



**CONNECTING THE WORLD.  
BUILDING TOMORROW'S SUSTAINABLE PORT.**

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# INTRODUCTION

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# Milestones in 2023



## **Porthos gets green light**

Porthos has made the definitive investment decision. In 2024, construction work will begin in Rotterdam on the first major system for CO<sub>2</sub> transport and storage in the Netherlands. Porthos will store CO<sub>2</sub> from companies in the port of Rotterdam in empty gas fields under the bed of the North Sea. The Council of State agreed to the relevant zoning plan and environmental permits. Porthos will allow industry to contribute further to the climate goals



## **Shore power facility for Boskalis in Waalhaven**

Since 14 November 2023, Boskalis has had a large-scale shore power facility at its Waalhaven location in Rotterdam. Boskalis purchases green shore power from Rotterdam Shore Power (a joint venture of Eneco and the Port of Rotterdam Authority), which owns the shore power installation. Boskalis made its own arrangements for the grid connection.



## **New land on the Maasvlakte**

The Port of Rotterdam Authority signed a contract with Boskalis on 19 June for approximately 40 hectares of new land in the northwest corner of the Princess Alexiahaven. In this way, we are responding to the increasing demand for locations in the port area for the energy transition.



## **Expansion of container capacity strengthens Rotterdam's position**

Container terminal RWG is expanding its terminal in the Princess Amaliahaven by about 45 hectares and 920 metres of quay wall. APMT is opting for an extra 47.5 hectares and one kilometre of quay wall. This will, in time, result a potential increase of some 4 million TEUs (the standard size for containers).





8 EERLIJK WERK EN ECONOMISCHE GROEI



### **'Working in the port of Rotterdam' campaign launched**

The new campaign for the platform [werkeninderotterdamsehaven.nl](https://werkeninderotterdamsehaven.nl) was launched on 28 August 2023. Based on the idea that 'Everyone can work in the port of Rotterdam', the campaign promotes the wide variety of jobs and employers in the port to strengthen links with the labour market.



13 KLIMAATACTIE



### **Port of Rotterdam opens tree nursery in port**

The Port of Rotterdam Authority has started growing trees for its own use. About 500 trees were planted on the Rhoonsedijk on 15 March 2023. The nursery provides more greenery and more space for birds and insects, and we use the trees to adorn new sites.



9 INDUSTRIE, INNOVATIE EN INFRASTRUCTUUR



### **Container Exchange Route opened**

After long preparations, the Container Exchange Route (CER) on the Maasvlakte went into operation in late 2023. The 17-kilometre closed road network connects several major terminals and the State Inspection Terminal of the Customs Authority. The parties will work closely together and share information. The closed transport route also helps to reduce drug trafficking and subversive crime in the port of Rotterdam.



7 BETALBAAR EN DUURZAME ENERGIE



### **Trading platform of Rotterdam-based scale-up Distro-Energy launched**

The trading platform of Distro Energy, a scale-up of the Port of Rotterdam Authority, was launched in June. Distro Energy developed a smart and fully automated trading platform that allows local companies to trade self-produced energy with each other and to optimise the use of that energy.



## Foreword from the Executive Board

### **Working together!**

With our customers and stakeholders, we generate economic and social value in the port of Rotterdam. We do this for the region, the Netherlands, Northwest Europe and the world as a whole. With an increasingly diverse and inclusive organisation, we feel responsible for contributing to a better living and working environment for people in Rotterdam and the surrounding area. That means having a safe and climate-neutral port. So safety is important, and we work on smart and 'green' logistics chains, boost renewable energy and facilitate circular industry. Our new purpose describes how we think and act: Connecting the world. Building tomorrow's sustainable port.

### **Clients central**

We are strongly committed to sustainability in the port and industrial complex. In that way, we strengthen the impact of the United Nations Sustainable Development Goals. Our clients also benefit. We invest in infrastructure, such as quays and terminals, and we use advanced systems and digital platforms to make the logistics chain more transparent and sustainable. With this focus, we help our current clients to stay competitive. In combination with our advice and support, this means we also appeal to new clients.



### ***Safety and security in all areas***

Safety and security in all areas are our highest priority. There were no serious shipping accidents in 2023. In our own organisation and on our projects, our policy is founded on developing and maintaining a proactive safety culture and continuously improving working conditions. Subversive crime also has our full attention. We are working with all the stakeholders concerned on practical measures to contain the impact. We installed even more smart cameras so we can detect subversive activities even faster and better.

### ***Financially healthy***

Once again in 2023, we booked a stable financial result. That is important in order to continue investing in traditional hardware such as quay walls and jetties, but also in infrastructure for the energy transition. We are also making ongoing investments in digitalisation and innovation. This all means we are working on the strength of the Rotterdam port and industrial complex as a strategic hub for global trade.

### ***Conditions for development***

Enough space is an important pre-condition for the sustainable development of the port. The pressure on the available physical and environmental space is increasing, and current dossiers in the areas of grid congestion and nitrogen are slowing development. We have an active management approach to sustainability initiatives. That involves investing in sustainable infrastructure, offering incentives for clients' sustainable initiatives, and working with grid operators and clients to resolve grid congestion. To organise solutions, we need not only the people and organisations that are directly involved, but also an effective government. The lead time for major projects can easily be five years. In other words, 2030 is 'tomorrow', and 2050 is 'the day after'. Speed is of the essence.

### ***Important milestones***

We reached a number of milestones in important areas in 2023. Porthos for CO<sub>2</sub> storage got the green light, the number of hydrogen projects increased rapidly, the installation of shore power made progress, the Maasvlakte acquired nearly 40 hectares of new land, container terminals RWG and APMT opted to expand their container capacity, and research showed that support for the port of Rotterdam is high. However, we mustn't rest on our laurels. There is work to be done: we are rolling up our sleeves and continuing to work hard.

### ***We do it together***

A memorable moment in 2023 was the departure of Allard Castelein. He was the CEO of the Port of Rotterdam Authority for nearly a decade and, during that time, he succeeded in changing the direction of the port from a grey to a green future. We are enormously grateful to him. We also wish to thank our colleagues for their dedication, professionalism and passion for our clients and the port. And we wish to express our gratitude to our clients and stakeholders for their support and cooperation. Together, we are building a sustainable and prosperous future for the port of Rotterdam. You can find out more in this annual report. We hope you enjoy reading it!

The Executive Board

Boudewijn Siemons and Vivienne de Leeuw



## **THE PORT OF ROTTERDAM AUTHORITY**

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# Profile of the Port of Rotterdam Authority

## Purpose, mission, vision, core tasks and strategy

The Port of Rotterdam Authority is an independent company established to develop the port of Rotterdam. The Municipality of Rotterdam and the Dutch State are the two shareholders.

### **Purpose: Connecting the world. Building tomorrow's sustainable port.**

What we do reflects our mission. Our vision statement describes how we go about it. Our purpose explains why. That purpose is twofold:

**Connecting the world:** As a port with international operations, we connect the world; that is in our blood. We have been doing this for years and we will continue for the generations to come.

**Building tomorrow's sustainable port:** Together, we are building a future-resilient and sustainable port. We assume our responsibility to contribute to a better living and working environment for everyone. We are working on a climate-neutral port. We make smart and 'green' logistics chains possible, boost renewable energy and facilitate circular industry.

### **Vision**

We are the developer of a leading, safe, efficient and sustainable port where our clients can achieve business success.

### **Mission**

We generate economic and social value by achieving sustainable growth in the world-class port in collaboration with clients and stakeholders.

### **Core tasks**

The Port of Rotterdam Authority manages, operates and develops the Rotterdam port and industrial area, and it is responsible for maintaining the safe and smooth handling of shipping. When executing our core tasks, we act as an entrepreneurial developer, matchmaker, facilitator, driver, director, investor and initiator. Successful coordination with third parties requires a clear definition of roles: what do we do and what do we not do? This provides operational focus. The Port of Rotterdam Authority is active in the Netherlands and elsewhere through participating interests and consultancy activities.

### **Corporate strategy**

The central focus is on generating social and economic impact that goes beyond the focus on volume. Relevance and quality also matter. Our activities allow our clients to be successful businesses.



We concentrate on three key areas:

**Smart partner in logistics chains**

By making high-quality infrastructure, information and data available, we are able to organise the handling of cargo in the logistics chain as efficiently and optimally as possible. In this way, we ensure that 'cargo' opts for Rotterdam.



### **Accelerator of sustainability in the port**

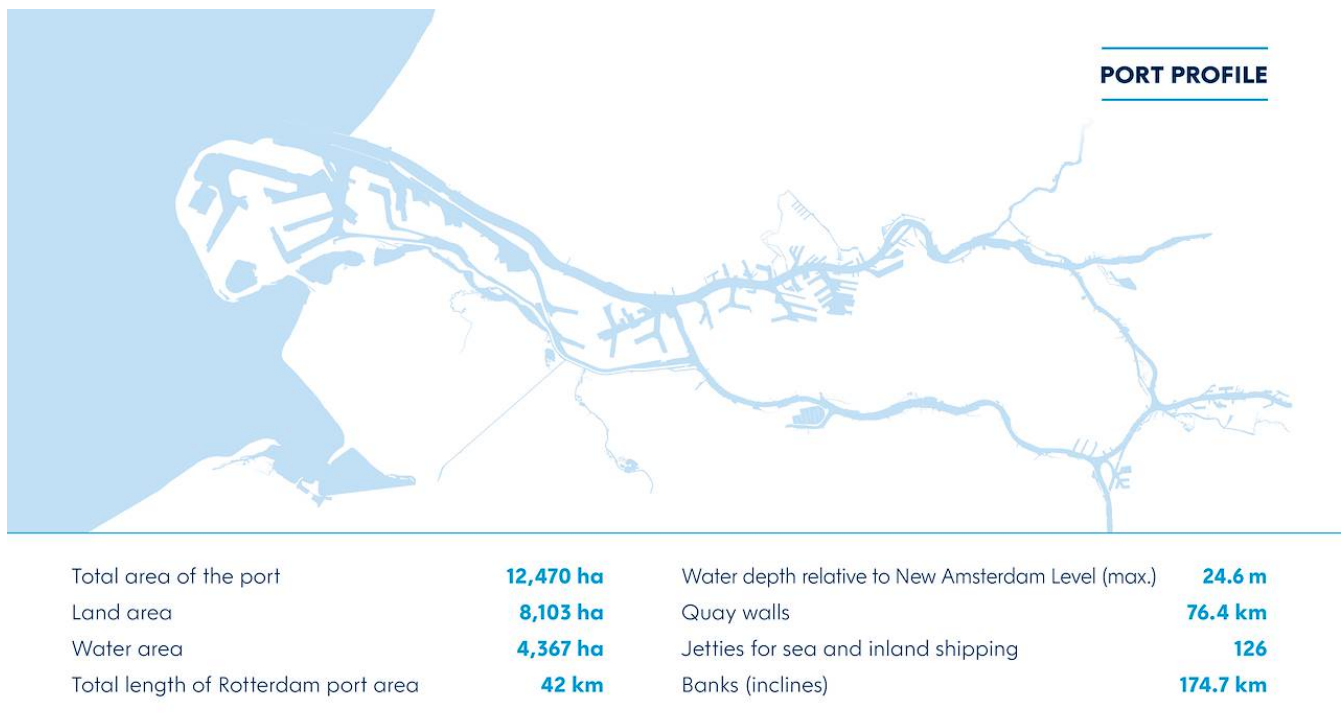
As an accelerator of sustainability in the port, our aim is to contribute to the carbon-reduction goal for the Netherlands of 55% relative to 1990 by 2030. With a wide-ranging portfolio of energy transition projects, we are moving towards carbon neutrality by 2050, attracting future-resilient cargo flows and operations, and investing in sustainability.

### **Entreprising and effective organisation**

We have strict standards for the effectiveness and client focus of our organisation. Sound internal and external collaboration, and clear responsibilities, help to make that happen. The direct effects include further improvements to the organisation's agility, the control of operating costs and capital expenditure, and the ongoing sharpening of our client focus.

## **Port profile**

With a maximum water depth of 24 metres, the port of Rotterdam can accommodate the vessels with the deepest draughts. Shipping, inland shipping, rail, road and pipeline modes meet in the port. In 2023, 27,886 seagoing vessels and 89,175 inland vessels called at the port.



# How we create value

As the developer of the port of Rotterdam, we are actively working to enhance our positive impact and therefore to increase economic and social value for our stakeholders. The value creation model below shows how we deploy our resources to achieve our strategic priorities and therefore to create value.



Our assets

Our business model

What are the results?

What are the long-term social effects?



OUR PEOPLE



FINANCES



INFRASTRUCTURE



DIALOGUE WITH STAKEHOLDERS

OUR PURPOSE (WHY):



**CONNECTING THE WORLD.  
BUILDING TOMORROW'S  
SUSTAINABLE PORT.**

OUR VISION (WHAT):



NAUTICAL SAFETY

Major incidents: 0  
Nautical safety index: 7.51

OCCUPATIONAL SAFETY

Lost Time Injury Frequency Rate (LTIFR): 0.41

ENERGY TRANSITION

Carbon emissions in HIC: 22.6 Mtonnes (2022)

ATTRACTIVE AND HEALTHY LIVING ENVIRONMENT

Nitrogen dioxide (NO<sub>2</sub>): 23.4 (µg/m<sup>3</sup>)(2022)  
Sulphur dioxide (SO<sub>2</sub>): 1.4 (µg/m<sup>3</sup>)(2022)  
Particulate Matter (PM10): 18.6 (µg/m<sup>3</sup>)(2022)

CYBERSECURITY PoR

Incidents on vital systems: 0

SUBVERSIVE CRIME

Increasing awareness  
Progress on 'Virtual fence' project  
Orange

PORT SUPPORT

Reputation of the port among local residents (incl. Dordrecht): 80.3  
License to grow port of Rotterdam among local residents (incl. Dordrecht): 73.9

QUALITY OF PORT INFRASTRUCTURE

7.4

CUSTOMER APPRECIATION

Customer satisfaction: 7.6

THE BASIS



Added economic value  
Zero major incidents in the port

ENVIRONMENT



Increase in logistical efficiency (30% in 2024)  
55% reduction in carbon emissions in HIC in 2030

SOCIAL



Contributions to employment in NL  
Development of our people

GOVERNANCE

## **Our resources**

Our value creation starts with the four resources that serve as input for our value creation: our employees (human capital), our assets (financial capital), our infrastructure including space (produced capital) and the ongoing dialogue with stakeholders (society and contacts).

### ***Our people***

The knowledge and competences of our employees (1,332) allow us to develop a port that is safe, efficient and future-resilient. We are continually investing in development through training and education. This maintains the standard of our employees' knowledge in a rapidly changing environment. The labour market is tight. Our employees are enthusiastic and they enjoy their work. With our new employer branding campaign, we are recruiting the right people. We bind young talent to our organisation by offering traineeships and internships, among other things. We believe diversity and inclusiveness (D&I) are important to keep on recruiting and retaining the best people, with diversity also playing a role in employee quality, better decision-making, and greater agility and innovation.

### ***Finances***

Our shareholders' equity (€ 4.6 billion) and loan capital (€ 1.7 billion) provide a solid foundation for implementing our core tasks and investing in the transition of the port. We invest a large share of our operating profit in the port and industrial complex. By doing this constantly, we keep the port relevant and strengthen our competitive position.

### ***Infrastructure***

The port covers a total area of 12,470 hectares. Our balance sheet (€ 6.2 billion) consists overwhelmingly of tangible fixed assets such as land, real estate, quay walls, jetties, buoys, dolphins, roads and railways. With the maintenance, renewal and the development of new projects in our infrastructure, we safeguard good accessibility so that we can serve our clients as well as possible. Physical space in the port and environmental space are limited; we carefully consider the different factors when allocating that space.

### ***Dialogue with stakeholders***

We build a sustainable and smart port with our stakeholders and partners. We are aware that we are a part of the city of Rotterdam. That is why we consult with the municipal authorities and devote considerable attention to our connections with the city. We use strategic locality management to consult with local, regional, national and international stakeholders. Given our early focus on their interests and the search to maximise mutual gains, that management approach is designed to prevent problems and, where necessary, solve them effectively. We have discussions with our stakeholders about our long-term strategy, policies, goals and priorities.

## **How do we fulfil our role?**

Our mission statement says: 'With clients and stakeholders, we want to generate economic and social value in order to achieve sustainable growth in our port'. We work with stakeholders every day to develop the port of Rotterdam further. With our capacity to invest, the quality of the port infrastructure is maintained at a high level. We manage this, for example, by developing and expanding infrastructure and energy infrastructure for new raw materials and fuels, connecting partners, providing space for business, investing in projects that advance sustainability, and expanding our position as a production location for sustainable activities in the value chain. In Chapter 3, you can read more about our 2023 policies and initiatives in the areas of the environment, society and governance.



Nitrogen deposition and the scarcity of environmental space, physical space and labour potential mean there is a limit to the projects we can execute. We therefore tailor our management approach in line with our portfolio. Are we engaging in the right activities, are we doing enough to achieve our goals and are we doing it in the right way? Those three questions are central to our portfolio management and they help us to introduce focus to the overall investment portfolio of opportunities and projects.

### **Our social impact**

Our activities have an impact on society, such as the economy and employment, the living environment, the energy transition, the climate, and safety and security. We describe our social impact and social value in our [Corporate Social Responsibility statement](#) (CSR statement). We strive for sustainable long-term value creation and consider economic, environmental, social and governance impacts.

### ***The basis: economy and infrastructure***



### **Impact**

The economic significance of the Rotterdam port and industrial complex is considerable. The 2023 Port Monitor shows that the direct added value of the port of Rotterdam is € 22.1 billion. If we include indirect added value, the port contributes € 30.6 billion; that is 3.2% of gross domestic product (GDP).

We try to minimise the negative impact of port activities but the port and industrial complex does have an impact on the living environment and nature. Safety and security risks (including cyber security risks) also persist. You can read more about this in the [Safety and Security](#) chapter.

### **Conditions and dependencies**

Successful operations depend on the right conditions being in place. The shortage of physical space and environmental space means that we have to make balance interests in a sound way. In addition, our licence to operate and licence to grow depend on our reputation among local residents and the Dutch public.

### ***The environment***



## Impact

It is important for the Port of Rotterdam Authority to ensure that the port and industrial complex is healthy and safe. We do this for shipping, local residents, employees in the port, companies and users (including leisure users) of the port area. Our goal is to have no major nautical incidents in our port and industrial complex. We achieved that goal in 2023. Carbon emissions in the Rotterdam port and industrial complex fell and air quality meets European standards. We see many species of animals living and breeding in the port. They make the most of the quiet and the space.

Although we try to minimise the negative effects of our activities, the port and industrial complex does affect the local environment. The margins for industrial noise are restricted and careful management is important. We look for a balance so that the port, work, leisure and homes can exist alongside each other. And despite the numerous initiatives, work on the sustainability of the port and industrial complex is not yet moving as quickly as we would like. Our target is a 55% reduction of carbon emissions in our port and industrial complex by 2030 by comparison with 1990 (20.6 Mtonnes). This means that we want to reduce carbon emissions to 9.3 Mtonnes in the port and industrial complex by 2030. Our target for 2022 (the figures lag a year behind) was 22.8 Mtonnes. The actual emissions in 2022 amounted to 22.6 Mtonnes. We are working towards our 2030 goal but progress will not be linear. Read more [here](#) about how we plan to attain our goal for 2030.

## Conditions and dependencies

Environmental issues extend beyond our zone of influence, which is why it is essential to work with others. We have an active stakeholder approach and we talk to our clients, government authorities, energy suppliers and NGOs on a regular basis. Stable legislation and regulations are essential in an industry characterised by large investments extending over long periods of time.

## Social



## Impact

The port of Rotterdam provides 193,427 jobs (directly and indirectly). More than 500,000 jobs are involved across the Netherlands as a whole.

In general, the construction and infrastructure sectors have relatively high accident rates. Safe and healthy work is therefore a top priority at the port of Rotterdam.

In addition, the logistics chains that pass through the port of Rotterdam can in some cases be linked to human rights infringements. You can read more about this [here](#).

## Conditions and dependencies

The labour market in the Rotterdam port and industrial complex is under pressure. There is more demand than supply and this mismatch also makes it difficult to fill vacancies (on time). With our partners, we are working to match education and labour market demand. One of the ways we do this is by working together to raise the profile of the innovative port where national and international companies invest and employees, job seekers, students and school-leavers are eager to work. We also team up with our partners in, for example, the Human Capital Coalition for the Energy Transition to improve collaboration and the match between education and the labour market.

