

# ANNUAL REPORT 2022





# Contents

- About Mantena..... 3
- Message from the Managing Director/CEO ... 5
- Markets and strategy ..... 8
- Innovation and efficient transport..... 21
- Sustainability, CSR and HSE..... 33
- Introducing Group management..... 49
- Introducing the Board of Directors..... 50
- Board of Directors’ report for 2022..... 51
- Ambitions ..... 55
- Key figures ..... 55
- Mantena financial statements..... 56



A full-service supplier with the experience, expertise and resources to take overall responsibility for trains.

# About Mantena

## History

Mantena is a Nordic industrial group with deep roots in the railway sector. The company grew out of NSB's workshop division. Mantena was established in 2001 as a wholly-owned subsidiary of Norwegian State Railways (NSB AS). Mantena Sverige AB was established as a subsidiary of Mantena AS in 2007.

As part of the Norwegian railway reform, Mantena was transferred from NSB to the Norwegian State (Ministry of Transport and Communications) in April 2017. The Ministry of Trade, Industry and Fisheries took over the responsibility for administering the State's holding from 1 January 2020.

Mantena AS is the parent company of the Mantena Group; along with the business in Norway, this comprises Mantena Sverige AB, Mantena Finland OY and Mantena Danmark A/S.

## Our business

Mantena is one of the largest providers of maintenance services for railway vehicles and equipment in the Nordic region. Mantena provides timely maintenance services tailored to the rail

sector of today and tomorrow, while continuing a long tradition of rail operation.

Its expertise ranges from the largest and heaviest locomotives to the smallest and most advanced components.

Mantena carries out train maintenance during breaks in service at workshops in Norway and Sweden and also has workshops for maintenance of components and parts, as well as an extensive logistics function. The company also undertakes maintenance and repairs of railway machinery in Norway. Mantena handles maintenance activities in Sweden through its subsidiary Mantena Sverige AB.

With break-based maintenance, maintenance is spread out over time, so the trains are available at times when the operator needs them most. This increases productivity and provides for more efficient operations.

## Strategic locations

Mantena's head office is at Oslo Central Station, while maintenance is distributed across locations in Norway and Sweden. The company is strategically

located to meet the need for maintenance where it is most appropriate.

## End-to-end deliveries

Mantena has undergone major changes in recent years and is now equipped to face competition in the market in a very different way from before — both here at home and outside Norway. Our core activities have been expanded and a wider range of services are being delivered to customers than ever before.

Mantena no longer simply carries out maintenance under the operators' plans and management; over the last few years, it has become a full-service supplier with the experience, expertise and resources to take overall responsibility for the condition of the trains.

Against the backdrop of these changes, Mantena has evolved into one of the most significant players in maintenance services for the rail sector in the Nordic region.

Mantena is certified according to the following standards and requirements:

- Regulation (EU) No 517/2014 on fluorinated greenhouse gases, with Implementing Regulation (EU) 2015/2067.
- NS-EN ISO 9001:2015 Quality management systems.
- NS-EN ISO 14001:2015 Environmental management systems.
- EN 15085-2 Welding of railway vehicles and components.
- Mantena NTO Certificate 2023 - 2027.
- ECM F IV - Maintenance delivery function, based on Regulation (EU) No 445/2011.
- Regulation (EU) No 2019/779 (Entities in charge of maintenance) F I-III.
- Safety certificate and licence parts A and B in Norway and Sweden to run trains on the rail network.

# Our core values

## Purpose

Sustainable and efficient transportation through optimal maintenance

## Values

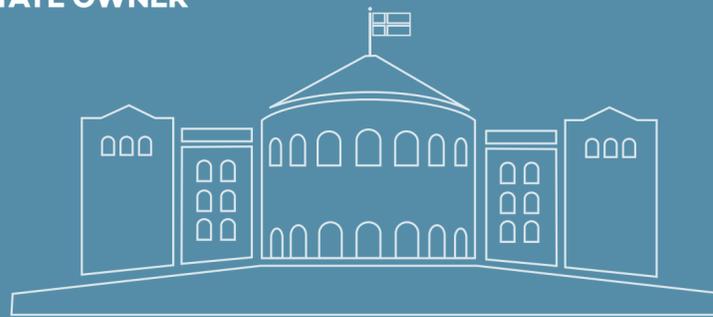
Trust, efficiency and innovation

## Vision

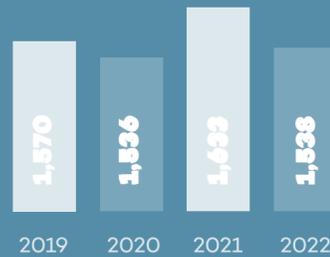
The most innovative full-service provider of maintenance services in the Nordic region



## STATE OWNER



**1,538.**  
**MNOK.**  
REVENUE



## EMPLOYEES, GROUP

**792**

## EMPLOYEES, MANTENA AS

**653**

## WOMEN ON THE BOARD

**25%**

## WOMEN IN MANAGEMENT

**43%**

## ELECTRIC



**355** Train sets    **€ 48 297 606** km/year  
**29** Locomotives    **€ 2 399 609** km/year

## DIESEL



**23** Train sets    **€ 3 823 405** km/year  
**13** Locomotives    **€ 2 276 101** km/year

## ROLLING STOCK



**156** Carriages    **€ 3 823 405** km/year  
**934** Goods wagons    **€ 103 234 714** km/year

## LOCATIONS

**17**

## LOCATIONS

- 14 NORWAY
- 1 SWEDEN
- 1 DENMARK
- 1 FINLAND



**152,000 m<sup>2</sup>**  
WORKSHOPS



# Sustainability, emergency preparedness and a stronger position

2022 was a tough but successful year for Mantena. Through the year, considerable effort and resources have been applied from the whole organisation to reverse the negative results from 2021.

## Mantena plays an active role in developing the railway sector in the Nordic region through technology and research.

”

– We have succeeded in this in the face of challenging conditions. Large and important contracts have been renegotiated and the organisation has been made more efficient through our collective efforts, and we have wound up engagements that did not provide the necessary returns. Our position has been strengthened and the company is well equipped to meet tomorrow’s requirements for efficient and sustainable maintenance, says John Arne Ulvan, CEO of Mantena.

### Social mission

Mantena is there to help ensure that passengers and goods arrive safely at their destinations. The company’s services are developing all the time, and need to be seen as safe and predictable.

– At the same time, we have to meet requirements for sustainability, climate-friendliness and profitability. These are big demands in a landscape where the players setting the agenda are challenging us and defining the terms. We have a

good ongoing dialogue with them, so we can also influence the conditions for efficient and profitable operation of our services. I am proud to work in an organisation like Mantena, which has the skills and experience to meet these demands, and which works day in, day out to perform important tasks for the benefit of society, says Ulvan.

### Sustainability

Mantena’s core business is the provision of optimum maintenance to ensure sustainable and efficient transport. That may sound simple, but it places great demands on the organisation. The equipment we manage and maintain represents billions in assets.

– Every day we work to extend the life of the equipment, and this helps to reduce the need for investment. But this is also sustainability in practice he says.

Mantena plays an active role in developing the railway sector. Through technical development



# The steps we took in 2022 mean that we have strengthened our position, and we enter the new year as a more proactive company.

and training, the company's capable employees find new solutions and methods to optimise maintenance work, increase efficiency and reduce costs. Together with SINTEF, Mantena is working to develop condition-based maintenance processes using AI (artificial intelligence). Condition-based maintenance means maintaining equipment when needed, and not before (or after). In practice, this involves automated maintenance processes using advanced data analysis and predictions based on sensor data.

## Readiness

Efficient transport of people and goods by rail is key to the infrastructure of the Nordic region. For the authorities in the Nordic countries, it is vital for infrastructure and transport solutions to be developed with new and modern technology, and for maintenance and investments to be prioritised to maintain sufficient capacity. Mantena contributes to this work, not least by ensuring that the rolling stock has the highest possible uptime.

– It is good economics for people and goods to arrive at their destination on time. Our employees have this in mind every day when they go to work, he says.

## A stronger organisation

Targeted and dedicated efforts were made through the whole of 2022 to further develop the organisation and the company's competitiveness. Digitalisation, innovation, sustainable operations and efficiency improvements have dominated our organisation.

– We have already seen the effects of this work, but we believe the results will be even more visible in the future. The steps we took in 2022 mean that we have strengthened our position, and we enter the new year as a more proactive company. We are well equipped for further growth and development, and will continue our efforts to help make the railways of the future even more efficient, sustainable and reliable, he concludes.





# Markets and strategy



## Nordic initiatives

The Nordic region is Mantena's market. Our position in Norway is already strong, and with the steps taken in Sweden in 2022, the stage is set for further investment and development in the Nordic market.



## Tough times challenge the procurement function

Profitability ambitions were a major driver for professionalising procurement at Mantena. This has brought results, and it is important in the new situation with the war in Ukraine changing parameters for purchase prices and deliveries.



## Paint hall ready for use

Mantena's 113 metre long paint hall at Grorud opened in 2022. Several customers inside and outside the railway industry have had their equipment painted here.

# Full speed ahead into 2023

During a busy 2022, Mantena reached a direct agreement with Öresundståg AB and boosted the company's competitiveness.





## We look forward to further expanding the company outside Norway in 2023.



Mantena is a knowledge-driven company, whose core competence is maintenance of trains and components. As a full-service company with skilled and solution-minded employees, we are getting noticed on the European stage and are seeing increasing demand from international players.

The company has a direct agreement with Öresundståg in Sweden for train maintenance, and also provides component maintenance for several

international players. We look forward to further expanding the company outside Norway in 2023.

**Whole industry affected**

Like the rest of society, the rail sector has been heavily affected by high energy prices. Train maintenance and component production is an energy-intensive industry. Trains require a lot of space, but most Norwegian train workshops are old and not very energy-efficient. As a tenant together

The company has started on this by delivering a successful start-up for Öresundståg, and has worked hard to provide sufficient track and workshop access to handle the demand for maintenance services.

**Increased competitiveness**

Cost management has been important in positioning Mantena to face increased competition. It has given us control over rising energy and parts prices, and established even closer cooperation with customers and suppliers. That is why the company has developed its product and service portfolio. The company is offering more and more services and aims to pick up far more than its established customers on the railways. One

concrete example is a framework agreement for maintenance of equipment from Sporveien AS in Oslo.

**International competition**

Mantena has significant ambitions for growth in more countries outside the current core markets in Norway and Sweden. There are clear goals for expansion in the Nordics, but also into other countries in the longer term. We always have these goals in mind when assessing critical skills and recruiting technical experts, in order to live up to the customers' expectations of a company that specialises in this field and delivers top-quality maintenance of railway vehicles and components.



# Mantena’s activities are critical to emergency preparedness on the Norwegian railways.

with other train companies, we have little influence on electricity contracts, but we made determined efforts all last year to reduce our own consumption.

**Mantena is a guarantor in challenging times**  
 The Producer Price Index (PPI) rose by 22.3% from November 2021 to November 2022. It has also become harder to obtain some critical components. Mantena is a major purchaser and buys parts worth around NOK 1 billion every year. This helps to maintain adequate stocks of parts, so trains can be maintained and put back into operation as work progresses. Large price increases are hitting Mantena and the whole industry hard. Mantena has worked systematically to reduce costs and ensure access to parts throughout the year. Our focus on purchasing and parts will continue in 2023 and will benefit customers and passengers.

**Changing material strategies**  
 As a maintenance provider, we look after other companies’ rolling stock. The railway sector in Norway and abroad is often made up of different players, and companies other than the owners of the trains are generally responsible for maintenance. This is now changing, for both passenger and freight trains. New material strategies offer fresh opportunities for Mantena as a maintenance provider, giving rise to new business models and attitudes towards smarter maintenance.

**Developing new markets, products and services**  
 As a full-service maintenance provider within the rail industry, Mantena offers a wide portfolio of products and services. Many of the services we provide can also be offered in other markets, for different equipment. This is especially true



of surface treatment and component overhaul. Among other things, we have a 113 metre long paint hall and our own machine shop with a CNC (computer numerical control) machine, which produces parts in various metals or hard plastics.

**Strategy process 2023**  
 A lot of work was done through 2022 on the company’s business strategy. This is a work in progress which will continue through 2023. We look forward to presenting our long-term strategy and growth plan in the course of the year.

# Nordic initiatives

The Nordic region is Mantena's market. Our position in Norway is already strong, and with the steps taken in Sweden in 2022, the stage is set for further investment and development in the Nordic market.

## A direct relationship between Mantena and Öresundståg provides for effective and sustainable cooperation.

Sweden will be an important market for Mantena in the coming years. The Swedish rail passenger market is almost three times as big as the Norwegian market, while the freight market is estimated to be almost five times as large. Several major contracts will be announced in our neighbouring country over the next few years.

### Öresundståg

The Öresund Fixed Link was established when the Öresund Bridge between Sweden and Denmark opened on 1 July 2000. To begin with, the route was mainly used as a shuttle service between Malmö and Copenhagen, but the service has gradually evolved. Today, it includes regional routes in the six southern Swedish counties of Skåne, Halland, Västra Götaland, Blekinge, Kalmar and Kronoberg, and from Copenhagen Central Station to Østerport in the north of the city.

Mantena was already a provider to Öresundståg, but as a subcontractor to SJ, which had the main contract. This was under renegotiation in 2022.

– The outcome of the negotiations is a new agreement that took effect in December 2022. Mantena and Öresundståg are now direct contract partners, says Vidar Leirvik, CFO at Mantena.

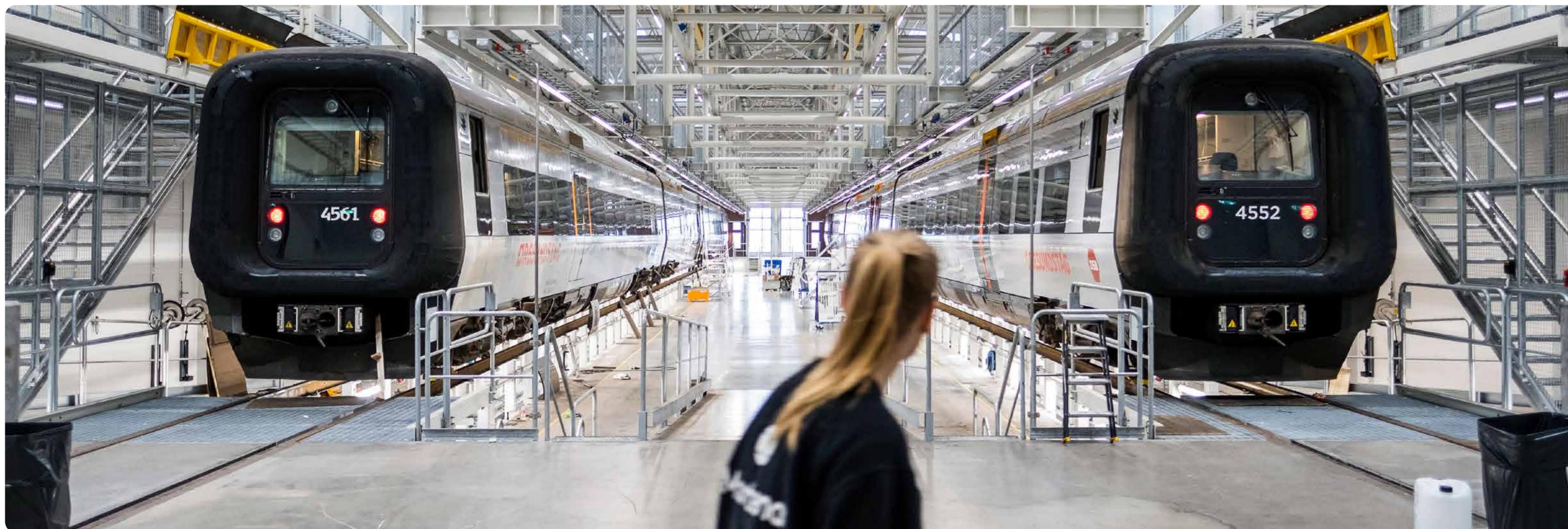
### Cultivating the relationship

A direct relationship between the parties is a good basis for healthy and sustainable cooperation, not least because it gives the parties greater scope to influence and develop their partnership. Mantena is the ECM<sup>1</sup> for the contract and will now have greater overall responsibility for maintenance, which will benefit both parties. In the performance of the contract, both individually managed and condition-based maintenance will therefore define the agenda, and both are expected to have a positive effect on maintenance costs. The direct agreement also means that Öresundståg and Mantena can work together on long-term planning and analysis for major improvement and development projects. All of this will reduce the lifetime costs for train owners and promote

1 EU Regulation requiring all vehicles used on the railway network to be assigned to an operator responsible for maintenance



“Strategic and organisational measures in 2022 have prepared the ground for further growth in the Nordic region,” says Vidar Leirvik, CFO at Mantena.



The agreement with Öresundståg gives Mantena a solid strategic foundation in Sweden, which could pave the way for other contracts in our neighbouring country.

increased sustainability in the interests of the environment.

The contract award is a vote of confidence in Mantena, not least for the employees who have put time into improvement and development work on the operational maintenance side. The agreement is for the maintenance of 101 train sets, and will have a big impact on the operation of the company's workshops in Hässleholm in

terms of further development and expansion of the business – not only in Sweden, but throughout the Nordic region.

– The renegotiated agreement with Öresundståg will entail further streamlining of the workshop; in particular, the workshop will play a key role for the company going forward as we bid for possible future contracts, says Leirvik with a smile.

### Well equipped for the Nordic region

The agreement with Öresundståg gives Mantena a solid strategic foundation in Sweden, which could pave the way for other contracts in our neighbouring country.

In 2022, Mantena also wound up operations under two contracts in Sweden, as they did not offer commercially sustainable terms.

The measures taken in 2022 have done a lot to equip Mantena to take on new and large assignments for our neighbours.

– In Sweden, there will be several tenders in the years 2024-2027 which will give us the chance to win contracts. Mantena is well positioned to compete for these, says Leirvik.

## For Mantena, the contract award is a vote of confidence.

### The situation in Norway

The rail passenger market in Norway is divided into five traffic packages. The largest of these are Traffic Package Østlandet 1 and Traffic Package Østlandet 2. Once the Norwegian Railway Directorate has awarded these, new market openings in Norway will be limited for a certain period.

Mantena is participating in the tendering procedures and negotiations for these two contracts, and is well positioned in both. “Østlandet 1” involves some heavy periodic overhaul work and around 60-65% of lighter, daily servicing. “Østlandet 2” covers heavy periodic overhaul work.

Traffic Package 1 Sørtoget/Jærbanen is operated by Go-Ahead, and Traffic Package 2 by Dovrebanen/Nordlandsbanen/Raumabanen by SJ. Mantena handles the maintenance for both of these contracts.

### Denmark and Finland

Finland is going through a process of liberalising the market and it is not yet clear how train maintenance is to be handled, although different models are being worked on. The rail passenger market in Finland is roughly the same size as the Norwegian market, while the freight market is twice as large,” Leirvik explains.

The Danish railway is the market that is furthest developed in the Nordic region in terms of number of departures and mileage. There are Intercity services between the major cities with frequent departures, and a well-developed network of local trains covering most other towns. In Denmark, it has been decided that, for the moment anyway, train maintenance should be handled by the manufacturer. The rail passenger market in Denmark is about 1.5 times as large as the Norwegian market, while the freight market is twice as large.

– The deregulation of the market, and with it the chance to compete for contracts in Denmark and Finland, has therefore come to a halt for the time being. Mantena will have to wait and see whether opportunities will present themselves in the long term, if the Finnish and Danish governments choose to buy new trains that include maintenance, Leirvik concludes.

There are great opportunities for Mantena in the Nordic market in the coming years. Strategic and organisational measures taken through 2022 have prepared the ground for further growth in the Nordic region.



# Tough times challenge the procurement function

Profitability ambitions were a major driver for professionalising procurement at Mantena. This has brought results, and it is important in the new situation with the war in Ukraine changing parameters for purchase prices and deliveries.



–In 2023, we expect to see a big impact from of our procurement project, says Silje Nilsen, acting Director of Products and Projects at Mantena.



Profitability improvements were a major topic throughout Mantena during 2022. As a significant buyer with many suppliers, the purchasing function has undergone extensive changes. Reorganisation, efficiency improvements and training have improved the company's ability to negotiate, and resulted in concrete and significant cost improvements and a strengthened purchasing function across the board.

#### **Procurement project**

Mantena deals with around 1,700 different suppliers. It purchases significant volumes from just over 100 of these. Manoeuvring among so many suppliers can be complex at times, placing great demands on processes, structure and cost control.

In 2022, a procurement improvement project was initiated, with the aim of increasing profitability. The project will continue through the first quarter of 2023. Many people in Mantena have been involved, and together we have strengthened and streamlined the purchasing function, reviewing and evaluating all of the processes. A significant improvement in our own inventory management, more efficient internal processes and better prices negotiated with some of the most important suppliers are among the measures that have been implemented. The company has also become more resilient, in the sense that agreements have been negotiated with different suppliers offering the same products, or that existing suppliers are now able to deliver more different products than before.

## More punctual delivery is very important to our customers.

– This makes for more punctual delivery and is very valuable to our customers. We have already seen results from the improvement work in 2022, but we expect to see the big effects of the project in 2023, says Silje Nilsen, acting Director of Products and Projects at Mantena.

#### **Great willingness to change**

Mantena's whole purchasing function underwent major changes last year. Reorganisation was key to this work. No stone was left unturned in the process of adapting Mantena to cope with a world that is constantly changing, sometimes dramatically, as we saw in 2022. Procurement at Mantena includes activities with many players, and requires good structures for cooperation and control between them. Among other things, we have carried out a thorough review of who is buying what. The company is establishing partially automated parameter-setting for reordering points, and its strategic purchasing expertise has been strengthened through training and recruitment.

