. This is a former shareholder loan that is expected to be repaid in full.
  - Loan provided to the buyer to finance the takeover ('vendor loan note'). The loan has an initial period to maturity of four years. The interest rate gradually increases from 6% in the first year to 12% in the fourth year. This loan is associated with a cash receivable from Merseyrail that becomes due and payable at the end of the Merseyrail franchise at the latest.

The interest in Transport UK Group Ltd and the Transport UK Group Ltd receivables have been measured at fair value, in which valuation techniques were used using unobservable market sources (Level 3). The movement of the interest in Transport UK Group Ltd and Transport UK Group Ltd receivables during 2023 is as follows:

(in millions of euros)	<b>Interest in Transport UK Group Ltd</b>	<b>Receivables Transport UK Group Ltd</b>
<b>Balance as at 1 January 2023</b>	-	-
Initial valuation as at 28 February 2023	14	8
Revaluation after 28 February 2023	45	3
Redemption	-5	-2
<b>Balance as at 31 December 2023</b>	<b>54</b>	<b>9</b>
<b>Presented under:</b>		
Non-current	5	6
Current	49	3

In the settlement of claims and procedures, the management of Transport UK Group Ltd is entitled to a management fee. This fee equals a percentage of the amount claimed and is recognised as a repayment of the vendor loan note. The vendor loan note will be repaid, irrespective of the amount of the management fee. For that reason, the management fee amounts cannot be included in the valuation of the loan and have been stated separately as a provision. The level of the provision has been calculated on the basis of the present value of the projected management fee amounts, at €6 million as at 31 December 2023. It is included as part of other provisions in note [30](#).

## Accounting policy

On initial recognition, loans, receivables and deposits are accounted for by the Group from the date on which they first arose. All other financial assets are initially recognised on the transaction date. The Group derecognises a financial asset in the balance sheet once the contractual rights to the cash flows from the asset have expired. If the Group transfers the contractual rights to the cash flows from the financial asset by means of a transaction in which virtually all risks and rewards of ownership of the asset are transferred or not retained, and control of the asset transferred is not retained either, the Group no longer includes the financial asset in the balance sheet. If the Group retains or creates an interest in the financial assets being transferred, that interest is recognised as a separate asset or liability.

The Group derecognises a financial liability if the contractual obligations have been discharged or cancelled or have expired.

Financial assets and liabilities are offset, and the resulting net amount is recognised in the statement of financial position only if the Group has a legally enforceable right to set off the amounts and if it intends either to settle on a net basis or to realise the asset and settle the liability simultaneously.

The Group uses the following financial instruments:

### Non-derivative financial instruments

Non-derivative financial instruments include investments in equity securities, deposits and bonds, trade and other receivables, cash and cash equivalents. Non-derivative financial instruments are initially recognised at fair value. After initial recognition, non-derivative financial instruments are measured as described below.

### Financial assets at fair value through profit or loss

These assets are subsequently measured at fair value. Net gains and losses, including any interest or dividend income, are recognised in the income statement.

### Financial assets at amortised cost

These assets are subsequently measured at amortised cost using the effective interest method. Amortised cost is reduced by impairment losses. Interest income, foreign exchange gains and losses and impairments are recognised in the income statement. Any gain or loss arising on derecognition is recognised in the income statement.

### Fair value through other comprehensive income – investment in debt instruments

These assets are subsequently measured at fair value. Interest income is calculated using the effective interest method; foreign exchange gains and losses and impairments are recognised in the income statement. Other net gains and losses are recognised in other comprehensive income. On derecognition, the gains and losses accumulated in other comprehensive income are reclassified to the income statement.

### Fair value through other comprehensive income – equity investment (interest in Eurofima)

These assets are subsequently measured at fair value. Dividends are recognised as income in the income statement, unless the dividend clearly represents a recovery of part of the cost of the investment. Other net gains and losses are recognised in other comprehensive income and are never reclassified to the income statement.

### Impairment of financial assets

At each reporting date, financial assets are assessed to determine whether they might be impaired on the basis of expected credit losses.

The Group recognises a provision for expected credit losses for all debt instruments that are not held at fair value through profit or loss. The expected credit losses are based on the difference between the contractual cash flows and all cash flows expected to be received by the Group, discounted at an approximation of the original effective interest rate.

Financial assets that are significant are individually tested for impairment. Other financial assets are assigned to groups with similar credit risk characteristics and are assessed collectively.

#### **Fair value**

The interest in Transport UK Group Ltd and the Transport UK Group Ltd receivables have been measured at fair value, in which valuation techniques were used using unobservable market sources (Level 3). The valuation is based on the expected cash flows from the settlement of the franchises and related claims discounted at the interest rate equal to that of the loans to Transport UK Group Ltd.

For bonds, the fair value is calculated using the available current market prices/closing prices (Level 1). In principle, the interest in Eurofima is measured at fair value. The net asset value of this interest was used as the best approximation of fair value.

When determining the value of interest swaps, currency derivatives and money market funds, the Group uses measurement methods in which all significant data required are derived from observable market data (Level 2).

The Group's credit risks, currency risks and interest rate risks associated with the other investments are explained in more detail in note 26.

## 24. Equity

See the consolidated statement of changes in equity for the movements in equity.

The authorised capital as at both 31 December 2023 and 31 December 2022 consisted of 4 million ordinary shares with a nominal value of €453.78 (originally NLG 1,000). There are 2,230,738 issued and fully paid up shares. All issued shares are held by the State of the Netherlands. The shareholders are entitled to a dividend, which is declared annually based on the resolution of the Annual General Meeting of Shareholders regarding the profit appropriation. The shareholders have the right to cast one vote per share at meetings of the company.

The financial statements for 2022 and the appropriation of the profits were adopted at the shareholders' meeting on 2 March 2023. In accordance with the proposal, the result attributable to the company's shareholders of €579 million was added to the general reserve based on the 2022 financial statements.

Due to the retrospective adjustment of the value of negative goodwill within one year of acquisition, the result attributable to the company's shareholders for 2022 has been adjusted to €574 million. The addition to the general reserve has been aligned with this.

The movements in the other reserves were as follows:

(in millions of euros)	Reserve for translation differences	Hedging reserve	Fair value reserve	Actuarial reserve	Revaluation reserve for participating interests	Reserve for discontinued operations held for sale	Total other reserves
<b>Balance as at 1 January 2022</b>	<b>-35</b>	<b>6</b>	<b>53</b>	<b>-1</b>	<b>13</b>	<b>-</b>	<b>36</b>
Non-realised profit	1	36	1	-4	-	-	34
Discontinued operations	32	-4	-	-3	-13	-12	-
Other movements	2	-	-	-2	-	-	-
<b>Balance as at 31 December 2022</b>	<b>-</b>	<b>38</b>	<b>54</b>	<b>-10</b>	<b>-</b>	<b>-12</b>	<b>70</b>
Non-realised profit	-	-38	1	-1	-	28	-10
Discontinued operations	-	-	-	-	-	-	-
Other movements	-	-	-	-	-	-16	-16
<b>Balance as at 31 December 2023</b>	<b>-</b>	<b>-</b>	<b>55</b>	<b>-11</b>	<b>-</b>	<b>-</b>	<b>44</b>

As a result of the transfer of the shares in Abellio Transport Group Ltd on 28 February 2023, the following reserves have been recycled via the income statement:

- Translation reserve; expense of €31 million
- Revaluation reserve for derivatives; gain of €3 million

The recycling of the following reserves has been taken straight to equity:

- Actuarial reserve for pensions of €3 million
- Revaluation reserve for the Merseyrail joint venture (actuarial reserve for pensions) of €13 million

#### Profit appropriation as stipulated by the Articles of Association

In accordance with Article 21(2) of the Articles of Association of NV Nederlandse Spoorwegen, the Annual General Meeting of Shareholders decides on the appropriation of any positive balance in the income statement.

#### Proposal for profit appropriation

A proposal will be put to the Meeting to withdraw the negative result of €380 million from the general reserve.

## Accounting policy

### Reserve for translation differences

The translation reserve consists of all exchange rate differences arising as a result of the translation of the financial statements of foreign operations and the translation of liabilities hedging the company's net investment in a foreign group company.

### Hedging reserve

The hedging reserve consists of the cumulative change in the fair value of hedging instruments (derivatives) where the hedged transaction has not yet taken place or the hedged position has not yet been settled.

### Fair value reserve

The fair value reserve comprises the cumulative change in the fair value of investments measured at fair value – total comprehensive income and the cumulative change in the fair value of investments measured fair value – debt investment, until the investment is derecognised.

### Actuarial reserve

The actuarial reserve relates to the actuarial gains and losses, which comprise the difference between the actual and projected changes in the pension liabilities and investment returns on pension assets (see note 30).

### Revaluation reserve for associates

The revaluation reserve for associates comprises the cumulative unrealised results, recognised directly in the equity of associates accounted for using the equity method.

### Reserve for discontinued operations held for sale

The other reserves relating to discontinued operations are transferred to this reserve. The nature of the reserves remains unchanged.

## 25. Loans and other financial liabilities, including derivatives

This note contains information concerning the contractual provisions for the Group's interest-bearing loans and other financial liabilities that are measured at amortised cost.

(in millions of euros)	31 December 2023	31 December 2022
<strong>Non-current liabilities</strong>		
Private loans	1,672	1,504
Currency derivatives	-	1
<strong>Total</strong>	<strong>1,672</strong>	<strong>1,505</strong>
<strong>Current liabilities</strong>		
Private loans	383	294
Currency derivatives	4	2
<strong>Total</strong>	<strong>387</strong>	<strong>296</strong>
<strong>Total liabilities</strong>	<strong>2,059</strong>	<strong>1,801</strong>

In 2023, the Group had a net amount of €901 million in new private loans.

The 'Private loans' item includes a debt payable by the Group to the Ministry of Infrastructure and Water Management of €16 million (2022: €49 million) associated with the deferred payments of franchise fees. The final repayment takes place at the end of 2024, so the liability is fully recognised as current. The interest rate is fixed at 3.027%. The terms and conditions of the loan were agreed in detail with effect from 1 January 2015 under the main rail network franchise.

The private loans have terms expiring between 2023-2033 and interest rates ranging from 0% to 4.4%. The reconciliation of changes in liabilities resulting from financing activities is as follows:

(in millions of euros)	Private loans	Bank overdrafts	Currency derivatives	Lease liabilities	Total
<b>Balance as at 1 January 2022</b>	<b>1,763</b>	<b>18</b>	<b>13</b>	<b>930</b>	<b>2,724</b>
Repayments on recognised loans	-50	-	-	-72	-122
Newly recognised loans	129	-	-	-	129
Cash flow from discontinued operations	1	-	-	-292	-291
<b>Total net cash flow from financing activities</b>	<b>80</b>	<b>-</b>	<b>-</b>	<b>-364</b>	<b>-284</b>
New leases	-	-	-	289	289
Business acquisitions	-	-	-	364	364
Currency differences	-2	-	-	-39	-41
Held for sale	-42	-	-	-716	-758
Other movements	-1	-18	-10	-	-29
	<b>-45</b>	<b>-18</b>	<b>-10</b>	<b>-102</b>	<b>-175</b>
<b>Balance as at 31 December 2022</b>	<b>1,798</b>	<b>-</b>	<b>3</b>	<b>464</b>	<b>2,265</b>
Repayments on recognised loans	-644	-	-	-99	-743
Newly recognised loans	901	-	-	-	901
<b>Total net cash flow from financing activities*</b>	<b>257</b>	<b>-</b>	<b>-</b>	<b>-99</b>	<b>158</b>
New leases	-	-	-	39	39
Currency differences	-	-	-	-	-
Other movements	-	-	1	-	1
	<b>-</b>	<b>-</b>	<b>1</b>	<b>39</b>	<b>40</b>
<b>Balance as at 31 December 2023</b>	<b>2,055</b>	<b>-</b>	<b>4</b>	<b>404</b>	<b>2,463</b>

\* This refers to the net cash flow from financing activities from continuing operations.

## Accounting policy

### Non-derivative financial instruments

On initial recognition, these instruments are measured at fair value plus any directly attributable transaction costs. After initial recognition, loans and receivables are measured at amortised cost using the effective interest method.

### Derivative financial instruments (derivatives)

The Group holds derivatives to hedge its foreign currency, interest rate and commodity risks. On initial recognition, derivatives are measured at fair value, which is the same as the cost applicable on that date. Attributable transaction costs are charged to the income statement when they are incurred. After initial recognition, derivatives are measured at fair value and any changes are accounted for as described below.

### Hedge accounting

The method for recognition of the result depends on whether hedge accounting is used and, if so, whether the hedging relationship is effective. If the hedging relationship is effective, hedge accounting is used for these derivatives. When a hedging transaction is entered into, the hedging relationship is documented. Regular assessments are performed to determine if the hedging transaction was effective throughout the past period and whether the hedging transaction is expected to be effective throughout the coming period. If the hedging instrument expires, is sold, terminated or exercised or no longer meets the criteria for hedge accounting, application of hedge accounting ends with immediate effect.

### Cash flow hedges

If a derivative is classified as a hedge for variability in cash flows ensuing from a particular risk associated with a recognised asset or liability, or if a highly probable forecast transaction could affect profit or loss, the effective portion of the changes in the fair value of the derivative is recognised in other comprehensive income and presented in the hedging reserve in equity. Any ineffective portion of the changes in the fair value of the derivative is recognised directly in the income statement. The accumulated amount is reclassified to the income statement in the same period in which the hedged position affects the income statement.

If a hedging instrument no longer meets the criteria for hedge accounting, expires or is sold, hedge accounting is discontinued prospectively. The cumulative gain or cumulative loss that was previously recognised in equity remains in equity until the forecast transaction has occurred. The amount recognised in equity is reclassified to the income statement (under net change in the fair value of the cash flow hedges reclassified from equity) in the same period in which the hedging instrument affects the income statement.

### Fair value hedges

Changes in the fair value of a derivative hedging instrument that is classified as a fair value hedge are charged or credited to the income statement together with the changes in the fair value of the assets and liabilities (or groups thereof) insofar as they are attributable to the hedged risk.

### Economic hedges

Hedge accounting is not applied to derivatives that are used as economic hedges of assets and liabilities denominated in foreign currencies. Changes in the fair value of such derivatives are recognised in the income statement as part of exchange rate gains and losses.

### Energy hedging

The Group uses accrual accounting for commodity derivatives intended for its own use, under the exception allowed by IFRS 9.2.4 insofar as the requirements of IFRS 9.2.4 are met. This is applicable to purchases of diesel and fuel oil and energy in the Netherlands and is discussed in the section on risks and in 'Off-balance sheet commitments'. The other commodity derivatives, which do not meet the criterion of being intended for the Group's own use, are measured at fair value, and hedge accounting is used where possible.