## Governance



## Impact

We follow the Dutch Corporate Governance Code for our governance arrangements. You can read more [here](#) about the responsibilities of, and the relationship between, the Executive Board, the Supervisory Board and the shareholders.

Our Code of Conduct, in combination with our Corporate Social Responsibility (CSR) statement, guides our actions. That code describes how we behave with respect to our locality and commits us to the 'Ten Principles' of the United Nations Global Compact (UNGC).

Our risk management and control system is designed to mitigate the main risks for the Port of Rotterdam Authority and its stakeholders.

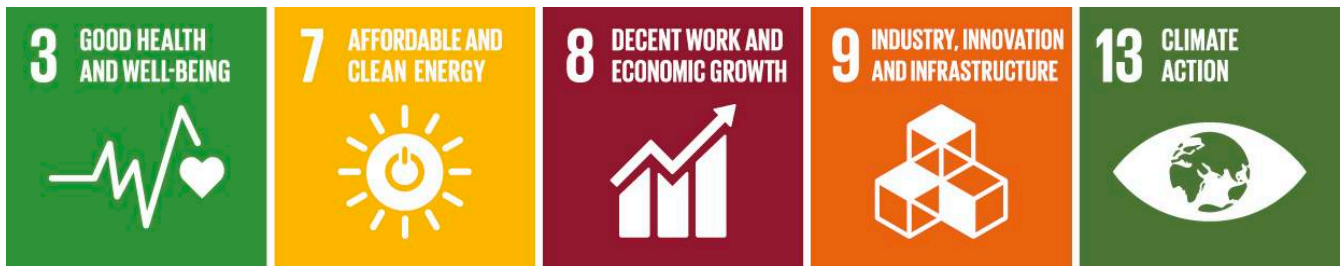
Unfortunately, we cannot eliminate all forms of corruption or subversion, and there are illegal activities in the port of Rotterdam. The port of Rotterdam has a limited influence but its impact on the surrounding area is significant. You can read more about our approach in [Subversion](#).

## The Sustainable Development Goals

Our contribution to the Sustainable Development Goals (SDGs) is directly linked to the strategic priorities and material themes. We describe the Port of Rotterdam Authority's contribution to the SDGs in the report in the discussion of all the material themes.



We embrace the United Nations' 17 Sustainable Development Goals and make the largest contribution to the following five SDGs:



With our commitment to a healthy and attractive environment and a safe working and living environment, we contribute to SDG 3 and SDG 13.

Our efforts in the field of the energy transition contribute to SDG 7 and SDG 13. At the same time, the theme relates to SDG 9 because we provide room for future-resilient business activity by investing in physical and digital infrastructure.

A vital port is inclusive when it provides jobs directly and indirectly for all levels of society. We therefore contribute to SDG 8 and SDG 9.

The following indicators show our contributions to the SDGs where we have the most impact.

## SDG 3



Lost-time incidents PoR: 1

Major incidents nautical HIC: 0

Air quality Rotterdam (annual average): concentrations  
> nitrogen dioxide (NO<sub>2</sub>): 23.4  
> sulfur dioxide (SO<sub>2</sub>): 1.4  
> particulate matter (PM<sub>10</sub>): 18.6

## SDG 8



Port of Rotterdam employment:  
**193,427 jobs**

Added value Dutch GDP: **3.2%**

Share of non-primary materials  
(secondary and renewable)  
infrastructure: **47%** (estimated)

## SDG 7



Share of non-fossil PIC  
transshipment: **56%**

Investment by PoR in energy  
transition portfolio: **23.4  
million euros**

## SDG 9



Modal split: 41%  
Hinterland transport by water  
or rail (2022)

Investment by PoR in public  
infrastructure: **103.8 million  
euro**

## SDG 13



Carbon emissions PIC:  
**22.6 Mton (2022)**

Carbon emissions PoR: **1,908.1  
Kton**



## **POLICIES AND RESULTS**

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# Safety and security

## The essential importance of safety and security

Maintaining safety and security in the port and industrial complex is one of our leading responsibilities: for shipping, but also for local residents, employees in the port, companies and users (including leisure users) of the port area. At all times, good partnerships are key. CEO and interim COO Boudewijn Siemons: *'When it comes to safety and security, I am a firm believer in hardware, software and mindware. All three require attention. Hardware means working with safe equipment. The software consists of the procedures and the rules. And mindware is the safety and security culture. What kind of openness do you have with each other? How much interest do you have in each other? You have to be generous with each other when it comes to safety and security. You also have to keep each other's back. You have to dare to call each other to account.'*

In addition to nautical safety, this area includes safety on projects, ship and environmental safety, flood risk management, subversive crime, safety at work and cyber security. We monitor the 'safety and security landscape' continuously and share our knowledge and expertise about the various subjects.

## Nautical safety

Rotterdam's Harbour Master (DHMR) has multiple duties and is responsible 24/7 for the safe, smooth and sustainable handling of shipping in the port. This involves working closely with pilots, tug services, linesmen, terminals, shipping companies and other partners in the port. You can read more about the duties and activities of the Harbour Master's Division on our [website](#). Employees use innovative solutions in their work. The port wants a more integrated approach to monitoring and enforcement, and how we tackle incidents. Important developments such as the energy transition and digitalisation cover all modes. The Harbour Master is therefore working more and more efficiently with better and smarter supervision. Harbour Master René de Vries: *'The world around us is changing. The energy transition means that we, as the DHMR, have to work differently in some respects to maintain the same high quality. The digital transition and the technology we work with are also changing. We not only embrace new technology, we are learning to work with it. And a data-driven approach is an increasingly important part of how we think and act.'*

## Incidents

- The target for the NSI is a grade equal to or higher than 7.0 (out of 10). The actual figure for NSI in 2023 was 7.51 and so we achieved our target.
- The target for major nautical incidents is always zero. We had no major incidents in 2023.

## Ship and environmental safety

Inspectors from the Harbour Master's Division monitor whether ships comply with environmental and safety regulations. The extent to which an inspected vessel complies with legislation and regulations determines the level of the Safety Environmental Index (SEI). A vessel that complies with all standards will score 10 on a scale of 0 to 10. The average score of all inspected vessels is the SEI. The required standard is 7.0. In 2023, this figure was 7.63 and so we achieved the standard. Depending on the severity of an infringement, the captain of a vessel receives a warning or an official report. A record is made in HaMIS. For some infringements, inspectors will return once more before the ship is allowed to leave the port of Rotterdam.

### **Compliance with Port Security Act and International ISPS Code**

Port security acts as a barrier against terrorism, subversive crime and cyber attacks. We are continuously investing in making the port more resilient to these threats. In addition to subversive crime and cyber security, we must also remain adequately prepared to cope with terrorist threats. As the Port Security Officer, the Harbour Master is responsible for ensuring compliance with terminal security regulations as set out in the Port Security Act. The Harbour Master's Division manages certification under the International Ship and Port facility Security code (ISPS) and monitors compliance. The European Commission found in September 2023 that the security measures at the public quaysides on Parkkade en Lloydkade did not comply with the ISPS code. This meant that, as of 20 October, no seagoing vessels were allowed to dock at these locations. A temporary workable solution was established in November 2023, making the Parkkade available again for shipping.

### **Camera surveillance officially launched**

In the future, the use of camera images will play an increasing role in the handling of the processes implemented by the Harbour Master's Division. In October 2022, four colleagues officially took up their new positions as camera supervisors at the Harbour Coordination Centre. They use the camera network of the police, customs authorities and the Port of Rotterdam Authority. In 2023, the number of cameras (the *virtual fence*) in the Rotterdam port and industrial complex rose from 225 to 300. This will allow the Seaport Police, Customs Authority and the Harbour Master's Division to improve their monitoring activities further.

# Subversive crime

Subversion and the breakdown of the boundaries between the underworld and legitimate society (often in relation to narcotics) represent an increasing problem for the port of Rotterdam. Criminals approach companies and their employees to acquire information and access to areas in the port and industrial complex. The recruitment and bribing of these port employees is often accompanied by serious threats.

## Our efforts

The various forms of drug smuggling involve corruption. Resilience training, information campaigns and improvements to the screening of port staff should help to tackle this problem. Government authorities and companies are working together closely to erect barriers and increase security at the port.

The Port of Rotterdam Authority (the Harbour Master does have some formal duties) feels it has a responsibility to society to combat crime in the port and industrial complex. People must be able to work safely at the port and victimisation, economic damage and damage to our image must be prevented. We do this by cooperating intensively with public organisations such as the Municipality of Rotterdam and investigative authorities (Police, Customs, FIOD, Public Prosecutor's Office, Inland Revenue, Regional Information and Expertise Centres) and the business community. Knowledge is exchanged and barriers erected where possible in the fight against subversive crime, imports of narcotics and human trafficking.

Actions we are already taking:

- Security by design by reviewing physical security at business areas that have yet to be established and that are at risk of subversion, and by imposing additional security requirements.
- With the installation of 300 smart cameras in strategic locations, the Virtual Fence will contribute to stricter surveillance, a higher probability of catching criminals and better evidence. With intelligent software, the system identifies illegal patterns early and notifies dispatchers in the Customs and Police control rooms. The Rotterdam Harbour Master also uses it to monitor events on the water. The system will be further extended in 2024.
- Organising and facilitating consultations between companies from high-risk sectors in the port and public partners such as Customs, Police and the Municipality of Rotterdam. These knowledge platforms and Information Sharing centres are used to exchange information, discuss best practices and share the latest developments in the field of subversion.
- The 'Know Your Client' project, in which we work closely with the Seaport Police and the Municipality of Rotterdam to better assess and/or monitor the integrity of new and/or potential clients.
- The Port of Rotterdam Authority is investing financing and support in Portbase's Chain of Trust to tackle PIN fraud. PIN fraud is used to import drugs and steal cargo. The system was tested and implementation began in 2023. The system will be further rolled out in 2024 in order to make PIN fraud a thing of the past as soon as possible.

In addition to the projects mentioned here in which the Port of Rotterdam Authority invests and/or is the lead agency, we participate in numerous other projects to further improve safety and security in the port. The Harbour Master's Division and the Port of Rotterdam Authority act jointly in this area to prevent subversion in the port as much as possible.



# Cyber security

The digital threat facing the port of Rotterdam continues unabated. Resilience to this threat is a prerequisite for the proper functioning of the nautical and logistical processes and the further digitalisation of the port.

## Cyber security at the Port of Rotterdam Authority

The Port of Rotterdam Authority has a legal obligation with respect to cyber security. The government classifies the handling of shipping traffic as a vital activity. We must demonstrably comply with the Network and Infrastructure Protection Act (Wbni). In addition, we comply with the GDPR (General Data Protection Regulation). We conduct an annual analysis of the principal digital threats. On the basis of the outcomes, we take measures to continue enhancing our resilience levels. When selecting security measures, we follow a 'defence in depth' strategy and seek to follow international standards and the recommendations of the National Cyber Security Centre.

Some examples of concrete security measures we took in 2023 (in addition to those already in place) include:

- Updating company-wide continuity plans;
- DDoS protection on relevant systems;
- Preparation, training and subsequent implementation of a cyber crisis exercise with partners in the nautical chain (Portbase, pilot services, tug services and linesmen) and participation in the national cyber exercise, Isidoor.

## Cyber security in the port and industrial complex

Since 2016, through the Port Cyber Resilience programme FERM, the Port of Rotterdam Authority has worked with our partners to take the lead in raising awareness about cyber security in the port and industrial complex. Since 2021, FERM has been a non-profit organisation. It provides cyber resilience services for the subscriber companies in the port. FERM has grown in recent years: from twelve participants in late 2021 to 53 participants in the third quarter of 2023.

Examples of security measures taken in 2023 include (in addition to existing measures):

- FERM worked with partners on the joint publication of a cyber threat assessment for the port. This assessment was made in order to give FERM participants a picture of the current status of cyber threats in the port and industrial complex.
- We are actively committing to raising awareness and spreading knowledge. This is seen in, among other things, the knowledge sessions organised by FERM about the new European NIS-2 directive. We are also looking to establish more mutual collaboration in various crisis exercises, such as Cybernautics and Isidoor.
- Update and revision of the Port-wide Cyber Incident Response Plan (IRP).

In recent years, our cyber security strategy has focused on facilitating collaboration between companies in the port and industrial complex in order to raise awareness about cyber security. Working with the Ministry of Infrastructure and Water Management and other seaports (Amsterdam, Groningen, Flushing), we are looking at what is needed to successfully develop and implement a national cyber security strategy for seaports. This strategy will focus on knowledge building, establishing a cyber resilience infrastructure, and strengthening regulation and oversight.

## Room for the transition

Working with stakeholders, the Port of Rotterdam Authority is committed to establishing the optimal business climate with room for the transition for business, employees and local residents. We focus on the sustainable development of the port and industrial complex, improving infrastructure and business areas, and aim for a healthy and attractive living environment. We share knowledge, provide space for development, protect safety, security and accessibility, and help with permit applications.

The pace of development in the port of Rotterdam in the field of the raw materials and energy transition is incredibly fast. Industry and the business sector are investing in innovations and new activities. We want to establish the carbon-free port of the future, even it is not yet known exactly what shape it will take. The port is changing dramatically, while throughput and industrial activities are continuing as usual. Space is a major challenge for development/redevelopment. Freely available space is limited and most sites are long-lease. It is also difficult to find suitable space for all the activities that are expected. Much of the transition will have to take place in close collaboration with the companies in place.

The challenge is not to wait for absolute certainty but precisely to work together and take steps in uncertain times. The national government, the provincial authority of Zuid-Holland and the port of Rotterdam are working on this in the 'Development Perspective for the NOVEX Area in the port of Rotterdam'. The parties involved are agreeing to take the difficult decisions together and to act together in order to implement and finance the changes. The next steps will be to develop an implementation agenda and an investment agenda. Our 'HIC 2023 Master Plan' fits in with the principles of NOVEX and provides the guiding principles for the further development/redevelopment of the port area. It describes the long-term developments in the port area on the basis of the anticipated commercial developments. The plan takes into account the physical and environmental aspects of the port and its locality. NOVEX identifies three pressing issues that require further elaboration:

- Dealing with space restrictions.
- Local safety and security in relation to spatial developments.
- Synergy between the port and city in relation to the transition in the port.

# Quality of the port infrastructure

The quality of our port infrastructure is critical to maintaining and strengthening our position as Europe's largest logistics hub. We are constantly seeking to improve the accessibility of our port and industrial complex by identifying innovative solutions to maximise accessibility by road, rail, cable, pipeline, and coastal and inland navigation. Monique Domsdorf, Executive Manager Asset Management: *'We are not only investing a lot in physical infrastructure. Digitalisation allows us to make chains more transparent and exchange data efficiently between partners. In addition, we are digitalising our assets. This leads not only to a clear picture of building, use and maintenance but also to more efficient cargo handling, lower costs and reduced emissions. Our customers reap the benefits.'*

## Vision for the long term

We want to guarantee excellent multimodal accessibility for our clients in the long term and to offer them the most sustainable logistical options. These are our long-term challenges, sustainable and otherwise:

- Optimisation of the Rotterdam 'hub' (port and industrial complex/region);
- Strengthening the East and Southeast freight corridors in the Rotterdam-Antwerp-Ruhr network;
- Strengthening the connections with growth regions and economic centres through the East and Southeast and South freight corridors and the international TEN-T corridors;
- Making transport in all modes more sustainable.

We are consulting with the national government, provincial authorities and the business community about possible solutions, and in particular with our partners in the East-Southeast and South freight corridors

## Working on freight corridors

MIRT is the acronym in Dutch for Multi-Year Programme for Infrastructure, Space and Transport. The MIRT has programmes for two freight corridors: East-Southeast and South.

The Ministry of Infrastructure and Water Management, the Logistics Top Sector, ProRail, the provincial authorities of Zuid-Holland, Noord-Brabant, Limburg and Gelderland, and the Port of Rotterdam Authority are working together in the East-Southeast corridor. The aim is for this corridor to facilitate an even smoother, more reliable, more robust, safer and sustainable transportation system by 2030 that will combine growth with a high-quality living environment. The programme includes four pillars, with concrete projects in each pillar:

- Future-resilient connections;
- Multi-functional above-average hubs;
- Sustainable top corridors;
- Digitalisation of chains.

The Ministry of Infrastructure and Water Management, four provincial authorities (Noord-Holland, Zuid-Holland, Zeeland and Noord-Brabant) and four seaport authorities (the port authorities of Amsterdam, Rotterdam, Moerdijk and North Sea Ports) are working together in the South corridor.

## The value of data

We set out our digital strategy in the Port Reference Architecture (PRA). The PRA acts as a digital blueprint of the port, distinguishing between the layers of space, infrastructure, transport and logistics, and digitally mapping the relationship between them. Digitalisation initiatives must fit in the PRA. The value we can offer the port guides our digital ambition. One of the main challenges in this framework is to provide low-threshold access to data for our clients in the port and industrial complex.



We are focusing on using the existing infrastructure better (capacity management) and making joint investments with other parties in new and existing infrastructure. The use of smart information systems and the exchange of data between various parties in the chain will help to improve the accessibility of the port of Rotterdam and make transport more sustainable via the various modes. Port Call Optimisation and just-in-time sailing are striking examples of this.

Examples of our initiatives to optimise Port Call Optimisation and just-in-time sailing include Portbase, Routescanner and Nextlogic.

### ***Portbase celebrates anniversary***

Portbase turned twenty years old in 2023. This central desk for the logistics chains of the Dutch ports makes it possible to provide automated data for a range of reports and declarations between companies and for government authorities. Organisations can work faster, smarter and more efficiently by using the Portbase services. In 2023, the focus included making the chain safer using the chain of trust. That results in a closed chain in which a nomination, exemption or authorisation secures access to the logistics chain process. The chain of trust allows only designated (known) parties to access the port logistics process.

### ***Routescanner optimises planning***

Routescanner added two major logistics hubs in 2023: the port of Antwerp-Bruges and the port of Amsterdam. In addition, the route planner for container transport received accreditation from the Global Logistics Emissions Council for the calculations of carbon emissions from the routes in the system.

### ***Nextlogic continues to grow steadily.***

After an intensive pilot phase, the green light was given for Nextlogic in January 2023. For integrated planning, barge operators provide Nextlogic with call, rotation and cargo information in advance for each inland container vessel. Terminals do the same for the available quay capacity. Nextlogic compares this information and creates the best possible schedule for each party on a 24/7 basis. The goal is to handle container barges faster at the port and to optimise the utilisation of terminal space. Nextlogic expects more and more participants to enjoy the benefits of this 'planner'.

## **Strong data position and optimisation of Port Call at the Harbour Master's Division**

The Harbour Master's Division (DHMR) occupies a strong data position in the handling of shipping. DHMR is responsible for guiding shipping safely and efficiently. The DHMR staff monitor, inform and advise vessels remotely. This public duty means that the DHMR has valuable information about transport, such as reports about vessels arriving, data about hazardous substances, incidents and inspections. The DHMR also collects information from the infrastructure and space & location layers, such as water depths, weather, berths, mooring facilities and shipping routes. This results in a powerful data position and the ability to develop shipping planning and Port Call Optimisation further.

This involves support for decision-making, optimising schedules for tide-bound vessels, sharing terminal schedules and close collaboration and data sharing with providers of nautical services. The fundamentals have to be in order here. This is most evident in areas such as the standardisation of location names and the use of uniform data. By working with other port operators and standardising data, we make it possible to exchange information. For example, the Port of Rotterdam Authority and the Port of Amsterdam use a single management system, HaMIS.

## **Accessible by water, road, rail and pipeline**

All our efforts, digital and otherwise, result in good access to the Rotterdam port and industrial complex by water, road, rail and pipeline.

## **Water**

Transport by water plays an important role in the Dutch economy, it contributes to mobility and accessibility, and it has a beneficial impact on the achievement of environmental goals. On the coast, adequate nautical draught means that Rotterdam can accommodate the largest ships smoothly and safely.

### ***Inland shipping***

In the consultations under the auspices of the Multi-Year Programme for Infrastructure, Space and Transport (MIRT), we arrive at agreements for making the waterway network robust. In addition to safeguarding reliable infrastructure, we work actively on digital tools to improve fairway information and optimise trip planning. One of the objectives is to forecast further ahead, providing parties in the chain with different options.

In the hinterland, inland shipping accounts for more than half of all cargo flows between the port and the European hinterland. To make this transport efficient, reliable and sustainable, we focus on three aspects of accessibility for inland shipping:

- Achieving smooth and reliable handling in the port itself;
- Setting up robust hinterland connections;
- Furthering more sustainable transport.