Reorganising and adapting these activities has been crucial to ensuring that resources are utilised in the best possible way, particularly in terms of profitability.

The war in Ukraine has raised fresh challenges relating to security of supply and higher prices. It was ironic that the war broke out just around the time Mantena was starting an improvement project.

– We did not have much idea of the ripple effects at the time, but we felt them pretty quickly. Through much of last year, there were issues with various deliveries precisely because of the war. Things have gradually settled down to an acceptable level, and at the beginning of 2023 the supply of parts is felt to be significantly improved, but there are still issues with deliveries of some components, says Nilsen, adding:

– The combination of a slightly more predictable delivery situation and the fact that the purchasing function has been significantly strengthened and streamlined has put Mantena in a very good position to face the supplier market and get good deals for effective and predictable maintenance of rolling stock, Nilsen concludes.

# Paint hall ready for use

Mantena's 113 metre long paint hall at Grorud opened in 2022. Several customers inside and outside the railway industry have had their equipment painted here.

"The huge dimensions of the paint hall and the expertise of our employees mean that we can handle very large units and complex assignments outside the rail sector too," says Per Henning Torgersen, project manager at Mantena.



## A formidable effort was put in to making the old NSB coaches look like the legendary train.

– We have gained good experience and learned a lot in our first year of operation, says Per Henning Torgersen, project manager at Mantena.

### Paint hall for more than just the railways

The objectives for the new paint hall are ambitious, both for railway equipment and for new market segments. The paint hall, which is among the largest in Europe, was mostly used in 2022 for surface treatment and painting of trains and rolling stock. This is a market where Mantena has been a significant player for many years. However, we can see a need for these services in a number of other market segments. Customers outside the railway industry account for more and more of the jobs, which is completely in line with our strategy.



FILM SET: When parts of the seventh Mission: Impossible film were shot in Norway last year, Mantena's paint team transformed six carriages into Orient Express coaches.

– Because of the huge dimensions of the hall, we can handle very large units and installations, both for painting and for other surface treatments. The facility can also be divided into several sections so we can work on different jobs simultaneously. The unique characteristics of the hall make it very attractive for customers with large volumes, and for painting and surface treatment of vehicles, machines, equipment and components in large or unusual shapes and sizes, says Torgersen.

### Mission: Impossible at Grorud

An unusual job came up recently, when Mantena became involved in a Hollywood production. Parts of the film “Mission: Impossible – Dead Reckoning Part One” (the seventh in the series), were to be shot in Norway. The production company needed six carriages to be modified and finished to look like coaches from the Orient Express.

– A formidable effort was put in by the whole team in the paint department to make the old NSB coaches look like the legendary train. The job involved preparing, filling and priming several times, before painting, replacing windows, installing small fixtures and changing the furnishings. Nothing was left to chance. A memorable project and a good example of the opportunities we have with the paint hall, not to mention the expertise that we have here, says Torgersen enthusiastically.

”

The unique characteristics of the paint hall make it very attractive for customers with large volumes.

**Value proposition and concept under development**

The market development Mantena started in 2022 also requires the company to work on the value proposition to its customers and develop concepts that are adapted to new segments. In 2022, we worked on marketing communication, response times, mobilisation times and handling processes for different types of equipment. The action plan for 2023 is ambitious, with an enhanced service offering, a clearer brand identity and growth in multiple segments.

–We expended considerable resources in 2022 on turning ourselves into a customer- and market-oriented organisation. This work will of course continue and will be given priority in the future. In the long term, we want half of the jobs carried out in the paint hall to be on railway equipment and the other half to come from other segments. We are confident we will achieve that. We have a unique product to offer the market, Torgersen concludes.





# Innovation and efficient transport



## New regulations and requirements

With the advent of the rail reform in 2017, the railways in Norway have undergone major changes which affect operations. This has provided fresh opportunities for Mantena.



## Digital efficiency

Mantena is digitising tools and using 3D models of trains. This development benefits customers.



## Future maintenance

It is good for the climate and the economy to make the service life of a train as long as possible. In this work, we are encountering more and more issues with components; a problem Mantena is attacking from a new, digital angle.

# Technology and new services

New actions focusing on technology will secure Mantena's position as the most innovative full-service provider of maintenance services in the Nordic region.



## We use new technology to optimise internal processes and develop new products for our customers.

Mantena is continuing to strengthen its position through development and innovation in all processes throughout the Nordic region.

- We are doing research together with SINTEF and other external partners to be at the forefront in our key areas, and using new technology to optimise our internal processes and develop new products for our customers, says Terje Hullstein, CTO at Mantena.

### Optimising maintenance

Mantena focuses on optimising maintenance programmes. Throughout 2022, Mantena

has carried out several projects to map and propose changes to the current maintenance programmes for several train types. The work will be stepped up in the coming years with more resources, and Mantena aims to become the leading player in the railway sector in optimising maintenance based on RAMS processes<sup>2</sup>, RCM analyses<sup>3</sup> and the use of new technology.

- This will give Mantena and our partners more cost-effective maintenance, as well as providing greater reliability and availability to passengers, says Hullstein.

### Condition-based maintenance

All operators in the railway sector in the Nordic region use condition-based maintenance, and Mantena is central to this work. By optimising the maintenance programmes, Mantena aims to change maintenance from the traditional approach of replacing parts at regular intervals, to condition monitoring and replacing parts when necessary.

- This results in reduced maintenance costs and is significantly more sustainable than replacing parts with life left in them, he says.

### Rethinking monitoring

Condition monitoring involves both manual controls and measurements, and monitoring systems and components using sensors and detectors. Mantena is taking a leading role in this area through several different projects:

In the area of condition-based maintenance, Mantena is running research projects together with SINTEF and the Research Council of Norway. In the “RailCBM” project, we have developed methods and models for data capture and analysis of vibrations from the train wheels

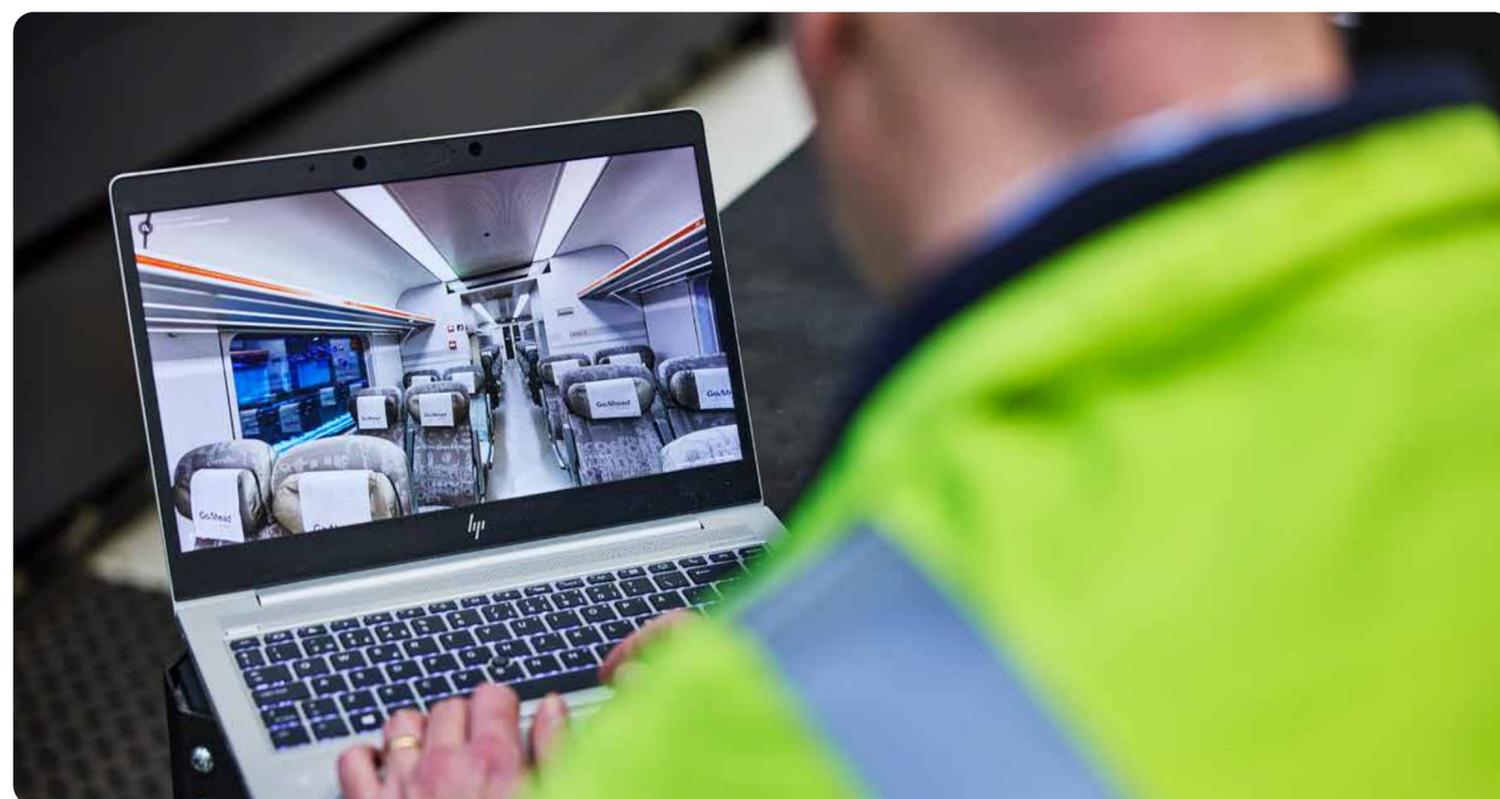
and bogies. The system is to be tested and is expected to be ready for use in the first half of 2023. The equipment will provide condition data to manage and optimise maintenance, and it will provide useful data on the condition of rails and infrastructure.

Newer train types now have systems installed to collect and transfer data from a number of systems. Together with our own data capture from the RailCBM project, this will provide the foundation for future condition-based maintenance and condition monitoring,” Hullstein explains.

### Data-driven knowledge

Mantena has acquired particular expertise in analysing and visualising measurement data, and intends to find a new partner in this area during 2023. These are user-friendly systems that provide great facilities for effective troubleshooting, planning and optimisation.

- At our Swedish workshop in Hässleholm, Mantena has installed a wheel scanner that measures the profile of the wheels every time the trains enter the workshop. This provides data



<sup>2</sup> Reliability, availability, ease of maintenance, safety - the ability of the equipment itself to deliver over time

<sup>3</sup> Reliability-centred maintenance - process used to determine what type of maintenance is best suited to the equipment in question

## New technology is crucial to providing stable train services.

that will help calculate the optimum frequency for turning wheels. Wheel maintenance is one of the biggest cost drivers in train maintenance, says the technology manager.

Better data on wear will also provide infrastructure owners with useful information for their rail maintenance work, and for optimising profiles on both wheels and rails. The experience from the wheel scanner in Sweden will support a decision on a possible investment in similar scanners in Norway.

### Three focal areas within 3D technology

Trains have a long service life, often remaining in operation for over 40 years. This can make it hard to procure spare parts, as parts go out of production before the trains have reached the end of their useful lives. To meet the challenge of obsolete spare parts, Mantena has taken several three-dimensional technological steps:

Simple 3D scanning of parts has been used to produce models for us to turn out replacement parts in-house. Together with SINTEF, the

”

Research Council of Norway and other external partners, Mantena has started a project which will run to 2025.

– Our goal is to develop a more efficient 3D scanner, and a tool that can quickly and accurately transfer the images from the scanner to CAD-based (computer-aided design) production drawings. This will make Mantena a leading player in the production of models and finished parts, Hullstein explains.

The technology allows us to keep the trains in operation for longer, as an affordable and efficient solution for customers. It will also open up new market opportunities in other industries.

As well as having one of the biggest engineering workshops in Eastern Norway, where it invested in a high-tech milling (CNC) machine in 2022, Mantena has partners in additive manufacturing, or 3D printing, both to make new parts and to overhaul and repair existing parts.

With new technology, Mantena sees great potential for recycling more of the materials used in overhaul jobs, which will reduce waste and our overall climate footprint,” says Hullstein.

Mantena sees great potential for efficiency gains from using 3D modelling of trains for inspection and documentation. With state-of-the-art 360-degree camera technology,



Mantena has arrived at new ways of obtaining a more accurate basis for damage repair and documentation, and enabled new applications that benefit customers.

#### **Towards digital twins and fresh opportunities**

As we all know, visual inspection and mapping of damage is complex and time-consuming with conventional measurement methods.

– A new 3D camera has given the company a completely new way to do this job more accurately and efficiently. It also provides better documentation of the completed jobs. The result has been lower costs and better quality for our customers, and more large jobs for Mantena, he says.

In parallel with this, interactive 3D modelling will also offer fresh possibilities for Mantena's customers in their own marketing and presentation of services.

– 3D photogrammetry is an exciting development, where customers themselves may be best placed to see the potential Mantena can now help them to realise, in the short and the long term – here at home and in the Nordic market, Hullstein concludes.



RAILWAYS ARE DEVELOPING:

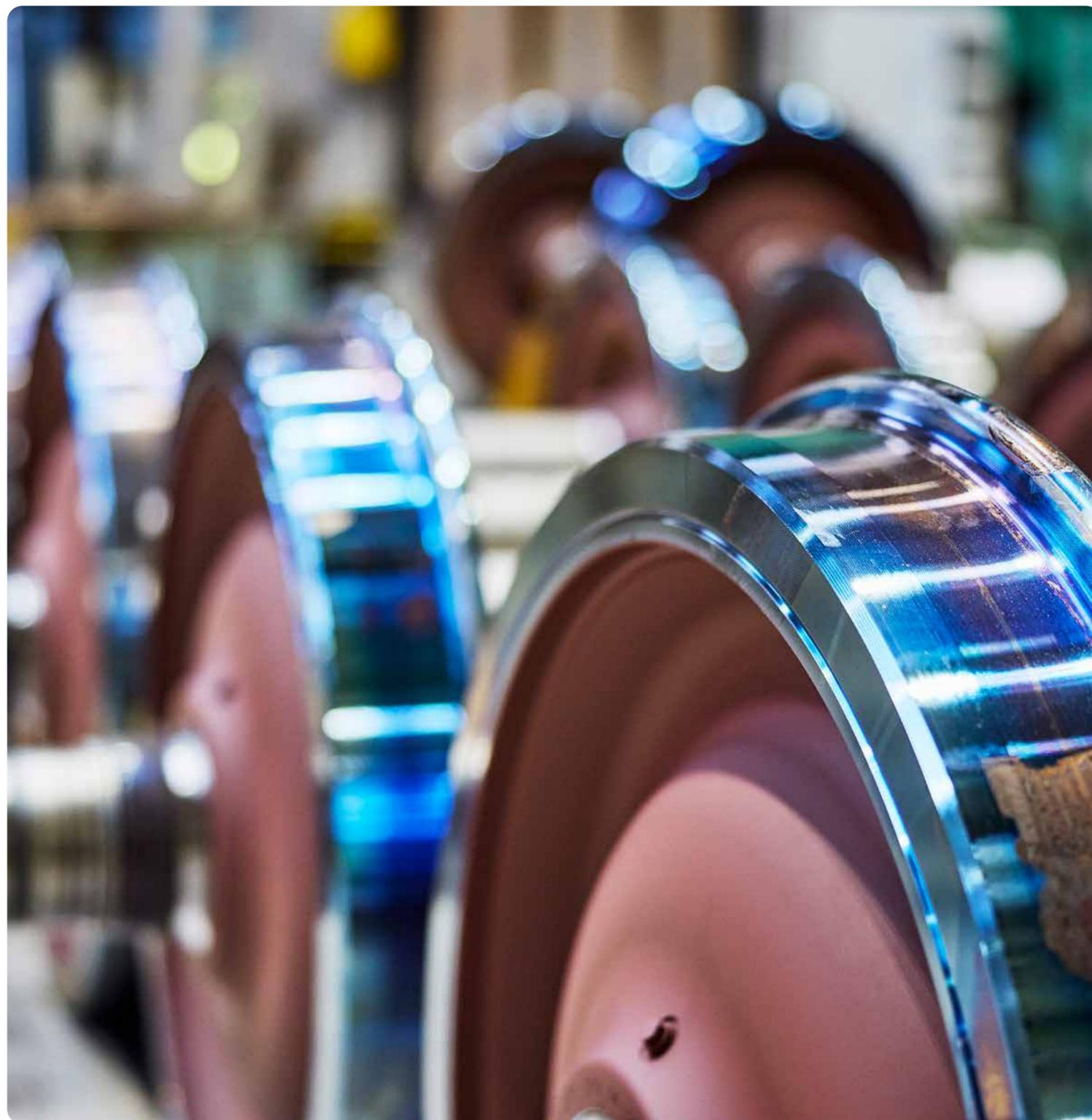
# New regulations and requirements

With the advent of the rail reform in 2017, the railways in Norway have undergone major changes which affect operations. This has provided fresh opportunities for Mantena.



"Mantena is currently certified as ECM<sup>1</sup> for all types of vehicles, and carries out this work under three ongoing contracts," says QHSE Director Roy Sannerhaugen.

<sup>1</sup> EU regulation requiring all vehicles used on the railway network to be assigned to an operator in charge of maintenance.



”

We work to ensure that we comply with applicable regulations at all times.

In 2017 came “On the right track: Reform of the railway sector”, a political reform adopted under the Solberg government. The rail reform opened up competition for maintenance of trains and infrastructure, and for contracts to operate passenger services in Norway. The purpose of the reform was to promote more efficient operation and use of resources.

#### **Strengthening the role of railways in Europe**

Along with this rail reform, which opened the market to increased competition on the Norwegian rail network, the EU’s “fourth Rail package” has also shaped developments in the sector. The package was incorporated into Norwegian law in the summer of 2022 and entailed several changes in acts and regulations

governing railway operations, including:

- New Railway Safety Directive – which regulates safety in railway operations throughout the Union.
- New Interconnection Directive – which regulates technical requirements for vehicles to ensure harmonisation and interoperability for cross-border traffic.
- New ERA Regulation – which regulates and defines the scope and jurisdiction of the ERA (European Union Agency for Railways).

In essence, the EU’s fourth rail package contains regulations aimed at improving safety on European railways, facilitating cross-border rail travel and increasing the competitiveness of railways vis-à-vis other modes of transport.



– The aim of the EU’s rail packages is to strengthen the role of the sector in Europe, in both the freight and passenger transport markets, and contribute to a greener and more climate-friendly transport industry. An incentive that all of us at Mantena support, explains Roy Sannerhaugen, QHSE director at Mantena.

### Common EU maintenance requirements for railway vehicles

In parallel with the introduction of the EU’s fourth rail package, a new version of the EU’s ECM regulation was also incorporated into Norwegian law. The concept of an ECM, or “Entity in charge of maintenance”, was introduced in 2011, but at

that time applied only to goods wagons. The new Regulation 2019/779 extended this to all types of railway vehicles and lays down certification requirements for the ECM.

– These regulations are intended to provide for coordination and minimum requirements for maintenance throughout the EU, says Sannerhaugen. There are two strands: 1. The entity in charge of maintenance (ECM), where there are requirements for certification by an accredited certification body, and 2. The entity that carries out the maintenance based on documentation and requirements from the ECM, where certification is voluntary.

### Certified ECM for all types of vehicles

Traditionally, the ECM role itself has been taken by the railway company, but the new regulations allow the company to outsource the service to a certified provider.

– Mantena has followed these developments over time. Since 2014, we have been certified as a maintenance provider, and from 2020 we were able to offer our customers full ECM coverage through our own certification, he says.