## 26. Financial instruments – Risk management and fair value

Because financial instruments are used, the Group is exposed to the following risks:

- Market risks, consisting of:
  - Interest rate risk
  - Currency risk
  - Energy price risk
- Credit risk
- Liquidity risk
- Insurance risks

### Risk management framework

The Executive Board bears the final responsibility for the design and supervision of the Group's risk management framework. The Risk and Audit Committee and the Supervisory Board ensure that the risk management framework is adequate in view of the risks to which the Group is exposed. The Group's Risk and Audit Committee is supported in its supervisory role by NS Audit, NS Risk and the Group Control & Expertise department. NS Audit provides additional assurance concerning effective control of all NS business processes by performing regular and ad hoc evaluations. The findings of NS Audit are reported to the Risk and Audit Committee.

The Group's risk policy aims to identify and analyse the risks confronting the group, establish suitable risk limits and controls and monitor compliance with the limits. Policy and systems for financial risk management are regularly assessed and, where necessary, adjusted to allow for changes in market conditions and the Group's activities. Financial risk management is one element of the NS risk framework.

In order to ensure adequate risk management, additional policies have been defined for a number of business units. For instance, NS Insurance and Abellio have specific risk controls reflecting the nature of their activities, unlike the other business units, where Corporate Treasury determines the substance of the financial risk management.

Through Abellio, the Group participates in foreign transport franchises. The UK business was sold with effect from 28 February 2023. The activities in Germany were deconsolidated as of 30 June 2021, as predominant control over these group companies has been lost. As a result, these activities no longer fall under Abellio's financial risk management. However, the activities of the entities acquired in 2022 in Germany will return to the financial risk

management of the Group with effect from the acquisition. The financial risk management of Abellio and Transport Holding Germany is part of the risk framework of foreign activities and therefore of the NS risk framework. Agreements were reached in 2016 with the shareholder about the amount of the financial resources permitted to be involved in the Group's activities abroad.

## Market risks

Market risk is the risk that the Group's income and expenditure, or the value of investments in financial instruments, will be negatively affected by changes in market prices, such as commodity prices, currency exchange rates and interest rates. The management of market risk aims to keep the market risk position within acceptable limits while optimising return on investment. Market risk comprises three types of risk: interest rate risk, currency risk and price risk.

### Interest rate risk

The Group's policy is aimed at ensuring that at least 50% of the interest rate risk on borrowings is based on a fixed rate of interest. When determining the interest rate risk on borrowings, the Group can take account of the cash and cash equivalents available that can neutralise the interest rate risk of loans at variable rates. The Group uses derivatives such as interest rate swaps to limit the interest rate risks. Interest rate risks are predominantly managed centrally. Regulations and defined position limits apply to interest rate positions held with regard to foreign units within the Group. No speculative positions are held.

### Exposure to interest rate risks

The interest rate profile of the interest-bearing financial instruments is as follows:

(in millions of euros)	31 December 2023	31 December 2022
<b>Liabilities with a variable interest rate</b>		
Financial liabilities	250	350
Effect of interest rate swaps	-	-
	<b>250</b>	<b>350</b>
<b>Liabilities with a fixed interest rate</b>		
Financial liabilities	1,805	1,448
Lease liabilities	404	464
Effect of interest rate swaps	-	-
	<b>2,209</b>	<b>1,912</b>
<b>Financial assets</b>		
Financial assets with a fixed interest rate	96	67
Financial assets with a variable interest rate (especially cash and cash equivalents)	1,074	1,141

The increase/decrease in interest rates by 100 basis points results in a higher/lower interest expense of €3 million.

In 2022, the Group concluded a number of forward starting interest rate swaps to hedge the interest rate risk of future financing (cash flow hedge accounting). At year-end 2023, all forward starting interest rate swaps were dissolved and linked to loans.

## **Currency risk**

The Group is exposed to currency risks on purchases, trading activities, cash and cash equivalents, borrowings, other balance sheet positions and off-balance sheet commitments denominated in currencies other than the euro. Because of its business activities, the Group mainly has currency positions in pounds sterling (GBP) and Swiss francs (CHF).

The risk of fluctuations in exchange rates on repayments, interest and dividend flows within the Group is hedged by means of forward exchange contracts, spot and/or forward purchases and sales and swaps, thereby hedging one or more of the risks to which the primary financial instruments are exposed. Purchases and sales, investment and financing commitments and settling accounts with foreign railway companies mainly take place using the functional currencies of the Group's business units, namely euros (EUR) and pounds sterling (GBP).

The currency risk on the capital interests denoted in a foreign currency (pounds sterling and Swiss francs) is not hedged. The foreign exchange gains or losses for the regular balance sheet items in the value of the participating interest are recognised in equity until 28 February 2023 through the legal reserve for exchange differences. In 2023, this reserve has been recycled through the income statement.

At the end of 2023 and 2022, no materially significant positions were held in currencies other than the functional currency of the business units concerned.

At the end of 2023, the Group entered into a number of forward contracts and currency swaps in GBP to hedge specific currency positions relating to loans to group companies and expected cash flows from the United Kingdom. The nominal value of the hedged positions as at the end of 2023 was €114 million (year-end 2022: €171 million). The fair value of these currency derivatives at the end of 2023 was €4 million negative (2022: €3 million negative).

### ***Sensitivity analysis for foreign currencies***

Given that no materially significant items in financial instruments were held in foreign currencies at the end of 2023 or the end of 2022, other than those referred to above, a change in the value of the euro with respect to a foreign currency at the end of the year will not have any material impact on equity and profits over the reporting period.

## **Energy price risk** ***The Netherlands***

The Group is affected by market fluctuations in the price of energy. In 2014, the Group signed a 10-year contract (2014-2024) with Eneco for the supply of 'green' traction electricity for the rolling stock fleet in the Netherlands. From 2015 onwards, 50% of the trains in the Netherlands ran on 'green' electricity. Since 2017, the Group's traction has been entirely green. In 2023, the Group entered into three-year contracts (2025-2027) with PZEM (Programme for Responsibility, supplying energy and covering energy prices) and Shell (supplying Guarantees of Origin certificates). The contracts cover the following risks (in whole or in part):

- Price risk: the fees for the Programme for Responsibility and Guaranteed Origins are fixed for the entire contractual period. The contract offers the option of purchasing the requisite electricity for future years based on a hedging strategy, which limits the exposure to market prices.
- Credit risk: the credit risk is limited to the thresholds that depend on the credit rating (Eneco contract with thresholds and PZEM without thresholds). If the exposure (which allows for aspects such as the difference between market values and contract values of electricity covered using a hedging strategy) exceeds a certain threshold (that depends on the credit rating), the Group or Eneco/PZEM must give the other party guarantees or provide cash collateral.
- Volume risk: the volume risk is limited because the volume for the previous year is given as the volume required in each new year. In addition, a range also applies in the year in question, within which fluctuations in the volume consumed do not affect the price.

The contracts comply with the 'own use' criteria and are not classified as derivatives.

### Credit risk

Credit risk is the risk of financial loss by the Group if a customer or counterparty to a financial instrument does not meet its contractual obligations. Credit risks mainly arise from receivables from customers and from investments. There was no significant concentration of credit risks as at the balance sheet date.

The carrying amounts of the financial assets represent the maximum credit risk. For details of the credit risk regarding Eurofima, see note 33. The maximum exposure to credit risk at the reporting date was as follows:

(in millions of euros)	Note	31 December 2023	31 December 2022
Interest in Eurofima	23	90	90
Interest in bonds	23	-	27
Interest in money market funds	23	614	745
Interest rate derivatives	23	-	38
Interest in Transport UK Group Ltd	23	54	-
Receivables Transport UK Group Ltd	23	9	-
Loans Transport UK Group Ltd	23	56	-
Other non-current financial assets	23	49	42
Trade and other receivables	18	369	510
Cash and cash equivalents	19	460	396
<b>Total</b>		<b>1,701</b>	<b>1,848</b>

### Investments

The Group limits its credit risk in its investments by only investing with other parties that comply with the policy drawn up by the Group. Regular checks are performed to establish whether the contractual parties still comply with the policy or whether further action is needed.

Given the creditworthiness of the counterparties, the Group expects that those counterparties will fulfil their obligations. No impairment losses were incurred on the investments, bonds and deposits in 2023 or 2022. Investments, except investments in money market funds, are in principle made with counterparties that have a long-term credit rating of at least A- from Standard & Poor's and a long-term credit rating of at least A3 from Moody's, or with a number of Dutch municipalities. If a counterparty only has a single credit rating, it must satisfy Standard & Poor's or Moody's rating requirements as stated above. Investments that no longer comply with this policy are either permissible as exceptions and monitored frequently or reduced (generally through normal progression), which may persist for some time after the balance sheet date. For investments in money market funds, there is no rating requirement; the fund is selected on the basis of the investment policy of the fund, and NS periodically monitors the developments of the money market fund. The Group's foreign companies do not have significant long-term material cash surpluses, unless this is the result of their normal business activities (monies received in advance).

### **Trade and other receivables**

The Group's credit risk relating to trade and other receivables is mainly determined by the individual characteristics of the separate customers. The demographic features of the customer base, including the risk of non-payment in the sector and the country in which the customers are active, have less impact on the credit risk. About 15% (2022: 17%) of the Group's revenues are from sales transactions with the Dutch Education Executive Agency (DUO). As part of the credit policy applied by the business units, the individual creditworthiness of each new customer is assessed before standard payment and delivery conditions are offered to the customer. In the case of contract renewals, figures from the business unit's own experience are also used in assessing creditworthiness. In the assessment of the credit risk, customers are divided into groups based on credit characteristics; these groups include government, companies, private individuals and customers with possible financial problems in the past. Business has been conducted with the majority of customers for many years, with only occasional (non-material) losses having been incurred.

### **Liquidity risk**

The liquidity risk is the risk that the Group will have difficulty meeting its obligations. Based on the principles underlying liquidity risk management, sufficient liquid assets must be retained, as far as possible, to be able to meet the current and future financial obligations in the short term, under both normal and difficult circumstances, without any unacceptable risks being incurred or the Group's reputation being jeopardised. The Group has sufficient cash or assets that are readily convertible into cash.

In addition, the Group can make use of credit facilities totalling €830 million. Of these credit facilities:

- €500 million relates to a so-called revolving credit facility (available until 20 December 2027);
- €200 million relates to a credit facility (available until 12 May 2024). This facility is used to raise a long-term loan repayable in parts with a maturity of four years;
- €130 million relates to a financing facility (available until 17 December 2024), under which one or more straight-line repayable long-term loans can be raised with a maximum maturity of 15 years.

In addition, the Group expects to be able to make use of alternative financing options if the situation so requires.

For the assumptions regarding the availability of cash, please refer to the section 'Important (result) developments' and the going concern assumptions used.

The Group manages the cash and cash equivalents on the basis of regular liquidity forecasts using a bottom-up approach. On the basis of this forecast, financing limits are set for the business units that are clients of Corporate Treasury's in-house bank. The bank monitors these limits, and they cannot be exceeded unless authorisation has been obtained. This gives Corporate Treasury an early warning system. The liquidity forecast and the aforementioned financing limits lets Corporate Treasury manage the cash and cash equivalents by lending and withdrawing funds.

The following table shows the contractual maturities of the financial liabilities, including the estimated interest payments. The sums are gross amounts and have not been discounted.

**31 December 2023**

(in millions of euros)	<b>Book value</b>	<b>Contractual cash flows</b>	<b>&lt; 6 months</b>	<b>6–12 months</b>	<b>1–2 years</b>	<b>2–5 years</b>	<b>&gt; 5 years</b>
<b>Non-derivative financial liabilities</b>							
Private loans	2,055	2,288	90	344	301	821	732
Lease liabilities	404	428	52	51	68	142	115
Trade and other liabilities	853	853	853	-	-	-	-
<b>Derivative financial liabilities</b>							
Currency derivatives	4	4	4	-	-	-	-
<b>Total</b>	<b>3,316</b>	<b>3,573</b>	<b>999</b>	<b>395</b>	<b>369</b>	<b>963</b>	<b>847</b>

**31 December 2022**

(in millions of euros)	<b>Book value</b>	<b>Contractual cash flows</b>	<b>&lt; 6 months</b>	<b>6–12 months</b>	<b>1–2 years</b>	<b>2–5 years</b>	<b>&gt; 5 years</b>
<b>Non-derivative financial liabilities</b>							
Private loans	1,798	1,857	67	239	742	208	601
Lease liabilities	464	483	46	55	88	151	143
Trade and other liabilities	1,058	1,058	1,058	-	-	-	-
<b>Derivative financial liabilities</b>							
Currency derivatives	3	3	3	-	-	-	-
<b>Total</b>	<b>3,323</b>	<b>3,401</b>	<b>1,174</b>	<b>294</b>	<b>830</b>	<b>359</b>	<b>744</b>

When calculating the future cash flows, it is assumed that the future variable interest rates are the same as the last known variable interest rates.

As regards the risks relating to capital, the Group has agreed a dividend policy with the shareholder.

### **Insurance risks**

In the course of its operational activities, the Group is exposed to risks that can be insured against. Risks beyond the scope of the business units are managed via the subsidiary NS Insurance. This refers to the risk of losses due to collisions, fire and liability as well as direct trading loss. The maximum extent of these losses is calculated by external specialists once every three years, or more often if changed circumstances make this necessary. The subsidiary, NS Insurance, insures the above risks for the business units. It does not insure

third parties. If the total claims burden in any year exceeds NS Insurance's own internal cover, the additional cover required is provided by reinsurance. The Group's loss claims are paid from the premium income and investment income of NS Insurance. If the total costs including the claims burden exceed the revenue, these costs are paid from the distributable reserve of NS Insurance (if this is sufficient).

NS Insurance uses stop-loss reinsurance contracts for reinsurance. MPL (maximum possible loss) studies are carried out regularly to determine limits for the insurance. Provided market conditions allow, NS Insurance only takes out reinsurance with parties that have at least an A- rating. If the rating drops below A-, it has the option of cancelling the reinsurance agreement. This has as yet never happened. The reinsurers of NS Insurance had ratings of at least A- as at the end of 2023.

NS Insurance is an insurance company and is supervised by De Nederlandsche Bank and the Netherlands Authority for the Financial Markets (AFM). Insurers must hold sufficient capital reserves to satisfy the minimum solvency requirement of Solvency II (SCR, the Solvency Capital Requirement). Insurers are also required to determine their own standard solvency requirement. NS Insurance has determined its standard solvency requirement in such a way that it will still be able to satisfy the SCR even if the stress scenario arises. Its standard solvency requirement is €41 million. NS Insurance comfortably meets this requirement. NS Insurance is fully consolidated in the Group figures.

## 27. Net financing result

(in millions of euros)	2023	2022
Interest income from financial assets	14	10
Exchange differences	3	4
Other financial income	84	187
<b>Finance income</b>	<b>101</b>	<b>201</b>
Interest expense on financial liabilities measured at amortised cost	-32	-10
Interest expense on lease liabilities	-6	-4
Exchange differences	-6	-11
Interest expense from discounting of provisions/other employee benefits	-3	-1
Other financial expenses	-11	-2
<b>Finance expense</b>	<b>-58</b>	<b>-28</b>
<b>Net finance result included in the income statement</b>	<b>43</b>	<b>173</b>

Other financial income includes €66 million in 2023 due to the release of provisioned liabilities and guarantees in relation to insolvency proceedings in Germany (see note 30).