### ***Improvements to the infrastructure***

To keep the infrastructure for inland shipping reliable and available, we also invest in replacement and renovation. In 2023, we worked on the renovation of the busy Rozenburg Lock. We also concluded a contract for the overhaul of berths in the Waalhaven.

At the same time, we talk to the users of our infrastructure and consult regularly with the associations representing inland shipping about bottlenecks and issues concerning berths and services. Raising awareness about use patterns is also a relevant issue here. For example, in the summer of 2023, we introduced a stricter policy for the use of pusher berths.

### ***Robust hinterland connections***

Rotterdam is connected to destinations in the Netherlands and surrounding countries by an extensive network of waterways. The robustness of the waterways was under pressure again in 2023. On the MIRT corridors, there were regular unexpected obstructions that resulted in waiting times and forced ships to take diversions. A broad package of measures has been introduced to solve this. We are closely involved with the practical implementation.

In 2023, low water levels were less frequent than in 2022. The measures introduced then still apply, as do the arrangements for consultation with the Ministry of Infrastructure and Water Management and market parties. In addition, we worked with scientific partners such as Delft University of Technology and Deltares on dashboarding, analyses and the development of tools for a resilient logistics chain.

We are working with the Ministry of Infrastructure and Water Management and provincial authorities in the MIRT freight corridor on robust waterways. Work on future-resilient waterways has also been included in the Future Agenda for Inland Shipping for which we provided input. This will be worked out in further detail at the planned 'inland shipping platform' in which we will be a participant.

### ***Making transport more sustainable***

Inland waterway transport, like other modes, will have to cut its emissions to zero in the future. That will require major investments in both vessels and charging infrastructure on the waterway corridors. The port of Rotterdam is committed to this in many ways, for example with ZES and the Condor-H2 project.

We are also making efforts to reduce emissions from shipping and industry. These scope-3 emissions do not come from our own assets and we do not have a direct influence over them. They are subject to a best-effort obligation. This means that we do everything reasonably possible to reduce carbon emissions.

For shipping (both seagoing and inland shipping) in the port management area (which extends to 60 kilometres offshore), the goal is to achieve a reduction in emissions of 20% by 2030 (compared to 2019).

### ***Infra Innovation successful***

Since 2018, we have been introducing innovations in the Infra Innovation programme to improve maritime structures and comply with modern requirements in order to reduce costs and emissions. Research and practice demonstrate that we can build less robust quay walls without compromising standards. New capabilities such as sensors, data analysis and advanced computing tools extend the life of existing infrastructure, often allowing clients to accommodate vessels with larger cranes or top loads, and therefore deeper draughts. Innovations such as smart dredging, underwater anchors, smart bollards and steel tubular piles provide ways of optimising maritime infrastructure and managing costs better.

## **Road**

Most of the containers go by road to a location in the port and region before being transported further to the hinterland. With the growth of e-commerce and developments in logistics, the number of distribution centres in and around the port is increasing rapidly. This makes the accessibility of both the port and the hinterland increasingly crucial for distribution-oriented freight traffic. Accessibility by road is also very important for both employees and service providers in the port.

### ***Accessibility in the long term***

The construction of the Meuse-Delta Tunnel and the extension of the A16 near Rotterdam are expected to be completed in 2024 and 2025 respectively. The Meuse-Delta Tunnel will have a positive effect on access to the western port area. We are working actively with the region to establish connections with the public transportation system. Unfortunately, in 2023, the Ministry of Infrastructure and Water Management decided to postpone the widening of the A15 between Papendrecht and Gorinchem for an indefinite period of time. Modifications to the Van Brienenoord corridor will be made later.

Because of the increasing levels of traffic in the region, the Port of Rotterdam Authority is working with parties in Maasdijk, Moerdijk and Barendrecht to establish hubs that will allow container transport by road to avoid busy areas.

### ***Sharing data***

Digitalisation and innovation are important to make road traffic more efficient, safer and more sustainable. We are working with Transport en Logistiek Nederland (TLN) and Portbase under the banner of 'Port alert' to achieve further efficiency improvements in container logistics step by step. This is happening at several points in the chain. The initiative relies on the willingness of parties in the chain to share data. This is a critical success factor that requires ongoing attention.

### ***Making road traffic more sustainable***

As well as encouraging the use of rail and inland navigation, we introduced electric charging infrastructure for freight traffic in the Waalhaven in collaboration with our partners. In addition, in close collaboration with the Municipality of Rotterdam, we are working on charging infrastructure for light traffic. We are also working on charging infrastructure on the Maasvlakte for use by trucks and for construction equipment.

## **Rail**

The Port of Rotterdam Authority strives to increase the share of rail in hinterland transport in order to reduce congestion on the roads and further sustainability targets. This will open up new markets and provide clients with opportunities for market expansion.

### ***Rail infrastructure***

In order to facilitate the anticipated growth of container traffic, we continued to prepare for the construction of the first bundle on the Maasvlakte South Railyard. Completion of the project is planned for late 2027.

### ***More sustainable railway transport***

We look to optimise connectivity through all transport modes and to achieve a modal shift by encouraging more transport via inland shipping and railways rather than road haulage. The reduction of carbon emissions plays an important role here. With government authorities and the business community in the port, we want to further expand the share of rail in European freight transport. The 2023-2026 subsidy scheme to encourage a modal shift from road to water or from road to rail is making an important contribution in this area.

### ***Railconnected advances information sharing***

The Port of Rotterdam Authority, as the lead agency in the 'Digitalisation' cluster, worked on the further digitalisation of the rail process in 2023. In the Railconnected programme, we made progress on sharing information between terminals, carriers and operators. We will be expanding this programme further in 2024.

### ***Cables and pipelines***

The port of Rotterdam has an extensive network of pipelines for transporting liquid bulk such as crude oil, oil products, chemicals and industrial gases. An array of gas lines and power lines are in place for incoming and outgoing energy.

### ***Increasing pressure on existing space***

The port of Rotterdam offers companies the option, and the space, to install new cables and pipelines in the cable and pipeline strips available for this purpose. These corridors are already fully equipped for new construction.

The energy and raw materials transition will result in the installation of large numbers of additional cables and pipelines in the coming decades. This will put pressure on the available corridor capacity. We are identifying potential bottlenecks and investigating the options for the more efficient and intensive use of the cable and pipeline strips we have. One example is the extension of the pipeline strip near Moezelweg. We will be making space for, among other things, the carbon pipeline for the Porthos project.

### ***Digitalisation and innovation***

Our Cables & Pipelines programme includes actions to respond in good time to the available capacity in the future. Those actions combine activities such as business development, market demand development, securing and expanding the capacity of pipeline strips and the management of our own assets.



## Our own ambitions for reducing carbon emissions

Our role as a leader in the energy transition and an accelerator of sustainability in the port also means that we ourselves want to be climate-neutral as soon as possible. Accordingly, our activities should not contribute to increases in levels of greenhouse gases in the atmosphere. Remco Neumann, CSR programme manager: *'By setting ambitious carbon reduction targets in line with a maximum global warming of 1.5°C, we want to show clearly that we are assuming our responsibilities. Not only do we aspire to be climate-neutral in the long term by 2050, we are also pursuing substantial carbon reduction targets in the medium term (2030).'*

### Our carbon reduction target

To objectively determine our greenhouse gas reduction targets for the years ahead, we use the science-based targeting method. Our targets for the reduction of greenhouse gas emissions by 2030 were validated by the Science Based Targets initiative (SBTi) in 2022. The baseline year is 2019 because emissions for 2020 and 2021 were not representative as a result of COVID-19. The new reduction targets have been formulated as follows:

Emission category	Scope 1	Scope 2	Scope 3
<b>Emission sources Port of Rotterdam Authority</b>	(i) Own vessels (ii) Own vehicles (iii) Own real estate	i) Electricity consumption, lighting, radar stations, etc. (ii) City heating	(i) Business travel, consisting of: air travel and commuting (ii) Civil engineering assignments contractors (fuel) (iii) Shipping in port area (up to 60 km offshore)
<b>Responsibility</b>	'Control' Result obligation	'Influence' Best-effort obligation	'Influence' Best-effort obligation
<b>Emissions target for 2030 (compared to 2019)</b>	Scope 1) + Scope 2) -90%		i) -60% ii) -45% iii) -20%

SBTi expects an emission reduction target amounting to at least two-thirds of the scope-3 emissions. This requirement has been met with the target for scope 3iii (shipping), which represents >95% of 2019 emissions. We have opted to formulate SBTi targets for the three largest scope-3 emission sources: shipping, business travel and civil engineering assignments. Other scope-3 categories are not covered by our SBTi targets because they are either not applicable or account for a relatively small share in total scope-3 emissions.

### Our carbon footprint

Our carbon emissions are shown in the table below. The footprint was calculated for the Port of Rotterdam Authority, including one relevant 100% participating interest: Cruise Port Terminal (electricity use; scope 2). We either have little influence, or the emissions are negligible, in the case of other participating interests.

In kton CO <sub>2</sub> eq	2023	2022	2021	2020	2019	Realisatie Δ 2019-2023	Science based target Δ 2019-2030
Scope 1 - Vessels, vehicles, real estate <sup>1</sup>	1.47	2.6	2.65	2.99	3.24	-55%	
Scope 2 - Purchased energy (electricity consumption, district heating)	0.05	0.05	0.05	0.05	0.07	-33%	
<b>Scope 1 + 2</b>	<b>1.52</b>	<b>2.65</b>	<b>2.70</b>	<b>3.05</b>	<b>3.31</b>	<b>-54%</b>	<b>-90%</b>
Scope 3i - Business travel (air travel <sup>2</sup> , commuting <sup>3</sup> )	1.43	1.39	0.90	1.38	3.12	-54%	-60%
Scope 3ii - Contractor assignments (fuels) <sup>4</sup>	27.04	27.09	28.63	26.07	34.23	-21%	-45%
Scope 3iii - Shipping	1878.1	2057.85	1966.82	1970.93	1941.75	-3%	-20%
<b>Scope 3</b>	<b>1906.57</b>	<b>2086.33</b>	<b>1996.35</b>	<b>1998.38</b>	<b>1979.10</b>	<b>-4%</b>	
Emission intensity scope 1 + 2 (tonnes of CO <sub>2</sub> / € million turnover)	1.80	3.21	3.50	4.05	4.69	-62%	
Scope 3 emission intensity (kton CO <sub>2</sub> / € million turnover)	2.27	2.53	2.58	2.65	2.80	-19%	

Figures do not add up to exact total because of rounding off.

*1 Starting in the year under review, the emissions of propane will be included in the real estate emissions. The emissions from previous years have been recalculated and may be different from the figures stated in previous annual reports*

*2 The calculation for air travel has been altered from TTW to WTW; in addition, cancelled flights have been corrected. The emissions from previous years have been recalculated and may be different from the figures stated in previous annual reports.*

*3 The calculation for commuting has been altered from TTW to WTW. The commuting emissions for the years 2021 and 2022 have also been supplemented by figures from DHMR. The emissions from previous years have been recalculated and may be different from the figures stated in previous annual reports.*

*4 The value stated for scope 3ii in the baseline year 2019 is an average of the emissions in 2018 and 2019 because 2019 was not a representative year for project dredging.*

Emissions are calculated for scopes 1, 2 and 3i by multiplying emission factors (available on [www.CO2emissiefactoren.nl](http://www.CO2emissiefactoren.nl)) by usage (in litres, kWh etc.) for the relevant reporting year (January 1 to December 31). The emissions shown for scopes 1, 2 and 3iii are 'tank to wheel' (TTW) emissions. The emissions shown for scopes 3i and 3ii are 'well to wheel' (WTW) emissions. The model for scope 3iii is still under development; we will report on WTW emissions in a future annual report.

Emissions for all scopes (with the exception of 3iii) are based on CO<sub>2</sub> equivalents; other greenhouse gases, such as methane and sulphur hexafluoride, are included in these calculations as CO<sub>2</sub> equivalents. We do not present the figures for other greenhouse gases separately because the emissions of those greenhouse gases relative to CO<sub>2</sub> are so small in relative terms that it would be superfluous to report on them separately.

As part of the SBTi validation, we use a different approach to calculating scope-3 emissions than that used in previous annual reports. The new approach was used for the first time in the year under review. The emissions in the baseline year and previous years were recalculated.

### Scope 1

**1i Vessels:** The fleet accounts for the largest share (two-thirds) of scope-1 and -2 emissions from the Port of Rotterdam Authority. In 2023, we achieved a reduction in emissions of 57% compared to 2019. All of our vessels sail predominantly on HVO100 or HVO30. We will be rolling this out further. We are working on the purchase of a number of new RPA vessels. Our ambition to operate them on an emission-free basis and therefore to reduce emissions further.

The raw material for HVO is organic waste. In the SBTi methodology, emissions for biofuels can be set to zero in the scope-1 calculation. To provide a picture of emissions in this respect, we also calculated emissions from HVO using diesel TTW emissions as a proxy. This amounts to about 3.4 ktonnes (short cycle) of CO<sub>2</sub>.

**1ii Vehicles:** The new vehicles we purchase to replace old ones are electric; in this way, our fleet is gradually becoming emission-free. Given response times and distances, we currently make an exception for some operational vehicles and use plug-in hybrid vehicles. The reduction in emissions compared to 2019 was 69%.

We charge our electric vehicles using green electricity and so we can list these emissions as zero. To provide a picture of emissions in this respect, we also calculated emissions from electricity consumption based on the Dutch energy mix: about 0.1 ktonnes of CO<sub>2</sub>.

**1iii Real estate (own use):** The real estate owned and in use consists of five traffic centres and our Eemhavenweg location. The reduction in emissions in 2023 was 12% compared to 2019. Emission-reduction projects are in preparation or in place for several properties. In the next step, we will make the remaining properties more sustainable.

### Scope 2

**2 Purchased energy:** Due to a green energy contract, our scope-2 emissions consist only of electricity from the Cruise Port Terminal (100% participating interest) and district heating for our office: the World Port Center. The reduction relative to 2019 was 33%.

The scope-2 emissions presented here were calculated using the 'market-based method' recommended by the GHG Protocol, which uses the emission factors for each type of energy source actually purchased. This provides a clear picture of the purchasing of energy sources with green certificates to which lower emissions are attributed. The alternative 'location-based method' determines an emission factor on the basis of the regional energy mix. We use the emission factor for the Dutch power label for 2022 (Statistics Netherlands) for this purpose. The scope-2 emissions estimated with this method amount to 2.1 ktonnes.

### Scope 3

**3i Air travel:** We calculate emissions from air travel by multiplying the kilometres flown by an emission factor for long or short flights. The number of kilometres flown fell substantially compared to 2019 and so did emissions (-53% in 2023 compared to 2019). We will use Sustainable Aviation Fuels in the future and reduce emissions further.

**3i Commuting:** Emissions from commuting are calculated by multiplying the recorded commuter kilometres by the emission factor for the relevant means of transport. Hybrid working since 2020 has led to a substantial reduction in the footprint: the reduction in 2023 compared to 2019 was 55%.

**3ii Contractor assignments (fuel):** The figures shown relate to emissions from an estimate of contractor fuel consumption for maintenance dredging, dredging and earthmoving in our projects, and port infrastructure management. The estimate is based in part on calculations made in advance and it is the best available estimate; we are continuing to refine the calculation. The figures show that carbon emissions vary over the years and depend mainly on the number of cubic metres dredged and the number of projects. It was therefore decided to average the estimated emissions in 2018 and 2019 for the baseline year 2019 because 2019 was not a representative year for project dredging. The calculation indicates that emissions fell by 21% (2023 compared to the baseline year). Emissions can be reduced through innovation (zero-emission dredging vessels or electric-powered equipment) and cleaner fuels.

**3iii Shipping:** The figures shown relate to emissions from seagoing and inland shipping in the management area of the Port of Rotterdam Authority and they are now being reported for the first time using the Port Emissions Service Platform (HESP) model. This model uses real-time sailing data and combines it with computing models validated by TNO. The model is not yet complete. For example, emissions in Dordrecht have not yet been included. We are continuing to refine the model. According to the model, the fall in shipping emissions is relatively small (3% in 2023 compared to 2019). In order to achieve carbon reductions in shipping traffic, the focus is on efficiency (shorter waiting times, for example), shore power facilities and alternative fuels.

### Examples of emission-reduction measures

In 2023, the contractor consortium Hakkers, Van Oord and De Klerk started work on the construction of the tug quay in the Yangtzekanaal. This involves 500 metres of quayside with room for twelve berths. The contractor consortium was selected in accordance with our commitment to sustainable port development. It is making the construction site more sustainable by using electric equipment, considerably reducing carbon emissions during construction. In addition, the consortium has provided a lot of added value with the measures offered to prevent disruption and damage.

We signed new maintenance contracts in 2023 with Aannemingsmaatschappij Van Gelder for the road infrastructure and Idverde for the green areas of the port of Rotterdam. The two contractors have been maintaining the port's land-based infrastructure since 2017 and they have committed to executing this maintenance work on an emission-free basis effective 2025.

In the Eemhaven, we are conducting a trial with geopolymers concrete. This is a collective term for concrete that does not contain cement. This type of concrete will be tested for the first time in a maritime setting. By replacing cement, we will reduce carbon emissions from the concrete by 50%, which helps to reduce our carbon footprint.

Tens of thousands of vessels call at the port of Rotterdam every year. When berthed, they often use generators for their energy requirements on board, with emissions of particulate matter, nitrogen and CO<sub>2</sub> as a result. Our shore power initiatives reduce those emissions by providing ships with a clean source of energy.



# Working energetically on the energy transition

In 2016, 195 countries signed the Paris climate agreement. The goal of this agreement is to limit global warming to well below 2 degrees Celsius, with a clear perspective for 1.5 degrees Celsius. In the Rotterdam port and industrial complex, we were already working on a sustainable port at that time. The first CO<sub>2</sub> capture and storage plan (ROAD) did not make it to the finishing line; its successor Porthos was given the green light by the Council of State in 2023. Shore power was initially intended for inland shipping: starting in 2020, we started work on plug-in power for Heerema's large working vessels. In 2023, we made the first preparations on the Wilhelminakade to make shore power possible for cruise vessels effective 2025. Green hydrogen was still too costly as a sustainable alternative for fossil fuels in 2016. In 2023, we worked hard on a range of initiatives for the production, supply and storage of this clean energy carrier. These are examples of the steps we are taking with our partners.

Over seventy energy transition projects in 2023 show that we are working energetically on a sustainable future for the Rotterdam port and industrial complex, and the world around us.

## Emission reductions in the port and industrial complex

The role of the Port of Rotterdam Authority is, above all, to create the conditions for companies to switch to sustainable production, or to actually choose our port as their preferred investment location. In this way, the Port Authority is speeding up the transition, climate goals are being met and the dynamic character of the port and industrial complex is being maintained.