Through 2021 and 2022, the company’s certifications have been upgraded in accordance with the new Regulation which entered into force from June 2022, and extended to all types of vehicles. Sannerhaugen is pleased to be able to

offer this service to Mantena’s customers, and finds that the certification is much sought-after:

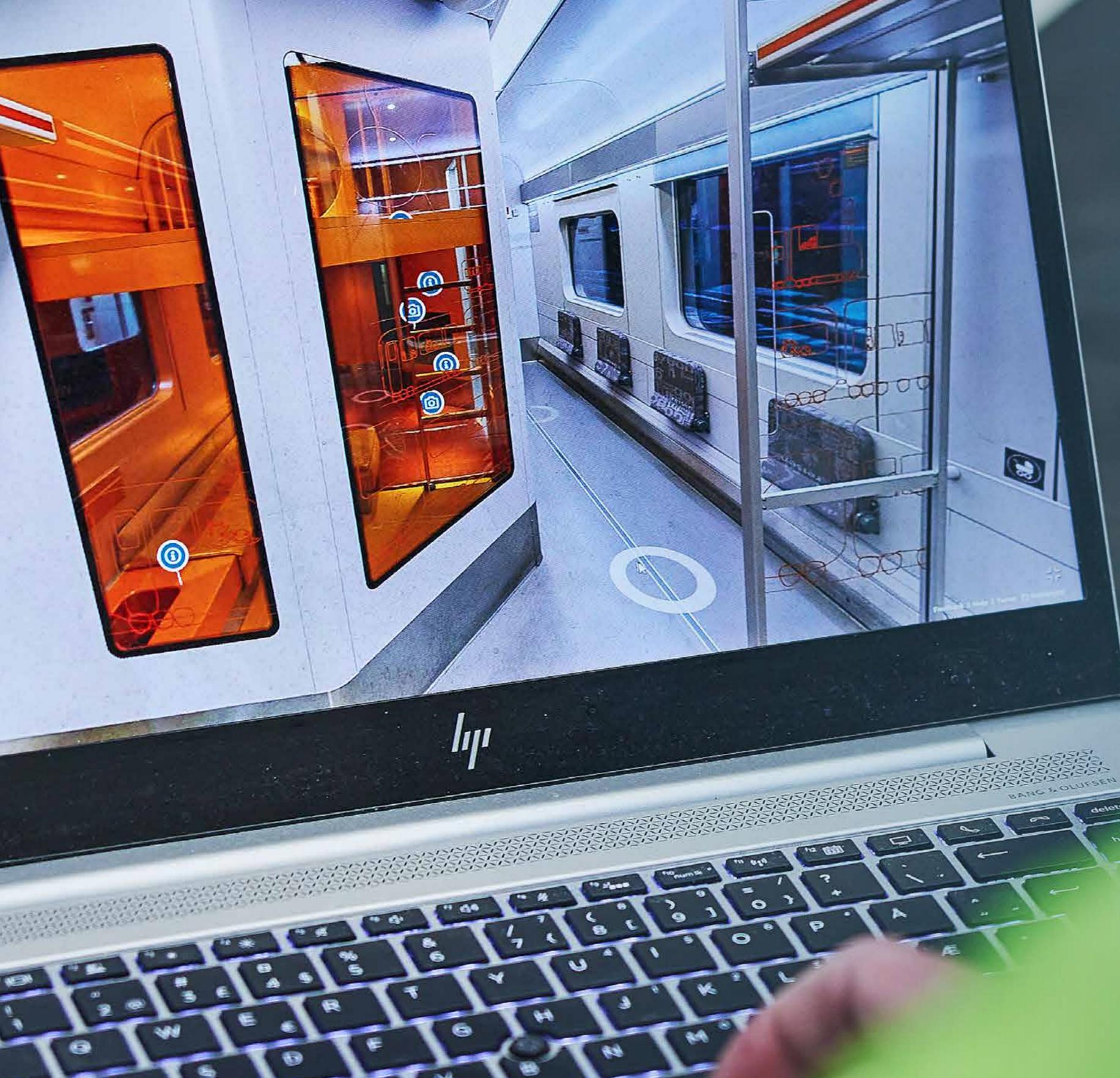
– We are currently certified as ECM for all types of vehicles, and carry out this work under three ongoing contracts, including Traffic Package 1 South and the Öresund contract, he says.

### A full-service maintenance provider

Alongside the ECM certification, Mantena is certified for “Welding on railway vehicles”, which is also a requirement. The company holds a safety certificate to run trains on national networks in both Norway and Sweden, and has established a management system which is certified according to ISO 9001:2015 and ISO 14001:2015.

Mantena keeps a close eye on developments in the sector and acts to ensure that the company complies with applicable regulations at all times. In a full-service agreement, the company can deliver on all functions described in the EU Safety Directive (2016/798), and also assume the formal role of “entity in charge of maintenance” (ECM).

– This is how we live up to our vision of ‘Always moving forward’, and can offer our customers good deliveries and help take a greater share of the overall maintenance role, Sannerhaugen concludes.



3D modelling is a new tool for maintenance of locomotives and rolling stock.

”

# Digital efficiency

Mantena is digitising tools and using 3D models of trains. This development benefits customers.

It is possible to make most processes more efficient. At Mantena, inspection situations, such as renovation projects, have proved to be particularly time-consuming. They have often been carried out in several iterations to cover all the needs and details, with the associated meetings and travel for everyone involved. In such cases, an accurate 3D model of the rail vehicle has proven to be a very useful tool.

- This is good and benefits the customers. In the past, we often carried out several inspections to get all the details in place, which meant more downtime for the trains and more administration. Then came the pandemic, and we could hardly carry out any inspections at all. Then we looked to other industries, in search of new tools, explains Martin Becks, Technical Manager Engineering at Mantena.

#### Accurate 3D models of trains

3D was adopted as a pilot project during the coronavirus pandemic. This is a tool that has been in use for a long time in building and construction and in the property industry. It is a new tool for maintenance of locomotives and rolling stock. The result is a bit like Google Street View: a 3D camera and associated software are used to create a three-dimensional model of the train set (called a building information model, or BIM). Technicians can then move around and look at details in the digital 3D model. This offers a host of technical possibilities, such as

assessing space, and taking measurements of different spaces and materials. This quickly proved to be time-saving, more precise and cheaper, as the model created can be exported to CAD (computer-aided design: 3D modelling and technical drawing using computer-based software and tools), for further processing.

- Having a BIM to go into, either during inspections and meetings or afterwards, which we can also take measurements in, allows us to create more detailed, digital work descriptions and documentation. It also allows meetings and inspections to be held regardless of where the participants are located or how many they are, points out Ådne Carlsen, Team Leader Construction and Development at Mantena.

Previously, employees used mobile cameras to produce visual documentation.

- You can't measure from this and it doesn't encompass the whole object, so it is not a usable basis to work from, says Ådne.

#### Towards digital twins

Based on good experience in the pilot project, a new 3D camera was acquired at the end of 2022 – the top model from the US company Matterport.

- This is the latest thing in 3D modelling, with the Pro3 camera taking 360-degree images.

It also collects 3D data from the surroundings, so images and 3D files are merged, enthuses Carlsen.

The Pro3 camera uses a laser to measure with millimetre accuracy, providing a very precise model of the equipment, where you can move around and measure things, or enter data points.

- This allows us to enhance the quality of the detailed design. In the longer term, we can also see exciting visualisation potential for customers, such as placing a new coffee machine or whatever directly in the model, explains the team leader.

“3D photogrammetry” is the correct technical term. In addition to existing, practical needs, Mantena will use this in the future to draw up new solutions and estimate costs for its customers.

- In parallel with this, we are working to be able to offer three-dimensional presentations of the trains to customers, so they can market the equipment in a more interactive and informative way to their own customers. All in all, this is just the start of an exciting development, where our customers are best placed to see the potential we can now help them to realise, concludes Martin Becks.



“3D photogrammetry is an exciting development, where our customers are best placed to see the potential we can now help them to realise,” says Martin Becks, Technical Manager Engineering.

# Future maintenance

It is good for the climate and the economy to make the service life of a train as long as possible. In this work, we are encountering more and more issues with components; a problem Mantena is attacking from a new, digital angle.



Jarle Hauglie is contract manager at Mantena, responsible for everything related to component production in the company.

It is a fact that parts for old trains can be difficult to obtain. The operational service life of a train set can be in excess of 40 years. Some components are costly to purchase or have long delivery times. Some jobs may also call for ad hoc solutions. To meet needs like this, Mantena is increasingly focusing on producing smaller replacement parts in its own workshop, using new technology.

**New CNC machine can shorten downtime**

– We have already started using 3D scanning to produce models from which to make replacement parts and repair damage. We also use advanced 3D printing where required, says

Jarle Hauglie, contract manager at Mantena.

The latest addition to this digital production line is a modern CNC (computer numerical control) machine. This produces parts in different metals or hard plastics, either for one component or possibly for a special tool to be used in other component production.

– A state-of-the-art CNC machine offers limitless possibilities for what we can produce by way of parts in steel, aluminium, brass, bronze or hard plastic, to name just a few, quickly and with high precision. A machine like this, in combination with our existing 3D

scanner and 3D printer, allows us to quickly produce replacement parts that for various reasons have gone out of production elsewhere in the world. So the machine supplements and streamlines the current maintenance line at the component workshop at Grorud, says Hauglie.

**A forward-looking provider**

Automation and autonomous processes are gaining more and more traction in society, not least in Mantena’s workshop halls. The goal is more efficient processes, cost-saving solutions and better quality. For Mantena, this need not be limited to the railway sector.

– Of course our core area is services for trains and rolling stock in the Nordic region. But with a CNC machine like this, we can meet the needs of other customers outside the sector, where they need to produce one-off series or individual parts in small quantities, says Hauglie.

The machining department at Grorud now has 2.8 FTEs working in the CNC field, and produces parts with a high degree of precision.

– We are constantly striving to be a forward-looking provider, with optimised processes and new and more efficient solutions for our customers, so together we can prolong the life of the trains, concludes the contract manager.

**WHY USE A CNC MACHINE?**

- There are worldwide problems in procuring spare parts, as individual components or parts of them go out of production before the trains have reached the end of their service lives.
- The machine shop at Grorud has acquired a new CNC (computer numerical control) machine. The machine replaces three older machines that have been scrapped.
- This CNC-controlled milling machine can “re-engineer” components and parts using 3D scanning, for example, much faster and with a higher degree of accuracy (tolerance) than machines that are controlled manually.
- The machine offers great potential for what Mantena can produce by way of bespoke parts, also including sectors other than the railways.
- Through innovation and efficiency, the upgraded digital maintenance line can expand Mantena’s range of services and prolong the life of the trains.



# Sustainability, CSR and HSE



## Good maintenance is good economics

Around 150,000 people travel through Oslo Central Station each day. This places great demands on traffic management for passengers. Good maintenance is crucial for this to work.



## Career choices that offer many possibilities

Mantena offers diverse internal career paths to provide the workforce of the future. The development opportunities are many and varied, and a person can build a whole career within the different divisions of the company.

# On track towards a more climate-friendly future

Trains are a climate-friendly mode of transport and more traffic should be moved to the railway. However, this requires the trains to run.



Our greatest contribution to a sustainable society is to ensure good deliveries to our customers to enable them to achieve their goals.



The railways use less energy and space than other means of transport and can do a great deal to help reduce greenhouse gas emissions. Of course this assumes that trains are running, and this is Mantena's biggest contribution to a more sustainable and climate-neutral society, both in Norway and across the Nordic region.

Sustainability is an integral part of Mantena's business operations. The company's contribution to a sustainable society takes the form of good deliveries to customers to enable them to achieve their goals. Mantena also aims to be an attractive place to work and a responsible player which places demands on suppliers, as well as establishing and following up on its own climate goals. This is to ensure a systematic approach to the 17 UN Sustainable Development Goals.

Mantena follows the code of practice from the Norwegian Corporate Governance Board (NUES) and, as part of the company's strategy process, has established an overall plan for sustainable value creation.

Mantena's efforts for sustainability and corporate social responsibility are ultimately owned by senior management, and their implementation is a management responsibility defined in the respective managers' job descriptions. Corporate social responsibility is an integral part of the company's strategy and is based on the owner's requirements and expectations, as described in the Storting White Paper No 6 (2022–2023): "Greener and more active state ownership", section 11.

**The main focus of Mantena's work is on**

- Climate and environment.
- Human rights: Based on the principles in the UN Declaration of Human Rights and the ILO's core conventions.
- Work environment.
- We work to combat corruption and promote transparency in financial transactions.
- Ten principles of the UN Global Compact.
- The Norwegian "Act relating to enterprises' transparency and work on fundamental human rights and decent working conditions" (the Transparency Act).

### Mantena's contribution to a sustainable industry

The company's objectives and plans contribute directly to several of the UN's 17 Sustainable Development Goals, mainly through the measures on the right:

Mantena also contributes directly and indirectly to other Goals, e.g. through innovation and responsible business and through the company's code of conduct and other governing documents.



### Good health and quality of life

- Preventive health and safety measures, focus on HSE, risk management.
- Support for SOS Children's Villages, which work for social sustainability and opportunities for people to live a good life with development opportunities both for the individual and for society.
- Contribute to safe and reliable rail traffic, through optimum maintenance.



### Quality education

- Further support to SOS Children's Villages, where funds have been provided for the purchase of PCs and IT infrastructure to support digital learning.
- Provide apprenticeships.
- Promote equality and prevent discrimination.



### Gender equality

- Promote gender equality in recruitment and incorporate gender equality concerns into HR and salary policy.
- Place demands on and follow up on our suppliers.
- Carry out due diligence.



### Decent work and economic growth

- Ensure profitability, growth and innovation – preparing the business for a new way of working, and working to combat all forms of corruption.
- Place demands on and follow up on our suppliers.
- Carry out due diligence.



### Innovation and infrastructure

- Adopt new technology, develop maintenance programmes to improve performance and prolong the lives of vehicles and components.
- Re-engineering of parts.
- Development of processes in collaboration with SINTEF and the Research Council of Norway.



### Sustainable cities and communities

- Contribute through our core business to a sustainable transport system.
- Contribute to a safe and reliable transport system.



### Responsible consumption and production

- Spotlight on HSE, chemicals management and waste management.
- Help to develop the maintenance sector for increased performance and lifetime.

# The Transparency Act and due diligence

The Norwegian Transparency Act entered into force on 1 July 2022. Mantena has taken the necessary steps to implement the Act in the company's processes.

The Norwegian "Act relating to enterprises' transparency and work on fundamental human rights and decent working conditions" (the Transparency Act). This has helped to further strengthen the company's focus on sound and clear procedures and guidelines.

**Mantena's work on due diligence is ongoing, and so far:**

- Responsibilities have been specified in governing documents and anchored in the organisation.
- Governing documents and processes have been updated to reflect the new legislation.
- Processes have been described, and a channel for submitting and handling access requests have been established.
- Procedures have been published on the website mantena.org.

- Supplier assessments and due diligence checks have been initiated.

**Responsible business**

The Norwegian authorities expect Norwegian companies with international operations to know and comply with the OECD Guidance for Responsible Business Conduct. A key element of the OECD guidance is an expectation that companies will carry out due diligence checks to avoid harming people, society and the environment<sup>4</sup>. The requirement for due diligence has also been included in the Transparency Act.

Mantena has started work on supplier assessments and due diligence checks on our supply chain. This is based on the OECD Due Diligence Guidance, and on high-risk areas for products and industries<sup>5</sup>.

<sup>4</sup> OECD Guidance for Responsible Business Conduct.

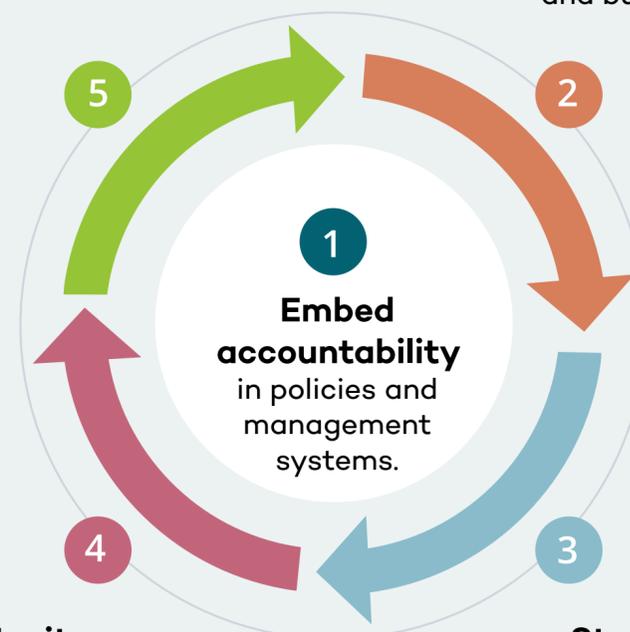
<sup>5</sup> DFØ (Norwegian Agency for Public and Financial Management) high-risk list.



## The due diligence process

**Communicate**  
how the impact is being handled.

**Analyse and assess risk of negative impact/damage**  
to our own business, supply chain and business relationships.



**Monitor**  
execution and results.

**Stop, prevent or reduce**  
negative impact/damage.

**6 Provide for, or collaborate on, remediation and replacement where necessary.**

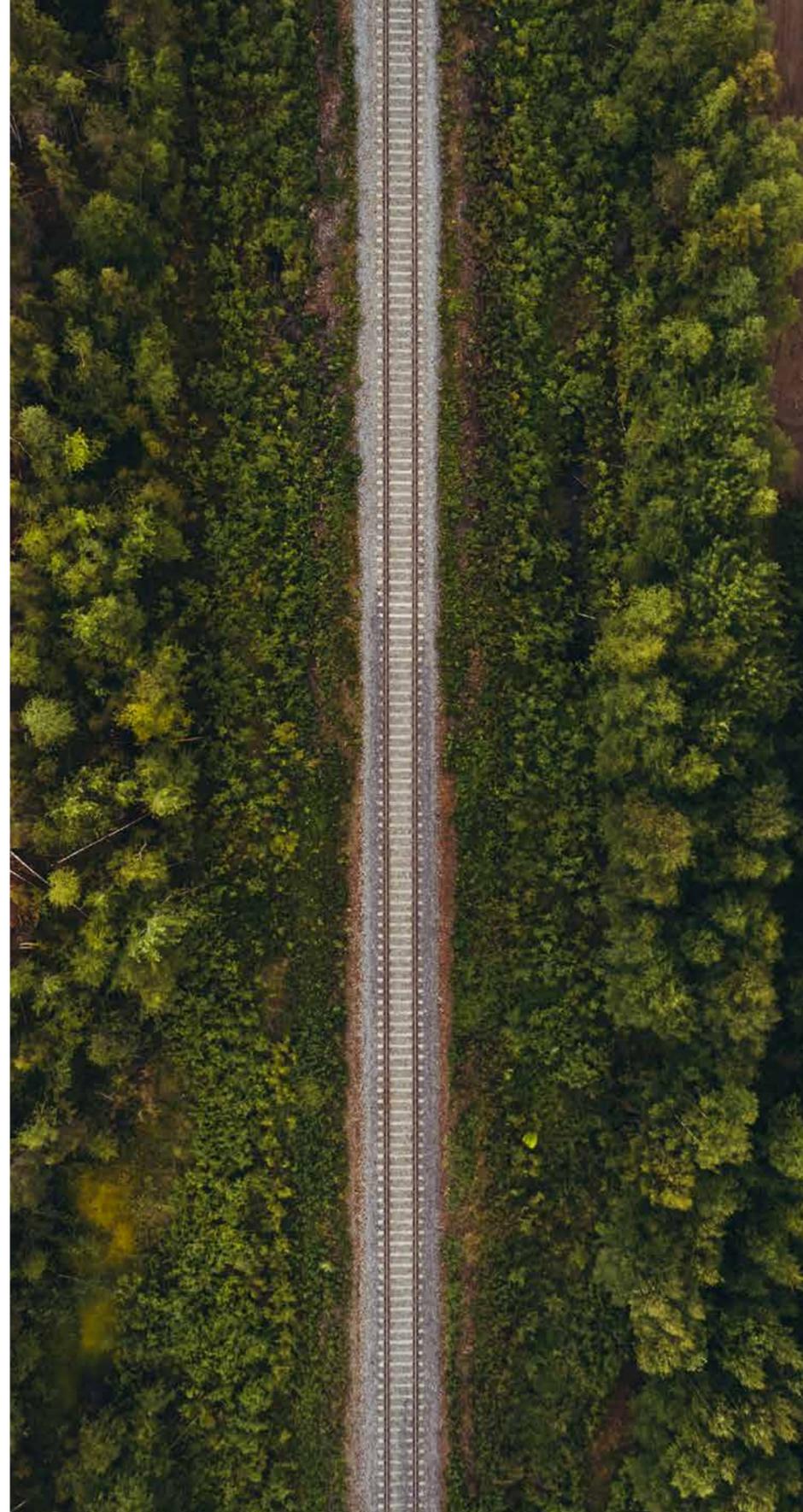
The ongoing work will result in an internal summary report. This is part of the company's annual report under the Sustainability and Transparency Act.

The first report will be prepared and published on the company's website [mantena.org](http://mantena.org) by the deadline of 30 June 2023.

Mantena carries out general risk analyses to assess its suppliers and supply chains for any risk of violations of fundamental human rights, based on the following criteria:

1. **Approval and sign-off** of Mantena's ethical requirements for suppliers, and commitment from suppliers.
2. **Geographical location of supplier and supply chain**
  - a. Priority areas – geographical.
3. **Delivery and specific priority areas**
  - a. Products and industries.
  - b. Services.

In the process so far, the assessments show a low to medium risk of negative impact from Mantena's suppliers and supply chains. No suppliers have been identified with negative impact causing action to be taken or considered.



**According to the OECD guidance, companies should contribute to:**



#### Safeguarding the environment

- An environmental policy has been established which forms the basis for our environmental work.
- Systematic analyses of significant environmental aspects are carried out each year, and form the basis for work in our priority areas. Certification according to NS-EN ISO 14001:2015.



#### Respect for human rights

- We have established governing documents based on the principles behind the UN Declaration of Human Rights and the ILO's fundamental conventions.



#### Safeguarding workers' rights

- An HR policy has been drawn up which forms the basis for the work on workers' rights, human rights and protection against discrimination.
- Routines have been established to prevent reprisals against whistleblowers.



#### Preventing corruption and bribery

- We work to combat all forms of corruption and to promote transparency in financial transactions.
- A separate "Declaration on ethics and corporate social responsibility" has been produced.
- An internal and external whistleblowing channel has been established to report instances of wrongdoing.

# Ethics and corporate social responsibility

Ethics and our code of conduct are an important part of our work on corporate social responsibility. We are against all forms of corruption and for transparency in financial transactions.

**We have established measures to ensure transparency and support whistleblowing.**

- A separate “Declaration on ethics and corporate social responsibility” has been produced.
- Internal and external whistleblowing channel.
- Tax principles are established and published on the company’s website.

This work is based around the established regulations in the area. The regulations are based on the UN Declaration of Human Rights and the core conventions from the ILO<sup>6</sup>, as well as the ten principles of the UN Global Compact.

A procurement policy that includes ethical requirements for suppliers is used as a basis for establishing agreements with new and existing suppliers. Our requirements for suppliers are systematically reviewed and checked before entering into a contract.

**Continuous efforts are made to safeguard workers’ rights, through**

- An established personnel policy that forms the basis for the work on workers’ rights, human rights and protection against discrimination.
- An established procedure for reporting wrongdoing, and procedures to prevent reprisals against whistleblowers.

Our code of conduct and procedures for whistleblowing are aligned with legal requirements. A separate whistleblowing channel has been established for third parties such as customers and suppliers. The framework for our work on ethics and corporate social responsibility is set out in governing documents held in Mantena’s management system. The tasks involved are described in the managers’ job descriptions.