An accounting upward revaluation of €103 million has been recognised under other financial income 2022 as a result of acquisition accounting, whereby assets and liabilities have been reassessed. Shareholder obligations as well as part of the creditor obligations are released, as agreed in the insolvency plan, and are set off against the purchase price. In addition, the guarantees of €77 million provided for in 2021 in connection with the uncertainties in the acquisition of the Mitteldeutschland franchises were released in 2022 and recognised as financial income.

## Accounting policy

Finance income includes the interest income from monies invested, lease income, gains from the sale of available-for-sale financial assets and gains on hedging instruments that are recognised in the income statement. Interest income is recognised in the income statement as it accrues, using the effective interest method. Dividend income is recognised in the income statement when the right to the dividend payment is established.

Finance expenses include the interest expenses on borrowings, lease contracts, interest accrual on provisions and losses on hedging instruments that are recognised in the income statement. All borrowing costs that are not directly attributable to the acquisition, construction or production of a qualifying asset are recognised in the income statement using the effective interest method. No borrowing costs were capitalised in 2023 or 2022.

Exchange rate gains and losses are included in the finance income and expense respectively.

## Section 6 Other notes

### 28. Deferred credits

(in millions of euros)	31 December 2023	31 December 2022
Lump sum payments	108	125
Adjustment mechanism for franchise fee	18	37
Financing advantage interest rate swaps	33	-
<b>Deferred income</b>	<b>159</b>	<b>162</b>
Less: to current	-36	-34
<b>Total non-current as at 31 December 2023</b>	<b>123</b>	<b>128</b>

The lump-sum payment for wage increases resulting from making the Railway and Public Transport Pension Fund independent in 1994 is expected to be released up to 2035 and to be credited to the income statement. The franchise fee adjustment mechanism is included in the implementation agreement for the main rail network franchise (see note 33). The amounts will be released on a straight-line basis and be credited to the income statement during the term of the franchise (up to and including 2024).

The financing benefit for interest rate swaps concerns the result on forward starting interest rate swaps that is released on a straight-line basis over the term of the associated loans (maximum 10 years). At year-end 2023, all forward starting interest rate swaps were dissolved and linked to loans.

#### Accounting policy

This income concerns amounts received in a single payment under agreements with terms extending to future years. The income is credited to the income statement over the term of the agreements to which the income relates. The income is measured at amortised cost.

## 29. Employee benefits

The non-current employee benefits comprise:

- obligations relating to defined benefit plans;
- liabilities arising from early retirement schemes (RVU scheme);
- other long-term employee benefits, including long-service awards and disability benefits.

(in millions of euros)	31 December 2023	31 December 2022
Defined benefit plans	-	-
Obligation in connection with temporary early retirement scheme	25	28
Long-service award obligations	28	27
Disability obligations	5	-
<b>Total</b>	<b>58</b>	<b>55</b>

#### Pension liabilities

The staff of the NS Group companies are covered by the pension plans of the following pension funds. The table also shows the numbers of active members.

(in numbers)

31 December 2023 31 December 2022

	31 December 2023	31 December 2022
Rail and public transport pension fund	16,920	16,063
Hospitality & catering industry pension fund	1,155	1,231
Food industry pension fund	1,018	1,008
Metal & engineering industry pension fund	540	-
Servex supplementary pension plan	40	44
ScotRail	-	-
East Anglia/Greater Anglia	-	1,768
Abellio Transport Holdings	-	16
Abellio London & Surrey	-	1,941
Abellio East Midlands	-	2,349
Abellio West Midlands	-	2,832

### Railway and Public Transport Pension Fund pension plan (defined contribution plan)

The pension plan for the railway industry is administered by the Railway and Public Transport Pension Fund (*Pensioenfonds Rail en OV*). As of 1 April 2020, the Railway Pension Fund (*Spoorwegpensioenfonds*) merged into the Railway and Public Transport Pension Fund. The plan qualifies for recognition in the financial statements as a defined contribution plan. A fixed annual contribution, which is expressed as a percentage of the pensionable earnings, has been agreed in advance with the Railway and Public Transport Pension Fund. In 2023, NS paid the nominal pension contribution of 25,5% to the pension fund. Two-thirds of the pension contributions paid to the Railway and Public Transport Pension Fund are paid by the company, and one-third is paid by the employees. After payment of the agreed contribution, the company has no obligation to pay additional amounts should there be a deficit in the pension fund. The actuarial risks and investment risks are borne by the pension fund and its members.

At the end of 2015, the Group made new agreements with the pension fund for dealing with the contribution build-up that came into effect on 1 January 2016. The employee portion of the contribution build-up (one-third of the amount) was settled in full with the employees at year-end 2022. The employer's part of the contribution build-up (two-thirds of the amount) has been added to the lump-sum payment for wage increases and will be credited to the pension costs up to 2035 (note 28).

The Servex supplementary pension scheme is a defined contribution plan. Abellio London & Surrey (discontinued operations) was also subject to defined contribution plans.

### Industry pension funds (hotel and catering, food, metal and engineering)

The basic pension for each employee is covered by multi-employer funds in which other companies also participate on the basis of legal obligations. These funds have an indexed average salary scheme and are therefore defined benefit plans. Since these funds are not equipped to provide the required information on the Group's proportionate share of the pension liabilities and plan assets, the defined benefit plans are accounted for as defined contribution plans. The Group is obliged to pay the predetermined contribution for these plans. The Group is not allowed to recover any surplus. The Group cannot recover excess payments and is not obliged to make up any shortfall except through adjustment of future contributions.

The participants affiliated to the Metal & Technology Industry Pension Fund are employees in NS Stations' bicycle parking and repair locations, who joined NS as of 1 October 2023.

## Defined benefit plans United Kingdom

Abellio Greater Anglia, Abellio ScotRail, Abellio West Midlands, Abellio East Midlands and Abellio Transport Holdings have arranged for pensions for their staff to be administered by the Railways Pension Scheme. The fund in question can be considered as a company pension fund and the pension plan as a defined benefit plan. As a result of the termination of the ScotRail franchise on 1 April 2022, the pension liabilities have been transferred to the new franchisee.

Every company is a designated employer for one or more cost-sharing agreements within the Railways Pension Scheme. Such cost-sharing agreements are geared to a lifelong pension. The amount of the pension depends on how long an employee was an active member of the pension plan and on their salary when leaving the plan (final salary plan).

Because of the nature of the cost-sharing agreements, the amounts payable to cover both the costs of the accrued pension entitlements and any shortfall between the value of the assets and the value of the pension liabilities are borne jointly by the employer and the contributing members in a ratio of 60% to 40% respectively. As a consequence, the employer recognises 60% of the total pension costs and pension liabilities in the balance sheet. The Railways Pension Scheme is administered by the Trustee, the Railways Pension Trustee Company Limited. The plans' assets are invested via investment funds, each with a different risk and return profile.

To reflect the nature of the franchise, the shortfalls between the pension liabilities and the pension assets for Abellio Greater Anglia, Abellio ScotRail, Abellio East Midlands and Abellio West Midlands have been included in 'Non-current liabilities' to the extent that they concern the term of the franchise. The remaining amount at the end of the term of the franchise is not recognised in the balance sheet because it will constitute part of the debts of the next franchise holder. At year-end 2022, the net liabilities were nil. At year-end 2022, the average term for both pension liabilities was about 20 years.

In determining the pension costs, only the costs that are expected to be borne by the franchisee (the Group) during the term of the franchise are recorded in the income statement. These net pension costs are therefore calculated while taking into account the part of the costs that will be borne by the employees (40%) and by other parties after the end of the current term of the franchise. This net calculation also takes into account any allocation within the term of the franchise that may possibly occur in connection with the triennial assessments during the term of the franchise, as well as any adjustments to the annual contributions over the term of the franchise. The pension costs are recognised under Result from discontinued operations.

Since 31 May 2022, Abellio UK has been presented as assets and liabilities held for sale. The sale transaction was completed on 28 February 2023, after which Abellio UK is no longer included in the consolidation. The note on the UK defined benefit pension plans therefore concerns Result from discontinued operations/Assets held for sale.

The pension liabilities and the pension assets are based on actuarial calculations that were performed as at 31 December 2022. At year-end 2022, Abellio Transport Holdings Limited's net liability was nil, presented as Liabilities held for sale. No actuarial calculation took place on 28 February 2023. Given the handling of the scheme, the impact on results and equity in this period is limited.

### Basic assumptions for defined benefit plans

The following assumptions were used for determining the pension liabilities and the pension assets (based on a weighted average):

	31 december 2023	31 December 2022
Discount rate	N/A	4.9%
Total wage increase	N/A	2.9%
Increase of pension benefits	N/A	2.9%
Inflation	N/A	3.3%

Table for life expectancy as of 31 December 2022: S3NA tables with CMI 2019 projections plus long-term expectation of +1.25% per year.

### Breakdown

The breakdown of the pension liabilities is as follows:

(in millions of euros)	31 December 2023	31 December 2022
Fair value of plan assets	-	1,958
Present value of defined benefit obligations	-	1,872
<b>Difference</b>	<b>-</b>	<b>-86</b>
Employees' share	-	35
Difference at the end of the franchise period	-	51
<b>Group's net commitments (over the franchise period)</b>	<b>-</b>	<b>-</b>

### Movement

The changes in the pension assets and liabilities are as follows:

(in millions of euros)	2023	2022
<b>Plan assets as at 1 January</b>	<b>1,958</b>	<b>3,519</b>
Disposal of UK subsidiary	-1,958	-
Interest income	-	41
Pension contributions (including employees' share)	-	52
Pension benefits paid	-	-70
Administration costs	-	-7
Return on plan assets, excluding interest income	-	-227
Exchange result	-	-178
Franchise termination	-	-1,172
<b>Plan assets as at 31 December</b>	<b>-</b>	<b>1,958</b>
<b>Defined benefit obligations as at 1 January</b>	<b>1,872</b>	<b>5,746</b>
Disposal of UK subsidiary	-1,872	-
Pension costs	-	167
Interest expenses	-	67
Pension benefits paid	-	-70
Net actuarial gain or loss	-	-2,122
Exchange result	-	-291
Franchise termination	-	-1,625
<b>Defined benefit obligations as at 31 December</b>	<b>-</b>	<b>1,872</b>

## Breakdown of pension assets

The breakdown of the pension assets is as follows:

(in millions of euros)	31 December 2023	31 December 2022
Equities	-	1,531
Fixed-income securities	-	133
Real estate	-	162
Cash	-	-
Other	-	132
<b>Total</b>	<b>-</b>	<b>1,958</b>

## Pension costs recognised in the income statement

(in millions of euros)	2023	2022
Pension costs (employer's share)	5	100
Interest expenses	-	-
Administration costs	-	4
Adjustment due to limitation of franchise period	-	-72
<b>Total pension costs of discontinued operations</b>	<b>5</b>	<b>32</b>

## Unrealised actuarial gains and losses

(in millions of euros)	2023	2022
Net actuarial gain or loss due to:		
- Demographic assumptions	-	-2
- Financial assumptions	-	-2,190
- Experience adjustments	-	-383
Return on plan assets, excluding interest income	-	227
Adjustment due to limitation of franchise period	-	1,402
Changes in members' share	-	939
<b>Total</b>	<b>-</b>	<b>-7</b>

## Other liabilities

### Early Retirement Scheme

The temporary Early Retirement Scheme (RVU) was introduced in 2021. Employees who are employed and who reach the statutory retirement date before 1 January 2028 may retire a maximum of three years earlier, in which case an amount of €22,164 gross will be paid out in either monthly instalments or as a lump sum. In 2022, this scheme was extended by one year (before 1 January 2029) and increased to €24,444 for the scheme to take effect from 1 January 2023.

This scheme is regarded as a so-called 'post-employment' plan, whereby the service costs are recognised through the income statement and the unrealised actuarial results through the statement of comprehensive income.

### Movement in other liabilities

The changes in the provision were as follows:

(in millions of euros)	Early retirement scheme obligation	Long-service award obligations	Disability obligations	Total
<b>Liabilities as at 1 January 2022</b>	<b>16</b>	<b>31</b>	<b>-</b>	<b>47</b>
Service costs through income statement	-	2	-	2
Service costs due to plan adjustment through income statement	3	-	-	3
Payments	-4	-2	-	-6
Unrealised actuarial gains and losses via the statement of comprehensive income	13	-	-	13
Actuarial results through income statement	-	-4	-	-4
<b>Liabilities as at 31 December 2022</b>	<b>28</b>	<b>27</b>	<b>-</b>	<b>55</b>
<b>Presented under:</b>				
Non-current	22	24	-	46
Current	6	3	-	9
<b>Liabilities as at 1 January 2023</b>	<b>28</b>	<b>27</b>	<b>-</b>	<b>55</b>
Service costs through income statement	1	2	5	8
Service costs due to plan adjustment through income statement	-	-	-	-
Interest costs through income statement	-	1	-	1
Payments	-7	-2	-	-9
Unrealised actuarial gains and losses via the statement of comprehensive income	3	-	-	3
Actuarial results through income statement	-	-	-	-
<b>Liabilities as at 31 December 2023</b>	<b>25</b>	<b>28</b>	<b>5</b>	<b>58</b>
<b>Presented under:</b>				
Non-current	17	26	5	48
Current	8	2	-	10

### Early Retirement Scheme

To calculate the Early Retirement Scheme (RVU) liability, the AG2022 forecast table is used.

The service costs as a result of plan adjustments in 2022 are related to the increase in the benefit amount and the extension of the scheme by one year, which result from the collective labour agreement.

The actuarial result that has been recognised through the statement of comprehensive income is caused in 2023 by a change in estimates with regard to the probability of participation in the early retirement scheme. In 2022, this result was caused by a change in market interest rates, an adjustment in the mortality table and a change in the estimates regarding the probability of participation in the early retirement scheme.

The sensitivities are as follows:

	2023	2022
Discounting (-0.5%)	0.8%	1.0%
Probability of participation (+10%)	8.4%	8.8%

### Long-service award obligations

The AG2022 mortality table is used for the calculation of the long-service award obligations.

The sensitivities are as follows:

	2023	2022
Discounting (-0.5%)	3.5%	3.6%
Total wage increase (0.5%)	3.7%	3.3%
Career opportunities (+25%)	2.1%	2.0%
Probability of resignation/dismissal (+25%)	-5.1%	-5.2%

### Disability obligations

This concerns a commitment for:

- a CLA supplement for incapacitated persons employed by NS, paid by the Foundation for the Promotion of Labour Participation on Incapacity for Work (*Stichting ter Bevordering van Arbeidsparticipatie bij Arbeidsongeschiktheid*) until 2023. From 2024, NS will pay out this CLA supplement. The scheme in question is closed to new participants;
- A reintegration allowance paid by NS to a group of work-disabled people.

The AG2022 mortality table is used for the calculation of the disability obligations.