### Carbon emissions in our port and industrial complex

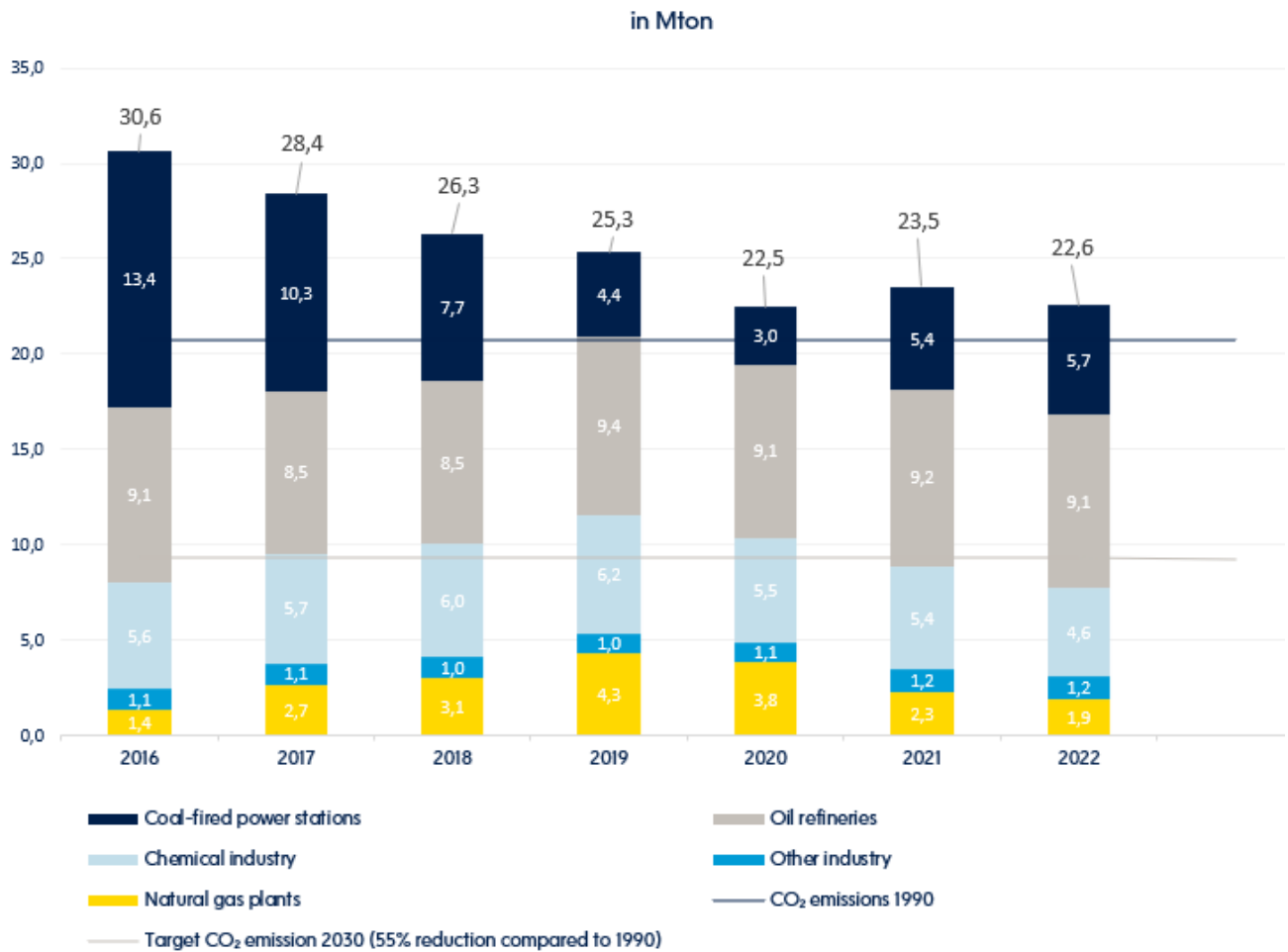
The reported figure lags a year behind. The emission data from our sources will not be available until after the first quarter. In the case of 2023, therefore, we report on the figure for 2022:

- The 2022 target for absolute carbon emissions in the port and industrial complex was 22.8 Mtonnes.
- The actual carbon emissions of the port and industrial complex in 2022 amounted to 22.6 Mtonnes and we therefore reached our target.
- The actual emissions of 22.6 Mtonnes were 1.9 Mtonnes above the 1990 level (20.7 Mtonnes). The 1990 figure changed this year to take the Dordrecht emissions into account (0.1 Mtonnes).

Carbon emissions were 0.9 Mtonnes lower than in 2021:

- The chemical industry and industrial gas producers scaled back production because of the high gas prices;
- The high gas prices led to the three gas-fired power plants in the port area completing fewer operating hours;
- The coal-fired plants operated for longer because of the lifting of the 35% capacity limitation set by the government after the start of the war in Ukraine;
- Altogether, coal- and gas-fired power plants produced less electricity than in the previous year because the Netherlands is producing more and more electricity with wind turbines and solar panels;
- Production at refineries remained stable due to the high demand for diesel.

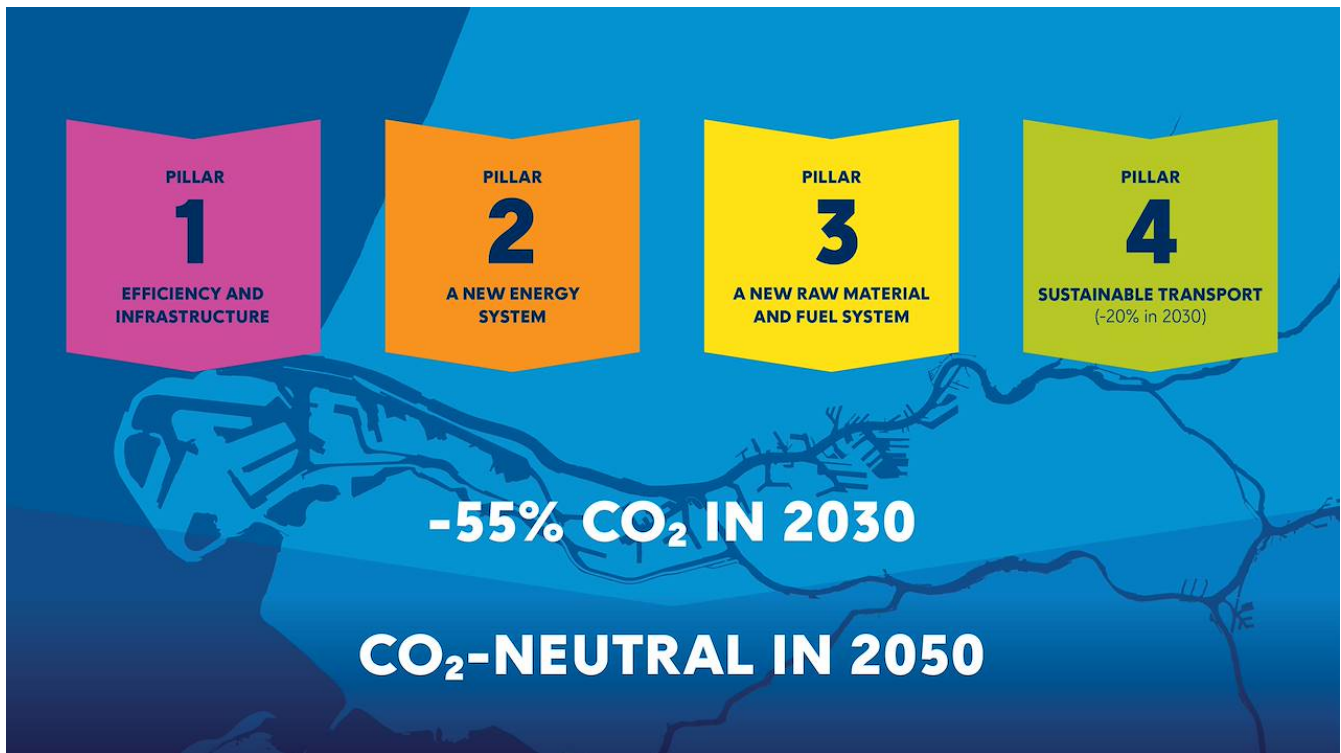
The figure below shows carbon emissions over the past few years in the port and industrial complex:



### Strategy for a sustainable port based on four pillars

We are working on a carbon-neutral and dynamic port and industrial complex that will make an important contribution to sustainable economic renewal, prosperity for the region and ample opportunities for existing and new companies.

Our strategy for a sustainable port is based on four pillars. They each have their own pace and they are closely intertwined. In this way, hydrogen is not just a fuel (pillars 2 and 4), but also a raw material (pillar 3). And making renewable hydrogen (by using green electricity to split water into hydrogen and oxygen) releases a lot of heat that we can use in a regional heating grid (pillar 1).



### Pillar 1

In the first pillar, we are working with our partners to introduce efficiency measures and we are building infrastructure. We use residual heat to heat homes, commercial buildings and greenhouses. We capture CO<sub>2</sub> and store it under the North Sea. These developments will require a lot of additional infrastructure such as pipelines and cables. The Port of Rotterdam Authority often acts as a project developer and investor.

### Green light for Porthos

The ruling of the Council of State on 16 August 2023 was a cause for celebration, bringing to an end the uncertainty with respect to the environmental permits and the National Spatial Plan for Porthos. We are developing this project with Gasunie and EBN. 'A wonderful result achieved due to the unremitting efforts of the partners in the consortium and our colleagues at the Port of Rotterdam Authority', according to Jeroen Steens. He is the person responsible for Porthos at the Port of Rotterdam Authority. 'It was tense but I assumed the outcome would be positive. Porthos is crucial to achieving the climate goals of the Netherlands but the issue of nitrogen deposition led to delays in the implementation of the project. To minimise delays, we and the project partners moved ahead on the assumption that the outcome would be positive by ordering long-lead items such as pipelines and materials for the compressor station. Porthos has crucial strategic value for the Port of Rotterdam Authority, national and regional climate goals and as a kickstart for CO<sub>2</sub> storage in the Netherlands.'

The Porthos system for the capture, transport and storage of CO<sub>2</sub> consists of an onshore pipeline from Botlek through the port area to a compressor station on the Maasvlakte. Most of this 'backbone' will be located in the existing pipeline strips; we will be installing new strips in some locations. Valve or connection locations are planned at ten strategic locations to allow companies in the port to bring their captured CO<sub>2</sub> into the system. From the compressor station, the CO<sub>2</sub> leaves the port area in a pipeline at high pressure on its way to the bed of the North Sea. Thanks to Porthos, 2.5 million tonnes of CO<sub>2</sub> a year will soon be captured and permanently stored. CO<sub>2</sub> storage is therefore a meaningful measure that will allow industry to contribute to the Dutch climate goals.

### ***Delta Rhine Corridor important for position as a commodity port***

The Delta Rhine Corridor is a bundle of pipelines from the port and industrial complexes of Rotterdam and Moerdijk to Chemelot and North Rhine-Westphalia. Our aim with the project is to make the transition possible in inland clusters and to maintain and further strengthen Rotterdam's position as a commodity port for the hinterland. Supplies of energy and raw materials for Dutch and German industry represent an important cornerstone supporting Rotterdam's current market position. At present, the plans for the Delta Rhine Corridor project include pipelines to transport hydrogen, CO<sub>2</sub>, (bio-)propene and (bio-)butane/LPG. The plans may also be extended to include power lines, a natural gas and/or an ammonia pipeline. The fact that the government has designated this as 'a project of national importance' confirms the impact of the transition in the port of Rotterdam. The Delta Rhine Corridor is expected to be operational effective 2028.

### ***Upgrading of the power grid absolutely necessary***

To meet the increasing demand for electricity and achieve the carbon reduction target for 2030, the upgrading of the electricity grid is an imperative. We had intensive negotiations in 2023 about this issue with the relevant grid operators, Tennet and Stedin, during which we also asked how we can accelerate construction. At the same time, we are exploring the possibilities of using digital technology (such as Data Safe House and Distro) to maintain an up-to-date picture of companies' sustainability plans, and we want to establish an optimal match between business processes and the availability (and price) of electricity. We set up a dedicated expert team to look for solutions on behalf of our clients in order to meet their energy requirements. Intensive collaboration between the grid operators and the Port of Rotterdam Authority is crucial because the electricity infrastructure is a single integrated system. We manage the scarce space in which that network is located, and we also have a picture of the other infrastructure needed for the energy transition.



## **Pillar 2**

Transforming the energy system is central in this pillar. Instead of using oil and gas for heating, industry will switch to electricity and hydrogen, preferably green hydrogen. This will require adequate amounts of affordable electricity from sources like wind and solar. The Port of Rotterdam Authority is a driver and developer of the change required.



### ***Hydrogen vision focuses on international hub function***

The hydrogen vision of the Port of Rotterdam Authority is that about 18 million tonnes of hydrogen will be imported via Rotterdam in 2050, with local production accounting for 2 million tonnes. A large proportion of this hydrogen will arrive in Rotterdam on seagoing vessels. Further processing will take place here, and there will be throughput to other countries. We entered into alliance agreements with parties in countries including Spain and Namibia for large-scale imports of green hydrogen.

Pecém is a 30/70 joint venture between the Port of Rotterdam Authority and the state of Ceará in Brazil. Our joint venture signed a pre-contract with Fortescue in December 2023 to issue 121 hectares of land. Fortescue specialises in areas that include the production of green hydrogen. The pre-contract requires Fortescue to conduct a FEED study, while our holding has undertaken to issue the land when the company makes the final investment decision.

With this initiative and others, Rotterdam will become an international hub for the production, import, application and throughput of hydrogen to other countries in Northwest Europe. Rotterdam will therefore maintain its position as an important international energy port in the future.

### ***Hynetwork Services develops hydrogen pipeline to hinterland***

Hynetwork Services is developing a new hydrogen pipeline (formerly HyTransPort) in collaboration with the Port of Rotterdam Authority. This hydrogen pipeline will form the backbone of Rotterdam's hydrogen infrastructure. In the future, the pipeline will connect to the national and international hydrogen network. This will provide a connection to Chemelot in Limburg, North Rhine-Westphalia in Germany and other European regions.

## **Pillar 3**

In this pillar, we focus on providing sustainable alternatives to fossil fuels and raw materials. That goal can be achieved by using biomass, recycled materials, green hydrogen and CO<sub>2</sub>. The Port of Rotterdam Authority is actively looking for companies that contribute to a circular economy.

### ***Building a circular port***

As Europe's largest port and the raw materials cluster of the Netherlands, Rotterdam can make a major contribution to the raw materials transition. We work with regional and chain partners to develop new, circular value chains, for example for the chemical recycling of plastics and the reuse and recycling of batteries.

### ***Xycle: from plastic to sustainable resource***

Xycle is building a plant in the port of Rotterdam that will annually convert 20,000 tons of non-mechanically recyclable plastic into high-quality renewable raw material. The Xycle plant runs on the fuel produced by the machine itself. Recycling plastic in this way not only reduces the need for new raw materials; it also produces much lower carbon emissions than burning mixed plastic waste.

### ***Biorefineries in the port area***

Shell and Neste are both planning a new biorefinery for, among other things, the production of sustainable jet fuel. Studies by the Finnish company UPM in 2022 identified Rotterdam as the optimal location for a biorefinery. In 2023, UPM continued the preparatory work for the investment decision.

## **Pillar 4**

As a major logistics hub in Europe, the Port of Rotterdam Authority, working with parties in the chain, is leading the way in making transport more sustainable on the basis of efficiency, the installation of shore power, new sustainable fuels and international alliances for carbon-neutral transport.

### ***Together, we are expanding the use of shore power***

Shore power is a crucial pillar of the sustainability strategy for the Rotterdam port cluster. At least 90% of the offshore, ferries, cruise and roll-on-roll-off vessels and container ships in Rotterdam will have to use shore power by 2030. That cuts emissions of CO<sub>2</sub> by approximately 200,000 tonnes and nitrogen by 2 tonnes. In addition, shore power reduces noise levels from berthed ships. This represents a major step forward on the road to an increasingly clean and future-resilient port. Public berths for inland vessels have been fitted out with shore power connections for over a decade, allowing the diesel generators (required to generate electricity for a variety of on-board facilities) to be turned off. With the Municipality of Rotterdam, we are implementing a joint strategy; in collaboration with Eneco, we also rapidly completed several shore power projects with Rotterdam Shore Power in 2023.

**The Scheurhaven on Landtong Rozenburg** is being redesigned so that it can be used more efficiently by the various service providers located here. The overhaul also provides an opportunity to prepare the port optimally for current and future users. All berths will be fitted out with shore power and its use will be mandatory in the future.

**Boskalis commissioned a large-scale shore power facility** at its Waalhaven location. Berthed vessels turn off their diesel-powered generators and use green shore power. In addition, Boskalis is using Rotterdam Shore Power's shore power installation for a range of electric equipment that the company will be using to execute projects in the region.

Construction work on the **shore power installation for cruise vessels at the Holland America Quay** began in early June 2023. We are responsible for project management on behalf of Cruise Port Shore Power (a participating interest of the Port of Rotterdam Authority). Using shore power reduces emissions of CO<sub>2</sub>, nitrogen and particulate matter. It also cuts noise levels from ships significantly.

### ***Rotterdam leads the way in making maritime shipping more sustainable***

We want to enable shipping companies to use the renewable fuel that is most suitable for them, and that includes facilitating safe storage and bunkering. Rotterdam is leading the way in this regard. For example, the first demonstration projects took place with biofuel bunkering in 2018, refuelling took place for the first time with bio-LNG in 2020, and Rotterdam was the first port in the world for the barge-to-ship bunkering of methanol in 2021. The use of methanol increased in 2023, with Stena and Maersk as two of the companies commissioning methanol-fuelled vessels. The first ammonia-fuelled ship's engines are expected in late 2024/early 2025. We are working with our partners on preparations for a pilot project involving bunkering with ammonia. This is part of the international Magpie programme looking into ways of making logistics more sustainable.

We created 'Green Corridors' for the use of renewable fuels. That involves us working with other ports, shipping companies and other parties to create a carbon-neutral transport chain on specific routes. The corridors with Singapore and Gothenburg are important examples. The goal is to establish the first sustainable maritime shipping on these routes together over the next five years.

### ***Routescanner makes container logistics more sustainable***

Routescanner is the global platform for route planning and guidance for container transport. The platform provides a very complete picture of door-to-door connections for containers via seaports, inland ports, and road and rail links. This carefully constructed ecosystem makes it very straightforward for shippers and freight forwarders to find a suitable container route.

Routescanner reached several important milestones in 2023. In addition to adding fifteen logistics hubs – including the Port of Antwerp-Bruges and the Port of Amsterdam – Routescanner has also established a foothold in the United States, China, Australia and India with its intermodal route information. In addition, Routescanner received official recognition: Smart Freight Center accredited the method for calculating emissions in Routescanner in line with the GLEC framework; LRQA (Lloyds Register Quality Assurance) verified the carbon calculations on the basis of the new ISO 14083 standard. The outcome was positive in both cases. Another important feature of Routescanner is its neutrality. This means that the search results which are displayed are not influenced by any particular preference. SIG (Software Improvement Group) assessed the neutrality of Routescanner. Their final verdict was also positive: *'Routescanner always finds the best route from A to B without any preference for particular ports or carriers.'*

In addition to providing route information as completely as possible, Routescanner is also accelerating in the area of support for optimising the supply chain and making it more sustainable. By calculating carbon emissions, the platform generates information which can then be used to implement optimisation and therefore reduce emissions. Because of its unique proposition focusing on sustainability and efficiency in the global supply chain, Routescanner is contributing to a better and greener future.

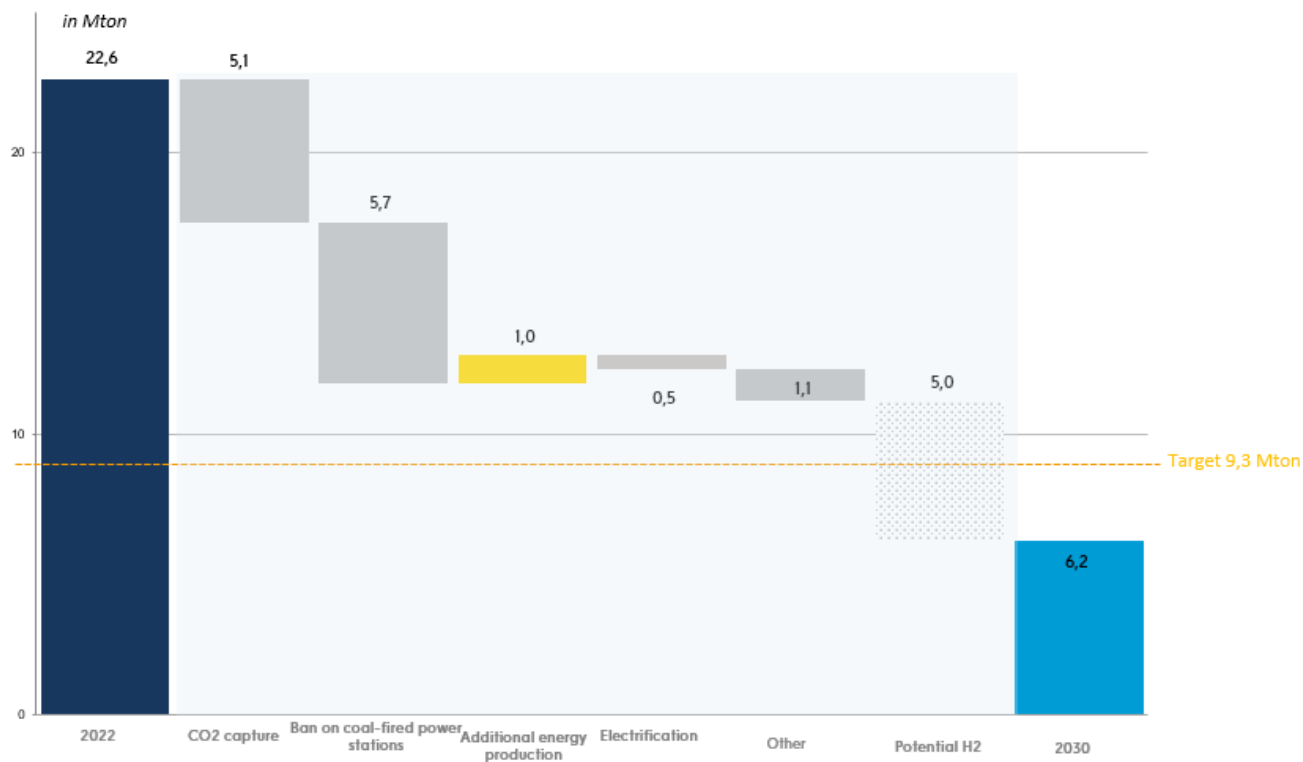
### **Data Safe House provides insight**

Deltalinqs and the Port of Rotterdam Authority founded the Data Safe House. This organisation shares information between major industrial companies and grid operators about sustainability plans and the associated energy requirements. The idea is that companies now need to post information about their plans in just one place, and that different network operators can go there to be informed. This ensures that all parties involved always have the latest information about the sustainability plans of the member companies. The Ministry of Economic Affairs and Climate decided to extend the Rotterdam approach to the other industry clusters in the Netherlands in 2023.