<sup>6</sup> The International Labour Organization is an agency of the United Nations which deals with labour matters.



## We value employees who show initiative and take responsibility. ”

### **An attractive workplace**

A key element of Mantena’s personnel policy is to develop attractive jobs. Employees with the right skills and attitudes are central to achieving Mantena’s vision of being the most innovative full-service provider of maintenance services in the Nordic region. The personnel policy is designed to promote personal development, stimulate interaction and emphasise co-determination, innovation and competence. We value employees who show initiative and take responsibility. Exciting tasks and good management are increasingly important at a time of higher employee turnover and greater competition for labour.

We work to develop a workplace where employees are proud to work, and where we are all committed to the job, care for each other and help each other to improve.

### **Equality in Mantena**

In Mantena’s policies, we spotlight equality in terms of pay, employment, promotions

and education and training. The Group wants a wide and diverse range of managers and employees, where individual qualities are respected and valued. Mantena has a clear goal and programme to provide equal pay for equal work in its operations.

We have a conscious strategy of encouraging women and people from immigrant backgrounds to apply for jobs with Mantena. The proportion of women in the company increased slightly through 2022. Mantena’s goal is to bring the proportion of women up to 10% by 2024.

We ensure that women and men are offered equal opportunities to work on the different tasks. In a male-dominated industry with limited staff turnover, it is difficult to increase the proportion of women. Unfortunately, there are few female applicants for operational positions. Most women are in management and administrative jobs.

# HER and traffic safety in Mantena

Mantena recognises that its business affects the environment. That is why we are constantly striving to improve the company's environmental performance and reduce pollution.

An environmental policy has been established which provides the basis and direction for our environmental work. This includes active efforts to satisfy both our own requirements and customer and regulatory requirements, as well as relevant standards.

Mantena is certified according to NS-EN ISO 14001:2015, and is monitored through annual audits. Annual analyses of environmental aspects and identifying key environmental issues form the basis for the priority areas and environmental programme.

## Key areas for 2022 were:

- Chemicals handling and reduction in the number of chemicals used.
- Disposal of waste, particularly hazardous waste.
- Energy consumption.
- Fuel consumption.
- Handling of fluorinated greenhouse gases.
- Start of work on our own climate accounts for emissions.



Our operations use a number of chemicals, some of which can cause injury to personnel and damage to the environment if they are not handled in accordance with established procedures and requirements. In 2022, 1,261 chemicals were in use in Mantena, a reduction of 160 from 2021. The company also handles waste that can cause environmental damage if it is not dealt with properly.

- Two issues with the handling of hazardous waste were reported in the period.

- Nine reported emission incidents; none of these had any lasting environmental impact, but they do require follow-up. Five of them relate to the same event.

## Climate accounts

Rail operations are a climate-friendly form of transport, and reports on emissions from the transport sector clearly show this when compared to other modes of transport. Mantena wants to help ensure that rail transport remains at the forefront when it comes to greenhouse gas emissions.

# Mantena aims to help ensure that rail transport remains at the forefront of efforts to reduce climate impact.

In 2022, the Ministry of Transport and Communications commissioned the Norwegian Railway Directorate to carry out a concept study called “KVU Green”, for reduced greenhouse gas emissions on railways. The study covers both routes that are not electrified, and rail vehicles that use diesel.

Two workshops were run in 2022 in connection with the concept study for reduced greenhouse gas emissions on railways, called “KVU Green”. The study will assess the needs and opportunities to reduce emissions from railway operations. Mantena attended both meetings, and will help to influence choices and policies to further reduce emissions from the railways. In 2022, Mantena started work to establish complete climate accounts in accordance with the “GHG Protocol” (Greenhouse Gas Protocol). In this work, we have established a partnership with Skye/EY, to make use of their tools for

sustainability reporting, with a particular focus on emissions. This includes direct emissions from equipment owned or controlled by the company (Scope 1), indirect emissions from purchased energy (Scope 2), and emissions that can be indirectly linked to the organisation’s activities, but are outside our control, including travel (Scope 3).

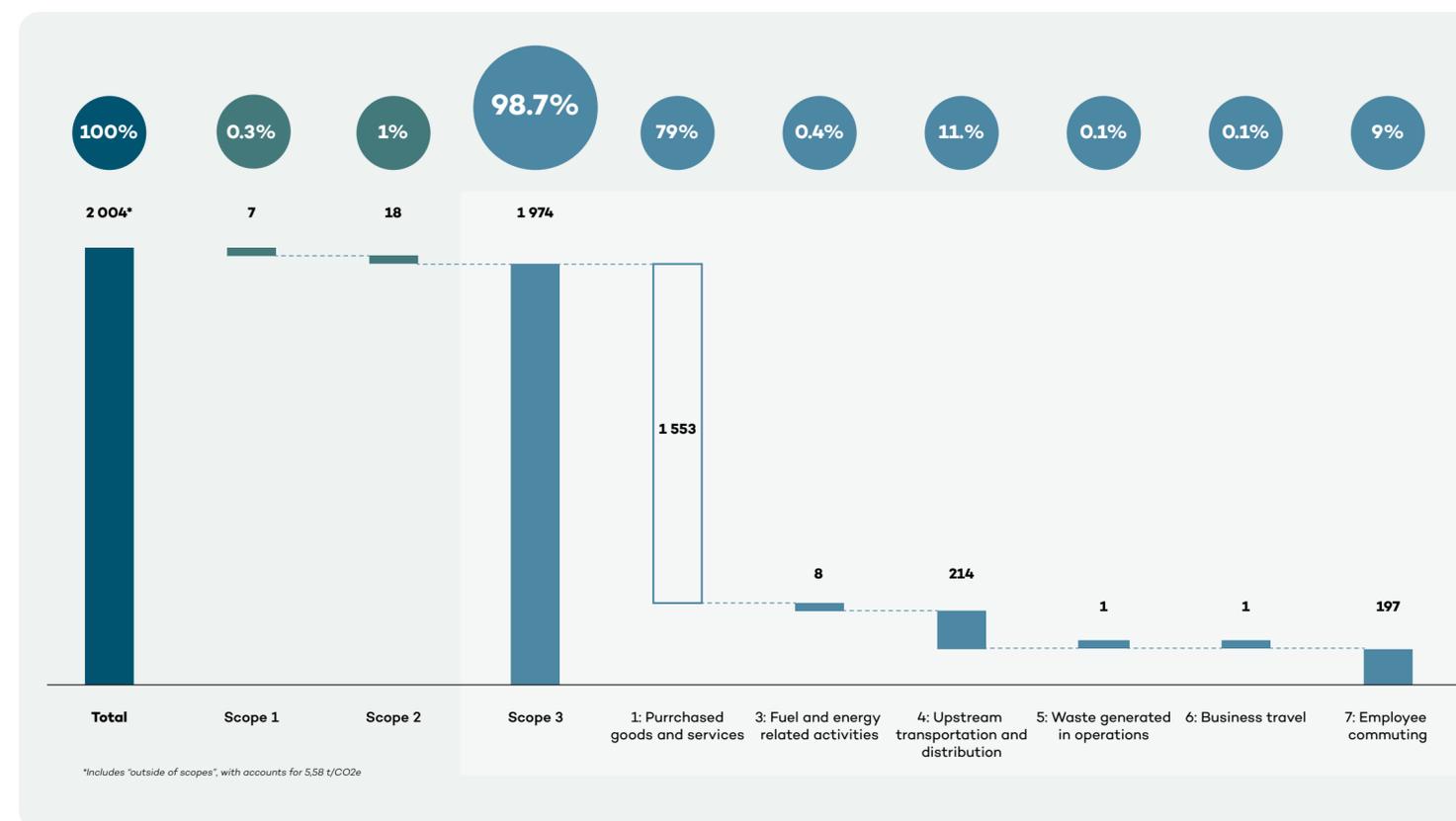
This work was based on our Swedish operations in Hässleholm, and approximately 85% of all purchasing data for 2021 was analysed. This gave us a baseline for our operations in Hässleholm, and a basis for further work on complete climate reporting for the whole business.

### Health and safety

At Mantena, safety always comes first. By safety, Mantena particularly means avoiding injury to people and damage to equipment in

The results showed that 98.7% of Mantena’s emissions come from Scope 3 (the supply chain):

Hässleholm Scope 1–3 emissions, tCO<sub>2</sub>e



Results from the collaboration with Skye/EY for emissions from Hässleholm. These were presented at the Scandinavian Rail Optimisation Conference in Stockholm in November 2022.



the course of work on our own premises and preventing unwanted incidents resulting from work carried out on railway vehicles and from driving or shunting trains in the course of our own business. HSE and personal safety are described in Mantena's management system.

Systematic safety inspections are carried out in all areas, and an extended safety inspection is carried out once a year, attended by the facility owner and the occupational health service. Issues from safety inspections are followed up by local working environment committees (LAMU). An action plan is drawn up, and all issues are recorded and dealt with in our improvement and incident management system.

Mantena has safety certificates in both Norway and Sweden for shunting and driving trains without passengers or freight on the national rail network. In Sweden, Mantena regularly drives trains, but this is more limited in Norway. We are constantly working to offer customers this service.

An established safety policy forms the basis for our HSE work. Safety in Mantena falls into two categories:

- Traffic safety.
- Working environment and personal safety.

The traffic safety work is mainly directed at shunting (moving rolling stock) and driving

trains and safety-critical tasks on vehicles and components. Separate procedures have been established to monitor the work. All events and incidents are recorded and followed up in our improvement and incident management system.

#### **Serious incidents**

Some incidents were recorded in 2022 which, under other circumstances, could have had serious consequences. No serious accidents relating to our operations were recorded. All cases have been followed up and dealt with according to the relevant procedures.

We follow up on injuries through local working environment committees (LAMU) at the

individual workshops and in the central working environment committee (HAMU) for the whole company. Mantena has zero tolerance for injuries to staff and damage to material assets. There is a particular focus on preventive measures to avoid personal injury. All injuries are closely monitored and measures are taken to prevent further accidents. Systematic safe job analyses and risk analyses are carried out, which form the basis for the preventive work.

**A number of measures were implemented in 2022 to reduce the number of personal injuries in the company.**

- **HSE day** where all lost-time injuries and traffic safety incidents are reviewed with the responsible department and the company's top management.
- Learning sheets on specific areas handed out to all employees and discussed at all departmental meetings.
- Clearer requirements for the use of protective equipment.
- Regular follow-up – all HSE issues are systematically followed up at departmental and management meetings. HSE is a standing agenda item in all regular meetings.

#### **Results for 2022**

- 54 personal injuries, compared to 68 the year before.
- The H1 factor ended at 12.4 for the Group, with a total of 18 lost-time injuries.

Sickness absence was 7.3% in 2022 (7% in 2021). Short-term absence increased during the period and is at the same level as long-term absence. HSE work is also a definite priority area for 2023.

#### **Mantena's systematic work on sustainability and corporate social responsibility ensures, among other things, that**

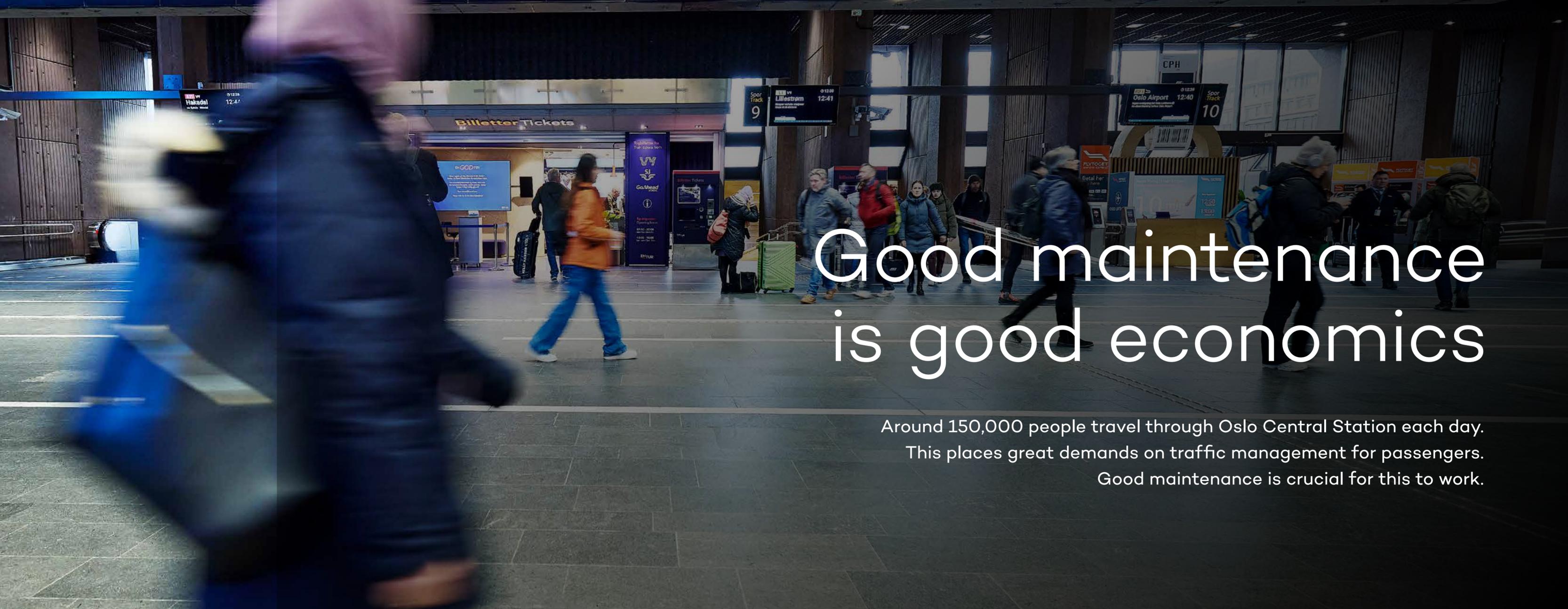
- We work actively against all forms of corruption and bribery.
- We place clear ethical demands on our suppliers, including respect for fundamental human rights. This is a criterion for entry into any contract.
- We have an established HR policy, which forms the basis for the work on workers' rights, human rights and protection against discrimination.
- We have established HSE procedures in line with the applicable requirements.
- We have an environmental programme aimed at reducing the company's environmental impact and maintaining the company's certification in accordance with NS-EN ISO 14001.
- We have an established emergency response and security plan.



Avganger Departures				Avganger Departures				Neste tog til Next train to				Sustainability, CSR and HSE								
Tog til Destination	Føremst Expected	Spor Track		Avgang Departure	Tog til Destination	Føremst Expected	Spor Track	Asker via Nationaltheatret • Lysaker	Nå	1 min.	Lillestrøm Direkte tog / Direct trains	Nå	4 min.	12:54	Ankomst Arrival	Tog fra Train from				
Skien	12:39	5	via Lysaker - Asker - Torshov	12:57	Asker	12:39	7	Stopper ved alle stasjoner / Stops at all stations	Skien	Spor 5	Dal	Oslo Lufthavn	Oslo Airport	12:50	12:32	Jaren	8	✓	✓	
Moss	12:39	17	Direkte til Ski / Direct to Ski	12:59	Asker	12:39	5	Via Nationaltheatret - Lysaker	1 min.	Spor 7	Dal	Oslo Lufthavn	Oslo Airport	12:54	12:33	Rakkestad	12:30	19	✓	✓
Oslo Airport	12:39	10	Stopper ved alle stasjoner / Stops at all stations	13:00	Oslo Airport	12:39	10	Ingen avvikling før Oslo Lufthavn Ø / No disembarking before Oslo Airport	3 min.	Spor 17	Dal	Oslo Lufthavn	Oslo Airport	12:54	12:36	Eidsvoll	5	✓	✓	✓
Spikkestad	12:39	7	Disembarking at Gullhaug, use the rear coach	13:01	Halden	12:39	16	Direkte til Ski / Direct to Ski	3 min.	Spor 19	Dal	Oslo Lufthavn	Oslo Airport	12:50	12:39	Lillestrøm	7	✓	✓	✓
Lillestrøm	12:39	9	Stopper ved alle stasjoner / Stops at all stations	13:01	Lysaker	12:39	3	Stopper ved alle stasjoner / Stops at all stations	3 min.	Spor 19	Dal	Oslo Lufthavn	Oslo Airport	12:50	12:39	Spikkestad	9	✓	✓	✓
Rakkestad	12:39	19	Direkte til Ski / Direct to Ski	13:04	Gjøvik	12:39	8	Via Åsa - Jaren - Raulot	3 min.	Spor 19	Dal	Oslo Lufthavn	Oslo Airport	12:50	12:41	Drammen	11	✓	✓	✓
Hakadal	12:39	8	Via Halden - Hiltedal	13:04	Kongsvinger	12:39	11	Direkte til Lillestrøm / Direct to Lillestrøm	3 min.	Spor 19	Dal	Oslo Lufthavn	Oslo Airport	12:50	12:43	Stabekk	13	✓	✓	✓
Dal	12:39	11	Direkte til Lillestrøm / Direct to Lillestrøm	13:04	Kolbotn	12:39	13	From to Kolbotn, please use the front coach	3 min.	Spor 19	Dal	Oslo Lufthavn	Oslo Airport	12:50	12:45	Ski	3	✓	✓	✓
Ski	12:39	13	Stopper ved alle stasjoner / Stops at all stations	13:09	Kongsberg	12:39	5	Via Lysaker - Asker - Drammen - Høkkand	3 min.	Spor 19	Dal	Oslo Lufthavn	Oslo Airport	12:50	12:46	Dal	5	✓	✓	✓
Stabekk	12:39	3	Stopper ved alle stasjoner / Stops at all stations	13:10	Moss	12:39	17	Direkte til Ski / Direct to Ski	3 min.	Spor 19	Dal	Oslo Lufthavn	Oslo Airport	12:50	12:48	Trondheim S	13:01	4	✓	✓
Drammen	12:39	5	Via Nationaltheatret - Lysaker - Asker - Lier											12:48	Moss	17	✓	✓	✓	
Oslo Airport	12:39	10	Direkte til Oslo Lufthavn Ø / Direct to Oslo Airport											12:51	Halden	18	✓	✓	✓	
Eidsvoll	12:39	11	Direkte til Lillestrøm / Direct to Lillestrøm											12:51	Kongsberg	11	✓	✓	✓	
Lillestrøm	12:39	9	Stopper ved alle stasjoner / Stops at all stations																	



BANE NOR



# Good maintenance is good economics

Around 150,000 people travel through Oslo Central Station each day. This places great demands on traffic management for passengers. Good maintenance is crucial for this to work.



### Large investments

Over the past twelve years, substantial investments have been made in railway infrastructure and rail vehicles. Flirt train set number 150 has been delivered – new hybrid train sets that operate in the north, on both electrified and on non-electrified lines, have been purchased. And of course the Follo Line, Norway's largest transport project that offers the shortest ever journey times on the Ski–Oslo route. When investments are made in infrastructure and rail vehicles, investments in maintenance are also required to ensure profitability, predictability and comfort for travellers. Sustainability and good economics are built into the system, and help to reduce future investment needs.

### Increased load on railway infrastructure

The burden on Norwegian infrastructure is increasing. The market has been opened up to more competition. This means more players on both the passenger and freight sides, increasing the strain on infrastructure and rolling stock.

There is no doubt that a well-developed and efficient public transport network makes economic sense. There are substantial benefits in many areas, in both economic and climate terms. But the work will not take care of itself. Large investments require systematic and professional follow-up if they are to be profitable. New trains also need maintenance to ensure safe operation. This is necessary to maintain availability and preparedness and to prolong the lifetime of the equipment.

Systematic maintenance adapted to the individual types of trains and components is crucial, while the demands for greater regularity are increasing all the time.