The sensitivities are as follows:

	2023	2022
Discounting (-0.5%)	3.1%	N/A
Total wage increase (0.5%)	3.4%	N/A

## 30. Provisions

(in millions of euros)	Provisions for reorganisation costs	Provision for soil remediation	Provision for the continued payment of unsocial hours during holidays	Provision for insolvency of Abellio Germany	Other provisions	Total
<b>Balance as at 1 January 2023</b>	<b>8</b>	<b>76</b>	<b>71</b>	<b>124</b>	<b>95</b>	<b>374</b>
Allocation	1	1	11	-	54	67
Accrued interest	-	-	-	-	-	-
Withdrawal	-3	-	-24	-32	-44	-103
Exchange differences	-	-	-	-	-	-
Release	-1	-2	-42	-74	-17	-136
<b>Balance as at 31 December 2023</b>	<b>5</b>	<b>75</b>	<b>16</b>	<b>18</b>	<b>88</b>	<b>202</b>
<b>Presented under:</b>						
Non-current	3	71	-	-	13	87
Current	2	4	16	18	75	115

## Provision for reorganisation costs

The purpose of the provision for reorganisation costs is to cover the costs arising from reorganisation measures. Most of the provision is needed for redundancy schemes, bridging payments and the redeployment of staff whose jobs have been eliminated as a result of reorganisations. Important starting points for determining the provisions for reorganisation costs at year-end 2023 and 2022 in the Netherlands are:

- the collective labour agreement arrangements covering the period 1 July 2022 to 1 January 2024;
- estimates with respect to advancement and outflow during the reorganisation.

## Provision for soil remediation

The provision for soil remediation is for managing and remedying environmental damage. The provision is calculated using an average discount rate of 2.5% (2022: 2.5%). A change in estimate was applied in 2023; for an explanation, see the general notes.

## Provision for the continued payment of unsocial hours during holidays

The Group has created a provision for the claimed irregular hours allowance for days' leave over and above the statutory minimum. The legal proceedings with respect to this topic have not yet been completed in 2023. The release and withdrawal are related to the (expected) payments in respect of irregularity allowances during holidays. The provision is classified as current.

## Provisions for Abellio Germany

In the insolvency proceedings regarding the former German holding Abellio GmbH, the trustee has reached agreement with the creditors and NS. The agreement will serve to settle the bankruptcy, a process that will take some time. The provision at 31 December 2023 has been aligned with the outcome of the proceedings and consists of a provision for guarantees and a provision for the insolvency plan. The provision for guarantees concerns part of the total guarantees issued as disclosed in note 33 of the financial statements.

## Other provisions

### Chromium-6

On 31 January 2019, the National Institute for Public Health and the Environment (RIVM) presented the results of an investigation into the use of Chromium-6 at the tROM reintegration project in Tilburg. In that project, between 2004 and 2011, people on unemployment benefits worked on trains belonging to NS and the Dutch Railway Museum at the then NedTrain workshop in Tilburg, which had been made available to third parties. RIVM carried out an investigation in which NS cooperated. An independent committee drew conclusions on the basis of the results of the investigation and formulated ad hoc recommendations. At the beginning of February 2019, the parties (municipality of Tilburg, NS and the Dutch Railway Museum) announced that they would come to an arrangement jointly and each on the basis of its own responsibility. NS had already provided for its share of the expected costs as at 31 December 2019 and updated this figure based on its understanding as at 30 December 2023. The movement in the provision is recognised in other operating expenses. Furthermore, the police carried out a criminal investigation on the instructions of the Public Prosecution Service, in which NedTrain was one of the suspects. Both NedTrain and the municipality of Tilburg were prosecuted for violating the Working Conditions Act (*Arbeidsomstandighedenwet*) and the Environmental Management Act (*Wet*

*milieubeheer*). The court delivered judgement on 1 February 2023. With regard to the violation of the Working Conditions Act, the Court ruled that the Public Prosecution Service is barred from prosecuting because the alleged violation has expired. NedTrain has, however, been fined €250,000 for complicity in violation of the Environmental Management Act, which has been included in the results for 2022. NS has decided not to bring an appeal.

'Other provisions' include provisions for losses arising from accidents and fire, provisions for maintenance in connection with lease contracts in Germany, a management fee provision for the settlement of claims and proceedings by the management of Transport UK Group Ltd and provisions for staff-related matters.

### **Accounting policy**

A provision is recognised in the balance sheet whenever the Group has a legal or constructive obligation as a consequence of a past event and it is probable that the settlement of that obligation will entail an outflow of funds.

Provisions are determined by calculating the net present value of expected future cash flows based on a pre-tax discount rate that reflects both the current market valuations of the time value of money and, where necessary, the specific risks relating to the liability.

#### **Reorganisation costs and non-activity schemes**

Provisions are made in connection with reorganisations if a formal, detailed plan has been drawn up for the reorganisation and the reorganisation is either under way or has been publicly announced. No provision is made for future operating expenses. Provisions for reorganisations relate mainly to redundancy schemes, bridging payments and the redeployment of redundant staff.

#### **Provision for soil remediation**

The provision for soil remediation work is intended to cover the costs incurred for the upkeep or repair of operating assets. In line with the Group's published environmental policy and the applicable legal requirements, provisions for the control and remediation of environmental contamination are formed when the contamination occurs or is found to have occurred.

#### **Other provisions**

Provisions are formed for losses arising from fire, accidents, guarantees issued, claims, provisions for maintenance costs in connection with lease agreements and other matters such as outflow of funds with regard to guarantees and settlement of possible other liabilities related to insolvency proceedings, legal and litigation costs.

## **31. Leases**

### **Group as lessee**

The Group has lease contracts for rolling stock, real estate and other operating assets that are used in its operations. The Group's obligations under the leases are safeguarded by the lessor's right to the ownership of the leased assets. Generally, the Group's possibilities for subleasing the leased assets are restricted. There are various lease contracts that contain renewal and termination options. These are discussed in more detail below.

The Group also has certain lease contracts for machines with a lease term of 12 months or less and lease contracts for low-value office equipment. The Group applies the recognition criteria for exemptions for 'short-term leases' and 'leases of low-value assets' for these lease contracts.

The carrying amounts of the recognised right-of-use assets and the changes during the period are stated below.

(in millions of euros)	Rolling stock*	Real estate	Other	Total
<b>Composition as at 1 January 2022</b>				
Purchase price	2,006	195	26	2,227
Accumulated depreciation and impairments	1,309	82	9	1,400
<b>Book value as at 31 December 2021</b>	<b>697</b>	<b>113</b>	<b>17</b>	<b>827</b>
<b>Changes in 2022</b>				
Additions	121	35	2	158
Disposals	-	-30	-2	-32
Business acquisitions	345	14	-	359
Held for sale	-615	-32	-14	-661
Depreciation	-169	-13	-1	-183
Impairment losses	-	-	-	-
Reversal of impairment	5	7	-	12
Foreign currency exchange differences	-34	-2	-1	-37
Other movements	-1	2	2	4
<b>Total changes during the financial year</b>	<b>-348</b>	<b>-19</b>	<b>-14</b>	<b>-381</b>
<b>Composition as at 31 December 2022</b>				
Purchase price	473	160	3	636
Accumulated depreciation and impairments	124	66	-	190
<b>Book value as at 31 December 2022</b>	<b>349</b>	<b>94</b>	<b>3</b>	<b>446</b>
<b>Changes in 2023</b>				
Additions	15	18	-	33
Disposals	-	-	-	-
Business acquisitions	-	-	-	-
Held for sale	-	-	-	-
Depreciation	-74	-17	-	-91
Impairment losses	-116	-5	-	-121
Reversal of impairment	-	-	-	-
Foreign currency exchange differences	-	-	-	-
Other movements	5	-4	-	1
<b>Total changes during the financial year</b>	<b>-170</b>	<b>-8</b>	<b>-</b>	<b>-178</b>
<b>Composition as at 31 December 2023</b>				
Purchase price	506	172	3	681
Accumulated depreciation and impairments	327	86	-	413
<b>Book value as at 31 December 2023</b>	<b>179</b>	<b>86</b>	<b>3</b>	<b>268</b>

\* The comparative figures at 31 December 2022 have been adjusted by reclassification of provision for onerous contract to impairment in the amount of €10 million.

The carrying amounts of the lease liabilities and the changes during the period are stated below:

(in millions of euros)	2023	2022
<b>Lease liabilities as at 1 January</b>	<b>464</b>	<b>930</b>
Additions	39	132
Business acquisitions	-	364
Deconsolidation	-	-
Interest allocated	6	4
Payments	-105	-220
Held for sale	-	-707
Other movements	-	-
Currency differences	-	-39
<b>Lease liabilities as at 31 December</b>	<b>404</b>	<b>464</b>
<b>Presented under:</b>		
Non-current	315	377
Current	89	87

The lease liabilities can be subclassified into the following countries:

(in millions of euros)	31 December 2023	31 December 2022
Germany	282	331
The Netherlands	122	133
<b>Total</b>	<b>404</b>	<b>464</b>

The maturity analysis of lease liabilities is disclosed in note 26.

The following amounts are recognised in the income statement:

(in millions of euros)	2023	2022
Depreciation of right-of-use assets	91	59
Impairments/reversal of impairments	121	-12
Interest expense on lease contracts	6	4
<b>Total recognised in the income statement</b>	<b>218</b>	<b>51</b>

The Group has no lease arrangements with material variable lease payments.

## Accounting policy

The Group recognises a right-of-use asset and a lease liability at the commencement date of the lease arrangement. The right-of-use asset is initially measured at cost, comprising the initial amount of the lease liability, adjusted for any lease payments made at or before the commencement date of the lease arrangement, plus any initial direct costs incurred and an estimate of the costs of dismantling and removing the underlying asset or restoring the underlying asset or restoring the site on which it is located, less any lease incentives received.

The right-of-use asset is subsequently depreciated on a straight-line basis from the commencement date until the end of the lease term. The average depreciation periods are as follows:

- Rolling stock 6 years
- Real estate 11 years
- Miscellaneous 9 years

In addition, the right-of-use asset is periodically reduced by any impairment losses and adjusted for certain remeasurements of the lease liability.

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted using the Group's incremental borrowing rate. The incremental borrowing rate of interest consists of the risk-free rate plus a surcharge for country risk with account being taken of the object. The lease liability is measured at amortised cost using the effective interest method. It is remeasured if there is a change in the future lease payments as a result of a change in an index or rate, if there is change in the Group's estimate of the amount expected to be payable under a residual value guarantee or if the Group changes its assessment of whether it will exercise a purchase, extension or termination option.

## 32. Completion of business acquisition in Germany

On 1 February 2022 and 1 March 2022 respectively, all shares in PTS and WestfalenBahn were reacquired by the new German holding company (ATH Rail Transport Beteiligungsgesellschaft Deutschland GmbH) within the Group after the insolvency proceedings had ended. On 1 July 2022, the shares in Abellio Rail Mitteldeutschland were reacquired by the same German holding company, after the insolvency proceedings had been closed.

The initial recognition of assets and liabilities of the German entities in the consolidation in 2022 resulted in an accounting upward revaluation of €108 million as a result of acquisition accounting. This income has been recognised as net finance result in 2022.

The allocation of the purchase price of PTS GmbH, WestfalenBahn GmbH and Abellio Rail Mitteldeutschland GmbH was finalised in 2023. This resulted in a negative effect of €5 million, largely related to a correction in the valuation of fixed assets. The effect has been retrospectively recognised in the net finance result, and the comparative figures for 2022 have been adjusted accordingly.

## 33. Off-balance sheet arrangements

A number of investigations are under way against NS and/or group companies, and various claims have been submitted that are being contested by NS. Where deemed necessary, provisions have been made for this. A number of important subjects are explained below.

## Long-term contracts

There were a number of long-term financial commitments to third parties at year-end 2023, mainly concerning lease arrangements for trains, company cars and copiers. There are also long-term contracts for services by third parties in the areas of automation, maintenance and cleaning.

## Energy contracts

As at the end of 2023, the purchase commitments under the energy contracts in the Netherlands for the volumes already covered, the payments for the Programme for Responsibility and the surcharge for green electricity:

- €87 million for the period 2024 (remainder of the 10-year contract, position at the end of 2022: €141 million); and
- €288 million for the period 2025-2028 (position at the end of 2022: nil). These concern purchases under the new contracts with PZEM and Shell for the supply of energy and Guarantees of Origin in the period 2025 to 2027 and the possibility of purchasing energy from PZEM for the period after 2027, which could subsequently be incorporated into a new or existing contract if an extension option with PZEM is eventually exercised and approved by PZEM.

The expected energy volume to be used for traction energy for the year 2024 is fully covered, and the expected volumes for 2025-2028 are partially covered (80% for the year 2025, 60% for the year 2026, 40% for the year 2027 and 20% for the year 2028). Transport costs and energy taxes are not included in the purchase commitments shown. If the difference between the market values and the contract value exceeds a given threshold, (i) the Group or Eneco (for the contract up to and including 2024) and (ii) the Group or PZEM must provide cash collateral as security to the other party. Any payments and liabilities are netted, as they are both inextricably linked. At year-end 2023, NS has no margin obligations/securities to/from Eneco (year-end 2022: €360 million received in the form of margin funds). At year-end 2023, NS delivered cash collateral of €6.8 million (year-end 2022: nil) to PZEM.

For more detailed information about the energy contracts, see note [26](#).

## Tax group

For the purpose of corporation tax, all the Dutch subsidiaries belonging to the Group are part of the NV Nederlandse Spoorwegen fiscal unity. As a result, the Group is jointly and severally liable for all tax liabilities of the subsidiaries included in the fiscal unity.

## Investment commitments

At the end of 2023, the Group had outstanding investment commitments of €1,304 million (2022: €1,346 million), primarily for purchasing and upgrading trains and investments in the areas around the stations.

## Contingent liabilities

The Group has paid €32 million (translated) of its share in the issued share capital (€162 million after translation) of EUROFIMA AG. The Group has a liability for full payment on demand of the shares and other guarantee commitments totalling €292 million (after translation). Payment of the liability can be demanded if EUROFIMA AG's own equity position gives reason to do so.

As a result of the agreements made with the Belgian carrier regarding the IC Brussels service in the context of the main rail network, the Group is making allowances for a negative balance for the Group in the settlement of the costs of commercial operation for this route. The amount of that negative balance depends on the commercial results on that route. The expected outcomes are part of the main rail network impairment test as explained in note 15.

## Contingent assets

The Group has various outgoing claims and/or disputes that have not been valued because the outcome of these matters is uncertain, with the exception of the claims and disputes that have been valued in the context of the fair value of Abellio UK (see note 1).

## Guarantees

The Group has issued guarantees totalling €340 million (31 December 2022: €504 million) relating to the operation of the current and former franchises in the United Kingdom and Germany. Some of the guarantees relating to Abellio Germany have been provided for (see note 30).

## Franchises

The Group had the following franchises during 2023.