### **Distro Energy offers many advantages**

Distro Energy, a scale-up of the Port of Rotterdam Authority, has developed an intelligent and fully automated trading platform that allows companies to trade the green energy they produce between themselves locally and to optimise consumption. This platform is accelerating the energy transition with a new market model that makes it possible to offer better prices for renewable power locally. This will not only raise the local use of renewable power but also deliver lower costs for users, limit congestion on the power grid, and produce better returns for parties that produce and/or store renewable energy. Initially, the marketplace will grow over the next year, primarily with the arrival of users in the Rotterdam industrial and port cluster. They include not only customers and producers, but also energy suppliers and grid operators.

## Outlook for 2030



\* Dates in the above graph are from October 2023.

The port of Rotterdam has an ambitious programme for the reduction of carbon emissions. With dozens of projects as part of the energy transition, we are well on our way. The current forecast looking ahead to 2030 is shown in the graph here. The biggest impact is made by capturing CO<sub>2</sub> and terminating the use of coal for power production, and by client plans that are not part of our portfolio but do affect emissions in the complex. In addition, the production of biofuels in particular leads to a substantial reduction in carbon emissions outside the port but higher carbon emissions inside the complex. Capturing CO<sub>2</sub> in the Porthos project and our hydrogen initiatives, along with the closure of coal-fired power plants, are key to meeting our targets by 2030. The impact of hydrogen in the port and industrial complex is still unclear. The Connected Deep Green scenario assumes there will be 0.5 Mtonnes of hydrogen production in Rotterdam. This could therefore reduce carbon emissions by about 5 Mtonnes if everything produced is all used in the port and industrial complex. That is still uncertain at present. We are working hard to locate hydrogen production in Rotterdam but that decision is not entirely up to us.



# Climate adaptation and flood risk management

The latest studies indicate that it will be extremely challenging to keep the rise in global temperatures to below 2.1°C (since the pre-industrial era) in 2100 if we fail to reduce global greenhouse gas emissions. We are already seeing the first effects of climate change worldwide.

The physical risks of climate change affect our port infrastructure and assets, as well as those of our clients. We take them into account in our operations to safeguard the quality of port infrastructure, accessibility and cargo flows. Physical risks can also threaten the habitat of the fauna and flora in the port.

A multidisciplinary team from the Port of Rotterdam Authority assesses the medium- and long-term consequences of climate change, maps out the possible impacts and sets priorities. We identified a total of 25 climate topics. We linked these items to 'ambassadors' from different departments. Where we see risks, we deepen our knowledge and take measures to minimise them. We have three types of measure to ensure that we are prepared for the consequences of climate change: preventive measures, spatial adaptation and crisis management. We report on the findings annually to COO management.

The prioritisation of these consequences is based on the impact on transport flows and the execution of our core tasks or the business climate, and it depends on the time frame and probability of the consequences occurring. The following medium- and long-term climate issues are the priorities and we are tackling them programmatically:

- Sea level rise: increase of flood risk for businesses and public infrastructure;
- Salt intrusion: availability of freshwater supplies for industry;
- Rising water temperatures: reduced availability of cooling water;
- Extreme rainfall: safe availability of infrastructure;
- Lower river levels: access to the hinterland for inland shipping;
- Extreme wind: safe mooring of ships;
- Extreme weather in relation to the ongoing limitation of space in the North Sea.

## **Flood risk management**

A major climate risk for the Port of Rotterdam Authority is sea level rise. The latest climate scenarios (the KNMI'23 climate scenarios) take into account a sea level rise of 26 to 124 centimetres by 2100. Even if greenhouse gas emissions were to stop immediately, sea levels would continue to rise. Sea level rise may have an increasing impact on flood risk management in the port in the long term. Port areas are built relatively high above sea level and are partially protected by storm surge barriers. The Port of Rotterdam Authority is directly involved in the 'Rhine Estuary-Drecht Towns Delta Programme' and the 'Sea Level Rise Knowledge Programme'.

The Port of Rotterdam Authority, as the port authority and manager of the port, is responsible for adequate flood risk management in public areas and the accessibility of the port when water levels are high.

Due to the location of the port of Rotterdam outside the dikes, businesses and asset owners bear the risks of potential water damage themselves. They are also responsible themselves for taking steps to limit that damage. It is therefore important for companies in the port to be adequately informed. Companies in the port received a letter about flood risk management, the possible consequences and the relevant responsibilities. We have also set up an information page dedicated to flood risk management that contains an overview of about fifty measures that companies and asset owners can take to improve flood risk management.

In recent years, we developed adaptation strategies in collaboration with businesses and stakeholders for the areas in the port. Flood probabilities and adaptation strategies for the specific areas can also be found on the information page. On the basis of these strategies we arrived at an agreement with the Municipality of Rotterdam to take a range of measures over time to maintain the capacity of the port and port processes to cope with high water. Our projects, asset maintenance and discussions with clients about their establishments in the port are the appropriate moments for this purpose. We assess flood risk management in all projects. If we find that the project involves aspects relating to flood risk management, we look at the size of the effect, when it may occur and which measures are most effective. Where necessary, we provide recommendations about the concrete application of measures on projects. In addition, we integrate flood risk management in the issuance of new client contracts and in lease contracts for commercial properties.

## Healthy locality

An appealing environment for the port and industrial complex is essential so that companies will want to invest and so that people will like to live, work and spend leisure time here and in the vicinity. We consult with our stakeholders to this end. There is a close relationship between the economic and social value of the port and the quality of the living environment. This quality is determined by factors such as nature and biodiversity, noise levels, safety and security, local air quality and the accessibility of the port and the surrounding area.

We have our own 'Nature Vision' ([Nature and Biodiversity in the Ports | Port of Rotterdam](#)) in which we integrate nature in our plans and projects to safeguard the balance between nature and the port area. A healthy locality includes air quality, and we monitor this as a target.

### Local air quality

The Rijnmond Environmental Service (DCMR) reports annually on air quality in the residential areas located immediately alongside the port and industrial complex. We use annual average concentrations, sulphur dioxide, particulate matter and nitrogen as indicators for the assessment of air quality. The report '[Air in figures 2022](#)' (figures lag one year behind) from DCMR shows that the annual average concentration of nitrogen dioxide in 2022 was 23.4 µg/m<sup>3</sup>, as compared to 23.1 µg/m<sup>3</sup> in 2021. These concentrations comply with the prevailing air quality standards. Despite an increase in traffic intensity in 2022, the concentrations are similar to those in the years of the COVID-19 crisis.

European authorities are currently revising the air quality directive, in part in response to the WHO recommended values, which are more stringent than the current statutory standards. We therefore expect the standards for nitrogen dioxide and particulate matter standards to become significantly stricter.

The eNose network, a combination of sensors that detects changes in air composition, had been in place for ten years in 2023. We provide this network as a service for the business community to effectively combat odour nuisance and detect the release of hazardous substances early.

### Shore power for cruise ships

The Port of Rotterdam Authority is aware of the debate over the berthing of cruise ships. They often use generators for their energy requirements on board, with emissions of particulate matter, nitrogen and CO<sub>2</sub> as a result. The Municipality and the Port of Rotterdam Authority are therefore implementing a joint strategy and development programme to accelerate and scale up shore power for seagoing vessels.

### Port noise management

The margins for industrial noise are narrow and careful management is important here. We are responsible for managing the noise budget and allocating it to clients. The Rijnmond Environmental Service (DCMR) sets the noise budget in companies' permits on behalf of the Province of Zuid-Holland and the Municipality of Rotterdam. DCMR also checks companies' acoustic surveys and whether a company complies with noise legislation and regulations.

The new Environment Act came into effect on 1 January 2024. It sets out the noise management and noise margins linked to the Rotterdam port and industrial area in a thematic environmental plan. This is part of a broader Port Noise and environment programme in which we are actively working with municipalities in the region and other stakeholders to strike a new balance between housing, port activities and the quality of the living environment. We started on the preparations in 2023.

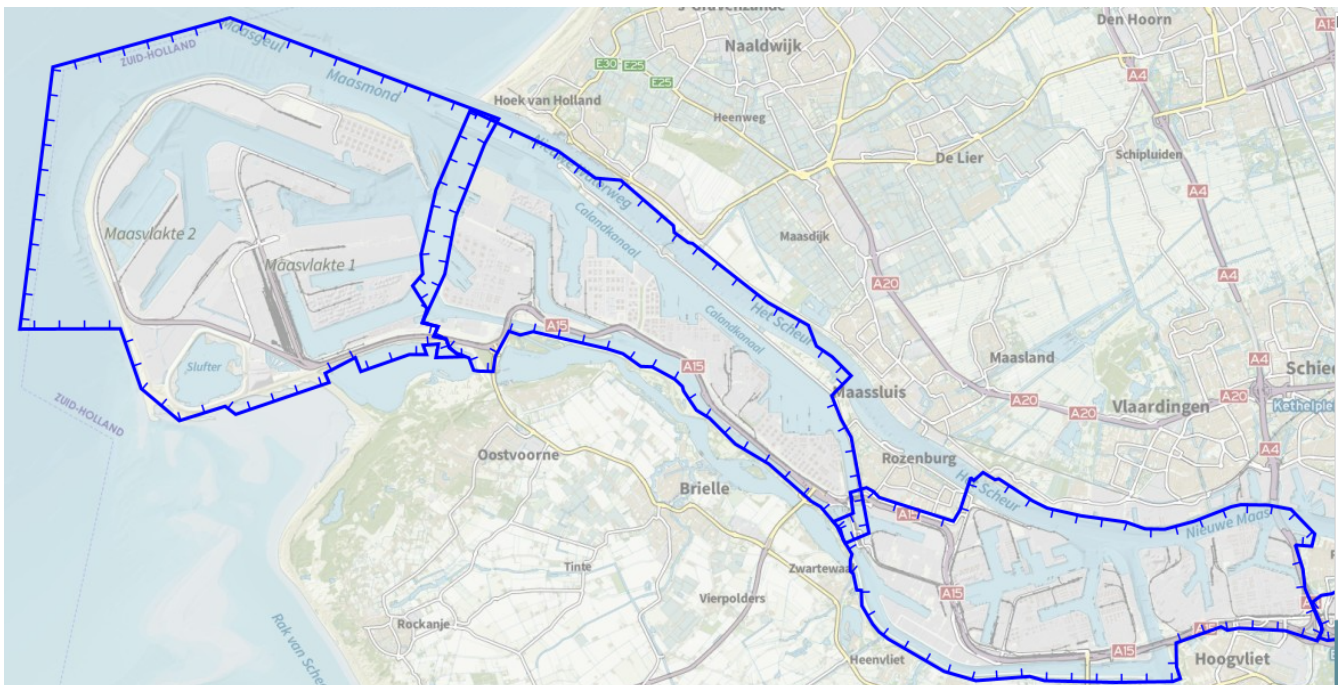
The noise generated by berthed ships is an important issue here. To bridge the period pending the thematic environmental plan, we drew up the interim working approach to noise from berthed vessels with the regional parties in 2023. We also updated the agreements made with the regional municipalities about the housing construction programmes in the RAK (the *regional agreement framework*) covenant.

In the meantime, in collaboration with the Municipality of Rotterdam and the Province of Zuid-Holland, a long-term monitoring programme has been launched to learn more about the noise produced by berthed ships. Under ESI Noise, the Port of Rotterdam Authority gave shipping a financial discount in 2023 if it was clear how much noise a vessel produced when berthed.

## Environmental safety

Factories produce and use hazardous substances in the port. These substances are also stored, transferred and transported on seagoing vessels, inland vessels, trains and trucks, and in pipelines. Those activities result in risks for the local area. This also applies to other sources of risk such as wind turbines.

The risks for the environment are limited by safety contours, which are not exceeded. DCMR assesses each permit to determine whether this requirement is met.



De veiligheidscontouren voor de Maasvlakte, Europoort en Botlek-Vondelingenplaat. De Waal- en Eemhaven en het havengebied Dordrecht hebben ook veiligheidscontouren.

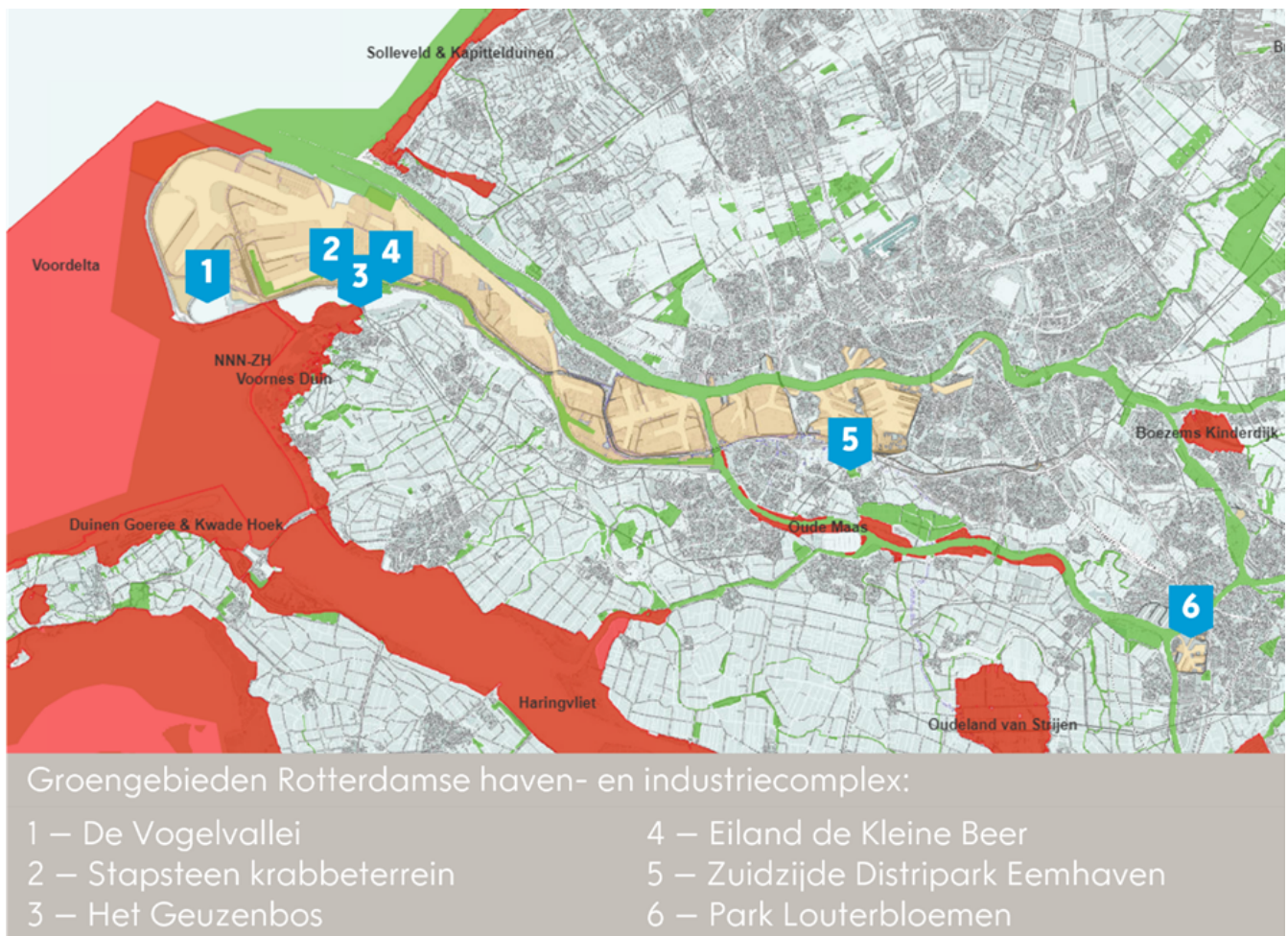


In addition to testing on the basis of the safety contours, assessments are also made of whether there could be large numbers of casualties in the event of a disaster. They are conducted when companies apply for permits, but also when plans are made for the locality, as in the case of new housing developments, for example. This *group risk* is also limited. With the entry into force of the Environment Act, more attention will be paid to the maximum effect of calamities, making it clear at what distance from a risk source there may be casualties, no matter how small the probability. The Port of Rotterdam Authority wishes to make clear agreements with the local area about permit procedures. This is done in the case of companies with potentially large impacts and the spatial planning in the vicinity of those companies.

When a new client plans to move here, the Port of Rotterdam Authority makes an assessment of whether there is an adequate risk margin available at the proposed location. We also look at whether the arrival of new clients will result in additional transports of hazardous substances in the Netherlands and whether that fits in with the Basic Network for the transportation of hazardous substances.

# Nature in the port

The port is home to a [wide variety of nature](#). It is surrounded by protected areas, the Natura 2000 areas and areas in the Netherlands Nature Network (NNN). The figure below shows those protected areas (Natura 2000 and NNN).



Formele natuurgebieden in het Rotterdamse haven- en industriecomplex (geel), en ligging beschermde natuurgebieden: Natura 2000-gebieden (rood) en Natuurnetwerk Nederland (NNN; groen).

When developing the port, we take protected plant and animal species, natural values and biodiversity into consideration. The Rotterdam port and industrial complex has a number of areas that we have established as nature areas or natural sites and that we manage in line with specific ecological targets.

We formulated a target in 2022 to increase biodiversity in the port by 5% in five years. We are measuring progress in a representative sample that provides a picture of the species composition, and the distribution and development of numbers of butterflies, grasshoppers, bees and plants on grassy vegetation in outdoor areas and on pipeline strips.

Jan Putters is the person at the Port of Rotterdam Authority with responsibility for the management and maintenance of the port's outdoor space. He knows everything about the abundant flora and fauna in the port area.





### Nature conservation in 2023

To improve nature, we established our own tree nursery in the port in 2023. The nursery is home to birds and insects. When the trees are large enough, we will use them to replace other trees or establish new sites.





There are dedicated locations in the port where gulls can nest in peace and quiet without representing a threat to foxes and also without inconveniencing the businesses in the port. This initiative involves collaboration with nature organisations and other seaports in the delta to keep the population of large gulls healthy in the long term.

We also pay attention to the aquatic environment. In 2023, the ARK foundation 'caught' young flat oysters again in the port of Rotterdam before moving them to the North Sea to start a new shellfish reef there. With our support, BlueLinked B.V. used 'reef boosters' (artificial reefs) in the Yangtzekanaal as a pilot for the *Better Oyster Outplacement & Seeding Techniques* (BOOST) project.

Finally, 2023 saw the launch of our new maintenance principle based on managing outdoor spaces as ecologically as possible. This is also seen in the new maintenance contract in which strict agreements have been made with contractors about improving biodiversity in the port.



# Workforce and organisation

We are determined, groundbreaking and we want to provide inspiration. We are also curious and aim to make improvements. There is a strong focus on individual workforce development. By means of intensive cooperation, both internal and external, we achieve results in what is often a complex environment. We are proud of our port and the impact we have as an organisation. We are standard-bearers for that culture. For our 1,332 employees and 191 external staff (as at 31 December 2023), this is the basis for responding quickly and in agile ways to current themes and questions from our clients.

We invest in employee development with a range of training programmes and in our Port Academy. We also work on the creation of an environment based on a safe, open culture and efficient processes, and we focus on sustainable employability and diversity & inclusiveness.

## Satisfied employees

To monitor how our employees perceive their work, we conduct an employee satisfaction survey twice a year. We measure factors such as eNPS (the employee Net Promoter Score). This is an international method for measuring staff enthusiasm about the company. In 2023, we measured eNPS twice. Our score was +22 in March and +26 in September (2022: +24). The national average is +6. We are very proud of this score.