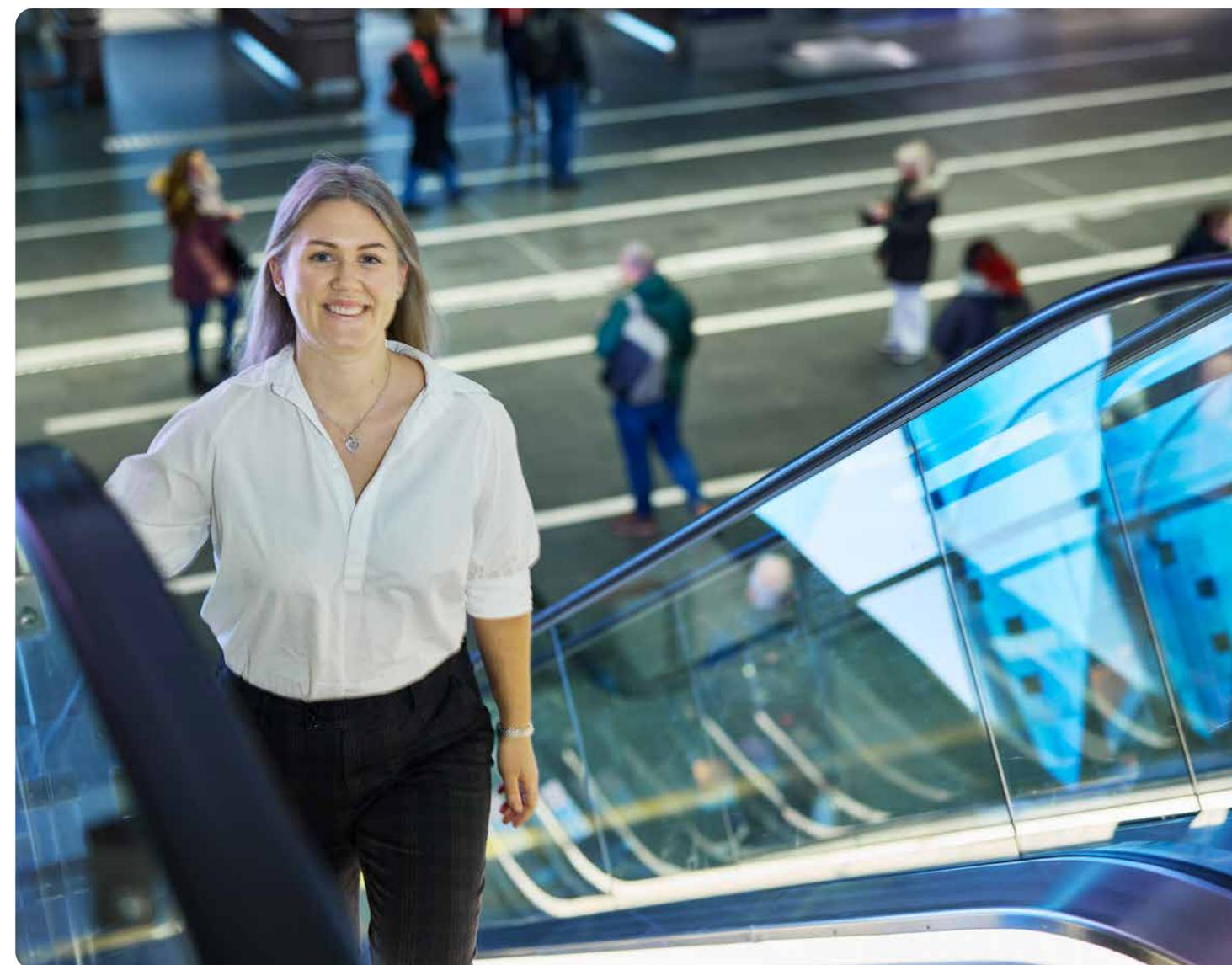
### Complex logistics

Transporting passengers and freight is logistically complex, especially when more operators have access to the rail network and the density of trains is greater than ever. Reliable and accessible trains are essential to maintaining the optimum traffic flow: Trains must be accessible and must be in safe and reliable condition. The safety and accessibility requirements placed on the train fleet are increasing. This means that the time available to carry out maintenance will be shorter, while the maintenance has to be better aligned with the trains' natural breaks in service. Mantena is constantly striving to develop expertise, methods and processes, for ever better and more efficient maintenance. Good systems have also been established for planning and communication with the train companies and those that control the traffic.

### Our social responsibility

Mantena is there to help ensure that passengers and goods arrive safely at their destinations. Services are undergoing continuous improvement to ensure that they are perceived as safe and predictable, while also meeting the requirements for sustainability, safety and profitability. Good, systematic maintenance is therefore essential to achieving this.

”  
**Reliable and accessible trains  
 are essential to maintaining the  
 optimum traffic flow.**



“Good maintenance ensures availability and readiness and prolongs the lifetime of the equipment,” emphasises Silje Holestøl, Director of Strategy and Programmes at Mantena.



# A career track with huge possibilities

Mantena offers diverse internal career paths to create the workforce of the future. Development opportunities are many and varied, and a person can build a whole career within the different divisions of Mantena.

## In Mantena you can develop, without having to “change platforms”.

”



– Trym Berge Mathisen's career has been running on rails in Mantena since he was 17 years old: Placement student, apprentice, skilled worker, deputy for the production manager, production manager, maintenance controller and now a maintenance engineer. Here he is with Tone Sande, Director HR and KHMS.

If we are to deliver maintenance services adapted to current and future needs, we need a combination of new blood and more mature skills. Mantena aims to promote personal development, stimulate interaction and emphasise innovation. In this respect, the company's investment in apprentices is not just an important contribution to society, it is also a conscious development strategy.

“Mantena's success depends on the competence of our employees. Maintaining a good mix of experienced and newly qualified employees is crucial for us to take a leading role and become the preferred partner for our customers,” says Tone Sande, Director of HR and QHSE at Mantena.

### Approved training company – important for recruitment

Mantena is an approved training company for train electricians, industrial mechanics and fitters. Over the years, it has taken many apprentices through to their coveted craft certificate. There are currently ten apprentices at Mantena, split between the Grorud, Marienborg, Stavanger and Sundland locations.

– Apprentices are, and always have been, an important source of recruitment for us at Mantena, Sande emphasises.

The transfer of knowledge between apprentices and experienced employees is important to developing the right expertise in the company. Mantena has many employees with long and valuable experience, as evidenced by an average of 21 years' service with the company. Several

gold watches have been awarded over the years, for 40 years of service.

– We hope and believe this is a result of our long-term efforts to create a workplace where employees are proud to contribute and have the opportunity to develop throughout their careers, says the HR Director proudly.

The figures also support this. Of the total number of hires into positions in Mantena in 2022, as many as 64% were internal. Specifically, 112 positions were filled last year, and in 72 cases, it was internal applicant who got the job. This shows that we are doing everything possible to give existing employees new opportunities.

### The right track in life

Trym Berge Mathisen is a good example of the way in which employees who show initiative and take responsibility are valued and given new challenges. The 34-year-old from Sørumsand has been associated with Mantena in various ways, and at different levels, for half his life. However, it was pure chance that he chose to pursue a career with the railways. Jobs on the railways, and the opportunities that exist in this sector, are not so well known among young people on the threshold of a long professional career. This was also true of Trym.

– I've always liked putting things together, so I started a basic mechanics course. The idea was to take over my father's car repair shop, but then I started a course in electrical engineering instead.

When I was at school, I got a work placement through an acquaintance, at the motor vehicle department in Lodalen where I grew up, he says enthusiastically. He was 17 at the time, and since then his career has only gone one way: on rails with Mantena.

### From apprentice to maintenance engineer

Apprentices at Mantena are given varied tasks. They visit several different departments during their apprenticeship, which provides a good base of experience and makes them attractive employees. As an apprentice in the company, Mathisen gained extensive experience in component maintenance and a valuable certificate as an automation systems engineer. The next step was a permanent shift position as a skilled worker.

– I have always been helped to progress in the company, given responsibility and guided towards new job titles and fresh challenges. It has been an exciting journey in a large organisation with many opportunities, says Mathisen. Today he is a maintenance engineer in Mantena's engineering department, a position he took up in the autumn of 2022, and is based at the head office at Oslo Central Station.

– With good and efficient maintenance, we help to keep trains in service for up to 30-40 years. That is a useful social mission. I consider it a privilege to be able to develop both personally and career-wise, without having to change platforms, so to speak, Mathisen concludes.

# Group management



**John Arne Ulvan**  
Managing Director



**Vidar Leirvik**  
CFO



**Silje Holestøl**  
Director, Strategy and Programmes



**Tone Sande**  
Director HR and Group HSE



**Silje Nilsen**  
Acting Divisional Director,  
Products and Projects



**Steffen Hæhre**  
Acting Divisional Director,  
Fleet Service



**Terje Hullstein**  
Head of Technology

## Board of Directors



**Kari Broberg** Chair of the Board

Kari Broberg holds a master's degree in Economics. She has experience in telecommunications, logistics, restructuring and innovation. Broberg is a former Vice President at Alcatel Norway AS with responsibility for the establishment of Alcatel Baltics, and former CEO of Hartmark Consulting. Broberg also has board experience from Telenor, Norske Skog, Norconsult, Cargo Net and Felleskjøpet Agri, among others. Broberg runs a farm on Toten.



**Ronny Solberg** Deputy Chair

For the past five years, Ronny Solberg has worked as CEO of several companies in Georgia. There he headed development of a large hydroelectric power plant and developed a new deep water port with roads, railways and power lines. Solberg has a background from manufacturing companies such as ABB, Statnett, Clemens Kraft and ADtrans/Bombardier. Among other things, Flytog, Signaturtog and InterCity trains were supplied under his leadership at ADtrans/Bombardier. Solberg also has board experience from ABB and Motor & Generator Service, as well as number of power generation companies. Solberg holds a master's degree in civil engineering and finance from NTNU in Trondheim.



**Marianne Kartum** Board Member

Marianne Kartum is a lawyer and partner in Advokatfirmaet LAG. Kartum has special expertise in employment law, and considerable experience of advising on termination and changes of employment conditions, including downsizing and restructuring processes. Kartum has many years of experience from various directorships in private and public-sector businesses. She is currently on the board of Danica Pensjonsforsikring AS, Forte Fondsforvaltning AS and Mercur Capital ASA.



**Stian Hårklau** Board Member

Stian Hårklau holds a master's degree in logistics and supply chain management. For the past 15 years, he has held various management roles, all of them associated with logistics and transport-related businesses. Hårklau worked with buses and freight in the Firda Billag Group, before moving to ferry and express boat operations with Fjord1, where he has been both CFO, Commercial Director and COO. He has spent the last few years in aviation, as head of the helicopter company Airlift, with operations spread across large parts of the country.



**Tord Helland** Board Member

Tord Helland holds a master's degree in business administration from the Norwegian School of Economics and Business Administration in Bergen. Helland works as CFO in the offshore shipping company Viking Supply Ships. Prior to that, he spent 12 years as CFO of the ferry and express boat company Norled. He has previous experience from PWC (Oslo), Mesta AS (Lysaker) and Sandnes Sparebank. Helland served on the board of Tide AS (2017 to March 2020). He was previously a director and chairman of internal Norled companies, and is now a director of internal Viking Supply Ships companies.



**Torbjørn Støre** Board member (employee-elected)

Torbjørn Støre is a qualified aircraft systems mechanic and worked for SAS at Gardermoen for five years. He started as a mechanic at Mantena Marienborg in 2003, and for the last 17 years has worked with light and heavy maintenance on BM93 trains. In the spring of 2020, Støre was elected chair of Statsbanenes Verkstedforening (the federation of Norwegian railway workshop technicians) in Trondheim and deputy chair of the national council of railway workshop technicians.



**Dag-Arne Johansen** Board member (employee-elected)

Dag-Arne Johansen is the main staff representative in Mantena for the Norwegian Railway Workers' Union, and chair of the national council of railway workshop technicians. He started work with NSB in 1980, as an engine cleaner in Loddalen in Oslo. In 1986 he got a job on the workshop side and earned his trade certificate as an industrial mechanic. He has experience of project management and internal communication at Mantena. Dag-Arne has been a union representative for 20 years.



**Petter Trønnes** Board member (employee-elected)

Petter Trønnes is a skilled worker in Mantena and secretary of the Norwegian Railway Workers' Union. Trønnes has been a union representative since 2003. He started as an apprentice plumber at the NSB workshop in Grorud in 1989, and has since worked there as a plumber and mechanic.



# Board of Directors' report

Mantena made good progress in 2022 in the face of challenging conditions, especially driven by the war in Ukraine. The portfolio of long-term customer contracts has been optimised and a new, modern paint hall has been completed. The competitiveness of the organisation has been enhanced and the equity in the Group has been strengthened.

Mantena consists of Mantena AS, Mantena Sverige AB, Mantena Finland OY and Mantena Danmark A/S. Mantena's head office is at Jernbanetorget 1 in Oslo.

Mantena is the largest provider of maintenance services to train operators in Norway. The core activity is maintenance of locomotives, rolling stock and motor units during breaks in service.

Mantena also provides workshop services for maintenance of components and parts, and has an extensive logistics function. Mantena also carries out maintenance and repairs on track maintenance machinery in Norway.

Mantena provides maintenance services in Sweden through its subsidiary Mantena Sverige AB. It also has start-ups in Finland and Denmark.

## Presentation of the financial statements

Mantena AS, Mantena Sverige AB, Mantena Finland OY and Mantena Danmark A/S are consolidated into the Group financial statements for Mantena.

Revenue for 2022 in the Mantena Group is MNOK 1,538 (MNOK 1,633 in 2021). Of this, Mantena AS accounts for MNOK 1,195 (MNOK 1,247 in 2021). There was slightly less activity in 2022 than in 2021 due to the termination of two contracts in Sweden and one contract in Norway.

The operating profit for the Group was MNOK 46 (MNOK -241 in 2021) and for Mantena AS, MNOK 55 (MNOK -177 in 2021).

Profit after tax for the Group is MNOK 38 (MNOK -223 in 2021) and for Mantena AS MNOK 101 (MNOK -262 in 2021).

The change in operating profit and profit after tax is mainly due by improved operations, and the reversal of earlier loss provisions related to the Öresundståg contract following renegotiated commercial terms.

Investments in property, plant and equipment totalled MNOK 18 in 2022.

The provision for restructuring in Mantena AS is MNOK 4.7 at the end of 2022.

Cash flow from operational activities was minus MNOK 38, investment activities stood at plus MNOK 2, and financing activities at plus MNOK 36 in 2022. The difference between the cash flow from operating activities and the operating profit is down to reversals of previous years' loss provisions after renegotiation of commercial terms.

The Board proposes that the positive result for the year be transferred to other equity.

After year-end appropriations, the Group's equity ratio is 22% (17% in 2021), while the equity ratio for Mantena AS is 29% (20% in 2021).

### Going concern

The Group has equity of MNOK 242 at 31.12.2022. Mantena AS has equity of MNOK 305 at 31.12.2022. The year-end appropriation has been made on the assumption of a going concern.

### Financial market risk

#### Currency risk

Mantena buys and sells mainly in Norwegian kroner. There is some currency exposure related to Swedish

kronor through operations in Mantena Sverige AB in 2022. Mantena has exposure from purchases of parts in Swedish kronor and euros. There is no significant change in exposure related to sales and purchases from 2021 to 2022.

#### Interest rate risk

The Group is exposed to changes in interest rates, as the company has interest-bearing debt in the form of utilised drawing rights with a fixed credit limit.

#### Liquidity risk

There was little risk related to liquidity in 2022. In the future, the Board will focus especially on liquidity in a tight market.

#### Credit risk

Mantena's main customers are publicly owned companies. The company believes that, even after the coronavirus pandemic, these customers still have liquidity available. The credit risk is therefore still judged to be low.

#### Market risk

We may expect tougher competition in the market for train maintenance in Norway. In Norway, Traffic Packages 4 and 5 have changed to Østlandet 1 and 2, where the Norwegian state is in direct negotiations with Vy and Flytoget regarding operations. For Mantena, this means bidding for train maintenance for these two traffic packages in the way as for all other past and present traffic packages put out to tender. This raises uncertainty as to whether Mantena will still be maintaining the trains under these two contracts from 2024. In the



Swedish market, there are ongoing competitive procedures in a deregulated and open market, where several major contracts will be put out to tender in the period 2024–2027. In Finland and Denmark, deregulation of the train maintenance market has not continued and the process has been deferred. In Finland and Denmark, the public sector has purchased new train sets for future delivery, where train maintenance is included. This means that Mantena will work to win new customers for the provision of train maintenance.

### The future

Future competition will be met with high-quality services and efficiency. For several years, continuous efforts have been made to meet customer needs and to respond to increased efficiency and delivery requirements. In 2022, efficiency gains were made by reducing FTEs, particularly in connection with Norwegian operations.

In 2022, Mantena signed major contracts with Flytoget, CargoNet freight wagons, CargoNet diesel locomotives and Transitio.

Commercial terms have been renegotiated in the contract for Öresundståg, which is one of the largest in the Nordic region covering the maintenance of 101 train sets.

The project unit has won contracts with Signex, Hydex, CAF, Västtrafik, Vy, Norske tog, Sporveien, CargoNet and SJ. We won several contracts with Norske Tog in 2022.

In 2023, Mantena had contracts with Transitio, Go-Ahead, CAF, Flytoget and CargoNet renewed in the project improvement and paint/varnish segments.

In 2022, no further provisions were made for future operating losses in the contract portfolio.

In 2022, Mantena implemented a restructuring programme to significantly reduce costs and ensure competitiveness and profitability. In connection with this restructuring, two contracts were also terminated in Sweden with operations ceasing at the end of January 2022.

The war in Ukraine has created uncertainty in relation to supplies of some components, and efforts have been made to find alternative suppliers. In 2022, both the war in Ukraine and other imbalances in supply chains around the world led to very big price increases for electricity and raw materials. Electricity prices had a direct negative

effect on profits in 2022 and resulted in increased operating costs for the workshops. Parts prices gradually increased through 2022 and will also result in increased operating costs in 2023.

In 2023, Mantena will be exposed to the risk associated with cost increases due to rising inflation in the economy. Some of this cost increase will be offset by index adjustments on the revenue side of the contract portfolio.

#### **Extraordinary situation**

The coronavirus pandemic had a limited effect on Mantena's deliveries in 2022. The operators of passenger trains stepped up their activities during 2022.

Mantena was not eligible for the government's support schemes during the coronavirus pandemic and so did not receive any assistance.

In the second half of 2022, the exceptionally high electricity prices resulted in significantly increased operating costs for Mantena.

#### **Personnel and expertise**

At the end of the year there were 792 employees in the Mantena Group (967 in 2021), which represents an average of 818 full-time equivalents (969 in 2021). At the end of the year there were 653 employees in Mantena AS (752 in 2021), which represents an average of 690 full-time equivalents (750 in 2021).

Mantena is an inclusive (IA) employer. Good and

targeted work has been completed by managers and elected officials to meet the objectives in the IA agreement. Mantena aims to be an attractive workplace, with a working environment characterised by openness and trust.

Mantena takes responsibility for bringing apprentices into the company to ensure future access to skills. All employees must go through a training programme, and certifications as required to carry out current and future contracts. Employees are also put into a broad training programme related to project management and productivity-promoting measures.

#### **Equality and diversity**

Mantena aims to maintain equality and equal opportunities in terms of pay, employment, promotion, and education and training. The company is concerned with equal treatment, in which individual attributes are respected and valued.

Mantena has a conscious strategy of promoting equality of opportunity when recruiting new employees for the company. It ensures that women and men are offered equal opportunities to take on the different tasks within the company. Most women in the company are in management or administrative positions.

In Mantena's management team there are three women (43%). There are 66 women in the Mantena Group (8.0%), and 53 in Mantena AS (8.0%, against 7.4% in 2021).

On the Board of Mantena there are two women and six men.

In Mantena AS, one woman is employed on a temporary basis, representing 7.1% of a total of 14 temporary employees. There are two women working part-time, representing 15% of a total of 13 part-time employees. The average number of weeks of parental leave is 13.8 for women and 15.8 for men.

#### **Corporate governance**

Mantena follows the state's principles for good corporate governance (cf. Storting White Paper no 6 (2022-2023): "Greener and more active state ownership - The State's direct ownership of companies"). This ensures good interaction between the owners, the Board of Directors and the management of the company.

Mantena strives for end-to-end management to achieve the goals set by the owner for the business, broken down into the targets and policies adopted by the Board and management.

The Corporate Governance Statement is published on [www.mantena.org](http://www.mantena.org).

#### **The work of the Board**

During the year, the Board of Directors held 11 meetings. In 2022, the Board of Directors did not have any board committees. Directors' liability insurance has been taken out for the members of the Board and the CEO.

### HSE and traffic safety

Mantena puts safety first. Incidents were recorded in 2022 which, under other circumstances, could have had serious consequences. The cases have been followed up and dealt with in accordance with Mantena's management system.

All cases resulting in absence and all traffic safety incidents are reviewed in a monthly meeting which is always attended by representatives from Group management.

Systematic safe job analyses and risk analyses are carried out, which form the basis for the preventive work. 54 injuries were reported in 2022, compared to 68 the year before. In 2022, 39 personal injuries were reported in Mantena AS against 43 personal injuries the previous year.

The working environment is considered to be good with high job satisfaction.

Sickness absence in the Mantena Group in 2022 was 7.3% (7.5% in 2021) and in Mantena AS at 7.7% (8.3% in 2021).

The H1 factor was measured at 12.4 in the Mantena Group (9.0 in 2021). The H1 factor was measured at 12.5 in Mantena AS (7.0 in 2021).

### External environment

Mantena recognises that its business affects the environment. This is why continuous efforts are being made to improve the company's environmental performance and cut pollution, by setting its own requirements as well as meeting regulatory requirements and standards.

No issues have been reported with the handling of hazardous waste.

In 2022, nine environmental emissions (against three in 2021) were reported in the Mantena Group and eight environmental emissions (against one in 2021) in Mantena AS. None of the emissions had any

serious environmental consequences. Five of the emissions in 2022 are related to the same case.

The Board thanks the employees for their excellent efforts which have contributed to the positive growth in profits in 2022.

Oslo, 09.03.2023

**Kari Broberg**  
Chair  
(Sign.)

**Marianne Kartum**  
(Sign.)

**Petter Trønnes**  
(Sign.)

**Ronny Solberg**  
Deputy chair  
(Sign.)

**Stian Hårklau**  
(Sign.)

**Dag-Arne Johansen**  
(Sign.)

**John Arne Ulvan**  
ADM.DIR/CEO  
(Sign.)

**Tord Helland**  
(Sign.)

**Torbjørn Støre**  
(Sign.)

# Ambitions 2023 - 2027

	Value driver	Ambition	Activity
Growth	New contracts New customers Customer satisfaction	Significant growth in the period 2023 - 2027	Selecting the right contracts through good tendering procedures. Securing assignments in addition to public tendering procedures.
	Best at innovation New growth areas	Train performance ECM Engineering Infrastructure	Becoming a full-service supplier to the rail market requires more sources of revenue and will result in greater growth. Healthy growth may provide economies of scale.
Profit	EBIT Operating margin	Satisfactory operating margin	Unified project and contract management. Equal training and equal implementation. Focus on flow in work processes and extensive use of the MIMS production system. Good layout of workshop facilities.
	Stable returns to the owner over time	Prudent returns	Long-term returns, sustainable business, secure jobs and good conditions.
People and the environment	Sustainability	Increased trainset life	Adopt new technology, develop new maintenance programmes for increased performance and longer life of vehicles and components, re-engineer parts.
		Emission reductions	Reduce emissions. To define a baseline for the company's emissions based on the GHG Protocol in 2023, in order to set targets for 2024.
	No damage to the environment from our own operations	Establish and follow up an environmental programme with annual mapping of the environmental aspects of the business. Regular follow-up and annual review before setting fresh targets.	
	People	Sickness absence < 6.0%	Increased engagement and well-being in the workplace. Involve staff to ensure a shared view of goals and productivity.
The Mantena way Uniqueness	Project management Improvement work	To ensure consistent project execution. Continue the newly-launched Operational Excellence programme to improve workflows with increased productivity as a year-over-year goal.	
	Unified leadership	Conduct monthly management courses according to a plan for ensuring unified management. To conduct annual management seminars to strengthen capabilities and leadership.	
Security	Safe workplace and rail traffic	H1 < 6.0	Further focus on safety with an emphasis on finding new tools, work processes and safety equipment.
		Avoid unwanted incidents resulting from working on and running trains.	Emphasis on competence and skills development, continuous improvement through systematic efforts, and follow-up of incident reports. Good processes and causal analyses when incidents occur. Determine goals and KPIs and ensure continuous follow-up.