<b>Franchises in 2023</b>	<b>Expiry date</b>
<b>The Netherlands</b>	
Main Rail Network/HSL South	31 december 2024
Gouda-Alphen aan den Rijn train service	11 december 2031
<b>Germany</b>	
EMIL (WestfalenBahn)	15 december 2030
Saale-Thüringen-Südharz	15 december 2030
Dieselnetz Sachsen-Anhalt	15 december 2024

### Current franchise main rail network Netherlands (until 2024)

The main rail network franchise is awarded by the Ministry of Infrastructure and Water Management. It covers passenger transport by rail on the main rail network in the Netherlands. The old main rail network franchise and the HSL franchise (see the section below) ended in 2014, and the Ministry decided in December 2014 to award a new integrated main rail network franchise to NS for the period from 1 January 2015 to 31 December 2024. The train services on the HSL South have also been covered by this franchise from 1 January 2015 onwards. The franchise agreement stipulates that performance must improve during the term of the franchise. The evaluation will take place during 2024. If NS does not achieve the target values for 2024, NS will be obliged to pay a sum of €1.5 million for each performance indicator not attained up to a maximum of €19.5 million per evaluation. If NS does meet the conditions, a maximum bonus of €10 million can be earned for each evaluation. In addition, the Ministry can impose a fine of up to €6.5 million a year on NS if NS does not achieve the minimum baseline values for the franchise performance indicators. The performance indicators are measured for the following performance areas: general (customer satisfaction), the door-to-door journey, ease of travelling (transport capacity at peak times), journey information (in the event of disruptions), safety (including personal safety) and reliability (punctuality for passengers).

The agreements made with the government include agreements on the production assets (rolling stock in particular) that are to be used for operating the main rail network franchise. Depending on the ownership situation and the form of tender, the production assets may be leased in the event of complete or partial loss of the main rail network franchise to a subsequent franchise holder, or sold at the carrying amount, and/or their leases may be transferred unchanged to the subsequent franchise holder.

The overall fees for track use and the franchise for the integrated main rail network/HSL South franchise were €213 million in 2023. The negotiation agreement of 2011 included an adjustment mechanism to avoid the liquidation of HSA. This adjustment mechanism has been included in the implementation agreement for the franchise. It works as follows. If the average return on investment for the franchise holder over a fixed period turns out to be lower than the threshold value (4%), the holder will be entitled to an adjustment to the franchise price (equal to the difference between the actual return and 4%, with the adjustment over the entire duration of the franchise being capped at the equivalent of €144 million at 2010 prices). There was no entitlement to any such adjustment over 2015. Any entitlement to an adjustment was first calculated in 2016 using the average return on investment for 2015 and 2016, and thereafter on a rolling basis using the previous three years. An entitlement to an adjustment to the franchise price deriving from the implementation agreement does not lapse if at any point in subsequent years the return on investment exceeds the threshold value. Payment of any entitlement that may have arisen through an adjustment to the franchise price will be spread in instalments, as per the implementation agreement. The adjustment mechanism for the average profitability is recognised during the franchise on a straight-line basis covering the entire franchise term.

The franchise also includes an adjustment mechanism for a settlement of any windfalls in energy price changes over the franchise period. This adjustment will be calculated cumulatively, with NS owing the Ministry of Infrastructure and Water Management 75% of the difference between the actual energy prices and the forecast energy prices according to the business case, with no adjustment being made if the cumulative actual return on investment falls below the cumulative norm return. Apart from the calculation outlined above, NS owes an unconditional one-off sum of €56 million to the ministry for 2016. This payment is amortised on a straight-line basis over the entire term of the franchise. This arrangement is capped at €290 million (including the one-off payment) and will never result in a payment to NS by the Ministry of Infrastructure and Water Management. No energy cost adjustment is owed for 2023 and previous years.

In addition to the franchise fee and the HSL fee, infrastructure levies amounting to €271 million (2022: €249 million) are owed to ProRail .

In late December 2023, the transport franchise for the main rail network for the period 2025-2033 was re-awarded to NS by the Ministry of Infrastructure and Water Management. For further explanation of the new franchise, see note 15.

## 34. Related parties

Transactions with related parties are conducted on an arm's-length basis.

All issued shares are held by the State of the Netherlands. One significant transaction with an enterprise that has a relationship with the State (DUO, the Dutch Education Executive Agency) concerns the consideration received for student public transport cards (2023: € 574 million, 2022: € 576 million).

Payments of the infrastructure charge for the Dutch infrastructure are made to ProRail BV, a State-affiliated company. The user fee is explained in note [33](#).

Furthermore, the Group received a sum of €120 million (2022: €324 million) in grants from the State in 2023 through various schemes (availability payments, public transport safety net payment, NOW and other schemes). These have been recognised under revenue for an amount of €85 million (2022: €308 million) and deducted from costs for an amount of €35 million (2022: €16 million).

Translink Systems BV is wholly owned by Coöperatie Openbaar Vervoerbedrijven, of which NS is a member. Translink is therefore a related party. For the performance of the activities by Translink, the Group paid Translink an amount of €0.1 million in 2023 (2022: €0.1 million) for products and services provided. Translink engages in the development, implementation and use of the electronic registration and payment system for public transport in the Netherlands.

The transactions with the Executive Board and the Supervisory Board members are disclosed in note [3](#).

The sale of Abellio UK to Transport UK Group Ltd and the associated future settlements qualify as transactions with a related party. In 2023, the result from discontinued operations was €10 million. For further explanation, see notes [1](#) and [23](#).

There were no significant transactions in 2023 or 2022 with joint ventures and other participating interests.

## **Group companies**

The main companies included in the consolidated financial statements are:

	Percentage interest		Registered office
	2023	2022	
<b>Subsidiaries</b>			
NS Groep NV*	100.0	100.0	Utrecht
NS Reizigers BV*	100.0	100.0	Utrecht
Abellio Transport Holding BV	100.0	100.0	Utrecht
NedTrain BV*	100.0	100.0	Utrecht
NS Stations BV*	100.0	100.0	Utrecht
NS Vastgoed BV*	100.0	100.0	Utrecht
NS Insurance NV	100.0	100.0	Utrecht
NS Opleidingen BV*	100.0	100.0	Utrecht
NS Innovatiefonds BV	100.0	100.0	Utrecht
Thalys Nederland NV*	100.0	100.0	Utrecht
NS Internationaal BV*	100.0	100.0	Utrecht
NS Stations Retailbedrijf BV*	100.0	100.0	Utrecht
NS Fiets BV*	100.0	100.0	Utrecht
NS OV-Fiets BV*	100.0	100.0	Utrecht
Stationsfoodstore BV*	100.0	100.0	Utrecht
NS Poort Ontwikkeling BV	100.0	100.0	Utrecht
Abellio Transport Group Ltd**	1.0	100.0	Glasgow
Abellio Transport Holdings Ltd**	-	100.0	London
Abellio Greater Anglia Ltd**	-	100.0	London
Abellio East Anglia Ltd**	-	60.0	London
Abellio West Midlands Ltd**	-	85.1	Birmingham
Abellio East Midlands Ltd**	-	100.0	London
Abellio ScotRail Ltd**	-	100.0	Glasgow
Abellio West London Ltd**	-	100.0	London
Abellio London Ltd**	-	100.0	London
Transport Holding Germany BV	100.0	100.0	Utrecht
ATH Rail Beteiligungsgesellschaft Deutschland GmbH	100.0	100.0	Berlin
WestfalenBahn GmbH	100.0	100.0	Bielefeld
Abellio Rail Mitteldeutschland GmbH	100.0	100.0	Halle
PTS GmbH	100.0	100.0	Essen
<b>Joint ventures</b>			
Merseyrail Services Holding Company Ltd	-	50.0	Hampshire
<b>Other interests</b>			
Reisinformatiegroep BV	41.7	41.7	Utrecht
Eurofima AG	5.8	5.8	Basel
NS Mobiliteitsdiensten BV	90.0	90.0	Utrecht
Rivier BV	46.7	46.7	Rotterdam
Hely Holding BV	40.0	40.0	Amersfoort

\* *NV Nederlandse Spoorwegen has assumed liability in respect of the debts arising from legal acts in accordance with the provisions of Section 403 of Book 2 of the Dutch Civil Code.*

\*\* *The UK entities were classified as held for sale as at 31 May 2022 and were sold as at 28 February 2023. The results for 2023 and 2022 have been presented as results from discontinued operations (see note 1). Abellio Transport Group Ltd will cease to be a subsidiary on 28 February 2023.*

Pursuant to Sections 379 and 414 of Book 2 of the Dutch Civil Code, a complete list of the Group's subsidiaries, associates and joint ventures has been filed with the office of the Trade Register in Utrecht.

## 35. Events after the balance sheet date

No matters have come to light after the balance sheet date that provide further information about the actual situation as at the balance sheet date, nor were there events that are significant for the opinion to be formed by users of this financial statement.

# Company financial statements

## Company balance sheet as at 31 December 2023

(before profit appropriation)

(in millions of euros)	31 December 2023	31 December 2022
Non-current financial assets	1,914	2,303
<b>Total assets</b>	<b>1,914</b>	<b>2,303</b>
<b>Equity</b>		
Issued share capital	1,012	1,012
Legal hedging reserve	-	42
Legal fair value reserve	90	54
Actuarial reserve	-11	-7
Legal reserve for development costs	174	287
Legal revaluation reserve for participating interests	50	61
Legal reserve for translation differences	-	-32
General reserve	979	312
Unappropriated result	-380	574
	<b>1,914</b>	<b>2,303</b>
<b>Total liabilities</b>	<b>1,914</b>	<b>2,303</b>

## Company income statement 2023

(in millions of euros)	2023	2022
Other result	-	-
Result of group companies after tax	-380	574
<b>Net result</b>	<b>-380</b>	<b>574</b>

## Accounting policies applied for the financial statements

### General

In determining the accounting policies for the valuation of assets and liabilities and determining the result for the company financial statements, NV Nederlandse Spoorwegen makes use of the option provided by Section 362(8) of Book 2 of the Dutch Civil Code. This means that the accounting policies for the valuation of assets and liabilities and determination of the result (hereinafter the 'accounting policies') for the company financial statements of NV Nederlandse Spoorwegen are the same as those used for the consolidated financial statements. Participating interests in which significant influence is exercised are valued using the equity method.

In accordance with Section 402(1) of Book 2 of the Dutch Civil Code, the company financial statements of NV Nederlandse Spoorwegen only include an income statement in abbreviated form.

### Participating interests in group companies

The participating interests in group companies are measured according to the equity method, whereby, at the time the participating interest is written down, losses are only taken into account to the extent that the shareholder is obliged to make good these losses.

### Result of group companies

The result of group companies consists of the result after income tax.

## Notes to the company balance sheet and income statement 2023

The amounts included in the notes are in millions of euros, unless stated otherwise.

### Non-current financial assets

#### Participating interests in group companies

(in millions of euros)	2023	2022
<b>Balance as at 1 January</b>	<b>2,303</b>	<b>1,695</b>
Share in result	-380	574
Dividend distributed for the previous reporting period	-	-
Other movements	-9	34
<b>Balance as at 31 December</b>	<b>1,914</b>	<b>2,303</b>

The other movements concern direct movements in the equity of participating interests in group companies.

## Equity

(in millions of euros)	Shareholders' equity	Legal hedging reserve	Legal fair value reserve	Actuarial reserve	Legal reserve for development costs	Legal revaluation reserve for participating interests	Legal reserve for translation differences	General reserve	Unappropriated result	Total equity
<b>Balance as at 1 January 2022</b>	<b>1,012</b>	<b>6</b>	<b>53</b>	<b>-1</b>	<b>302</b>	<b>64</b>	<b>-35</b>	<b>-45</b>	<b>339</b>	<b>1,695</b>
Changes in revaluation reserves	-	36	1	-4	-15	-3	1	18	-	34
Dividend paid to shareholder	-	-	-	-	-	-	-	-	-	-
Result for the financial year	-	-	-	-	-	-	-	-	574	574
Other movements	-	-	-	-2	-	-	2	339	-339	-
	<b>-</b>	<b>36</b>	<b>1</b>	<b>-6</b>	<b>-15</b>	<b>-3</b>	<b>4</b>	<b>357</b>	<b>235</b>	<b>608</b>
<b>Balance as at 31 December 2022</b>	<b>1,012</b>	<b>42</b>	<b>54</b>	<b>-7</b>	<b>287</b>	<b>61</b>	<b>-32</b>	<b>312</b>	<b>574</b>	<b>2,303</b>
Changes in revaluation reserves	-	-42	36	-1	-113	2	32	76	-	-10
Dividend paid to shareholder	-	-	-	-	-	-	-	-	-	-
Result for the financial year	-	-	-	-	-	-	-	-	-380	-380
Other movements	-	-	-	-3	-	-13	-	591	-574	1
	<b>-</b>	<b>-42</b>	<b>36</b>	<b>-4</b>	<b>-113</b>	<b>-11</b>	<b>32</b>	<b>667</b>	<b>-954</b>	<b>-389</b>
<b>Balance as at 31 December 2023</b>	<b>1,012</b>	<b>-</b>	<b>90</b>	<b>-11</b>	<b>174</b>	<b>50</b>	<b>-</b>	<b>979</b>	<b>-380</b>	<b>1,914</b>

The legal reserve was formed for software development costs. The legal revaluation reserve was formed for direct changes to the equity in joint ventures and for the non-distributable portion of the equity of NS Insurance. The legal reserve for translation differences comprises all foreign exchange differences arising from the translation of the financial statements of foreign operations, as well as from the translation of liabilities that hedge the company's net investment in a foreign group company.

The legal hedging reserve consists of the cumulative change in the fair value of hedging instruments (derivatives) where the hedged transaction has not yet taken place or the hedged position has not yet been settled.

The legal fair value reserve comprises the cumulative change in the fair value of investments measured at fair value – total comprehensive income, the cumulative change in the fair value of investments measured at fair value – debt investment and the cumulative change in the fair value of financial instruments measured at fair value through the income statement, until these investments are no longer recognized in the balance sheet.

### Off-balance sheet commitments

No claims have been brought against NV Nederlandse Spoorwegen and the consolidated participating interests, other than as indicated in note 33, that have not been recognised appropriately in the balance sheet.

For the purpose of corporation tax, both NV Nederlandse Spoorwegen and its Dutch subsidiaries are part of the NV Nederlandse Spoorwegen fiscal unity. Consequently, NV Nederlandse Spoorwegen is jointly and severally liable for the tax liabilities of the subsidiaries included in the fiscal unity.

### Key participating interests

NV Nederlandse Spoorwegen is the holding company of NS Groep NV. NS Groep NV is the sole subsidiary of NV Nederlandse Spoorwegen. Please refer to note 34 for an overview of the participating interests.

Utrecht, 20 February 2024

<b>Raad van commissarissen</b>	<b>Raad van bestuur</b>
Mr. H.H.J. Dijkhuizen <i>Chair</i>	Mr. W. Koolmees CEO
Ms. J.L. Stuijt	Mr. H.L.L. Groenewegen <i>Finance Director</i>
Mr. W.J. van der Feltz	Mr. E.F.W. van Asch <i>Director of Operations</i>
Mr. R. Teerlink	Mr. T.B. Smit <i>Commerce &amp; Development Director</i>
Ms. P. Boumeester	

# Other information

**The following is an English translation of the independent auditor's report issued 20 February 2024**

# Other information

## **Profit appropriation as stipulated by the Articles of Association**

In accordance with Article 21(2) of the Articles of Association of NV Nederlandse Spoorwegen, the Annual General Meeting of Shareholders decides on the appropriation of any positive balance in the income statement.