The employee satisfaction survey also measures topics such as satisfaction, pride and commitment, safety and security, workload and happiness at work. The results show that the workload has decreased but that it is still too high in some departments. In addition, we rate our happiness at work highly: the contact with colleagues is good and people enjoy their work.

## Vitality and well-being

To work effectively, enough exercise, relaxation, rest and a healthy diet are important. That is why we pay considerable attention to the vitality and well-being of our employees. We offer a range of options and arrangements to enhance physical, financial and mental fitness such as gym passes, medical checks, financial coaches, sporting events and company physiotherapy.

The absenteeism rate this year was 4.6%, which is still above our target of 3.98%. It was also slightly higher than in 2022 (4.4%). The rise is mainly attributable to more long-term absenteeism.

## New employer branding campaign 'Become our legend'

Despite the tight labour market, we are still in a good position to fill vacancies. We welcomed over 160 new colleagues (influx 12%) last year. In June 2023, we launched our new employer branding campaign 'Become our legend'. *'With 'Become our Legend' we tell people in three words what we have to offer', explains Albert Spencer, head of Human Resources. 'A place where people work together, develop and encourage each other to make the port of Rotterdam better: smarter, cleaner and more beautiful. A real place for legends. Colleagues are central in this campaign. We want to show that everyone who contributes to the goals of the Port of Rotterdam Authority is a legend for us. And that is open to new people. Moreover, we show that the people who already work here or have worked here are very important to us.'*



### **Sustainable employability**

We believe it is important for our employees to continue to learn and develop. Through our Port Academy, we offer a range of learning materials such as e-learning courses, books, articles, and external courses. We spent € 2.1 million on education and training in 2023.

The digital agility programme invests in the sustainable employability of our colleagues. The goal of this programme is to further strengthen the agile organisation in order to respond quickly to developments in the market on the basis of data while working digitally (together) in a smart and efficient way. The programme comprises four pillars: digital skills, data-driven working, lean agile working, and people & organisation. For each pillar, activities are developed that contribute to the digital agility of our employees and the organisation as a whole. In 2023, courses, master classes and summer schools were organised covering each of the four pillars. In addition, role descriptions and the corresponding development menus were drawn up, coaching was provided to support lean agile working, portfolio management was developed further, and data governance was described and implemented. And we can build on, and with, a very active community of data specialists.

# Diversity and inclusiveness

A culture of openness and trust in which everyone respects each other ensures that all employees can attain their full potential. We believe diversity and inclusiveness (D&I) are important to keep recruiting and retaining the best people, with diversity also playing a role in employee quality, better decision-making, and greater agility and innovation.

We pursue an active diversity and inclusiveness policy with the goal of achieving a balanced and diverse composition of our workforce. The Diversity & Inclusion (D&I) Task Force organises activities and courses, and promotes communications about D&I. It is also the knowledge centre, front desk and advisory body for addressing D&I issues.

In the recruitment process, we focus on enhancing diversity by, among other things, recruiting more and more people with a distance from the labour market or a disability, people with different cultural backgrounds, people from different age groups and LHGBTQI+ people. Mariette Vester, Corporate Change and HR Projects consultant: *'We do this, for example, by wording job postings in more neutral terms, encouraging multiple target groups to apply, and establishing a more diverse pool of interviewers for applicants. In 2023, we conducted a pilot study by recruiting on the basis of competences. In this way, we aim to appeal to a broader group and eliminate all bias from the recruitment process.'*

The pilot study consisted of a recruitment process for a vacancy that we conducted using this new approach. We completed an evaluation with the candidates and the members of the selection committee and made adjustments to the pilot project on the basis of the outcome. We filled four vacancies in the context of the pilot study in 2023. This process will be continued in 2024.

Since 2022, the Port of Rotterdam Authority has been a participant the Diversity in Business Charter and 010 Inclusive. Changes in the new Dutch Corporate Governance Code led to the tightening up of our D&I policy. We have already reported on gender diversity in the top and sub-top of the company.

In 2023, we celebrated Diversity Week for the second time with the theme 'Open Up' you are unique and you belong'. Employees were given the opportunity to engage in discussions about D&I and attend sessions about topics such as making the most of everyone's value, agility and resilience.

## Gender diversity at the top

We want to enhance gender diversity in our management teams. We want 50% of our employees in management positions to be women by 2030. As at year-end 2023, the actual percentage of women in management positions was 29.3% (2022: 31.8%). The Executive Board is evenly divided with one man and one woman (as at year-end 2023). The Management Team (excluding the Executive Board) had two women and five men in 2023, and therefore fell short of the target of 3 women out of 7. The percentage of women on the Supervisory Board was higher at the end of the year at 67% (the target was 40%).

## Employment for people with a distance from the labour market

Our D&I policy also includes providing jobs for people with a distance from the labour market. We provide five jobs on a structural basis and offer occasional apprenticeships and sheltered workshop positions for, for example, refugees or people who have been chronically ill. We also include social return in specific tenders. In 2023, we appointed people to six jobs, the same number as in 2022.

# Occupational Safety

The Port of Rotterdam Authority wants a working environment where everyone is safe and feels safe. We accept only safe and respectful conduct from our employees and everyone who works for us. Open communications with the aim of making improvements are important here. Our policy is founded on developing and maintaining a proactive safety culture and continuously improving working conditions. The Port of Rotterdam Authority wants to excel here, not only for the sake of our own employees but also in order to set an example for clients, contractors and other stakeholders in the port area.

## Going home healthy and safe

We transform the ambition of the Port of Rotterdam Authority 'everyone goes home healthy and safe' into concrete safety programmes and a single vision in the field of occupational safety. The policy applies to all work and activities that we do ourselves, or that are ordered by or executed on behalf of the Port of Rotterdam Authority.

The safety initiatives in 2023 focused on:

- Introducing a new structure for the Risk Inventory and Evaluation (RIE) method. This is a practical approach in which we make an assessment, based on interviews with employees about their activities, of the effectiveness of on-site management measures (present and future).
- The implementation of the 'SafetyNow app' in which injury incidents, near misses, unsafe situations and conduct, and positive observations are reported, tracked and analysed to identify trends and possible improvements. We share the information with the organisation using a clear dashboard. Eight hundred reports were received in 2023. The introduction of SafetyNow as a reporting app also makes it possible to analyse trends on the basis of leading indicators such as safety observations.
- Further development of the safety management system.
- Revision of the method for safety risk analysis in projects with contractors and the integral safety plan that results from this process. We shared this in interactive workshops with contractors at the Safety Contractor Day we hosted for the first time last year.

## Health and welfare

The Port of Rotterdam Authority uses the services of the Arbo Unie in the field of vitality and health. The HR organisation offers a range of programmes to promote employee vitality and health. The company doctor plays an important role in sustainable employability and contributes to safe and healthy working conditions. The RIE identifies all health and safety conditions that may affect the physical and mental health of the employees and links them to the relevant management measures.

If there is a suspicion of malpractice, improper conduct or unethical conduct, employees and third parties can report using the [whistleblower protocol](#).

The company doctor diagnosed one occupational disease in 2023. The Occupational Health and Safety Regulation (Article 1.11) defines an occupational disease as an illness that is the result of 'a load that is primarily due to the work or the working conditions'. The most common occupational diseases among people at work are mental disorders (such as burnout or depression) and musculoskeletal disorders (such as low back pain and arm, neck and shoulder complaints).



## Safety in projects

In the case of projects commissioned by the Port of Rotterdam Authority, the statutory regulations of the Construction Process in the Dutch Working Conditions Decree apply. As a contract principal, the Port of Rotterdam Authority must be sure that contractors are able to prevent and/or minimise occupational health and safety risks in the design and operational phases.



Decisions that can affect safety are made during the planning and design phases for physical structures. These architectural, technical and organisational decisions are included in the life cycle of the structure in question. In 2023, we worked on the ongoing development of a systematic approach to identify these decisions and share them with clients. All the parties involved find the warm handovers for design and implementation to be valuable.

The quality of safety and health plans from contractors varies. By stating our expectations more clearly in the contract documentation, we are trying to establish greater consistency and raise standards. The Port of Rotterdam Authority organises system-specific inspections and safety walks in order to make checks on safety agreements with the contractor, and a practical and proactive dialogue about safety has been established. An average of two Safety Walks a month took place in 2023.

## Employee participation

The 'Safety Minute' as a regular component of team meetings encourages communications about safety and we actively involve employees in current safety topics or dilemmas.

We also actively involve employees in the drafting of the RIE to increase recognisability and therefore the use of the documentation. The 5xYES method we introduced in 2022 has now been successfully rolled out in the organisation and it is also used to discuss and resolve unsafe situations before work starts.

The Works Council of the Port of Rotterdam Authority has a Safety, Health and Environment committee with a monitoring and advisory role with respect to the health and safety policy.

### **Safety awareness**

In our culture programme, 'Take Time for Safety', we regularly enter into discussions with employees about safety leadership and what it means to literally take the time to prepare the work properly.

All employees receive general safety training when they join the company. Depending on their position, employees receive additional vetting and training. All this was set out in a safety training matrix in 2023 and progress was made transparent with a training dashboard.

# Human rights and labour rights

We respect and support human rights and we do our utmost to ensure that we have no part in infringements of those rights. In 2022, we called in an outside firm to conduct a study of risks of human rights infringements that took risks in specific geographical areas into account. The initiation of this Human Rights Due Diligence (HRDD) process served as the basis for the drafting of our [human rights policy](#).

The human rights policy states that we will act in line with the 'International Bill of Human Rights', the 'ILO Declaration on Fundamental Principles and Rights at Work', the 'OECD Guidelines on Multinational Enterprises and the 'UN Guiding Principles for Business and Human Rights'. The policy applies to all employees and managers – including part-time and external employees – of the Port of Rotterdam Authority, both in the Netherlands and internationally. It is the responsibility of us all to ensure that we act in accordance with the human rights policy. Courses and information meetings help in this respect.

In departments where we identify salient risks of human rights infringements (you can find these [here](#)), department heads are responsible. They are the first point of contact for employees. The CSR programme manager and risk manager support these department heads. Issues that arise are discussed by the management of the relevant department. Depending on the nature of the issue, the Executive Board will be informed.

We conduct periodic reviews of salient human rights risks and make adjustments where necessary. In 2023, the external firm conducted a brief assessment of our HRDD process. The main conclusion was that the Port of Rotterdam Authority has made advances, both company-wide and in departments with the highest risks. The topic of human rights was further anchored in 2023. There were communications about our human rights policy and the focus on new risks resulting from operations in new markets such as the hydrogen market. The subject has also been integrated in the risk landscape. At the same time, the external firm concluded that there is room for improvement in the form of the further embedding of the HRDD process. One of the recommendations is to provide additional information in future annual reports about how salient issues have been identified and how we monitor the mitigation measures established for each department or theme.

## Human and labour rights in our own activities

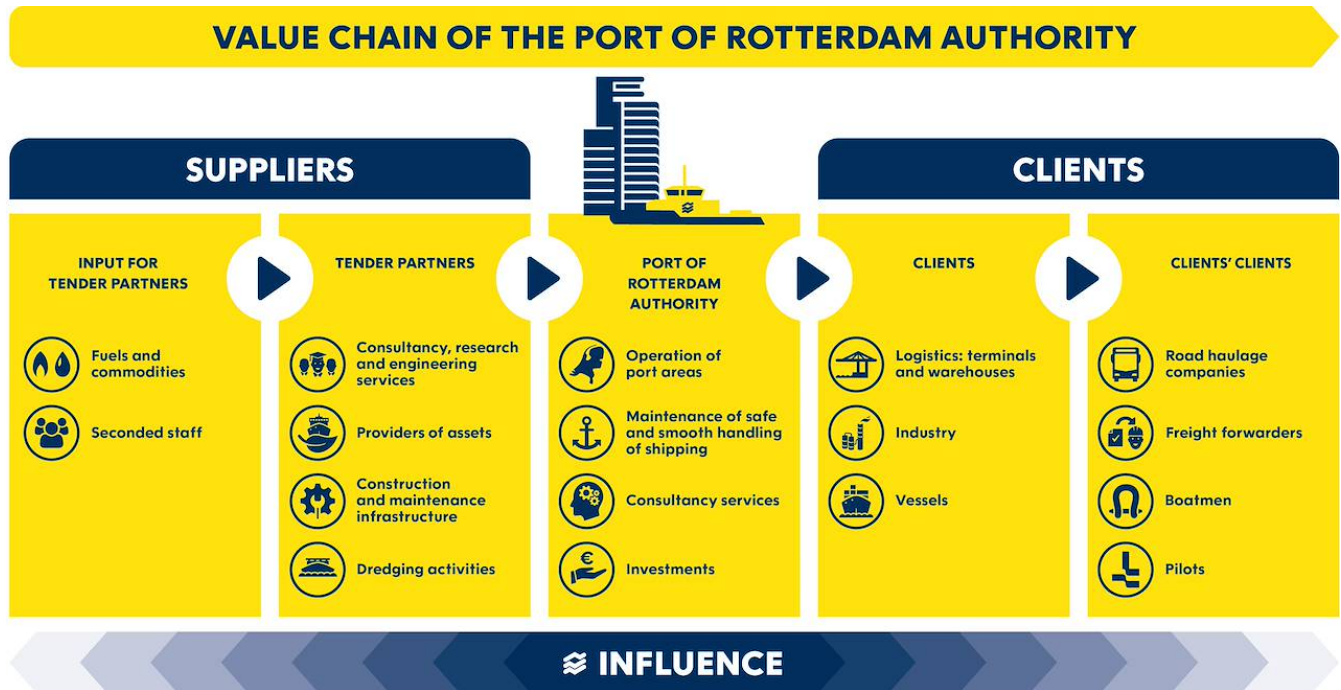
We have a range of processes in our organisation to safeguard labour rights. Our Collective Labour Agreement covers matters relating to our employees' rights in the areas of working conditions, fair pay, equitable living standards, equality, collective bargaining and disability provisions. We also have an occupational safety policy, a privacy policy and a diversity and inclusiveness policy.

The HRDD shows that we have an increased risk of contributing to human rights infringements in our international services or investments, as in the case of our joint ventures in Brazil and Oman. The policy has been tightened up in this area. When entering into new relationships abroad, a Due Diligence check is required, depending on the nature of the work: consulting, digital solutions and joint ventures. We have also made the risk of corruption or human rights infringements for participating interests outside the Netherlands an explicit part of our top risk landscape (you can read more about our top risks [here](#)) that we use to inform the Executive Board about progress every six months.

If there is a suspicion of malpractice, improper conduct or unethical conduct, employees and third parties can report this in various ways (see our [whistleblower protocol](#)). We take action appropriate to the situation and degree of involvement in any human rights infringements. We may take action ourselves to remedy infringements, or use our influence to help remedy the situation.

## Human rights and labour rights in the chain

With contractors and suppliers, we are building the port and industrial complex into an attractive business and throughput location for parties in the logistics chain. In turn, they develop the port further and in this way the port continues to develop into a sustainable, modern and smart port. Our role means that we have an influence at multiple levels in the chains (including value chains) that are relevant for us. We have most influence in the domain of our contractual relationships (procurement partners and clients) and less on their contacts. This field of influence establishes the frameworks for our efforts to mitigate or remedy the risk of human and labour rights infringements.



### Suppliers

When selecting contractors, we expect the same approach to labour rights and human rights. On the basis of the HRDD, we identified the main risks of human rights infringements in our procurement activities. The risk of corruption or human rights infringements in procurement activities is therefore an explicit component of our top risk landscape. We established a 'Supplier Code of Conduct' in 2023 that focuses on respecting and supporting internationally proclaimed rights. We also explicitly stated what we expect from the people and organisations with whom we work. To safeguard working conditions, we ask for a VCA (Safety, Health and Environmental Checklist Contractors) as standard, and we reserve the right to conduct checks.

### Clients

Our corporate code states that we do business with parties that operate in a socially responsible way and are not guilty of abuses such as corruption, environmental or safety offences, child labour or human rights infringements. The carbon emissions associated with activities in the Rotterdam port and industrial complex are associated with the infringement of the human right to life. You can read more [here](#) about our efforts to limit those emissions. Employees must work in safe and healthy conditions. That is why safety is a top priority in the Rotterdam port and industrial complex. Subversive crime can lead to unsafe working conditions. We are working on tackling this issue in several ways. You can read more about this [here](#).



### **Clients' clients: the port of Rotterdam as hub in the global logistics chains**

The port of Rotterdam is an important hub in global logistics chains. Our clients – established companies and maritime shipping – are part of these logistics chains. As the port manager, we have limited influence over cargo flows. The imports and throughput of commodities and their application in production processes take place at the port safely, efficiently and with increasingly clean environmental technologies. In extraction or production areas for commodities elsewhere, or in the transport chains to and from the port, the quality of conditions for people, the environment and nature may not be up to standard. Society is increasingly critical about where goods originate and is calling us to account to an increasing degree. We share the sense of urgency about clean and safe trade and see the need to reduce the negative social impact of products that pass through our port.

### **Protests against coal**

A much-discussed issue is coal imports from Colombia. In April 2023, an official report was submitted about a possible infringement of OECD guidelines by several companies in the Rotterdam and Amsterdam ports, including the Port of Rotterdam Authority. It described how companies and ports have contributed to serious negative consequences for human rights in Colombia by the repeated procurement and processing of coal sourced from two Colombian mining companies. These companies have been linked to the violent expulsion of 59,000 people from farming communities in the Cesar coal mining region between 1996 and 2006. According to the report, there has been no substantial contribution to a solution for the victims in recent years, despite the coal covenant.

There was also criticism of the working conditions and environmental impacts of coal mining, leading to actions by organisations such as Extinction Rebellion and Kappen met Kolen (*Stop Coal!*). They protested several times in front of the World Port Center (the head office of the Port of Rotterdam Authority) and at the port in 2023 against the imports or throughput of this coal.

Coal is not imported by us as a port authority, but by the clients of our clients. Nevertheless, we see that we have a responsibility in this respect and we are actively engaging with these organisations to reach a joint solution. We will also cooperate with the handling of the report by the National OECD Contact Point.

Other examples of situations for which the Port of Rotterdam Authority is expected to assume responsibility are:

- Eight foreign nationals were found in the Europoort in April. They were hiding in a trailer carrying coal. The driver was arrested for human trafficking. Human trafficking is a component of subversive crime; this is one reason why the Port of Rotterdam Authority is taking measures to improve site security.
- Extinction Rebellion demonstrated during the World Port Days. The organisation called attention to pollution in and around the port. Accelerating the energy and raw materials transition is a priority of the Port of Rotterdam Authority. Given our role as the area manager, we are constantly looking for ways to accelerate sustainability and remove obstacles.

# Support for the port

## Connecting the city and the port

The Port of Rotterdam Authority works closely with stakeholders and clients to develop a leading, sustainable port. We are committed to our locality and we strive for balanced growth. Richard van der Eijk, head of Communications and External Affairs: *'As a socially engaged organisation, we want to contribute broadly to the port and industrial complex and to a liveable city of Rotterdam for its residents. We fulfil this role every day with dedication and pride. We believe that the residential and living environment in the region should be of a high standard. That is also good for the port. We strive to minimise the negative impact on the surrounding area while promoting the positive effects on the economy and employment.'*



Our focus is on adaptability, enough space and a sharp strategy for innovation. We are striving to establish a broader portfolio and a stronger business climate. All this with the aim of the ongoing development and renewal of both the port and industrial complex and the city of Rotterdam and its surroundings.

## Brand survey

A good reputation is important for the port of Rotterdam and the Port of Rotterdam Authority to be, and remain, successful. It generates greater understanding, support and backing from our stakeholders, and widens our entrepreneurial scope. We regularly commission a brand survey by an external firm. The good scores in 2023 show that the reputation of, and support for, the port of Rotterdam continue to be strong. The survey of the Dutch population and local residents uses a scale from 0 to 100. A score of more than 80 is excellent and a score between 70 and 80 is good. In 2022, we conducted another interim survey looking at local residents only. We have therefore included that as a basis for comparative figures in this annual report.

### *Rotterdam port as seen by local residents and the Dutch public*

The reputation score of 77.3 for the port of Rotterdam from the **Dutch public** is good (2021: 78.5). Dutch support for the port of Rotterdam's 'licence to grow' rose sharply from 69.3 in 2021 to 73.6 in 2023. People were less inclined to recommend the port as an employer, a place to live or a location for leisure activities. The Dutch public has high expectations for the port of Rotterdam in terms of the energy transition and sustainability.