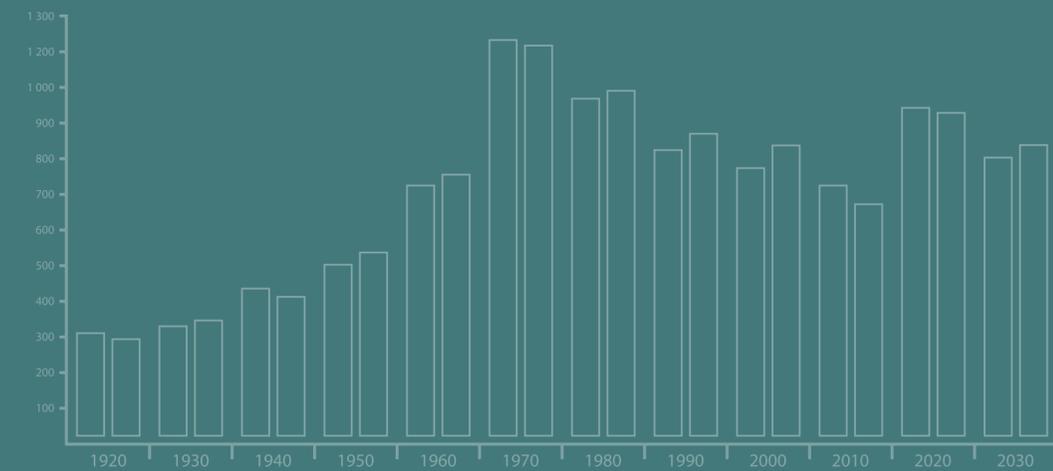
## KEY FIGURES

KEY FIGURES	2022	2021	2020	2019	2018
Revenue	1,538	1,633	1,536	1,571	1,502
Operating profit	46	-241	40	92	-8
Operating margin	3.0%	-14.7%	2.6%	5.8%	-0.5%
Operating equipment	73	80	102	100	103
Inventory	555	608	497	153	111
Banking/financial assets	-	-	-	278	172
Long-term loans	-	-	-	-	-
Pension liabilities	116	167	157	161	545
Equity	242	204	428	390	146
Equity ratio	22.1%	17.0%	37.1%	38.2%	13.2%





# MANTENA FINANCIAL STATEMENTS 2022



## INCOME STATEMENT

All figures in TNOK

		MANTENA GROUP		MANTENA AS	
Note	OPERATING INCOME AND EXPENSES	2022	2021	2022	2021
2, 13	Operating income	1,538,226	1,632,921	1,194,674	1,247,365
	<b>Total operating income</b>	<b>1,538,226</b>	<b>1,632,921</b>	<b>1,194,674</b>	<b>1,247,365</b>
4, 6	Cost of goods sold	546,717	497,471	359,965	336,189
3, 4	Payroll costs	599,499	771,522	512,317	613,613
9	Depreciation and amortisation of property, plant and equipment and intangible assets	31,942	35,622	13,645	31,821
5, 13, 6	Other operating expenses	313,898	569,099	254,083	442,657
	<b>Total operating expenses</b>	<b>1,492,056</b>	<b>1,873,714</b>	<b>1,140,010</b>	<b>1,424,279</b>
	<b>Operating profit</b>	<b>46,171</b>	<b>-240,793</b>	<b>54,664</b>	<b>-176,915</b>
	<b>FINANCIAL INCOME AND EXPENSES</b>				
	Other financial income	3,183	5,707	70,296	5,707
	Other financial expenses	-16,526	-16,116	-14,594	-131,384
7	<b>Net financial income</b>	<b>-13,342</b>	<b>-10,410</b>	<b>55,701</b>	<b>-125,677</b>
	<b>PROFIT FOR THE YEAR BEFORE TAX</b>	<b>32,828</b>	<b>-251,203</b>	<b>110,366</b>	<b>-302,592</b>
	<b>TAX EXPENSES</b>				
8	<b>Tax expenses</b>	<b>-5,307</b>	<b>-27,816</b>	<b>9,516</b>	<b>-40,920</b>
	<b>PROFIT FOR THE YEAR</b>	<b>38,136</b>	<b>-223,387</b>	<b>100,850</b>	<b>-261,672</b>
	<b>TRANSFERS</b>				
16	Transferred to/from other equity	38,136	-223,387	100,850	-261,672
	<b>TOTAL TRANSFERS</b>	<b>38,136</b>	<b>-223,387</b>	<b>100,850</b>	<b>-261,672</b>



## BALANCE SHEET

All figures in TNOK

ASSETS		MANTENA GROUP		MANTENA AS	
<b>Fixed assets</b>					
Note	Intangible assets	2022	2021	2022	2021
8	Intangible assets	125,171	138,804	110,425	119,941
<b>Total intangible assets</b>		<b>125,171</b>	<b>138,804</b>	<b>110,425</b>	<b>119,941</b>
Note	Property, plant and equipment	2022	2021	2022	2021
	Machinery and equipment	29,220	30,051	18,719	21,661
	Operational control systems	19,822	25,074	19,822	25,074
	Operating equipment, fixtures, tools, office machinery etc.	23,973	24,860	23,973	24,860
9	<b>Total property, plant and equipment</b>	<b>73,015</b>	<b>79,985</b>	<b>62,513</b>	<b>71,595</b>
Note	Financial fixed assets	2022	2021	2022	2021
10, 13	Investment in subsidiaries	-	-	72,477	677
13	Loans to enterprises in the same group	-	-	704	395
12	Other receivables	52,330	78,320	52,330	78,320
<b>Total financial fixed assets</b>		<b>52,330</b>	<b>78,320</b>	<b>125,511</b>	<b>79,391</b>
<b>TOTAL FIXED ASSETS</b>		<b>250,516</b>	<b>297,108</b>	<b>298,449</b>	<b>270,927</b>
<b>Current assets</b>					
Note	Goods	2022	2021	2022	2021
11	<b>Goods</b>	<b>555,483</b>	<b>607,708</b>	<b>493,683</b>	<b>503,493</b>
Note	Receivables	2022	2021	2022	2021
13	Trade accounts receivable	196,193	196,263	154,515	190,996
13	Other receivables	95,627	98,026	99,436	63,884
<b>Total receivables</b>		<b>291,820</b>	<b>294,288</b>	<b>253,952</b>	<b>254,880</b>
<b>TOTAL CURRENT ASSETS</b>		<b>847,303</b>	<b>901,997</b>	<b>747,635</b>	<b>758,372</b>
<b>TOTAL ASSETS</b>		<b>1,097,819</b>	<b>1,199,105</b>	<b>1,046,084</b>	<b>1,029,299</b>

All figures in TNOK

EQUITY AND LIABILITIES		MANTENA GROUP		MANTENA AS	
<b>Equity</b>					
Note	Paid-up equity	2022	2021	2022	2021
15	Share capital (100,000 shares @ NOK 1.100 )	110,000	110,000	110,000	110,000
	Other paid-up equity	433,474	433,474	433,474	433,474
16	<b>Total paid-up equity</b>	<b>543,474</b>	<b>543,474</b>	<b>543,474</b>	<b>543,474</b>
Note	Retained earnings	2022	2021	2022	2021
16	Other equity	-301,107	-339,243	-238,122	-338,972
<b>Total retained earnings</b>		<b>-301,107</b>	<b>-339,243</b>	<b>-238,122</b>	<b>-338,972</b>
16	<b>TOTAL EQUITY</b>	<b>242,367</b>	<b>204,231</b>	<b>305,352</b>	<b>204,502</b>
<b>Noncurrent liabilities</b>					
Note	Provision for liabilities	2022	2021	2022	2021
4	Pension liabilities	116,300	167,300	116,300	167,300
<b>TOTAL PROVISIONS FOR LIABILITIES</b>		<b>116,300</b>	<b>167,300</b>	<b>116,300</b>	<b>167,300</b>
<b>Current liabilities</b>					
Note	Current liabilities	2022	2021	2022	2021
	Accounts payable	64,284	114,141	50,654	30,028
8	Tax payable	-	-	-	-
	Social security and other charges	82,728	93,844	71,140	135,466
6, 13, 14, 17	Other current liabilities	591,140	619,589	502,639	492,004
<b>TOTAL CURRENT LIABILITIES</b>		<b>739,152</b>	<b>827,574</b>	<b>624,432</b>	<b>657,498</b>
<b>TOTAL LIABILITIES</b>		<b>855,452</b>	<b>994,874</b>	<b>740,732</b>	<b>824,798</b>
<b>TOTAL EQUITY AND LIABILITIES</b>		<b>1,097,819</b>	<b>1,199,105</b>	<b>1,046,084</b>	<b>1,029,299</b>

Oslo, 09.03.2023

**Kari Broberg**  
Chair  
(Sign)

**Ronny Solberg**  
Deputy chair  
(Sign)

**John Arne Ulvan**  
ADM.DIR/CEO  
(Sign)

**Marianne Kartum**  
(Sign)

**Stian Hårklau**  
(Sign)

**Tord Helland**  
(Sign)

**Petter Trønnes**  
(Sign)

**Dag-Arne Johansen**  
(Sign)

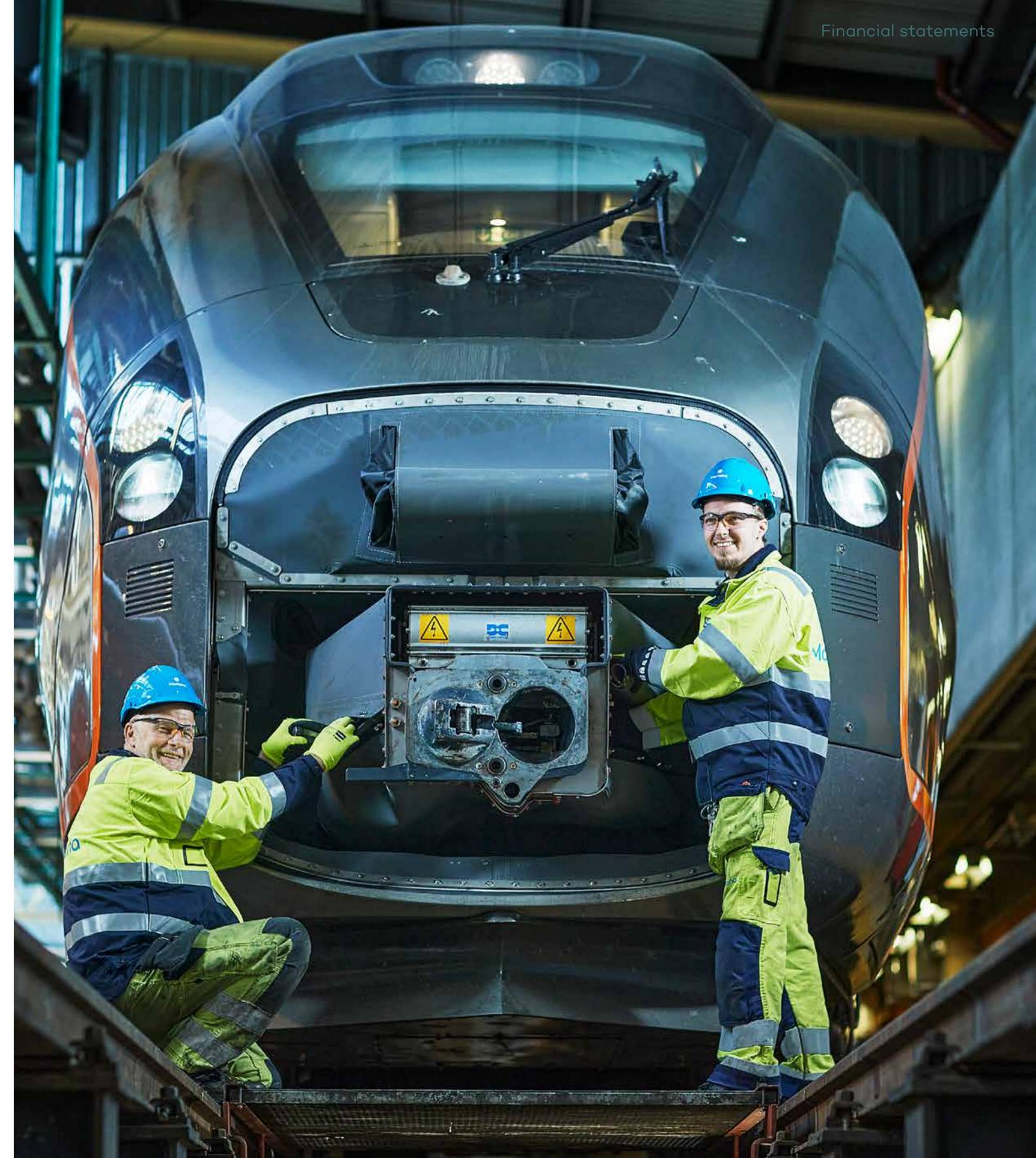
**Torbjørn Støre**  
(Sign)



## CASHFLOW STATEMENT

All figures in TNOK

	MANTENA GROUP		MANTENA AS	
	2022	2021	2022	2021
<b>CASH FLOWS FROM OPERATING ACTIVITIES</b>				
Profit for the year before tax	32,828	-251,203	110,366	-302,592
Tax paid in the period	-	-	-	-
Ordinary depreciation	31,942	21,622	13,645	17,821
Impairment of property, plant and equipment	-	14,000	-	14,000
Obsolescence provision, spare parts store	60,000	-	60,000	-
Pension costs with (-) / without (+) cash effect	-62,700	10,000	-62,700	10,000
Gains from sales of financial assets	-	-	-	-
Financial items with no liquidity effect	-	-	-	-
Unrealised foreign exchange gain/loss on receivables	1,311	3,776	1,311	3,776
Change in stocks of goods	52,266	-110,552	9,810	-88,833
Change in receivables and prepaid expenses	2,468	46,652	928	40,516
Change in accounts payable	-32,841	-18,839	-20,626	-17,329
Change in other liabilities	-128,534	38,702	-132,133	27,698
<b>Net cash flows from operating activities</b>	<b>-43,299</b>	<b>-245,841</b>	<b>-19,400</b>	<b>-294,941</b>
<b>CASH FLOWS FROM INVESTMENT ACTIVITIES</b>				
Purchase of property, plant and equipment	-17,535	-21,817	-13,089	-16,772
Proceeds from long-term receivables	24,521	17,183	24,521	17,183
Deposits/loans to subsidiaries	-	-	-4,673	-
Proceeds from sales of financial current assets	-	-	-	-
<b>Net cash flow from investment activities</b>	<b>6,985</b>	<b>-4,634</b>	<b>6,758</b>	<b>411</b>
<b>CASH FLOWS FROM FINANCING ACTIVITIES</b>				
Paid-up equity	-	-	-	-
Financial items with no liquidity effect	-	-	-67,127	56,519
Credit facility	36,314	250,476	79,768	238,011
<b>Net cash flow from financing activities</b>	<b>36,314</b>	<b>250,476</b>	<b>12,641</b>	<b>294,530</b>
Net change in cash in hand and at bank	-	-	-	-
Cash in hand and at bank at 01.01	-	-	-	-
<b>Cash in hand and at bank at 31.12</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>





## NOTES

### NOTE 1 - ACCOUNTING POLICIES

#### General information

Mantena AS and its subsidiaries are active within train and component maintenance. The company has its head office at Jernbanetorget 1 in Oslo.

- All shares in Mantena AS are owned by the Norwegian State (Ministry of Trade, Industry and Fisheries).
- All shares in Mantena Sverige AB are owned by Mantena AS.
- All shares in Mantena Danmark A/S are owned by Mantena AS.
- All shares in Mantena Finland OY are owned by Mantena AS.

The financial statements have been prepared in accordance with the Norwegian Accounting Act of 1998 and good accounting practice in Norway.

#### General rule for valuing and classifying assets and liabilities

Assets intended for long-term ownership or use are classified as fixed assets. Other assets are classified as current assets. Receivables to be repaid within a year are classified as current assets.

Similar criteria are used to classify current and noncurrent liabilities.

Current assets are valued at the lower of acquisition cost and fair value.

Fixed assets are valued at acquisition cost, but are written down to the recoverable amount if this is lower than the book value and the impairment is not expected to be transient. Fixed assets with a limited useful life are depreciated over the expected period of use.

Other current and noncurrent liabilities are valued at face value.

#### Assets and liabilities in foreign currency

Receivables and liabilities in foreign currency are converted at the rate in place on the balance sheet date.

#### Intangible assets

Expenses for own production of intangible assets, including expenses for internal research and development, are recognised when it is likely that the future financial benefits associated with the assets will fall to the company and the acquisition cost can be reliably measured.

Intangible assets purchased individually are recognised at acquisition cost. Intangible assets taken over as part of the acquisition of a company are recognised at acquisition cost when the criteria for recognition are met.

Intangible assets with a limited useful life are depreciated over the expected period of use. Intangible assets are written down to the

recoverable amount if the expected financial benefits do not cover the carrying amount and any remaining production costs.

#### Shares and shares in associated companies and subsidiaries

Investments in subsidiaries are valued by the cost method. Where an impairment is not considered to be transient, and it is considered necessary according to good accounting practice, investments are written down to fair value. Dividends received and group contributions from the subsidiaries are recognised as other financial income. The same applies to investments in associated companies.

#### Financial instruments, including fixed income funds, which

- are classified as current assets,
- are included in the company's liquidity,
- are traded on a stock exchange, authorised marketplace or similarly regulated market abroad, and
- have good ownership spread and liquidity
- are measured at fair value on the balance sheet date.

#### Goods

Goods are valued at the weighted average purchase price. For raw materials and work in progress, the net sales value is calculated as the market value of finished goods minus any

remaining manufacturing costs and sales costs. Goods from own production are valued at the lower of full manufacturing cost and fair value.

#### Revenue

From sales of services:

Income is recognised when it is earned, i.e. when claims for payment (consideration) arise. This happens when the service is provided, as and when the work is carried out. The income is recognised at the value of the consideration at the time of the transaction. For contracts with defined income over the contract period which are expected to result in net losses because the cost of provision exceeds the income, a provision is made for the best estimate of the net cost over the remaining contract period. Where the contract includes an option for the customer to extend the agreement, there is an assessment of the probability of the option being exercised.

#### Receivables

Trade accounts receivable and other claims are reported at face value minus any provision for expected losses. Loss provisions are made on the basis of an individual assessment of the specific receivables.

#### Cash in hand and at bank

Cash in hand and at bank includes cash, bank deposits and other means of payment with due dates less than three months from acquisition.

### Warranties and service work

For sales, the whole of the sale price, including the part relating to future warranty and service work, is taken to income at the time of the sale. A provision is made for future warranty and service work.

### Pensions

As from 01.01.2019, a defined-contribution pension scheme was implemented in the company. The company's defined-contribution scheme is organised in accordance with the Norwegian Act on Defined-Contribution Pensions.

On 31.12.2018, the company implemented an occupational pension scheme for older employees who could not be enrolled in a private AFP scheme. This relates to employees born before 1964. The occupational pension has a fixed term for the company, with payments due in the period 2019-2030.

### Costs

As a general rule, costs are recognised in the same period as the corresponding income. In cases where there is no clear relationship between expenditure and income, the allocation is determined according to discretionary criteria. Other exceptions to the matching principle are indicated where applicable.

### Taxes

The tax expense is matched against the accounting profit before tax. Tax related to equity transactions is recognised in equity. The tax expense consists of tax payable (tax on the year's direct taxable income) and changes in net deferred tax. Deferred tax and deferred tax assets are presented net in the balance sheet.

### Accounting currency and presentation currency

All figures are reported thousands of Norwegian kroner (TNOK).