# Independent auditor's report and assurance report

The following is an English translation of the independent auditor's report issued on 20 February 2024

## Independent auditor's report

To: the shareholder and Supervisory Board of N.V. Nederlandse Spoorwegen

## Report on the financial statements included in the annual report 2023

### Our opinion

We have audited the financial statements for the financial year ended 31 December 2023 of N.V. Nederlandse Spoorwegen (NS) based in Utrecht. The financial statements comprise the consolidated and company financial statements.

In our opinion:

- The accompanying consolidated financial statements give a true and fair view of the financial position of V. Nederlandse Spoorwegen as at 31 December 2023 and of its result and its cash flows for 2023 in accordance with International Financial Reporting Standards as adopted in the European Union (EU-IFRSs) and with Part 9 of Book 2 of the Dutch Civil Code
- The accompanying company financial statements give a true and fair view of the financial position of V. Nederlandse Spoorwegen as at 31 December 2023 and of its result for 2023 in accordance with Part 9 of Book 2 of the Dutch Civil Code

The consolidated financial statements comprise:

- The consolidated balance sheet as at 31 December 2023
- The following statements for 2023: the consolidated income statement, the consolidated statements of comprehensive income, changes in equity and cash flows
- The notes comprising material accounting policy information and other explanatory information

The company financial statements comprise:

- The company balance sheet as at 31 December 2023
- The company profit and loss account for 2023
- The notes comprising a summary of the accounting policies and other explanatory information

### The basis for our opinion

We conducted our audit in accordance with Dutch law, including the Dutch Standards on Auditing.

Our responsibilities under those standards are further described in the "Our responsibilities for the audit of the financial statements section of our report".

We are independent of N.V. Nederlandse Spoorwegen in accordance with the EU Regulation on specific requirements regarding statutory audit of public-interest entities, the Wet toezicht accountantsorganisaties (Wta, Audit firms supervision act), the Verordening inzake de onafhankelijkheid van accountants bij assurance-opdrachten (ViO, Code of Ethics for Professional Accountants, a regulation with respect to independence) and other relevant independence regulations in the Netherlands. Furthermore, we have complied with the Verordening gedrags- en beroepsregels accountants (VGBA, Dutch Code of Ethics). We believe the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

### **Information supporting our opinion**

We designed our audit procedures in the context of our audit of the financial statements as a whole and in forming our opinion thereon. The following information in support of our opinion and any findings were addressed in this context, and we do not provide a separate opinion or conclusion on these matters.

### ***Our understanding of the business***

The activities of N.V. Nederlandse Spoorwegen mainly consist of passenger transport, the management and development of property and the operation of station locations in the Netherlands, Germany and the United Kingdom.

The activities in Germany were deconsolidated due to an insolvency process from 30 June 2021.

Since 2022, a number of concessions have been reacquired from the insolvency process and included in the consolidation of N.V. Nederlandse Spoorwegen from the moment control was regained.

The activities in the United Kingdom were presented as assets and liabilities held for sale from

31 May 2022. The sales transaction to the local management via a "Management Buy Out" (MBO) was completed on 28 February 2023.

The group structure consists of several group entities and we have designed our group audit approach accordingly. We paid specific attention in our audit to a number of areas driven by the operations of the group and our risk assessment, which are explained in more detail in the section "Key audit matters".

We determined materiality and identified and assessed the risks of material misstatement of the financial statements, whether due to fraud or error in order to design audit procedures responsive to those risks and to obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion.

### **Materiality**

Materiality	€32 million (2022: €45 million).
Benchmark applied	0.8% of operating expenses (€3.9 billion), excluding impairments in the Netherlands and Germany (€0.5 billion).
Explanation	Given the nature of the activities of NS, its objective, and the importance of its operating performance in the Netherlands and abroad, operating expenses are considered to be the most relevant activity base for materiality, taking into account the exceptional items referred to in "applied benchmark". The way in which we have determined materiality is consistent with the previous financial year.

We have also taken into account misstatements and/or possible misstatements that in our opinion are material for the users of the financial statements for qualitative reasons.

We agreed with the supervisory board that misstatements in excess of €1,6 million, which are identified during the audit, would be reported to them, as well as smaller misstatements that in our view must be reported on qualitative grounds.

### ***Scope of the group audit***

N.V. Nederlandse Spoorwegen is at the head of a group of entities. The financial information of this group is included in the consolidated financial statements.

Because we are ultimately responsible for the opinion, we are also responsible for directing, supervising and performing the group audit. In this respect we have determined the nature and extent of the audit procedures to be carried out for group entities. Decisive were the size and/or the risk profile of the group entities or operations. On this basis, we selected group entities for which an audit or review had to be carried out on the complete set of financial information or specific items.

Our group audit mainly focused on significant parts of the main rail network (HRN) and NS Stations (operations of station locations) in the Netherlands, operational activities in Germany, and the recognised positions and results related to the sold activities in the United Kingdom, and the insolvency procedures in Germany. Except for auditing of the operational activities in Germany, where we used the work of German auditors from our EY global network, we conducted all the other audit activities ourselves. In total these procedures represent 97% of the total assets and 90% of the operating expenses of the group.

By performing the procedures mentioned above at components of the group, together with additional procedures at group level, we have been able to obtain sufficient and appropriate audit evidence about the group's financial information to provide an opinion on the consolidated financial statements.

### ***Teaming, use of specialists***

We ensured that the audit team included the appropriate skills and competences which are needed for the audit of N.V. Nederlandse Spoorwegen. We included specialists in the areas of IT audit and data, cybersecurity, forensics, taxes, pensions and valuation specialists.

### ***Our focus on fraud and non-compliance with laws and regulations***

#### **Our responsibility**

Although we are not responsible for preventing fraud or non-compliance and we cannot be expected to detect non-compliance with all laws and regulations, it is our responsibility to obtain reasonable assurance that the financial statements, taken as a whole, are free from material misstatement, whether caused by fraud or error. 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.

#### **Our audit response related to fraud risks**

We identified and assessed the risks of material misstatements of the financial statements due to fraud. During our audit we obtained an understanding of N.V. Nederlandse Spoorwegen and its environment and the components of the system of internal control, including the risk assessment process and the executive board's process for responding to the risks of fraud and monitoring the system of internal control and how the supervisory board exercises oversight, as well as the outcomes.

We refer to section "Risk management" in the annual report, in which the executive board has included its risk analysis, including risks related to fraud or non-compliance with laws and regulations.

We evaluated the design and relevant aspects of the system of internal control and in particular the fraud risk assessment, as well as the NS code of conduct, whistle blower procedures and incident registration. We evaluated the design and the implementation and, where considered appropriate, tested the operating effectiveness, of internal controls designed to mitigate fraud risks.

As part of our process of identifying fraud risks, we evaluated fraud risk factors with respect to financial reporting fraud, misappropriation of assets and bribery and corruption in conjunction of compliance with relevant procurement regulations in close co-operation with our forensic and legal specialists.

We evaluated whether these factors indicate that a risk of material misstatement due to fraud is present.

We incorporated elements of unpredictability in our audit. We also considered the outcome of our other audit procedures and evaluated whether any findings were indicative of fraud or non-compliance.

We addressed the risks related to management override of controls, as this risk is present in all companies. For these risks we have performed procedures among other things to evaluate key accounting estimates for management bias that may represent a risk of material misstatement due to fraud, in particular relating to important judgment areas and significant accounting estimates as disclosed in the section "Estimates and Assessments" in chapter 1 of the financial statements. We have also used data analysis to identify and address high-risk journal entries and evaluated the business rationale (or the lack thereof) of significant extraordinary transactions, including those with related parties.

We did not identify a risk of fraud in revenue recognition, other than the risks related to management override of controls. In the key audit matter "Revenue recognition and complexity and effectiveness of NS IT environment in the Netherlands" we describe our audit procedures that address the complexity of the IT environment.

The following fraud risk identified required significant attention during our audit.

**Risk of management override of internal control in the valuation of the main rail network (HRN) franchise assets and the future profitability of the HRN franchise**

<p>Fraud risk</p>	<p>In identifying and assessing fraud risks, we assume that management can override internal controls. In our audit approach, we take into account that this fraud risk would primarily occur in the valuation of the main rail network (HRN) franchise assets and the future profitability of the HRN franchise. We also considered whether judgements and assumptions in determining this valuation indicates a management bias that may present a risk of material misstatement.</p>
<p>Our audit approach</p>	<p>We refer to key audit matter "valuation of the main rail network (HRN) franchise assets and the future profitability of the HRN franchise" where we address this fraud risk and describe our audit procedures.</p>

We considered available information and made enquiries of relevant executives, directors, internal audit, legal, compliance, human resources and regional directors and the supervisory board.

The fraud risk we identified, enquiries and other available information did not lead to specific indications for fraud or suspected fraud potentially materially impacting the view of the financial statements.

### **Our audit response related to risks of non-compliance with laws and regulations**

We performed appropriate audit procedures regarding compliance with the provisions of those laws and regulations that have a direct effect on the determination of material amounts and disclosures in the financial statements. Furthermore, we assessed factors related to the risks of non-compliance with laws and regulations that could reasonably be expected to have a material effect on the financial statements from our general industry experience, through discussions with the executive board and legal department, reading minutes, inspection of internal audit and compliance reports, and performing substantive tests of details of classes of transactions, account balances or disclosures.

We also inspected lawyers' letters and correspondence with regulatory authorities and remained alert to any indication of (suspected) non-compliance throughout the audit. Finally we obtained written representations that all known instances of non-compliance with laws and regulations have been disclosed to us.

### **Our audit response related to going concern**

The executive board made a specific assessment of NS's ability to continue as a going concern and to continue its operations for the foreseeable future. As disclosed in Section "Continuity assumption" in chapter 1 of the financial statements, based on financial forecasts and scenario analysis, NS concludes that there is no material uncertainty. The financial statement have been prepared on a going concern basis.

We discussed and evaluated the specific assessment with the executive board exercising professional judgment and maintaining professional skepticism. We considered whether the executive board's going concern assessment, based on our knowledge and understanding obtained through our audit of the financial statements or otherwise, contains relevant events or conditions that may cast significant doubt on NS'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.

Based on our procedures performed, we did not identify material uncertainties about going concern. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause a company to cease to continue as a going concern.

### ***Our key audit matters***

In the key audit matters, we describe matters that, in our professional opinion, were most significant during our audit of the financial statements. We communicated the key audit matters to the Supervisory Board, although they do not represent a complete account of everything that was discussed.

We no longer consider the key point 'revenue recognition from support measures in the Netherlands' of our audit in the previous financial year to be a key point of this audit, as the estimation uncertainties regarding support measures have decreased compared to the previous year.

**Valuation of main rail network assets (HRN) and estimated future profitability of the HRN franchise**

Risk	<p>In 2020 NS recognised an impairment loss in relation to the main rail network franchise (HRN) related assets of €1.6 billion in the financial statement account “depreciation costs and (reversal of) impairment losses”. In 2022 this impairment loss was reassessed which resulted in a reversal of the in 2020 recognised impairment for an amount of €385 million. In 2023 the value of the main rail network assets was reassessed which resulted in an additional impairment of €402 million.</p> <p>This impairment is based on new insights particularly related to the agreed new franchise terms for the period 2025-2033. In the definitive franchise agreement, NS and the Ministry of Finance, in its role as the shareholder of NS, accepted a lower return than the standard return on investment. In the previous year, based on uncertainties regarding the new franchise agreement, the assumption was that the return would at least be sufficient to earn back the book value of the assets related to the main rail network contract. NS expects, based on the agreed terms, a net return that is lower than the current market cost of capital, resulting in an impairment of the assets related to the main rail network franchise.</p> <p>The scenario analyses and cash flow forecasts involve inherent and/or significant uncertainties, resulting in a significant possible range of outcomes. We have identified a specific fraud risk and designated this as a key audit matter in our audit. In note 15 of the financial statements, NS disclosed the results and range of the impairment analysis of the assets related to the main rail network franchise. The main assumptions, estimation uncertainties and sensitivity of the analyses have been disclosed.</p>
Our audit approach	<p>We have evaluated whether the accounting policies applied by NS are in accordance with IAS 36 Impairment of Assets and whether these accounting policies have been applied consistently.</p> <p>We have evaluated the scenario analyses, cash flow forecasts and estimated cost of capital of NS and with professional scepticism, we paid specific attention to the processes underlying the analyses and forecasts, retrospective outcomes, trends that pose potential risks, the impact of current events and circumstances on the scenarios and the projected cash flows.</p> <p>We performed substantive procedures on the scenario analyses, cash flow forecasts and the estimate of the cost of capital to assess the reasonableness of the underlying assumptions.</p> <p>We have added specialists to our audit team to assess the assumptions concerning the forecasted passenger revenues, the calculation model used and the reasonableness of NS’s cost of capital. Finally, we have reviewed the disclosure in the financial statements and determined that the key assumptions and sensitivities are adequately disclosed.</p>
Key observations	<p>We concur with recognition of the impairment of €402 million on the assets related to the main rail network franchise in 2023 and the disclosure in the financial statements.</p>

**Revenue recognition and complexity and effectiveness of the NS IT environment in the Netherlands**

Risk	<p>In the financial statements account Revenue an amount of €2,9 billion relates to revenue from passenger services in the Netherlands. This amount consists of revenue from sale of various types of tickets entitling passengers to transport services (passenger revenue).</p> <p>The variety in ticket types, combined with the high volume of transactions that apply to various ticket types, results in high expectations with respect to the reliability and continuity of transaction processing systems to safeguard that all individual transactions are correctly and completely recognized as revenues. Therefore, we consider the complexity and effectiveness of the NS IT environment in conjunction with revenue recognition as a key audit matter.</p> <p>In recent years, NS has invested in the simplification, standardisation and improvement of its IT infrastructure, systems and processes, focusing on increasing the effectiveness, reliability and continuity of automated data processing. We refer to the section on “Risk management” included in the NS annual report.</p>
Our audit approach	<p>Our procedures include:</p> <ul style="list-style-type: none"> <li>• Evaluating the design and existence of the internal controls that are in place to mitigate the risk of incomplete revenue recognition and the continuity of the IT environment</li> <li>• Performing data analytical procedures, such as trend analyses and assessment of manual journal entries</li> <li>• Performing sample testing on the complete processing of transactions</li> <li>• Assessment of third-party confirmations</li> </ul> <p>We have performed procedures related to the reliability and continuity of the automated data processing - also focusing on information security risks - only insofar as necessary within the scope of the audit of the financial statements. For this purpose, we included specialised IT auditors and data specialists in our audit team.</p> <p>Our procedures also consisted of assessing developments in the IT infrastructure and determining the design and existence of the internal controls relevant to our audit with regard to IT systems and processes.</p>
Key observations	<p>Our procedures have not revealed any significant shortcomings in the continuity and reliability of automated data processing.</p> <p>We concur with the accounting treatment of the revenue recognition as applied by NS.</p>