Among **local residents**, the reputation of the port of Rotterdam is excellent at 80.3 (2022: 79.0) and the score for the 'licence to grow' was 73.9 (2022: 74.3). Local residents are more positive and prouder but they do see possible improvements in the areas of tackling crime (particularly drugs-related crime) and the positive profiling of the port. Themes such as digitalisation, safety & security and sustainability play a role here. The results identify a number of points requiring attention:

- An ongoing emphasis on the major social and economic value of the port for the Netherlands.
- Ongoing communications about our work on sustainability initiatives and how the port as a whole is making a significant contribution to the energy transition.
- The living environment in and around the port area remains an important issue, and increasingly so. People are becoming more critical, which is why it is important to achieve concrete results in terms of improving the living environment and to share these results. Transparency and openness about the challenges and progress being made are essential here.
- Crime/drugs-related crime puts the port in a negative light. It is therefore important for us to show clearly that security is high on the agenda and that we are working behind the scenes with the agencies and parties responsible to tackle crime in the port.

### *Port of Rotterdam Authority as seen by local residents and Dutch public*

The reputation and 'licence to operate' of the Port of Rotterdam Authority was also addressed by the survey. The Dutch public gave us a score of 78.5 for our reputation (2021: 75.1) and 78.4 for our 'licence to operate' (2021: 76.3). Local residents rated us lower than in the previous survey. They gave us a 76.8 for our reputation (2021: 78.1) and 78.0 for our 'licence to operate' (2021: 79.7).

## Client appreciation

We conduct a customer satisfaction survey every two years that assesses the quality of the port of Rotterdam and how we work with clients. The survey conducted in 2023 established a satisfaction score of 7.6 (2021: 7.3). Our clients feel that the relationship is pleasant but they also recommend the good location and infrastructure of the port of Rotterdam. The client focus of the Port of Rotterdam Authority and innovation are areas where improvements could be made to increase customer satisfaction further. The Port of Rotterdam Authority could also be slightly more proactive in terms of sharing plans for the future and our clients have expressed concerns about the growth of the port and whether there will be room for everyone in the future.

## Dialogue with suppliers

Our suppliers make an important contribution to the successful achievement of targets. They also help us respond to, and take advantage of, changes in the market. We conduct the dialogue with suppliers during tenders and, more specifically, on the basis of individual market segments. In the domain of tenders, we often take anticipatory action to obtain more information from the market through market consultations. They are conducted on a regular basis, particularly if developments in the market are fast or if we are going to do something new. Suppliers value dialogue, not least to facilitate innovations.

We distinguish between the following categories of suppliers: water-based infrastructure; land-based infrastructure; dredging; consulting, research and engineering services; ICT and data; real estate; hiring and facility services.

The assessment has begun of environmental and human rights suppliers, as has data collection for the reports below.

- **Supplier Environmental Assessment:** The Port of Rotterdam Authority breaks the market down into categories for procurement. Issuance and the level of detail vary slightly depending on the category. Particularly in infrastructure projects (water- and land-based), which account for three-quarters of total expenditure, we always include an environmental assessment in the requirements. In many cases, the environmental component helps to determine the overall potential score for a tender party.
- **Supplier Social Assessment:** The drafting of targets in this area began in 2023. We set out our requirements for the different categories of suppliers.

## Establishing connections in practice

The presence of residential areas close to the port area has an effect on the development options open to the port, while the port also affects the residential and living environment in those areas. In collaboration with the Municipality of Rotterdam and other stakeholders, we are working on numerous projects that are important for the connections between the city and port and therefore for the business climate. Two examples:

### **Merwe-Vierhavens**

The Merwe-Vierhavens (M4H) city port area is being transformed into a new maker district where innovative companies in the domains of circularity, the energy transition and smart mobility will generate jobs and rub shoulders with new housing.

In 2023, we decided to redevelop the Ferro office in M4H as one of the iconic buildings in the area. This office provides space for companies that support manufacturing industry, such as architects and engineering firms. There is also room for start-ups and companies from the area that are looking to grow.

### **Rotterdamsche Droogdok Maatschappij**

The historic shipyard of the Rotterdamsche Droogdok Maatschappij (RDM) is home to innovative companies, technological education, high-quality testing facilities and field labs. This makes it *the* place to encourage and develop innovative solutions for the smart port of the future.

We are developing Het Magazijn on the site of RDM Rotterdam. This building has space for four small-scale commercial spaces with office facilities totalling 5,000 square metres. Three of the four units have already been rented out and this type of business space fits in with the RDM strategy of also facilitating medium-sized companies and/or scale-ups. Solar panels will be installed on the roof, and heating for the commercial and office spaces will come from an air-water heat pump.



## Corporate citizenship

As a socially committed organisation, we want to make a constructive contribution to Rotterdam and the surrounding area with corporate citizenship across the spectrum. On the one hand to the port and industrial area but certainly also to a liveable city and its residents. We therefore work with organisations and events that are a good match with our purpose – Connecting the world, building tomorrow's sustainable port – with the aim of furthering the development of the city of Rotterdam and the surrounding area. We focus on projects relating to education and the labour market, the connections between the city and the port, sports, leisure and culture.

# Board structure and governance

The Port of Rotterdam Authority is an unlisted public company with two shareholders: the Municipality of Rotterdam (70.83%) and the Dutch State via the Ministry of Finance (29.17%). Through their interest in the Port of Rotterdam Authority, the shareholders safeguard the following public interests:

- Nautical safety in the port;
- The continuity and quality of the port of Rotterdam as a vital link in the mainport, efficient market relations and the sustainable use of space;
- The sustainability of the port and industrial complex.

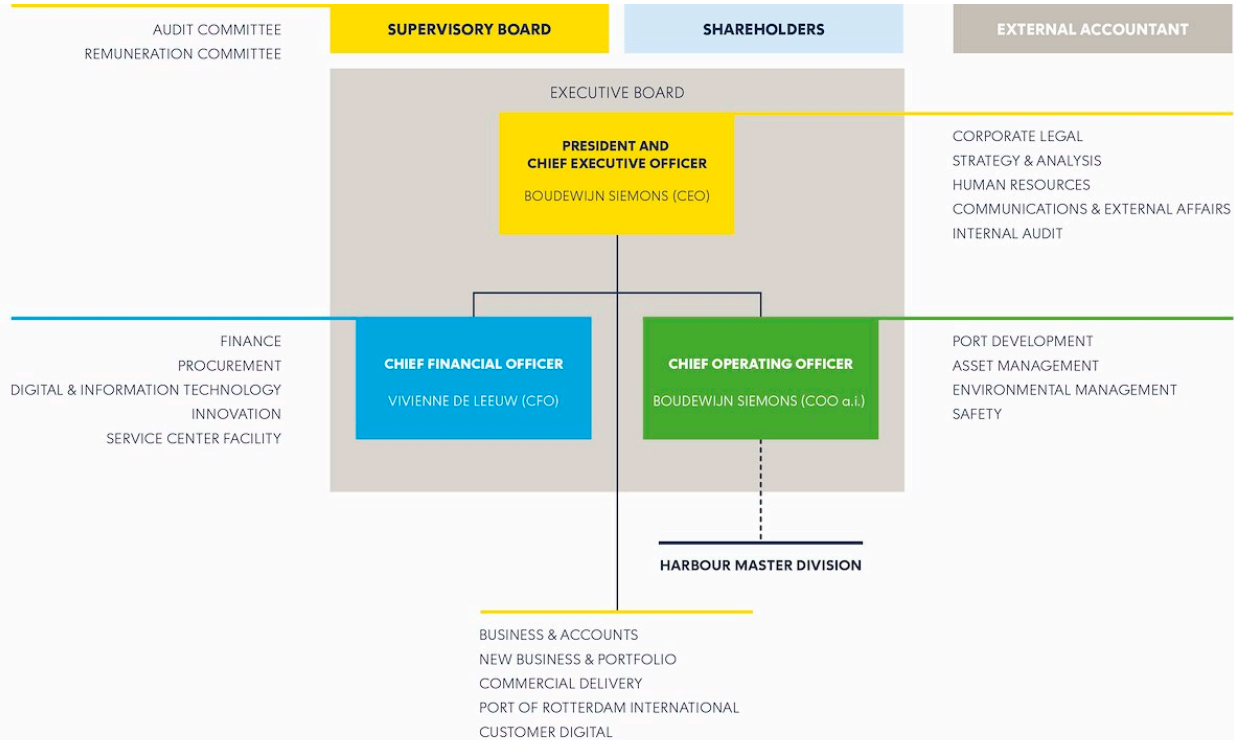
The Port of Rotterdam Authority's governance is based on a two-tier board structure in which appointments are made by the General Meeting of Shareholders. The Executive Board manages the company; the independent Supervisory Board oversees the Executive Board and the affairs of the company. Our shareholders exercise influence over the limited liability company through the General Meeting of Shareholders.

The competences of the Supervisory Board and the General Meeting of Shareholders are defined, inter alia, by law and the Articles of Association (see [here](#)). Shareholders have joint control over major decisions. Accordingly, investments exceeding € 50 million and a change in the company's long-term strategy require the consent of both shareholders. The General Meeting of Shareholders also has the competence to, for example, appoint and dismiss the management, and to adopt the long-term strategy for the Port of Rotterdam Authority.

## Dutch Corporate Governance code

The shares of the Port of Rotterdam Authority are not listed on the stock exchange and we are therefore not legally obliged to apply the Dutch Corporate Governance Code. We voluntarily apply the principles and best practices of the Dutch 2022 Corporate Governance Code. In doing so, we follow the 'comply or explain' principle. The regulations for the Supervisory Board and its committees (in 2023) and the Executive Board (in early 2024) were amended to reflect the latest changes in the 2022 Corporate Governance Code. The regulations including the comply or explain overview can be found [here](#).

## Structure



This is the organogram of the Port of Rotterdam Authority. Some departments are responsible for the development and maintenance of the port and industrial area. The Port Authority also has commercial departments that are responsible for attracting companies to the port and maintaining our relationships with them. The Harbour Master's Division performs duties in the context of public law on behalf of the Harbour Master such as traffic control, inspection and incident response.

### Executive Board Tasks and responsibilities

Following the departure of Allard Castelein effective 15 July 2023, Boudewijn Siemons acted as interim CEO in addition to his formal role as COO. In early 2024, following his nomination by the Supervisory Board, the shareholders appointed Boudewijn Siemons CEO effective 1 February 2024. That left the position of COO vacant. Boudewijn Siemons will also act as interim COO until a successor is appointed to his former position. The Executive Board of the Port of Rotterdam Authority therefore comprised two members effective 1 February: a Chief Executive Officer (CEO) who is also acting as interim Chief Operational Officer (COO), and a Chief Financial Officer (CFO). The intention is that the Executive Board will in time have three members once again.

The members of the Executive Board are collectively responsible for the management of the company, the general affairs of the company and the affairs of the group companies affiliated with the company. The Executive Board is also responsible for the continuity of the company and its associated business, and sustainable long-term value creation for the company and its associated business. The Executive Board takes into account the effects of the actions of the company and its associated business on people and the environment. To fulfil this goal, it weighs the relevant interests of the stakeholders. With respect to the fulfilment of its duties, the Executive Board is guided by the interests of the company and its associated business.

Under the [regulations](#), the duties of the Executive Board include the social aspects of business relevant for the company, the achievement of the company's corporate and public objectives, and the determination of the strategy and policies that will lead to the achievement of those objectives. The Executive Board is also tasked with establishing, embedding and maintaining values that contribute to a culture focused on long-term value creation, encouraging conduct consistent with those values and communicating those values through exemplary conduct. The Board also takes the sustainability impact of the business into account, including the effects on people and the environment. In addition, the Executive Board is responsible for compliance with all relevant legislation and regulations, the identification and management of risks, and the financing of the business. The Executive Board is accountable to the Supervisory Board and the General Meeting of Shareholders with respect to the fulfilment of its duties.

### **Conflicts of interest**

The rules relating to conflicts of interest have been set out in the regulations for the Executive Board. No conflicts of interest were reported in 2023.

## **Supervisory Board**

### **Tasks and responsibilities**

The Supervisory Board oversees, monitors and advises the Executive Board with respect to a range of issues:

- The achievement of the objectives of the Port of Rotterdam Authority;
- Strategy for sustainable-term value creation risks and the risks associated with the activities of the company;
- The design and operation of the internal risk management and control systems;
- Financial and sustainability reporting process;
- Compliance with legislation and regulations;
- Relationship with shareholders; and
- The social aspects of business activities that are relevant for the company.

In addition, under the Articles of Association, decisions are submitted to the Supervisory Board for the approval of, inter alia, investments in excess of € 10 million and issuances of land larger than 25 hectares.

Furthermore, the duties of the Supervisory Board include publishing and maintaining the company's corporate governance structure, appointing and selecting the auditor, determining the remuneration and terms of employment of individual members of the Executive Board and making proposals for the remuneration policy of the Executive Board, and evaluating the performance of the Executive Board and Supervisory Board.

The Supervisory Board monitors the implementation of the reporting procedure for abuses and irregularities (suspected and otherwise), the appropriate and independent investigation of signals of abuses and irregularities and, if an abuse or irregularity has been reported, adequate follow-up to any recommendations for remedial action.

### **Supervisory Board committees**

The Supervisory Board consists of at least five members; the aim is to have six members. Two new members were appointed on 15 December 2023. The Supervisory Board appoints a chair and vice-chair from its own members. Miriam Maes was chair until her departure on 31 December 2023 and Koos Timmermans was vice-chair. Effective 1 January 2024, Koos Timmermans took over as chair and Wouter van Benten became vice-chair.



The Supervisory Board has two committees: the audit committee and the remuneration committee, which is also the selection and appointment committee. The members of the committees are appointed by the Supervisory Board. The committees advise the Supervisory Board and prepare decisions, and therefore contribute to effective decision-making by the Supervisory Board. The committees report verbally and share minutes or draft minutes at meetings of the Supervisory Board. The Supervisory Board remains collectively responsible for decisions prepared by a committee.

The committees have their own regulations. The regulations describe the rights and duties of the committee and best practices. The regulations of the audit committee and the remuneration committee are included in the Supervisory Board's regulations. The duties of the audit committee include overseeing the operation of the internal risk management and control systems, the company's financial and non-financial disclosures, and compliance with the recommendations and follow-up to comments made by accountants and auditors. The audit committee meets four times a year. The meetings are attended by the auditor and the head of the Internal Audit Department when the audit committee asks them to do so. The audit committee liaises with the auditor, in particular with respect to the audit procedures of the auditor and in cases where the auditor indicates that there is a suspicion of irregularities with respect to the content of the financial reporting.

The remuneration committee prepares the decisions of the Supervisory Board, including those with respect to selection criteria and the appointment procedures and performance of members of the Executive Board and Supervisory Board. It also drafts proposals for the remuneration policy of the Executive Board to be adopted by the General Meeting of Shareholders, and the individual remuneration of the individual members of the Executive Board.

### **Appointment and dismissal**

The members of the Executive Board and Supervisory Board are appointed by the General Meeting of Shareholders pursuant to nomination by the Supervisory Board. The Supervisory Board prepares a profile and list of candidates for this purpose that are submitted to the Annual General Meeting of Shareholders for approval. Nominations and appointments take into account the corporate and public objectives of the company, the nature of the business, its activities, the desired expertise and experience, and – in the case of the appointment of a member of the Supervisory Board – the desired independence.

The Port of Rotterdam Authority strives to ensure that the Executive and Supervisory Boards are representative of society at large. The Supervisory Board has therefore adopted an updated diversity policy relating to the expertise, experience, competences, other personal qualities, gender or gender identity, age, nationality and cultural background of the members of the Executive Board and Supervisory Boards. In the area of gender, the Port of Rotterdam Authority aims for a male-female ratio of:

- at least 30% women on the Executive Board;
- at least 40% women on the Supervisory Board.

These targets are considered to be appropriate and ambitious given the number of members of the Executive Board (three) and Supervisory Board (desired number of six). The current composition of the Executive Board and Supervisory Boards meets the stated diversity objectives: the Executive Board consisted of one woman and one man as at year-end 2023; the Supervisory Board consisted of four women and two men as at year-end 2023.

Appointments to the Executive Board and Supervisory Boards actively include the diversity objectives in the profile, recruitment and selection of candidates. The Works Council has the right to advise on the appointment of members of the Executive Board. Furthermore, for the appointment of one-third of the number of members of the Supervisory Board, the Works Council has an enhanced right to advise. The Works Council has exercised this right and the chair of the Supervisory Board and new member of the Supervisory Board, Jacqueline Prins, enjoy the special confidence of the Works Council.

A member of the Executive Board or Supervisory Board is appointed for four years and may be eligible for reappointment. The term of office may never exceed three terms of four years, in other words twelve years. The General Meeting of Shareholders may suspend or dismiss members of the boards. The Supervisory Board has the competence to suspend a member of the Executive Board. The Supervisory Board periodically evaluates the performance of the Executive Board.

### Control

		Supervisory board	Shareholders meeting
<b>Executive board</b>	Appointments		Appoints
	Suspensions	Independent and immediate suspension	Independent and immediate suspension
	Dismissal		Independent and immediate dismissal
	Remuneration policy		General Meeting of Shareholders adopts remuneration policy
	Remuneration	Sets remuneration in line with remunerations policy	
<b>Member of Supervisory Board</b>	Appointments	Sends nomination tot General Meeting of Shareholders	Appoints and has the right to submit a recommendation to SB for nomination
	Suspensions	Independent and immediate suspension	
	Dismissal of a member of SB	By the Enterprise Chamber at the request of company represented by SB	By the Enterprise Chamber at the request of the company represented by General Meeting of Shareholders
	Dismissal of entire SB		May proceed with dismissal after notifying Works Council
	Remuneration		Sets remuneration

# Risk management

## Risk management and control system

The Port of Rotterdam Authority has a risk management and control system for the identification, management and reporting of risks. The internationally accepted standards of the Committee of Sponsoring Organizations of the Treadway Commission (COSO) constitute the basis for the Enterprise Risk Management system at the Port of Rotterdam Authority.

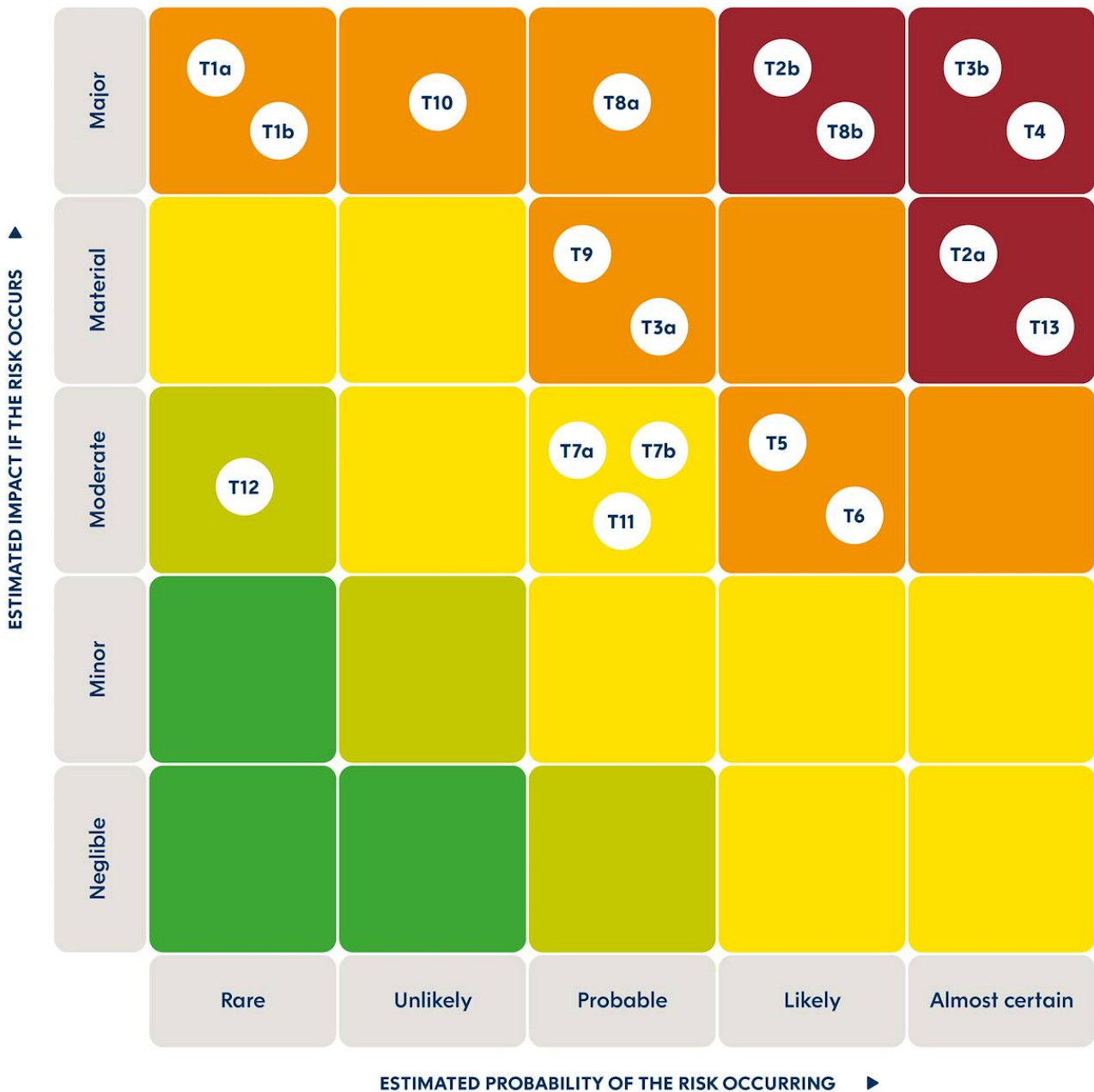
The risk management and control system starts on the workfloor. Departments and project teams are themselves responsible for their risk identification, assessment, management and reporting. Risk management consultants and controllers provide support. They meet regularly as a Risk & Control community to strengthen and monitor the integrality of risk management at the Port of Rotterdam Authority. In addition, the Internal Audit Department conducts periodical audits of the risk management and control system. Furthermore, the auditor provides an opinion in the annual management letter on the operation of internal control insofar as that is relevant for the production of the annual accounts. The Executive Board has final responsibility for the risk management and control system and the Supervisory Board's audit committee oversees its operation.