## NOTE 2 - SALES REVENUE

Sales revenue by geographic market	MANTENA GROUP		MANTENA AS	
	2022	2021	2022	2021
Norway	1,124,378	1,174,964	1,128,653	1,174,822
Sweden	413,848	457,957	66,021	72,443
Finland	-	-	-	50
Denmark	-	-	-	50
<b>Total</b>	<b>1,538,226</b>	<b>1,632,921</b>	<b>1,194,674</b>	<b>1,247,365</b>

## NOTE 3 - PAYROLL COSTS, NUMBER OF EMPLOYEES, REMUNERATION, LOANS TO EMPLOYEES, ETC.

Number of employees	MANTENA GROUP		MANTENA AS	
	2022	2021	2022	2021
Number of full-time equivalents employed in the financial year	818	969	690	750

Payroll costs	MANTENA GROUP		MANTENA AS	
	2022	2021	2022	2021
Salaries, incl. employer's national insurance contributions	623,528	715,581	541,631	567,413
Pension costs - defined-benefit scheme	-1,100	7,000	-1,100	7,000
Pension costs - defined-contribution scheme	34,972	41,070	29,820	33,135
Pension costs - occupational pensions	-62,700	-602	-62,700	-602
Other benefits, including provision for restructuring costs and private contractual pension scheme (AFP)	4,668	8,472	4,668	6,667
<b>Total</b>	<b>599,499</b>	<b>771,522</b>	<b>512,319</b>	<b>613,613</b>

Payments to senior executives		MANTENA GROUP		MANTENA AS	
		Fixed salary	Variable pay	Pensions	Other benefits
Managing Director	John Arne Ulvan	2,870	-	171	-
CEO, Mantena Sverige AB	Jan Tore Iversen		50		-
CFO	Vidar Leirvik	1,581		166	
Director HR and Group HSE	Tone Sande	1,176		133	-
Head of Technology	Terje Hullstein	1,244		163	-
Director, Products and Projects	Silje Nilsen	370	112	52	-
Director Fleet Service	Steffen Hæhre	146	53	14	-
Director, Strategy and Programmes	Silje Holestøl	375		164	-
Board of Directors		1,896	-	-	

The Managing Director is a member of the company's defined-contribution pension scheme, which covers all employees. The premium for this has not been identified and so is not included in the figures above. In the Managing Director's contract of employment, a mutual notice period of 6 months has been agreed, from the first day of the month after notice was given. Payroll costs are related to each person's salary in their time as Managing Director in 2021. Other remuneration includes costs related to the company's defined-contribution pension scheme. The Director of Products and Projects, the Director of Fleet Service and the Director of Strategy and Programmes were in their positions for parts of the 2022 financial year.

Auditor - Remuneration to Deloitte AS and partner companies is as follows:	MANTENA GROUP		MANTENA AS	
	2022	2021	2022	2021
Statutory audit	588	523	455	435
Other services than regular audits	38	94	38	94
<b>Total</b>	<b>626</b>	<b>617</b>	<b>493</b>	<b>418</b>

## NOTE 4 - PENSION COSTS, ASSETS AND LIABILITIES

### General

The Group has pension schemes for its employees. The following is a more detailed description of the type of schemes the companies in Norway and Sweden have, and how these are organised.

### Pension scheme, Sweden

All of the Group's employees in Sweden have pension rights as described below and the company's liabilities are financed in multi-enterprise plans.

The scheme is a multi-enterprise plan, and the employer is responsible for the benefits until they are covered by payments. According to the Swedish Financial Accounting Standards Council, this is a defined-benefit scheme.

### PENSION SCHEME, NORWAY

#### Dissolution of defined-benefit plan

The company has withdrawn its employees from the defined-benefit pension scheme in the Norwegian Public Service Pension Fund (SPK) as of 31.12.2018, except for persons receiving disability and sickness payments. All employees will have deferred entitlements in the SPK when they leave the scheme, and will enter a new defined-contribution scheme from 2019.

Persons receiving disability and sickness payments will remain in the Norwegian Public Service Pension Fund, and the scheme has been closed. Based on actuarial calculations, a liability equal to MNOK 34.0 has been posted for these employees at 31.12.2022. There will be some uncertainty as to

the liability at the time when they are eventually withdrawn from the Public Service Pension Fund. The remaining members of the defined-benefit pension schemes in the Norwegian Public Service Pension Fund have been granted the right to defined future benefits. These are mainly dependent on the number of qualifying years, the salary on retirement and the amount of the benefits from the National Insurance scheme.

#### Defined-contribution pension scheme

Since 01.01.2019, a defined-contribution pension scheme has been implemented in the company. The company's defined-contribution scheme is organised in accordance with the Norwegian Act on Defined-Contribution Pensions. The scheme covers all employees.

#### Accounting for the AFP scheme

When the pension scheme in the Norwegian Public Pension Fund was closed, the company also withdrew from the contractual early retirement pension scheme (AFP) from 31.12.2018. On the same date, the company entered into the private AFP scheme. The scheme is therefore recognised as a defined-benefit scheme.

#### Occupational pension

On 31.12.2018, the company implemented an occupational pension scheme for older employees who could not be enrolled in a private AFP scheme. This relates to employees born before 1964, and assumes a future early retirement rate of 60.0% at 31.12.2022. In the financial statements as at 31.12.2022, MNOK 127.6 has been allocated for

future payments related to the occupational pension scheme. The occupational pension has a fixed term for the company, with payments due in the period 2019-2030.

#### Support for transitional arrangements for older employees after the closure of pension scheme in the Norwegian Public Service Pension Fund

The company is entitled to government support from the Ministry of Transport and

Communications for a transitional scheme for older employees following the dissolution of the pension scheme in the Norwegian Public Service Pension Fund and transition to the occupational pension and private AFP scheme. Approved support amounted to MNOK 320, of which MNOK 290.5 has been taken to profit/loss in connection with the dissolution of the defined-benefit scheme in the Norwegian Public Service Pension Fund from 31.12.2018.

Breakdown of net pension liabilities and support received	MANTENA GROUP		MANTENA AS	
	2022	2021	2022	2021
Norwegian Public Service Pension Fund, net liability for persons receiving disability/sickness benefits	33,998	37,500	33,998	37,500
Occupational pension scheme implemented 31.12.2018	127,600	210,200	127,600	210,200
Support for transitional scheme older workers when closing the Norwegian Public Service Pension Fund	-45,300	-80,400	-45,300	-80,400
<b>Net pension liability on the balance sheet</b>	<b>116,300</b>	<b>167,300</b>	<b>116,300</b>	<b>167,300</b>

Breakdown of pension costs in the income statement	MANTENA GROUP		MANTENA AS	
	2022	2021	2022	2021
Present value of accrued pension entitlements in the year - defined-benefit scheme	-1,100	7,000	-1,100	7,000
Pension costs - defined-contribution scheme	5,152	7,935		
Pension costs - defined-contribution scheme	29,820	33,135	29,820	33,135
Private AFP scheme	8,505	9,028	8,505	9,028
Occupational pension scheme - change in assessment of early retirement rate	-62,700	-602	-62,700	-602
<b>Total pension costs</b>	<b>-20,323</b>	<b>56,497</b>	<b>-25,475</b>	<b>48,561</b>

The following parameters have been used in the calculations for the defined-benefit scheme in Norway	MANTENA GROUP		MANTENA AS	
	2022	2021	2022	2021
Discount rate	3.2%	1.9%	3.2%	1.9%
Expected return on pension assets	3.2%	3.1%	3.2%	3.1%
Annual expected wage growth	3.8%	2.8%	3.8%	2.8%
Expected annual adjustment of old-age and survivor's pensions during payment period, over 67 years	2.8%	2.5%	2.8%	2.5%
Annual expected G-adjustment, adjustment of AFP, disability and survivor's pensions, under 67 years	3.5%	1.8%	3.5%	1.8%
Average employer's contribution factor	14.1%	14.1%	14.1%	14.1%

## NOTE 5 - OPERATING EXPENSES

	MANTENA GROUP		MANTENA AS	
	2022	2021	2022	2021
Breakdown of other operating expenses				
Sales and administration costs	203	1,025	203	1,024
Cost of premises, leased machinery and energy	216,149	253,040	193,914	199,491
Other operating expenses	97,546	315,033	59,966	242,141
<b>Total</b>	<b>313,898</b>	<b>569,099</b>	<b>254,083</b>	<b>442,657</b>

## NOTE 6 - LOSSES ON CONTRACTS

	MANTENA GROUP		MANTENA AS	
	2022	2021	2022	2021
Losses on contracts				
Reversed cost provisions (+) / Cost provisions for future losses on contracts (-)	103,000	-129,000	64,000	-88,000

This is a net expense for future contracts, taking into account of reversals of earlier loss provisions. These are long-term contracts and small changes in assumptions can produce a big change in values. There is high risk and a large outcome space. The cost estimate is the

most significant parameter, and the uncertainty is high. A change of +/- 1% in costs each year would translate into around MNOK 6 in value. The bulk of the payment flows are expected to occur in the next three years.

## NOTE 7 - TOTAL FINANCIAL ITEMS

	MANTENA GROUP		MANTENA AS	
	2022	2021	2022	2021
Financial items				
Net interest income and expenses	-7,402	-439	-6,885	81
Net other financial income and expenses	-1,185	-1,883	276	-1,821
Net foreign exchange gains/losses	-4,755	-8,088	-4,816	-7,418
Net impairment/write-up on investments	-	-	67,127	-116,519
<b>Total</b>	<b>-13,342</b>	<b>-10,410</b>	<b>55,701</b>	<b>-125,677</b>

## NOTE 8 - TAX COSTS

	MANTENA GROUP		MANTENA AS	
	2022	2021	2022	2021
Tax expenses for the year are as follows				
Tax payable	-	-	-	-
Change in deferred tax	-5,307	-27,816	9,516	-40,920
Effect of change in tax rules	-	-	-	-
<b>Tax expenses</b>	<b>-5,307</b>	<b>-27,816</b>	<b>9,516</b>	<b>-40,920</b>

	MANTENA GROUP		MANTENA AS	
	2022	2021	2022	2021
Tax payable in the balance sheet is as follows				
Tax payable for the year	-	-	-	-
<b>Tax payable on the balance sheet</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

	MANTENA GROUP		MANTENA AS	
	2022	2021	2022	2021
Reconciliation from nominal to actual tax rate				
Profit before tax	32,828	-251,203	110,366	-302,592
Expected income tax at nominal tax rate	7,222	-55,265	24,280	-66,570

	MANTENA GROUP		MANTENA AS	
	2022	2021	2022	2021
Tax effect of the following items				
Other non-deductible costs	3	16	3	16
Effect of changes in tax rules and rates	-	-	-	-
Effect of differences not included in temporary differences	-14,768	25,634	-14,768	25,634
Other items	2,236	1,798	-	-
<b>Tax expenses</b>	<b>-5,307</b>	<b>-27,816</b>	<b>9,516</b>	<b>-40,920</b>
Effective tax rate	-16%	11%	9%	14%

	MANTENA GROUP				MANTENA AS			
	2022		2021		2022		2021	
Breakdown of the tax effect of temporary differences and loss carry-forwards	Asset	Liability	Asset	Liability	Asset	Liability	Asset	Liability
Operating equipment	-	17,991	-	20,479	-	17,991	-	20,479
Goods	92,815	-	32,815	-	92,815	-	32,815	-
Receivables	-	-	1,500	-	-	-	1,500	-
Pension liability	116,300	-	167,300	-	116,300	-	167,300	-
Provision for liability	51,150	-	135,816	-	51,150	-	135,816	-
Loss carried forward	326,950	-	228,233	-	259,658	-	228,233	-
<b>Total gross temporary differences</b>	<b>586,950</b>	<b>17,991</b>	<b>565,663</b>	<b>20,479</b>	<b>519,922</b>	<b>17,991</b>	<b>565,663</b>	<b>20,479</b>
<b>Net temporary differences</b>	<b>568,958</b>	<b>-</b>	<b>545,184</b>	<b>-</b>	<b>501,930</b>	<b>-</b>	<b>545,184</b>	<b>-</b>
Net deferred tax assets (22%)	125,171	-	119,941	-	110,425	-	119,941	-
Reversal of assessed deferred tax	-	-	-	-	-	-	-	-
<b>Net recognised tax assets</b>	<b>125,171</b>	<b>-</b>	<b>119,941</b>	<b>-</b>	<b>110,425</b>	<b>-</b>	<b>119,941</b>	<b>-</b>

Deferred tax assets are posted on the basis of future income.

## NOTE 9 - PROPERTY, PLANT AND EQUIPMENT

	MANTENA GROUP					MANTENA AS				
	Machinery and equipment	Operational control systems	Transport	Facilities under construction	Total	Machinery and equipment	Operational control systems	Transport	Facilities under construction	Total
Acquisition cost 01.01.21	216,029	76,313	18,847	6,879	318,153	200,880	76,313	18,847	6,879	302,920
Purchase of operating equipment	11,627	5,975	350	13,238	31,210	6,764	5,975	350	13,238	26,327
Disposals	-1,508	-	-	-13,166	-14,674	-996	-	-	-13,166	14,162
<b>Acquisition cost 31.12.22</b>	<b>226,168</b>	<b>82,289</b>	<b>19,197</b>	<b>6,951</b>	<b>334,689</b>	<b>206,649</b>	<b>82,289</b>	<b>19,197</b>	<b>6,951</b>	<b>315,085</b>
Cum. depreciation and amortisation as of 31.12.21	167,946	51,241	18,981	-	238,168	162,548	51,240	17,537	-	231,326
<b>Cum. depreciation and amortisation as of 31.12.22</b>	<b>181,047</b>	<b>62,467</b>	<b>18,074</b>	<b>-</b>	<b>261,589</b>	<b>172,031</b>	<b>62,467</b>	<b>18,075</b>	<b>-</b>	<b>252,572</b>
<b>Book value as of 31.12.22</b>	<b>45,121</b>	<b>19,822</b>	<b>1,123</b>	<b>6,951</b>	<b>73,015</b>	<b>34,617</b>	<b>19,822</b>	<b>1,122</b>	<b>6,951</b>	<b>62,513</b>
Depreciation for the year	12,107	2,854	537	-	15,497	10,035	2,854	537	-	13,426
Write-downs for the year	219	-	-	-	219	219	-	-	-	219
<b>Depreciation for the year on capitalised costs</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>16,226</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>13,645</b>

Operational control systems have been written off to the value of NOK 8,373. The cost is covered by funds for restructuring; see Note 8.

<b>Depreciation and impairment for the year in the income statement</b>	<b>31,942</b>					<b>13,645</b>				
Useful life	5-30 years	5 years	5-30 years			5-30 years	5 years	5-30 years		-
Depreciation plan	linear	linear	linear			linear	linear	linear		

Rental of operating equipment and premises	2022	2021	2022	2021
Annual rental of unrecognised operating equipment	7,730	10,644	6,239	9,069
Rental of property	175,119	159,947	132,000	114,404
<b>Total</b>	<b>182,848</b>	<b>170,591</b>	<b>138,238</b>	<b>123,473</b>

## NOTE 10 - SUBSIDIARIES, ASSOCIATED COMPANIES ETC.

Company	Acquisition date	Business office	Share of votes	Holding	Book value
Mantena Sverige AB	01.07.07	Oslo	100%	100%	71,800
Mantena Danmark A/S	05.02.18	Copenhagen	100%	100%	652
Mantena Finland OY	09.05.18	Helsinki	100%	100%	24

Company	Currency	Exchange rate	Equity according to last financial statements	Net profit according to last financial statements
Mantena Sverige AB	SEK	0.95	13,126	4,788
Mantena Danmark A/S	DKK	1.41	200	-34
Mantena Finland OY	Euro	10.51	-49	-7

Figures represent 100% of the book equity in the companies as at 31.12.2022.



## NOTE 11 - GOODS

	MANTENA GROUP		MANTENA AS	
	2022	2021	2022	2021
Goods				
Components	555,100	607,708	493,683	503,493
Other inventories	-	-	-	-
<b>Total</b>	<b>555,100</b>	<b>607,708</b>	<b>493,683</b>	<b>503,493</b>

## NOTE 12 - RECEIVABLES DUE AFTER MORE THAN ONE YEAR

	MANTENA GROUP		MANTENA AS	
	2022	2021	2022	2021
Receivables due after more than one year				
Other receivables	52,330	78,320	52,330	78,320
Loans to enterprises in the same group			704	395
<b>Total</b>	<b>52,330</b>	<b>78,320</b>	<b>53,034</b>	<b>78,715</b>

## NOTE 13 - TRANSACTIONS AND BALANCES WITH RELATED PARTIES

**Owner**

As the owner of Mantena AS, the Norwegian State, through the Ministry of Trade, Industry and Fisheries, is a related party. Other enterprises owned by the State will also be related parties to Mantena AS.

**Companies in the same group**

Mantena Sverige AB, Mantena Danmark A/S and Mantena Finland OY are in the same group as Mantena AS.

**The Board of Directors and senior executives**

Members of the company's management or Board of Directors are also related parties with Mantena AS.

Transactions with related parties:	MANTENA GROUP		MANTENA AS	
	2022	2021	2022	2021
Sale of goods and services to other related parties	874,785	628,685	942,690	701,228
Purchase of goods and services from other related parties	329,800	300,621	332,154	308,302
Other related parties, liabilities	10,412	30,017	12,755	30,965
Other related parties, receivables	98,794	62,643	124,433	88,273

Receivables from the State of TNOK 45 300, see Note 4.

## NOTE 14 - BANK DEPOSITS

Financial items	MANTENA GROUP		MANTENA AS	
	2022	2021	2022	2021
Cash in hand and at bank includes restricted withholding tax	20,535	21,508	20,535	21,508

Bank deposits for tax withholding accounts are classified as other current liabilities in the financial statements because of the drawing rights used.

## NOTE 15 - SHARE CAPITAL AND SHAREHOLDER INFORMATION

The share capital in the company at 31.12.22 comprises the following share classes:	Number	Par value	Book value
Ordinary shares	100,000	1.1	110,000
<b>Total</b>	<b>100,000</b>		<b>110,000</b>

**Owner structure**

The shareholder in the company at 31.12.22 was:	Ordinary shares	Holding	Share of votes
The Norwegian State (Ministry of Trade, Industry and Fisheries)	100,000	100%	100%
<b>Total number of shares</b>	<b>100,000</b>	<b>100%</b>	<b>100%</b>

As from 1 January 2020, the Norwegian Ministry of Trade, Industry and Fisheries is the owner and sole shareholder in the company.

## NOTE 16 - EQUITY

Paid-up equity	MANTENA GROUP			Total equity
	Share capital	Other paid-up equity	Other equity	
Equity at 01.01.22	110,000	433,474	-339,263	204,210
Other equity	-	-	38,136	38,136
<b>Equity at 31.12.22</b>	<b>110,000</b>	<b>433,474</b>	<b>-301,107</b>	<b>242,367</b>

Paid-up equity	MANTENA AS			Total equity
	Share capital	Other paid-up equity	Other equity	
Equity at 01.01.22	110,000	433,474	-338,972	204,502
Other equity, profit for the year	-	-	100,850	100,850
<b>Equity at 31.12.22</b>	<b>110,000</b>	<b>433,474</b>	<b>-238,122</b>	<b>305,352</b>

## NOTE 17 - ACCOUNTS PAYABLE AND OTHER CURRENT LIABILITIES

	MANTENA GROUP		MANTENA AS	
	2022	2021	2022	2021
<b>Current liabilities</b>				
Accounts payable	64,284	47,969	50,654	30,028
Social security and other charges	82,728	93,844	71,140	135,466
Other current liabilities	591,140	619,589	502,639	492,004
<b>Total</b>	<b>739,152</b>	<b>827,594</b>	<b>624,432</b>	<b>657,498</b>

	MANTENA GROUP		MANTENA AS	
	2022	2021	2022	2021
<b>Other current liabilities</b>				
Allocated for restructuring	4,745	24,518	4,745	24,518
Unearned income	35,174	12,662	20,070	25,916
Allotted holiday money	50,986	61,421	47,377	53,545
Drawing rights used	394,034	357,719	344,956	265,279
Other short-term provisions	107,201	163,270	85,491	122,765
<b>Total</b>	<b>591,140</b>	<b>619,589</b>	<b>502,639</b>	<b>492,024</b>

The limit for the drawing rights has been raised to TNOK 600,000.

## NOTE 18 - PLEDGES AND GUARANTEES ETC.

	MANTENA GROUP		MANTENA AS	
	Guarantee amount	Expiry date	Guarantee amount	Expiry date
Vy Gruppen AS - Guarantee offer delivered	250,000	01.07.2023	250,000	01.07.2023
Vy Gruppen AS - Overhaul of Flirt units	20,000	20.11.2025	20,000	20.11.2025
Alstom Transport Norway AS - Installation	7,106	30.06.2025	7,106	30.06.2025
Cargo Net AS - Provision of maintenance	13,500	05.05.2033	13,500	05.05.2033
<b>Total</b>	<b>290,606</b>		<b>290,606</b>	

## NOTE 19 - EVENTS AFTER THE BALANCE SHEET DATE

The financial statements for 2022 have been drawn up on the assumption of a going concern. The company has budgeted for a positive operating profit for 2023.



## GUIDELINES FOR DETERMINING SALARIES AND OTHER REMUNERATION TO SENIOR EXECUTIVES AND MEMBERS OF THE BOARD OF MANTENA AS.

Adopted: 08.06.2023.

These policies are in line with section 5 of the company's articles of association, cf. Section 6-16a of the Norwegian Public Limited Companies Act and associated regulations, and with the "Guidelines for salary and other remuneration to senior executives of enterprises and companies with a state ownership interest" (Ministry of Trade, Industry and Fisheries 12.12.2022) and the expectations expressed in Storting White Paper No 6 (2022-2023): "Greener and more active state ownership - The State's direct ownership of companies". The expectation of moderation in the remuneration paid to senior executives is given great weight.

### General

Mantena's competitiveness, continued growth and profitability depend on motivated employees and capable managers. For this, it is important that individuals' salary and compensation should be perceived as predictable and fair, but this is not the only consideration. Salary and other compensation should be a motivating factor to produce the highest possible returns over time, and this should be reflected in the criteria applied to ensure that long-term objectives are prioritised over short-term gains. Mantena has a uniform pay policy and a salary system that aims to promote results and to be attractive, but not to lead the market. Mantena's remuneration policy is rooted in the company's goals, values and strategy.

These guidelines apply to the managing director and directors who report to the managing director of Mantena AS. This group is referred to as senior executives. All senior executives are employed by Mantena AS. The guidelines also apply to the Board.

The remuneration of the Board is determined by the general meeting.