**Abellio United Kingdom: recognition of and disclosure of the management buy-out, including deferred considerations such as the legacy assets and claims, as well as the valuation and presentation of the special share in the financial statements 2023**

Risk	<p>An agreement for the sale of Abellio UK was reached with its management in 2022, and the management buy-out (hereafter: MBO) was completed on February 28, 2023. We have identified the recognition of and disclosure of the MBO, including deferred considerations such as legacy assets and claims, as well as the valuation and presentation of the special share in the 2023 financial statements, as a significant risk due to the high level of complexity.</p> <p>In determining the net realizable value of Abellio UK, NS made its best estimate of the expected revenues from the sale, including the deferred considerations, amounting to €129 million, as of 31 December 2022. In the months following the completion of the MBO, more clarity was obtained regarding all legacy assets, claims, and wrap-up values. The current estimate is that NS will receive income related to the MBO of €170 million, of which €56 million has been received per balance sheet date.</p> <p>The recognition of and disclosure on the MBO, including deferred considerations such as the legacy assets and claims, as well as the valuation and presentation of Abellio UK's special share, is included under note 1 of the financial statements "Assets and liabilities held for sale/discontinued operations" and note 23 "Other financial assets, including investments".</p>
Our audit approach	<p>We have evaluated whether the recognition, measurement and disclosures relating to the sale of Abellio UK have been correctly and fully applied. Additionally, we have evaluated that the accounting policies used by NS with regard to the valuation of non-current financial assets resulting from the sale, including legacy assets and claims, have been applied correctly and consistently and adequately explained.</p> <p>Based on management and executive board inquiries, retrospective outcomes, inspection of source documents and legal opinions, we have tested the reasonableness of the assumptions underlying the estimates regarding the realisable value of the non-current financial asset resulting from the sale of Abellio UK.</p> <p>Finally, we have evaluated the relevant disclosures in the financial statements and determined that the key assumptions have been adequately explained.</p>
Key observations	<p>We concur with the recognition of the MBO including deferred considerations such as the legacy assets and claims, as well as the valuation and presentation of the special share and the related disclosures in note 1 and 23 of the financial statements.</p>

**Germany: Valuation and presentation of the provisions related to the insolvency proceedings and valuation of the assets related to the re-acquired franchise contracts**

Risk	<p>In the section "Important (result) developments", it is explained which activities in Germany have been continued by NS and what the status is of the various franchises in Germany in relation to the insolvency process.</p> <p>For the pending insolvency proceedings, NS made a best estimate of the expected outflow of funds on 30 June 2021. Based on the agreement reached with the trustee and a majority of the creditors in the insolvency process in July 2023, the provision related to the bankruptcy process has been reassessed, resulting in a release of €74 million in 2023.</p> <p>In developing the new business plan for 2024, NS has adjusted expectations downwards for MittelDeutschland and WestfalenBahn, based on ongoing track works and higher salary costs following collective labour agreement settlements. Based on the expected cash flows, this results in an impairment of €121 million of assets at Westfahlenbahn and at Mitteldeutschland.</p> <p>The estimates related to the provisions and impairments inherently contain significant uncertainties and, as a result, have a significant range of outcomes. To this end, we have identified a significant risk and identified this as a key audit matter.</p> <p>In the paragraphs "Acquisition and disposal of companies" and "Important (result) developments" of section 1 and notes 15 and 30 to the financial statements, NS has disclosed the developments with regard to Germany, the outcomes of the valuation analysis, and the outcomes of the analysis related to the provisions. The key assumptions, estimation uncertainties, and sensitivity of the analyses are also included in the disclosures.</p>
Our audit approach	<p>We have evaluated whether the accounting policies used by NS have been applied consistently.</p> <p>With respect to the recognised provisions, we, among other things, performed inquiry with the executive board and management of Abellio, inspected internal and external legal opinions and agreements, external reports from experts and minutes of executive board and supervisory board meetings.</p> <p>We have also conducted a professional-critical assessment of the aforementioned reports as well as the correspondence with lawyers and the trustee, in which we paid specific attention to the (probability of) claims, contingent liabilities, guarantees issued and reasonableness of the positions taken.</p> <p>We have performed substantive procedures on the scenario analyses, cash flow forecasts and the estimation of the cost of capital to test the reasonableness of the assumptions used in the valuation analysis of Germany. To evaluate the calculation model used and the reasonableness of NS's cost of capital, we have added specialists to our audit team.</p> <p>Finally, we have evaluated the related disclosures in the financial statements based on the requirements under EU-IFRS.</p>
Key observations	<p>We concur with the accounting treatment and disclosure of NS in the financial statements.</p>

**Report on other information included in the annual report**

The annual report contains other information in addition to the financial statements and our auditor's report thereon.

Based on the following procedures performed, we conclude that the other information:

- Is consistent with the financial statements and does not contain material misstatements
- Contains the information as required by Part 9 of Book 2 of the Dutch Civil Code for the management report and the other information as required by Part 9 of Book 2 of the Dutch Civil Code.

We have read the other information. Based on our knowledge and understanding obtained through our audit of the financial statements or otherwise, we have considered whether the other information contains material misstatements. By performing these procedures, we comply with the requirements of Part 9 of Book 2 of the Dutch Civil Code and the Dutch Standard 720. The scope of the procedures performed is substantially less than the scope of those performed in our audit of the financial statements.

The executive board is responsible for the preparation of the other information, including the management report in accordance with Part 9 of Book 2 of the Dutch Civil Code and other information required by Part 9 of Book 2 of the Dutch Civil Code.

#### **Description of responsibilities regarding the financial statements**

##### ***Responsibilities of the executive board and the supervisory board for the financial statements***

The executive board is responsible for the preparation and fair presentation of the financial statements in accordance with EU-IFRSs and Part 9 of Book 2 of the Dutch Civil Code.

Furthermore, the executive board is responsible for such internal control as the executive board determines is necessary to enable the preparation of the financial statements that are free from material misstatement, whether due to fraud or error.

As part of the preparation of the financial statements, the executive board is responsible for assessing the company's ability to continue as a going concern. Based on the financial reporting framework mentioned, the executive board should prepare the financial statements using the going concern basis of accounting unless the executive board either intends to liquidate the company or to cease operations, or has no realistic alternative but to do so. The executive board should disclose events and circumstances that may cast significant doubt on the company's ability to continue as a going concern in the financial statements.

The supervisory board is responsible for overseeing the company's financial reporting process.

##### ***Our responsibilities for the audit of the financial statements***

Our objective is to plan and perform the audit engagement in a manner that allows us to obtain sufficient and appropriate audit evidence for our opinion.

Our audit has been performed with a high, but not absolute, level of assurance, which means we may not detect all material errors and fraud during our audit.

Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements. The materiality affects the nature, timing and extent of our audit procedures and the evaluation of the effect of identified misstatements on our opinion.

We have exercised professional judgment and have maintained professional skepticism throughout the audit, in accordance with Dutch Standards on Auditing, ethical requirements and independence requirements. The Information in support of our opinion section above includes an informative summary of our responsibilities and the work performed as the basis for our opinion.

Our audit further included among others:

- Performing audit procedures responsive to the risks identified, and obtaining audit evidence that is sufficient and appropriate to provide a basis for our opinion
- Obtaining 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 company's internal control
- Evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the executive board
- Evaluating whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation
- Evaluating the overall presentation, structure and content of the financial statements, including the disclosures

### **Communication**

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

We provide the supervisory board with a statement that we have complied with relevant ethical requirements regarding independence, and to 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 the supervisory board, we determine the key audit matters: those matters that were of most significance in the audit of the financial statements. 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, not communicating the matter is in the public interest.

Amsterdam, 20 February 2024

Ernst & Young Accountants LLP

signed by F.J. Blenderman

The following is an English translation of the independent assurance report issued on 20 February 2024

## Limited assurance report of the independent auditor on the sustainability information

To: the shareholder and Supervisory Board of N.V. Nederlandse Spoorwegen

### **Our conclusions**

We have performed a limited assurance engagement on the sustainability information in the accompanying annual report for 2023 of N.V. Nederlandse Spoorwegen at Utrecht.

Based on our procedures performed and the assurance information obtained, nothing has come to our attention that causes us to believe that the sustainability information does not present fairly, in all material respects:

- The policy with regard to sustainability matters
- The business operations, events and achievements in that area in 2023

in accordance with the applicable criteria as included in the section Criteria.

The sustainability information is included in chapters "In brief", "About NS", "Our activities and achievements in the Netherlands", and in sections "Our strategy", "Dialogue with our stakeholders in the Netherlands", "About the scope of this report" and "Scope and reporting criteria" of the annual report.

### **Basis for our conclusions**

We have performed our limited assurance engagement on the sustainability information in accordance with Dutch law, including Dutch Standard 3810N, "Assurance-opdrachten inzake duurzaamheidsverslaggeving" (Assurance engagements relating to sustainability reporting), which is a specified Dutch standard that is based on the International Standard on Assurance Engagements (ISAE) 3000, "Assurance engagements other than audits or reviews of historical financial information".

Our responsibilities in this regard are further described in the section Our responsibilities for the assurance engagement on the sustainability information of our report.

We are independent of N.V. Nederlandse Spoorwegen in accordance with the Verordening inzake de onafhankelijkheid van accountants bij assurance-opdrachten (ViO, Code of Ethics for Professional Accountants, a regulation with respect to independence). This includes that we do not perform any activities that could result in a conflict of interest with our independent assurance engagement. Furthermore, we have complied with the Verordening gedrags- en beroepsregels accountants (VGBA, Dutch Code of Ethics for Professional Accountants).

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

### **Criteria**

The criteria applied for the preparation of the sustainability information are the GRI Sustainability Reporting Standards (GRI Standards) and the criteria supplementally applied as disclosed in chapter "Scope and reporting criteria" of the annual report.

The sustainability information is prepared in accordance with the GRI Standards. The GRI Standards used are listed in the GRI Content Index as disclosed at the end of the online annual report which is published on the website of N.V. Nederlandse Spoorwegen.

The comparability of sustainability information between entities and over time may be affected by the absence of an uniform practice on which to draw, to evaluate and measure this information. This allows for the application of different, but acceptable, measurement techniques.

Consequently, the sustainability information needs to be read and understood together with the criteria applied.

#### ***Limitations to the scope of our assurance engagement***

The sustainability information includes prospective information such as ambitions, strategy, plans, expectations, estimates and risk assessments. Prospective information relates to events and actions that have not yet occurred and may never occur. We do not provide assurance on the assumptions and achievability of this prospective information.

The references to external sources or websites in the sustainability information are not part of the sustainability information as included in the scope of our assurance engagement. We therefore do not provide assurance on this information.

Our conclusion is not modified in respect to these matters.

#### ***Responsibilities of the executive board and the supervisory board for the sustainability information***

The executive board is responsible for the preparation and fair presentation of the sustainability information in accordance with the criteria as included in the section Criteria, including the identification of stakeholders and the definition of material matters. The executive board is also responsible for selecting and applying the criteria and for determining that these criteria are suitable for the legitimate information needs of stakeholders, considering applicable law and regulations related to reporting.

The choices made by the executive board regarding the scope of the sustainability information and the reporting policy are summarized in the chapter "Scope and reporting criteria" of the annual report.

Furthermore, the executive board is responsible for such internal control as it determines is necessary to enable the preparation of the sustainability information that is free from material misstatement, whether due to fraud or error.

The supervisory board is responsible for overseeing the sustainability reporting process of N.V. Nederlandse Spoorwegen.

#### ***Our responsibilities for the assurance engagement on the sustainability information***

Our responsibility is to plan and perform the assurance engagement in a manner that allows us to obtain sufficient and appropriate assurance evidence for our conclusion.

Our assurance engagement is aimed to obtain a limited level of assurance to determine the plausibility of sustainability information. The procedures vary in nature and timing from, and are less in extent, than for a reasonable assurance engagement. The level of assurance obtained in a limited assurance engagement is therefore substantially less than the assurance that is obtained when a reasonable assurance engagement is performed.

We apply the Nadere voorschriften kwaliteitssystemen (NVKS, regulations for quality management systems) and accordingly maintain a comprehensive system of quality management including documented policies and procedures regarding compliance with ethical requirements, professional standards and other relevant legal and regulatory requirements.

Our assurance engagement included among others:

- Performing an analysis of the external environment and obtaining an understanding of relevant sustainability themes and issues, and the characteristics of the N.V. Nederlandse Spoorwegen
- Evaluating the appropriateness of the criteria applied, including the definitions regarding performance indicators of the rail concession from the Transport Plan 2023 (Vervoerplan) as included in the Downloads sections on [nsjaarverslag.nl/jaarverslag-2023](https://nsjaarverslag.nl/jaarverslag-2023)
- Evaluating the consistent application of the criteria applied and related disclosures in the sustainability information. This includes the evaluation of the company's materiality assessment and the reasonableness of estimates made by the executive board
- Obtaining through inquiries a general understanding of the internal control environment, the reporting processes, the information systems and the entity's risk assessment process relevant to the preparation of the sustainability information, without testing the operating effectiveness of controls
- Identifying areas of the sustainability information where misleading or unbalanced information or a material misstatement, whether due to fraud or error, is likely to arise. Designing and performing further assurance procedures aimed at determining the plausibility of the sustainability information responsive to this risk analysis. These procedures consisted among others of:
  - Making inquiries of the executive board responsible for the sustainability strategy, policy and results
  - Interviewing relevant staff responsible for providing the information for, carrying out internal control procedures on, and consolidating the data in the sustainability information
  - Obtaining assurance evidence that the sustainability information reconciles with underlying records of N.V. Nederlandse Spoorwegen
  - Reviewing, on a limited sample basis, relevant internal and external documentation
  - Considering the data and trends in the information submitted for consolidation at corporate level
- Reading the information in the annual report that is not included in the scope of our assurance engagement to identify material inconsistencies, if any, with the sustainability information
- Considering the overall presentation and balanced content of the sustainability information
- Considering whether the sustainability information as a whole, including the sustainability matters and disclosures, is clearly and adequately disclosed in accordance with criteria applied

### **Communication**

We communicate with the supervisory board regarding, among other matters, the planned scope and timing of the assurance engagement and significant findings that we identify during our assurance engagement.

Amsterdam, 20 February 2024

Ernst & Young Accountants LLP

signed by F.J. Blenderman

# NS 10-year summary

## Balance sheet\*

in millions of euros	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
<b>Assets</b>										
Property, plant and equipment	3,317	3,442	2,973	2,919	4,260	3,979	3,845	3,654	3,296	3,157
Investment property	122	119	124	129	135	151	170	197	194	196
Intangible assets	203	319	345	376	484	416	357	257	225	174
Right-of-use assets	268	461	827	1,865	2,022	-	-	-	-	-
Investments recognised using the equity method	12	12	26	19	19	17	26	39	183	185
Other financial assets, including investments	157	197	131	160	159	159	158	267	340	226
Deferred tax assets	428	316	367	133	202	196	260	229	278	295
<b>Total non-current assets</b>	<b>4,506</b>	<b>4,866</b>	<b>4,793</b>	<b>5,601</b>	<b>7,281</b>	<b>4,918</b>	<b>4,816</b>	<b>4,643</b>	<b>4,516</b>	<b>4,233</b>
Inventories	177	220	176	194	184	169	161	139	138	119
Other investments	-	-	-	-	-	-	-	-	270	223
Trade and other receivables	516	676	1,219	1,175	1,144	830	648	724	659	499
Income tax receivable	-	-	22	13	13	16	24	4	32	32
Other current financial assets, including investments	715	745	478	35	8	-	-	-	-	-
Cash and cash equivalents	460	396	680	1,137	818	906	565	709	671	775
Assets held for sale	-	1,476	-	-	-	191	-	140	-	-
<b>Total current assets</b>	<b>1,868</b>	<b>3,513</b>	<b>2,575</b>	<b>2,554</b>	<b>2,167</b>	<b>2,112</b>	<b>1,398</b>	<b>1,716</b>	<b>1,770</b>	<b>1,648</b>
<b>Total assets</b>	<b>6,375</b>	<b>8,379</b>	<b>7,368</b>	<b>8,155</b>	<b>9,448</b>	<b>7,030</b>	<b>6,214</b>	<b>6,359</b>	<b>6,286</b>	<b>5,881</b>
<b>Equity and liabilities</b>										
<b>Equity</b>										
Deferred income	123	128	161	197	240	275	314	328	263	112
Loans and other financial liabilities, including derivatives	1,672	1,505	1,598	1,130	656	740	551	293	440	867
Lease liabilities	315	377	634	1,601	1,676	-	-	-	-	-
Employee benefits	58	55	54	37	35	30	30	31	30	33
Provisions	87	310	216	179	126	119	114	100	155	140
Accruals and deferred items	8	9	10	14	32	42	42	36	55	1
Deferred tax liabilities	-	-	2	93	54	48	59	160	168	169
<b>Total non-current liabilities</b>	<b>2,263</b>	<b>2,384</b>	<b>2,675</b>	<b>3,251</b>	<b>2,819</b>	<b>1,254</b>	<b>1,110</b>	<b>948</b>	<b>1,111</b>	<b>1,322</b>
Loans and other financial liabilities	387	296	196	81	99	98	201	77	488	60
Lease liabilities	89	87	296	465	433	-	-	-	-	-
Income tax payable	13	11	12	14	10	12	26	7	22	8
Trade and other liabilities	1,004	1,306	1,647	2,022	1,497	1,315	1,105	1,023	1,060	868
Deferred income	590	565	645	562	738	694	246	641	260	372
Provisions	115	74	208	581	71	24	49	37	36	35
Liabilities held for sale	-	1,347	-	-	-	6	-	115	-	-
<b>Total current liabilities</b>	<b>2,198</b>	<b>3,686</b>	<b>3,004</b>	<b>3,725</b>	<b>2,848</b>	<b>2,149</b>	<b>1,627</b>	<b>1,900</b>	<b>1,866</b>	<b>1,343</b>
<b>Total equity and liabilities</b>	<b>6,374</b>	<b>8,379</b>	<b>7,535</b>	<b>8,155</b>	<b>9,448</b>	<b>7,030</b>	<b>6,214</b>	<b>6,359</b>	<b>6,286</b>	<b>5,881</b>

## Consolidated income statement\*

in millions of euros	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Revenue	3,823	3,341	6,486	6,601	6,661	5,926	5,121	5,093	4,973	4,144
Operating expenses	4,362	2,950	6,009	9,046	6,382	5,745	5,084	4,965	4,876	3,863
Share in result of investments recognised using the equity method	-1	-	5	2	8	14	20	142	70	40
<b>Result from operating activities</b>	<b>-541</b>	<b>391</b>	<b>482</b>	<b>-2,443</b>	<b>287</b>	<b>195</b>	<b>57</b>	<b>270</b>	<b>167</b>	<b>321</b>
Net financing result	43	178	-349	-21	-51	-14	-5	-9	-23	-35
Share in result of investments recognised using the equity method	-	-	-	-	-	-	-	-	-	-
<b>Result before income tax</b>	<b>-498</b>	<b>569</b>	<b>133</b>	<b>-2,464</b>	<b>236</b>	<b>181</b>	<b>52</b>	<b>261</b>	<b>144</b>	<b>286</b>
Income tax	107	-37	367	-117	-21	-65	-5	-49	-26	-106
<b>Result for the reporting period</b>	<b>-390</b>	<b>532</b>	<b>500</b>	<b>-2,581</b>	<b>215</b>	<b>116</b>	<b>47</b>	<b>212</b>	<b>118</b>	<b>180</b>
Discontinued operations										
<b>Result from discontinued operations, after tax</b>	<b>10</b>	<b>54</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Result for the reporting period</b>	<b>-380</b>	<b>586</b>	<b>500</b>	<b>-2,581</b>	<b>215</b>	<b>116</b>	<b>47</b>	<b>212</b>	<b>118</b>	<b>180</b>

\* Comparative figures are not restated in this statement and tie in with the published financial statements for the relevant year.

# List of definitions

## Franchise indicator definitions

For definitions of transport franchise performance indicators, refer to the document [Transport Franchise Definitions 2023](#).

## Five-minute standard

A European punctuality standard stating that a train is only deemed to have been delayed if it arrives at least five minutes late.

## A2 corridor

The rail line between Eindhoven and Amsterdam.

## Focus routes

Routes with systematic problems in terms of punctuality, connections or smooth progress of the journey for specific groups of passengers. NS and ProRail are jointly putting in extra effort on these routes to reduce the delays and improve customer satisfaction.

## Modified timetable

Controlled changes in the train traffic when there is an impending threat of a situation to which it is vulnerable, e.g. snowfall, extreme cold or a major storm front. A modified timetable creates more space on the tracks. Fewer trains will be running, which reduces the chance of train traffic getting clogged up.

## Punctuality of arrival

The extent to which train arrival times in practice match up with the timetable. In general, punctuality is an important way to measure the implementation of the planned process for the timetable.

## ATB-vv

The ATB-vv (automatic train protection and warning system – improved version) is a system that also automatically stops trains in front of stop signals at speeds of under 40 km/h. The system is an adaptation of the ATBEG (automatic train protection and warning system – first generation).

## Minimum baseline

Value for the yearly minimum level of performance required for a performance indicator.

## Withdrawal from service

A planned train-free period in the timetable for maintenance, renovation or repair work. This means infrastructure is allocated for track renovation and not for train traffic. Withdrawals from service are arranged by ProRail in consultation with the carriers.

## Franchise

An agreement by which a governmental body outsources all or part of the commercial operation of an economic activity to a third party, which then bears the risk of that commercial operation. The Dutch authorities have awarded the commercial operation of the main rail network to NS for the period 2015-2025 and the period 2025-2033.

## Timetable

The planning of a transport service in terms of times and places.

## Dossier Duurzaam

The 'Sustainability Dossier', an annual monitor that NS uses to assess its reputation for sustainability among consumers.

## Energy efficiency

The objective is to reduce the amount of energy needed to supply products or services. NS is improving its energy efficiency by maximising the use of modern trains with lower energy consumption, such as the Sprinter Light Train (SLT), and by upgrading old trains to modern trains that are more economical in terms of energy. Energy consumption is also reduced through energy-efficient driving and energy-efficient stabling of trains. To this end, we keep track of the Energy Efficiency Index.

## ERTMS

European RailTraffic Management System. The new European safety system on the railways that will in the longer term replace the ATB (automatic train protection and warning) system.

## E-ticket

An e-ticket or online ticket is an access or travel ticket that is ordered and provided over the Internet.

## FLIRT

The NS FLIRT is an electrically powered type of train used by Nederlandse Spoorwegen. These trains were built by the Swiss train builder Stadler Rail and are based on that company's FLIRT 3 platform. The trains are intended in the first instance to relieve the rolling stock shortages and to cope with growth in passenger numbers on the main rail network. The FLIRT (*Flinker Leichter Innovativer Regionaltriebzug*) features light and space in the interior.

## Main rail network

The rail network on which Nederlandse Spoorwegen (NS) has the exclusive right to run passenger trains.

## HSL

The 125-km line [suitable for high speeds](#) running from [Schiphol](#) to the Belgian border, with a branch to [Breda](#).

## Boarding Zone

A delimited zone indicated by blue signs within which a train always stops. One sign shows the start of this boarding zone and the other sign shows the end. By placing this boarding zone differently at every station (at the front, middle or back of the train), it should be possible to distribute passengers much more effectively over the length of the train.

## Intercity

A passenger train that provides a rapid connection between locations, stopping in principle only at the larger, more important stations. This means that the Intercity (IC) is highly suited to long-distance travel.

## Impact analysis

By analysing our impact on the materially relevant themes and providing information about it, we can enter into a dialogue with our stakeholders about those themes and target our efforts to increase our positive impact and decrease our negative impact.

## Integrity portal

A platform that NS staff can go to if they have any questions about integrity, compliance and risks, or where they can report any such issues.

## Climate-neutral

This means that the net CO<sub>2</sub>-equivalent emissions of a journey by train or train-replacement bus transport are ultimately zero. Any emissions are offset through certificate mechanisms. Emissions from electricity production for trains are offset by purchasing Guarantees of Origin (GOs) from European wind and solar farms. GOs link financial flows to renewable energy production. For train replacement bus transport, our suppliers use renewable fuels for direct journeys whenever possible and offset diesel journeys for NS with sustainable journeys for other clients in the same calendar year. Until 2020, it was assumed by CO<sub>2</sub>-emissiefactoren.nl that CO<sub>2</sub> emissions from biodiesel HVO100 (pure hydrogenated vegetable oil) were zero. However, since 2021, the conversion factor has been adjusted to include emissions of gases other than CO<sub>2</sub>. These other greenhouse gases are converted to their warming effect in CO<sub>2</sub> equivalents. To offset these remaining smaller emissions, we have been using internationally recognised Gold Standard Verified Emission Reduction (VER) certificates since 2021 so that total emissions from train replacement bus transport remain zero below the line.

## Hub

A place where numerous roads, tracks or other modalities come together.

## Long-Term Rail Agenda

A step forward in quality on the railways is needed if all these wishes and ambitions are to be met. With that in mind, the Ministry of Infrastructure and Water Management drew up the Long-Term Rail Agenda in 2012.

## Level playing field

A fairness principle that focuses on creating conditions in which different bidders are able to make competitive bids based on their specific characteristics and starting from the same baseline.

## Deregulation

Removal of limitations and barriers to access to the transport market by governmental bodies, which makes competition possible.

## LOCOV

LOCOV, the national public transport users' forum, is where consumer organisations represent the interests of rail passengers. They do so by holding discussions with and advising Nederlandse Spoorwegen (NS), ProRail and the Ministry of Infrastructure and Water Management. The consumer organisations advise NS, ProRail and the Ministry.

## Market regulation

The entirety of legislation and regulations that describes which companies may be active on the market and under what conditions. Proper market regulation aims to set up the markets in such a way that their social functioning is optimised. The aim must be to find a balance between market forces and regulation.

## Withdrawal of rolling stock

Taking rolling stock out of service for maintenance or repairs.

## Materiality

The mix of the importance to stakeholders on the one hand and the actual impact that NS can have on the topic on the other.

## Environmental profit and loss statement

A profit and loss statement in which the 'value' of environmental impacts on society is calculated.

## NS Flex

Service enabling passengers to travel on all public transport without a balance. Payment is made in arrears via direct debit.

## Public transport card (*OV-chipkaart*)

Means of payment for public transport in the Netherlands. The public transport card is valid for train, bus, tram and metro services.

## Pre-mobility

If there is a specific threat of redundancy for a group of employees or an individual employee, the pre-mobility phase will start based on a decision to be taken by the employer.

## Punctuality

The extent to which train departure and/or arrival times in practice match up with the timetable. Punctuality is an important way to measure the implementation of the planned process for the timetable.

## Travelling on account

A payment method for public transport in which passengers pay after the event and therefore do not need to have a balance on their public transport card.

## Passenger-kilometre

A unit for the distance that an individual passenger covers using a particular mode of transport.

## Punctuality for passengers

The journey time of the customer including all connections with respect to their journey plan (travel advice that was issued, for instance). This is measured at 47 points.

## Risk appetite

The risk appetite of an organisation expresses the nature and scale of the risks that an organisation is prepared to accept in order to realise its business objectives.

## **Service Forum**

The NS Service Forum is a place where customers can go with questions or tips about travelling with NS. They can discuss things with other passengers here. In addition, the NS social media team is present in order to answer questions.

## **Spoorslags Beter ('On track for improvement')**

Name of the new strategy that was presented on 1 March 2016. With this strategy, we are focusing on our core activities with the aim of improving performance for passengers. *Spoorslags Beter* focuses on achieving the agreed franchise KPIs by 2019.

## **New Generation Sprinter**

Working title for the third generation of the NS Sprinter trains. These new trains will be available from 2018 onwards for passenger transport.

## **Stakeholders**

The people or groups who are affected by our actions and whose actions have an effect on our organisation and services.

## **Stakeholder dialogue**

A stakeholder dialogue is an essential element of the sustainability report. In a stakeholder dialogue, all the groups of stakeholders are asked questions based on influence. A stakeholder dialogue gives an organisation a clear picture of what is important for its stakeholders. On the one hand, it helps in determining the focus of accountability for social matters. On the other, it provides inspiration and input for further development of strategic sustainability policy.

## **Station Experience Monitor**

A tool used for measuring how passengers perceive the stations. Passengers at all railway stations in the Netherlands are asked to give an assessment and perception of the stations and station areas.

## **Target value**

Value for the level of performance required for a performance indicator in 2019 and 2024.

## **SPAD**

An undesired, non-technical case of a red sign not being observed (signal passed at danger).

## **TechniekFabriek**

The NedTrain vocational school for train technology where pupils work and learn at the same time, with a job as the end result.

## **Transparency Benchmark**

The Transparency Benchmark is a tool provided by the Ministry of Economic Affairs and Climate Policy for improving reporting on social matters within the Netherlands. The Transparency Benchmark gives a picture of the way in which the largest Dutch businesses report their CSR activities.

## **TRR**

This gives the number of accidents resulting in sickness absence (including those accidents where it was possible to find replacement work) expressed in numbers per million hours worked.

## **Transport capacity**

The capacity of a train to carry a number of passengers.

## **WACC**

The weighted average cost of capital.

## **Sickness absence**

Sickness absence is the time during which a permanent employee is absent due to illness.

The sickness absence commences on the first day on which the person concerned should be working but is absent. The sickness absence ends on the day on which the person concerned has recovered, or after 730 days. Working a limited number of hours (not under a therapeutic return to work programme) is not qualified as sickness absence but as a light shift.

## **Seating capacity**

The capacity in terms of numbers of seats in a train for carrying passengers.

## **Seat availability**

Standard in which the numbers of passengers are compared against the number of available seats in the train.

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