### Decision-making process

The compensation scheme for senior executives consists of basic salary, pension and benefits in kind. The Managing Director's compensation package is determined by the Board of Directors. The Board of Directors approves the compensation scheme for other senior executives based on the recommendations of the Managing Director. The assessments are usually made in the second quarter of each year, subject to agreement between the management and the trade unions on the pay settlement.

Within the total salary budget for senior executives, the compensation may vary at the individual level, and this has to be justified to the Board by the CEO on the basis of agreed objectives and results achieved. The company's payroll report must also provide an explanation if the annual growth in the remuneration to individual senior executives is higher than the average wage growth for other employees, in either NOK or percentage terms.

### Guidelines for salaries and benefits in kind

The compensation to the Managing Director and senior executives must reflect the responsibilities and complexity of the job and the need to be attractive in the labour market. The compensation must be moderate, transparent and consistent with the principles of good corporate governance.

When a person is hired as a senior executive at Mantena, this must be on competitive terms. Any supplements in the following years should generally

use the same percentage applied to all employees in the company, but in such a way that when salary adjustments for senior executives are assessed, wage growth for other employees is also taken into account.

The main element of the compensation paid to the CEO and other senior executives is the base salary. The base salary is adjusted each year. There is also a car allowance which follows the government regulations.

Senior executives in Mantena AS have benefits in kind in the form of a mobile phone and a newspaper.

### Bonus scheme

There is no variable remuneration in Mantena.

### Pensions

A new pension scheme was implemented from 01.01.2019. The new scheme is a defined-contribution scheme in accordance with the Norwegian Act on Defined-Contribution Pensions:

- Contributions, 0 G –7.1 G: 5.5% (without deductible).
- Contributions, 7.1 G –12 G: 15% (without deductible).
- The defined-contribution scheme includes permanent and temporary employees filling at least 20% of a full-time position in accordance with Section 4-2 of the Act on Defined-Contribution Pensions.

There is also an AFP scheme in the private sector and an occupational pension for employees who were 55 or older on the transition date of 01.01.2019 and do not fall within the scheme for private AFP.

The retirement age for the Managing Director and senior executives is 70 years. All employees of Mantena AS can choose to retire at the age of 62 with AFP.

No pension costs are incurred for senior executives when they are no longer employed by the company.

### Severance, directors' fees and loans

Mantena does not have any agreements on severance pay to senior executives except with the Managing Director. Senior executives are paid during their notice period, which is 3 or 6 months.

In the Managing Director's contract of employment, a mutual notice period of 6 months has been agreed, from the first day of the month after notice was given. The Managing Director has waived his employment protection p under Chapter 15 of the Working Environment Act; cf. Section 15-16, second paragraph, of the Act. If the Board of Directors serves notice of termination, the Managing Director is entitled to 6 months' severance pay based on the base salary in addition to fixed pay and other benefits during the notice period. Departure before the end of the notice period does not limit the right to salary and additional benefits during the notice period. If the Managing Director has other income in the period covered by severance pay, the salary will be reduced accordingly. The salary will be reduced in proportion to the share of income from other positions. Only salary paid after the end of the notice period (the severance period) will be subject to any reduction. The right to severance pay will not apply if the Managing Director himself resigns his position. The right to severance pay will also lapse if the Managing Director has committed acts that meet the substantive conditions for dismissal pursuant to the provisions of the Working Environment Act.

Senior executives in Mantena do not receive any remuneration for Board positions in the Group. Employee-elected board representatives are excepted from this rule.

No senior executives have loans, options or share option programmes in Mantena.



## STATEMENT ON CORPORATE GOVERNANCE

Mantena AS, which is 100% owned by the State (Ministry of Trade, Industry and Fisheries), follows the current Norwegian Code of Practice for Corporate Governance from NUES within the limits and restrictions set by its legal form and ownership.

This statement on corporate governance has been issued by the Board of Directors of Mantena. The statement contains an overall account of compliance with the NUES Code of Practice. Compliance is based on a “follow or explain” principle in accordance with the 15 sections in the Code of Practice as set out below.

### SECTION 1: REPORTING ON CORPORATE GOVERNANCE

According to the State’s principles for good corporate governance (cf. Storting White Paper No 6 (2022-2023): “Greener and more active state ownership - The State’s direct ownership of companies”), there should be transparency regarding the State’s ownership and how this ownership is exercised, and the activities of state-owned companies. As owner, the State manages large assets on behalf of the community. Transparency has an bearing on trust in State ownership and also addresses democratic considerations by giving the public access to information. The responsibility for transparency falls on both the State as owner and on the companies, and the State as owner expects that companies with a State ownership interest will be open about important matters related to the company so that shareholders and other stakeholders can continuously assess the companies’ activities, results, development and target attainment.

Mantena’s principles for corporate governance essentially match those in the Norwegian Code of

Practice for Corporate Governance of 14 October 2021. Deviations from the Code of Practice are discussed under each section.

Deviations from the Code: None.

### SECTION 2: BUSINESS

Mantena’s purpose as stated in its articles of association is to provide “maintenance and workshop services to transport companies in the Nordic countries and similar activities”.

Mantena has defined three fundamental values that characterise the company. Mantena’s values are trust, efficiency and innovation. Together with Mantena’s business idea and vision, these values are intended to underpin goals and strategies and are used throughout the company.

In the course of their work, employees in Mantena have contact with customers, suppliers and colleagues. To maintain a uniform and professional impression, a code of conduct has been drawn up which supports a sustainable business. This applies to all employees. The Code of Conduct, including guidelines for procurement, the company’s safety and environmental policy, and the policy for an open corporate culture (guidelines on whistleblowing) have been approved by the Board and made available in the company’s management system via the company’s intranet pages.

Mantena has established guidelines for the company’s work on corporate social responsibility in accordance with Storting White Paper no 6 (2022-2023): “Greener and more active state ownership - The State’s direct ownership of companies”. The guidelines describe

how the company works in the areas of human rights, workers' rights, the environment/climate and anti-corruption.

Deviations from the Code: None.

### SECTION 3: EQUITY AND DIVIDENDS

As of 31.12.2022, Mantena AS has share capital of NOK 110,000,000, divided into 100,000 shares with a face value of NOK 1.10 each. All shares are owned by the State, through the Ministry of Trade, Industry and Fisheries.

In Storting White Paper no 6 (2022-2023): "Greener and more active state ownership - The State's direct ownership of companies", Mantena is defined as a Category 1 company, where the State's goal is the highest possible return over time in a sustainable manner.

The Group's equity at 31.12.2022 was MNOK 240.5, giving an equity ratio of 23.1%. The company focuses at all times on ensuring that the equity is commensurate with the company's objectives, strategy and risk profile. The Board of Directors monitors the company's equity and liquidity situation at all time. In the opinion of the Board, the company's equity is sufficient to realise the current strategies and objectives.

Mantena is 100% owned by the State through the Ministry of Trade, Industry and Fisheries. The State as shareholder defines the level of dividends in its wholly-owned companies. Under Section 20-4 of the Norwegian Limited Liability Companies Act, in companies where the State owns all of the shares,

the owner is not bound by the Board's proposal to the general meeting on the distribution of dividends.

No authorisations have been granted to the Board of Directors to increase the share capital. There is no option programme for employees of the company. Mantena does not have any treasury shares as at 31.12.2022. The general meeting has not authorised the acquisition of own shares.

Deviations from the Code: None.

### SECTION 4: EQUAL TREATMENT AND DIVIDENDS

#### Equal treatment of shareholders

Mantena AS is 100% owned by the Norwegian State through the Ministry of Trade, Industry and Fisheries. The recommendations for equal treatment of shareholders are therefore not considered relevant to Mantena.

#### Transactions with close associates

Mantena has transactions with companies or bodies that are closely associated with the company's owner, the Norwegian State. Among others, Vygruppen AS and Flytoget AS are major customers for Mantena, and Bane NOR is another key customer and supplier to Mantena. The agreements with these companies are considered to be on normal business terms. There are no significant transactions with their directors, senior executives or close associates.

Deviations from the Code: None.

### SECTION 5: SHARES AND NEGOTIABILITY

The company's articles of association do not contain any provisions limiting the negotiability of its shares.

Mantena AS is 100% owned by the Norwegian State through the Ministry of Trade, Industry and Fisheries. Shares in Mantena are not traded on or outside the public marketplaces.

Deviation from the Code: None

### SECTION 6: GENERAL MEETINGS

The general meeting is the company's supreme authority. The State as owner exercises its ownership influence at the company's general meeting.

#### Notice

The annual general meeting is held every year before the end of June. Notice of the general meeting is sent out no later than 14 days before the general meeting. The Board of Directors is responsible for giving notice of the general meeting.

Because Mantena is 100% owned by the State, through the Ministry of Trade, Industry and Fisheries, the NUES Code of Practice relating to the publication of notices and briefing documents on the company's website is not considered relevant.

#### Participation

Along with representatives from the Ministry of Trade, Industry and Fisheries, the general meeting is attended by the Chairman of the Board and the Managing Director/CEO. Mantena's external auditor also attends.

The Auditor General of Norway is notified of the general meeting and has the right to be present. The company does not require all of the directors to be present at the general meeting, but the whole of the Board including employee representatives are invited

and have the opportunity to attend.

#### Conduct of the meeting

The general meeting is opened by the Chairman of the Board. The general meeting elects a chairperson for the meeting.

Minutes of the general meeting are made available on the company's website.

Deviation from the Code: Because of the type of ownership, several of the sections in the NUES Code of Practice are not considered relevant to this point. Nor is there any requirement has been made for all Board members to be present at the general meeting.

### SECTION 7: NOMINATION COMMITTEE

The State as sole owner has the right to elect the shareholder-elected board members. The company therefore does not have a nomination committee.

Deviation from the Code: The company does not have a nomination committee.

### SECTION 8: BOARD OF DIRECTORS – COMPOSITION AND INDEPENDENCE

The State as owner is not represented in Mantena's governing bodies. One of the most important tasks for the State as owner is therefore to ensure that the company has a competent board of directors with the right expertise, which is also able to handle the strategic challenges facing the company at all times.

As of 31.12.2022, Mantena has a total of eight Board members, of whom five are elected by the shareholders and three by employees. The Ministry of

Trade, Industry and Fisheries chooses the shareholder-elected Board members. Board members are normally elected for two years. Elections for employee representatives are held every 2 years.

The employees have three representatives on the Board. Five deputies to these representatives have also been elected. In response to recent demands from the trade unions, employee representatives have been elected by proportional representation, where lists are voted on instead of individual candidates.

The Board members elected by the employees become full directors with the same rights and responsibilities as the shareholder-elected Board members. The employee representatives represent all employees of the company and are elected for two years.

Senior executives are not members of the Board of Directors. All members of the Board are independent of senior executives and significant business associates. The recommendation that two directors should be independent of the main shareholder is not considered relevant.

The company's annual report states the number of board meetings held during the financial year and the competence of the board members.

Deviation from the Code: Because the company is wholly-owned by the State, there are sections in the Code of Practice that are not considered relevant to Mantena. It is not stated how many board meetings each board member has attended. Otherwise, there are no deviations.

## SECTION 9: THE WORK OF THE BOARD

In accordance with the Norwegian Limited Liability Companies Act, there is a clear division of roles between the owner, the Board of Directors and the general manager.

The Board of Directors has overall responsibility for the management of the company. This means, among other things, that the Board of Directors establishes the Group's overall objectives and strategy and ensures that the company's activities are properly organised at all times by establishing the main principles for its this organisation, including ensuring that the administration has sufficient funds and sufficiently qualified personnel to ensure proper management. Matters of significant strategic or financial importance are dealt with by the Board of Directors. The Board of Directors must ensure that the Group has sufficient equity at all times to cover the risk and the size of the company within the Group.

The Board of Directors appoints and dismisses the Managing Director/CEO and determines his/her remuneration.

The instructions adopted for the Board provide more detailed rules on the Board's work and procedures within the framework of the Norwegian Limited Liability Companies Act and the company's articles of association. The Board instructions include provisions regulating the Board's work and procedural rules. The Board of Directors has issued a separate instruction on the Managing Director/CEO's duties and obligations to the Board.

It is the responsibility of the person elected to chair the general meeting to ensure that all relevant matters incumbent on the Board are dealt with at the appropriate time. A Board member or the Managing Director/CEO may ask for the Board to consider certain matters.

The Chairman of the Board, in consultation with the Managing Director/CEO, prepares the matters to be submitted to the Board.

A minimum of six Board meetings must be held each year. In 2022, 11 Board meetings were held.

The Board of Directors checks for possible conflicts of interest at the start of each Board meeting.

According to the Board instructions, a Board member may not participate in discussions or decisions on questions of importance to him/herself or to any close associate of the member who may be deemed to have a strong personal or financial interest in the matter. The Board of Directors has a particular focus on following up possible conflicts of interest.

The Board of Directors carries out an annual evaluation of its work and competence.

Deviations from the Code: None.

## SECTION 10: RISK MANAGEMENT AND INTERNAL CONTROL

Risk management and good control systems are an integral part of Mantena's business. The company's internal control routines should make it possible to

identify and manage risk, provide for effective and targeted management of operations, and ensure good quality of the Group's external and internal financial reporting. Improving internal control routines is a continuous process.

The company has common processes and procedures documented in Mantena's management system. For each process, a process owner has been identified, who is responsible for documentation of the processes, ongoing improvement work and anchoring.

It is the responsibility of the Board to ensure that the company has satisfactory control procedures and systems in place for risk management in light of the scope and nature of the company's activities. In this connection, the Board of Directors receives an annual review of the company's most important risk areas and internal control procedures.

Mantena is certified according to NS-EN ISO 14001:2015 Environmental Management Systems. All activities in Mantena must be carried out with a view to protecting the environment and preventing or mitigating adverse environmental impacts. Mantena is also certified according to NS-EN ISO 9001:2015 Quality Management Systems, and meets international requirements for good quality management. The company's management system for quality and environmental management is process-oriented and emphasises ongoing improvements and customer satisfaction. It is adapted to all business processes that affect quality and environmental management. Mantena's ISO certifications include all business areas and apply to the entire company.

### Risk management in Mantena

Mantena's risk management aims to help optimise the company's value creation and growth. Risk assessments should capture a comprehensive picture of risk related both to changes in external conditions and to the internal operation and development of the company.

### Financial reporting

Mantena has decided on uniform accounting principles for every business area. The reporting complies with the standards laid down by the Norwegian Accounting Standards Board (NRS). Mantena is also guided by the approved tax policy published on the company's website.

Responsibility for Mantena's financial reporting is split between the central Finance department, separate finance functions in the business areas and the Accounting department. Central Finance decides and follows up on common accounting principles, receives reports and handles consolidation. The business areas prepare monthly written reports with comments.

Monthly consolidated financial statements are prepared, with income statement, annual forecast, balance sheet and cash flow analysis for the Group, and presented to Group management and the Board of Directors.

Deviations from the Code: None.

### SECTION 11: REMUNERATION OF THE BOARD OF DIRECTORS

The general meeting determines the remuneration of the members of the Board of Directors. Remuneration

of Board members is not performance-based. There are no share option schemes for Board members or anyone else in Mantena.

Deviations from the Code: None

### SECTION 12: REMUNERATION OF EXECUTIVE PERSONNEL

Mantena follows Government guidelines for determining salaries and other remuneration to senior executives and members of the Board of Mantena AS. This information is published in the note to the consolidated financial statements and can also be found on the company's website.

The Board's statement on the determination of salaries and other remuneration to senior executives is shown in a note to the consolidated financial statements, which are available on the company's website.

The main objective of the company's executive pay policy is that management salaries in the company should be competitive but tend towards moderation in not being a leader in terms of pay compared to similar companies.

Remuneration to senior executives mainly comprises a fixed salary which is normally adjusted once a year. There is no agreed bonus scheme for the Managing Director/CEO. There are no option schemes or programmes for distributing shares to employees in Mantena.

Benefits to the Managing Director/CEO and senior executives are itemised and quantified in a note to the consolidated financial statements.

Deviations from the Code: None.

### SECTION 13: INFORMATION AND COMMUNICATIONS

Mantena publishes annual accounts on the company's website [www.mantena.org](http://www.mantena.org).

Mantena does not have securities traded on a stock exchange or other public marketplace and is thus not subject to the requirements for information and communication in the Securities Trading Act and the Stock Exchange Regulations. The Board of Directors has therefore judged that there is no need for guidelines for reporting the company's results and other information or for contact with shareholders outside the general meeting.

Deviation from the Code: In view of its ownership and the fact that the company is not subject to the requirements of the Securities Trading Act and the Stock Exchange Regulations, this section is not considered relevant to Mantena.

### SECTION 14: TAKE-OVERS

Because the company is 100% owned by the Norwegian State, the Board of Directors of Mantena has not yet found it necessary to draw up any guiding principles for how it should act in the event of a takeover bid.

Deviations from the Code: The Board of Directors has not yet found it necessary to draw up any guiding principles for how it will act in the event of a takeover bid.

### SECTION 15: AUDITOR

The general meeting elects the company's auditor. To

appoint the company's auditor, the administration makes a recommendation to the Board of Directors, and the resolution of the Board forms the basis for decision by the general meeting. The company's appointed auditor is Deloitte AS.

The auditor holds a meeting with the Board of Directors at least once a year to review the company's financial situation. The auditor attends the company's general meeting.

Each year, the auditor provides the Board of Directors with written confirmation that the auditor meets the requirements for independence. It is stated in a note to the accounts how the auditor's remuneration is broken down between regular audits and various additional services.

Guidelines have been laid down for the general manager to make use of other services from the auditor.

Deviation from the Code: None.

## Conclusion

We have audited the financial statements for Mantena AS, which comprise:

- the company financial statements, which comprise the balance sheet as at 31 December 2021, the income statement and cash flow statement for the year then ended, and notes to the financial statements, including a summary of key accounting policies, and
- the consolidated financial statements, which comprise the balance sheet as at 31 December 2021, the income statement and cash flow statement for the year then ended, and notes to the financial statements, including a summary of key accounting policies.

In our opinion:

- the financial statements comply with applicable statutory requirements,
- the financial statements give a true and fair view of the company's financial position as at 31 December 2021 and its financial performance and cash flows for the year then ended, in accordance with the Norwegian Accounting Act and good accounting practice in Norway, and
- the consolidated financial statements give a true and fair view of the Group's financial position as at 31 December 2021 and its financial performance and cash flows for the year then ended, in accordance with the Norwegian Accounting Act and good accounting practice in Norway.

## Basis for the conclusion

We conducted our audit in accordance with International Standards on Auditing (ISAs). Our responsibilities under these standards are described below under "The auditor's responsibilities for the audit of the financial statements". We are independent of the Company and the Group as required by laws and regulations and the International Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants (IESBA Code), and we have fulfilled our other ethical obligations in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

## Other information

The Board of Directors and the Managing Director (management) are responsible for the information in the Board of Directors' report. Other information includes information in the Annual Report, but does not include the financial statements and the associated auditor's report. Our opinion on the above financial statements does not cover the information in the Board of Directors' report.

In connection with our audit of the financial statements, we are required to read the Board of Directors' report. This is to assess whether there is any material inconsistency between the Board of Directors' report and the financial statements and our knowledge acquired during the audit, or whether information in the Board of Directors' report otherwise appears to be materially misstated. We are required to report if there is any material misstatement in the Board of Directors' report. We have nothing to report in this regard.

Based on our knowledge acquired in the audit, we believe that the Board of Directors' report:

- is consistent with the financial statements and
- contains the information required by law.

## Responsibilities of management for the financial statements

Management is responsible for the preparation of financial statements that give a true and fair picture in accordance with the Norwegian Accounting Act and good accounting practice in Norway. Management is also responsible for such internal control as it deems necessary to enable the preparation of financial statements that are free from material misstatements, whether due to fraud or error.

In preparing the financial statements, management is required to assess the ability of the company and the Group to continue as a going concern and to disclose any matters with a bearing on this. The financial statements should be based on the assumption of a going concern for as long as it is unlikely that the business will be wound up.

## The auditor's responsibilities in the audit of the financial statements

Our goal is to obtain reasonable assurance that the financial statements as a whole are free from material misstatements, whether due to fraud or error, and to present an audit report containing our opinion. Reasonable assurance is a high level of assurance, but it is not a guarantee that an audit conducted in accordance with ISAs will always detect a material misstatement where it exists. Misstatements may arise from fraud or error. and are considered material if, individually or collectively, they could reasonably be expected to influence financial decisions made by users on the basis of the financial statements.

As part of an audit in accordance with the ISAs, we exercise professional judgment and exercise professional scepticism throughout the audit. We also:

- identify and assess the risk of material misstatements in the financial statements, whether due to fraud or error. We design and perform audit procedures to address these risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatements resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations or overriding of internal control.
- obtain an understanding of the internal controls relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not to express an opinion on the effectiveness of the Company's or the Group's internal control.
- evaluate the appropriateness of the accounting policies used and the reasonableness of accounting estimates and associated disclosures made by management.
- form an opinion on the appropriateness of management's use of the going concern assumption in preparing the financial statements, based on the audit evidence obtained, judge whether there is any material uncertainty related to events or circumstances that could cast significant doubt on the ability of the Company and the Group 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 insufficient, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, subsequent events or circumstances may cause the Company and the Group to cease to operate as a going concern.
- evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and judge whether the financial statements reflect the underlying transactions and events in a manner that provides a true and fair picture.
- obtain sufficient and appropriate audit evidence regarding the financial information of the entities or business areas of the Group in order to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We are solely responsible for our audit opinion.

We communicate with the Board of Directors concerning the planned scope and timing of the audit. and any significant audit findings, including any deficiencies in internal control.

Oslo, 25 March 2022  
Deloitte AS

## Eivind Skaug

State-Authorised Public Accountant



# Mantena

Always moving forward