The main risks (top risks) in areas such as strategy, operational activities and legislation and regulations (compliance) are periodically reassessed as part of the strategic planning process and adopted by the Executive Board. In this process, we include the opportunities and threats associated with a range of trends and developments. Climate-related risks are some of the top risks discussed. For example, climate change requires the energy transition, and an associated risk of failure. Sea level rise due to climate change may also result in flooding which, in turn, can lead to a risk of incidents on water and/or land. Furthermore, there is research and a deepening of the approach in the area of climate-specific themes.

Each top risk has an owner at the Management Team level. Monitoring is part of our planning and control cycle. The Management Team, Executive Board and Supervisory Board discuss the top risks twice a year. Our top risks are also discussed with the shareholders.

## Main risks

The main risks (top risks) for 2023 are shown below in our top risk landscape. Developments, events that may have a significant impact on the achievement of the business strategy, and the impact we have on third parties, our locality (the port of Rotterdam, logistics chains, Nederland Inc.) as a result of our actions (or inaction) are one starting point for the inventory of top risks. Our success is inextricably linked to the functioning of the entire port and all parties in and around the port. Most of our top risks therefore extend beyond our own organisation alone. For example, we look at the lack of digitalisation in the logistics chain, cyber attacks on the port, and congestion in and around the port. Whether we act adequately and collaborate in the field of (nautical) safety has an effect on external parties such as maritime and inland shipping and companies in the port. This is reflected in, for example, the top risks 'incidents on water and/or land', 'cyber attacks on the port' and 'subversive crime in the port'.



<b>T1a</b> Incident water	<b>T6</b> Lack of digitisation of the logistics chain
<b>T1b</b> Incident country	<b>T7a</b> Corruption and human rights issues abroad activities
<b>T2a</b> Legislation/enforcement creates unfavourable business climate	<b>T7b</b> Corruption and human rights issues, procurement activities
<b>T2b</b> Nitrogen problem creates unfavourable business climate	<b>T8a</b> Energy transition will not succeed ≤2030
<b>T3a</b> Cyber attack PoR	<b>T8b</b> Energy transition will not succeed >2030
<b>T3b</b> Port cyber attack	<b>T9</b> Lack of talent for port, now and in the future
<b>T4</b> High establishment and supply chain costs	<b>T10</b> Terrorist attack in the port
<b>T5</b> Congestion in and around the port (available infrastructure and accessibility)	<b>T11</b> Declining support for port and industry
	<b>T12</b> Lack of integrity & Fraud
	<b>T13</b> Subversive crime in the port

#### LEGEND

- Risk heat map indicates status after measures (residual risks)
- Risk classification: dark green (very low) - red (very high)
- Numbering and order in the matrix are irrelevant
- T stands for Top Risk



Classification as a top risk and inclusion in the top risk landscape follows from the Management Team's assessment. We first estimate the risks in terms of their probability and impact without measures: should we do nothing, how real and how serious is the risk? We take the potential financial and non-financial consequences into consideration, such as image, environmental damage, disruption in our core processes and safety implications. We then assess the outcomes on the basis of our risk appetite. This constitutes the basis for taking measures to reduce the risk and keep the residual risk (the risk after measures have been taken) within limits we find acceptable. Our guiding principle in this respect is to adopt a conservative approach. This applies all the more to risks associated with our public duty as the Harbour Master's Division and it is linked to safety and security, compliance with legislation and regulations, and reliable financial reporting. Although our measures are designed to limit risks, we cannot guarantee in advance that they will be limited.

# Financial results and throughput

The Rotterdam port and industrial complex is strategically and economically important for the economies of the region, the country and Northwest Europe. The complex houses Europe's largest port and maritime cluster, with everything needed for shipping, industry and logistics. We have enough investment scope because of our healthy EBITDA. Vivienne de Leeuw, CFO of the Port of Rotterdam Authority: *'The Port of Rotterdam Authority is an investment machine. Our healthy financial position is crucially important to maintain our capacity in the years ahead to maintain investment in traditional hardware such as quay walls and jetties, and in infrastructure for the energy transition. We are also continuing to invest in digitalisation and innovation. By maintaining our position as a port with world-class infrastructure, we are ensuring that we remain an attractive location for companies to locate and to invest in the transition.'*

## Stable result

The financial results of the Port Authority are stable. Our revenue, consisting of port fees and rental and leasehold income, rose by 1.9% to € 841.5 million (2022: € 825.7 million).

Rental and leasehold revenue increased mainly because of new contracts, price changes and the extension of existing contracts. Seaport dues fell by 1.4% due to lower throughput. For the 2023 calendar year, we gave all our clients a one-off reduction of 6% on certain fees, including rental and leasehold contracts, because of the high inflation that is passed on through indexation.

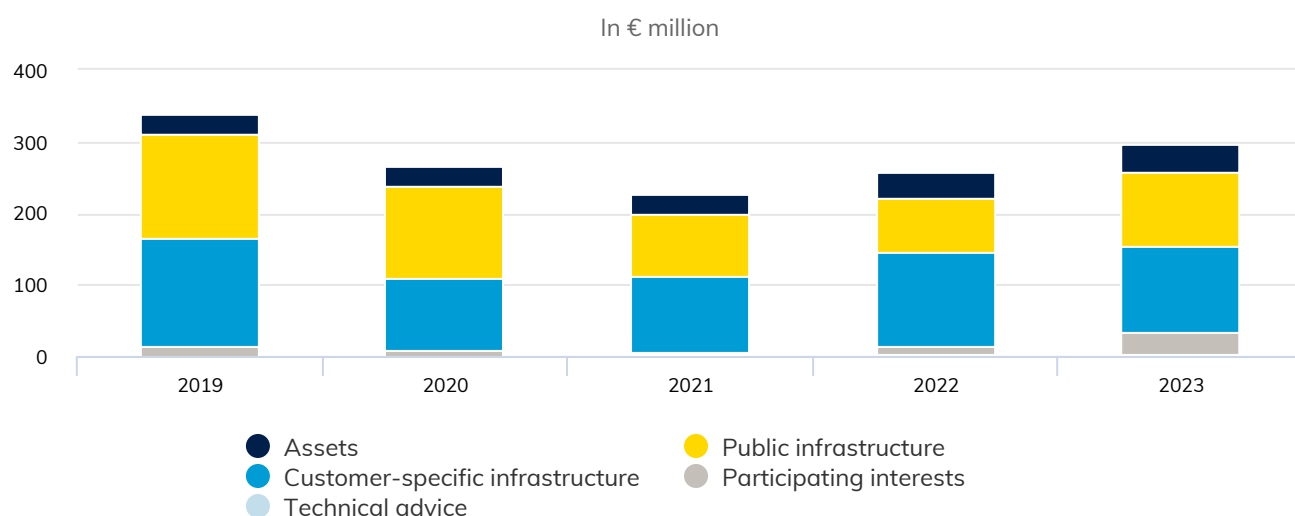
Our operating expenses increased by 3.8% (€ 292.9 million) over 2022. This was because payroll costs increased pursuant to the standard increase under collective labour agreements and because operating expenses increased across the board with the indexation of rates. This is particularly evident in the procured services, automation expenses and energy expenses.

Our result before taxation was € 309.1 million, 2.9% lower than in 2022. The result after taxation was € 233.5 million.

## Investments

In 2023, gross investments amounted to € 295.4 million, including capital injections in participating interests (€ 28.6 million). This is an increase of € 38.4 million over 2022 (€ 257.0 million) and confirms our role strengthening the complex through investment. The main investment in 2023 was the construction of the quay wall in the Princess Amaliahaven at a cost of € 72.9 million.

The table below shows our investments over the last five years:



## Ratios

We work with a robust financial policy, including the maintenance of the current credit rating. In this way, we maintain the strong credit rating that we need to continue making the investments required to safeguard our competitive position, accelerate the energy transition and to continue our business activities, even in the face of unexpected setbacks. Our financing consists of a mix of loans and capital market products. The most important financial ratios that we follow are:

Ratios	2023	2022	2021
Solvency (in % incl subordinated loans)	73	73	69
Net debt / EBITDA	1.3	1.4	1.8
Interest coverage rate (ICR)	6.1	7	6.3

## Developments in throughput in the port of Rotterdam

Total cargo throughput in the port of Rotterdam this year amounted to 438.8 million tonnes, 6.1% less than in 2022 (467.4 million tonnes). The fall was mainly seen in coal throughput, containers and other dry bulk. Throughput rose in the agribulk, iron ore & scrap, and LNG segments.

(Gross weight x 1,000 tonnes)	2023	2022	Difference (number)	Difference (%)
Dry bulk cargo	70,642	80,064	-9,422	-11.8%
Liquid bulk cargo	205,627	212,771	-7,144	-3.4%
<b>Total bulk cargo</b>	<b>276,269</b>	<b>292,835</b>	<b>-16,566</b>	<b>-5.7%</b>
Containers	130,162	139,657	-9,495	-6.8%
Break bulk	32,371	34,889	-2,518	-7.2%
<b>Total general cargo</b>	<b>162,533</b>	<b>174,546</b>	<b>-12,013</b>	<b>-6.9%</b>
<b>Total cargo throughput</b>	<b>438,802</b>	<b>467,381</b>	<b>-28,579</b>	<b>-6.1%</b>
Total numbers of containers	7,816,755	8,315,417	-498,662	-6.0%
Total TEUs	13,446,709	14,456,313	-1,009,604	-7.0%

Our market share in the Hamburg-Le Havre range in 2023 (up to and including the third quarter) was 37.8%. Our market share was slightly higher than in 2022 (up to and including the third quarter: 37.3%). You can find the market shares by segment [here](#).

### **Dry bulk**

The throughput of dry bulk in 2023 was 11.8% down on 2022. Coal throughput fell by 20.3% to 23.1 million tonnes, mainly because of low demand for energy coal for power production. In the Netherlands and Germany, renewable sources such as wind and solar were used more for power production. The throughput of crude oil was 9.9% higher at 28.1 million tonnes. Exports of scrap metal increased; after the February earthquake in Turkey, steel production there started up quickly. Other dry bulk was slightly down, mainly because of the decline in the energy-intensive production of, for example, steel and aluminium in response to the high energy prices.

### **Liquid bulk**

The throughput of liquid bulk in 2023 was 205.6 million tonnes, 3.4% less than last year. Crude oil throughput amounted to 102.5 million tonnes (2022: 103.9 million tonnes). Incoming Russian oil has been replaced by crude oil from the United States, Norway, West Africa and the Middle East.

LNG throughput was 11.9 million tonnes, an increase of 3.7% on 2022. LNG imports came largely from the United States. The LNG hub Gate terminal announced expansions. A new 180,000-cubic-metre LNG storage tank and additional regasification capacity of 4 billion cubic metres annually are coming to the port of Rotterdam.

### **Containers and break bulk**

Container throughput decreased by 6.8% to 130.2 million tons (2022: 139.7 million tonnes). There are a number of reasons for the decline in container throughput:

- The termination of volumes to and from Russia;
- The fall in imports from Asia because of declining consumer demand.

RoRo throughput was 5.0% down at 25.9 million tonnes because of declining demand due to high inflation, stockpiling and the weak British economy. Other general cargo fell by comparison with last year (-15.1%): a lot of general cargo is again being shipped in containers because of the low container rates.

### **The significance of container throughput**

Container throughput is important for the economy in Northwest Europe and particularly for Dutch and German business. This applies to imports of raw materials, semi-manufactured products, machinery and essential goods such as pharmaceuticals and food. And also to exports of the goods and food products grown and produced here. With a maximum water depth of 24 metres, the port of Rotterdam can accommodate the vessels with the deepest draughts. This unrestricted nautical access, and the sustainable and efficient terminals, mean that we, as the port of Rotterdam, can facilitate the largest vessels and therefore respond to economies of scale.

Matthijs van Doorn, commercial director: *'We work unremittingly on generating value for the entire chain (particularly containers). As a neutral party, the port of Rotterdam seeks to improve the entire supply chain for all players: shipping companies, terminals, intermodal operators, freight forwarders and shippers. We are looking at the steps we can take to further streamline the chain and achieve more time savings where possible. In doing so, we are also emphatically investigating how to make the chain more sustainable. We bring parties together, share our expertise and encourage important innovations.'*

Throughput in 2023 was 13.4 million TEUs (the standard size for containers). The majority (about 70%) of the containers arriving at the port of Rotterdam and transported to the hinterland by rail, road and inland waterway were first sent to locations in the Netherlands. Some of the cargo is stored temporarily before continuing to its final destination. Value-added activities such as assembly, repackaging, labelling and other distribution services then take place here.

### **Extension of container terminals in port of Rotterdam**

APM Terminals, a subsidiary of the A.P. Møller-Mærsk Group, is to expand its terminal on the Maasvlakte. The project covers a site of some 47.5 hectares, including a deep-sea quay with a total length of one kilometre. It will add about two million TEUs in terminal capacity. The completion of the quay, including the preparations for shore power, is planned for the second half of 2024.

Rotterdam World Gateway (RWG) also decided to expand its terminal in the Princess Amaliahaven on the Maasvlakte. The expansion involves about 45 hectares of terminal land and 920 metres of quayside, increasing RWG's capacity by 1.8 million TEUs in phases. The new components will be fully automated. The terminal will also be shore-power-ready and connected to the Container Exchange Route.

Container vessels are continuing to increase in size. There are 58 vessels with a capacity of more than 18,000 TEUs. The average throughput of containers by deepsea vessel is increasing as a result, as is efficient handling. Less time is lost per container on berthing ships. Automation, digitalisation, the higher stacking of containers and higher crane capacity also contribute to efficiency.



Containerterminals RWG en APMT



# Balance sheet

(Before result appropriation x € 1.000)	31. December 2023	31. December 2022
<b>Assets</b>		
<b>Fixed assets</b>		
Intangible fixed assets	84,117	79,938
Tangible fixed assets	4,008,727	3,969,929
Financial fixed assets	1,596,517	1,664,467
	<b>5,689,361</b>	<b>5,714,334</b>
<b>Current assets</b>		
Inventory	652	907
Accounts receivable	229,595	208,391
Cash and cash equivalents	290,811	177,819
	<b>521,058</b>	<b>387,117</b>
<b>Total assets</b>	<b>6,210,419</b>	<b>6,101,451</b>
<b>Liabilities</b>		
<b>Shareholders' equity</b>		
Issued share capital	900,000	900,000
Share premium reserves	391,200	391,200
Legal reserves	138,654	123,922
Other reserves	2,889,644	2,787,963
Result for appropriation	233,519	247,243
	<b>4,553,017</b>	<b>4,450,328</b>
<b>Provisions</b>	<b>49,498</b>	<b>46,967</b>
<b>Long-term debts</b>	<b>1,364,146</b>	<b>1,358,175</b>
<b>Short-term debts</b>	<b>243,758</b>	<b>245,981</b>
<b>Total liabilities</b>	<b>6,210,419</b>	<b>6,101,451</b>

# Income statement

(Amounts x € 1000)		2023	2022
Net revenue		806,562	782,748
Other operating income		34,947	42,916
<b>Total operating income</b>		<b>841,509</b>	<b>825,664</b>
Wages, salaries and social security		-129,112	-123,910
Depreciation and impairment of tangible fixed assets		-187,208	-177,725
Other operating expenses		-163,834	-158,301
<b>Total operating expenses</b>		<b>-480,154</b>	<b>-459,936</b>
<b>Operating results</b>		<b>361,355</b>	<b>365,728</b>
Financial income and expenditure		-52,296	-47,359
<b>Result from ordinary activities before taxation</b>		<b>309,059</b>	<b>318,619</b>
Taxation		-75,703	-80,698
Income from participating interests		163	9,572
<b>Result after taxation</b>		<b>233,519</b>	<b>247,243</b>

## Key figures

Key figures		2023	2022	2021	2020
	Unit				
Added value	Bln €	-	30.6	24.4	23.8
Employment	Jobs	-	193,427	183,004	174,057
Throughput total	Million tonnes	438.8	467.4	468.7	436.8
Throughput containers	TEU million	13.4	14.5	15.3	14.3
Ship calls (seagoing)	Number	27,886	29,029	28,876	28,170
Ship movements	Number	79,045	76,769	77,869	75,679
Very serious nautical incidents	Number	0	1	0	0
Nautische Safety Index	Score	7.51	6.39	7.46	7.99
Port reputation among local residents	Score	80.3	79.0	83.2	-
Carbon emissions HIC	Mtonnes	22.6	23.5	22.5	25.3
CO2 footprint HIC	Ktonnes	1.52	2.65	2.70	3.05
Proportion of women (total)	%	29.4%	28.5%	27.2%	28.0%
Proportion of women (management)	%	29.3%	31.8%	29.4%	31.4%



## OTHER INFORMATION

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# Explanatory notes to the annual report

## Selection of topics

The Port of Rotterdam Authority works with a range of stakeholder groups and is involved in a multitude of public issues. To fulfil the information requirements of our stakeholders as well as possible and to introduce focus to our reporting, we select the most important public issues. We use the materiality analysis, which results in a materiality matrix, for this purpose.

## Materiality Matrix

For the materiality analysis, we identified all potential, material, public issues relating to the Port of Rotterdam Authority. The assessment of the material themes and the impacts of these themes on people, the environment and the economy constitute the basis for the content of our integrated annual report and it takes place in the second quarter of the reporting year. Our annual report is led by the GRI guidelines.

## Process for the materiality analysis

The materiality analysis is based on the list of themes from our 2022 Annual Report. We have expanded that list to include themes resulting from the risk matrix/paragraph, Strategy Update, European Sustainability Reporting Standards (ESRS), media analysis and Management Team agendas. In addition, we spoke with internal content experts. That resulted in a longlist of 30+ topics. For each theme, we re-assessed the definition and defined the impacts or dependencies and subsequent risks or actions.

To arrive at a list of potentially relevant themes, we spoke with seven specialists who were able to determine on the basis of their expertise and contacts with stakeholders which themes have most impact from the perspectives of the various stakeholders.

We have organised stakeholder participation in this way because the Port of Rotterdam Authority is in daily contact with its stakeholders. The Port of Rotterdam Authority invests carefully in environmental management and works with, among other things, a 'Pilot Light Programme' for this purpose: the programme for ongoing dialogue with strategic stakeholders. It includes a list of stakeholders with whom there is regular dialogue at the tactical and strategic levels.

For each theme, we state whether the theme is an ESG (environmental, social and governance) theme or an economic theme:

- ESG theme: the theme has an impact on the environment, biodiversity, water, pollution, circularity or employers (in our own organisation and in the chain) and human rights.
- Economic theme: the theme has an impact on the economy (regional, Netherlands, Europe) or clients' economic performance.

To assess the themes in terms of impact, we consulted specialists from the organisation. For each ESG theme, we conducted assessments with the specialist of the actual and potential environmental or social impacts of the business or corporate relationships:

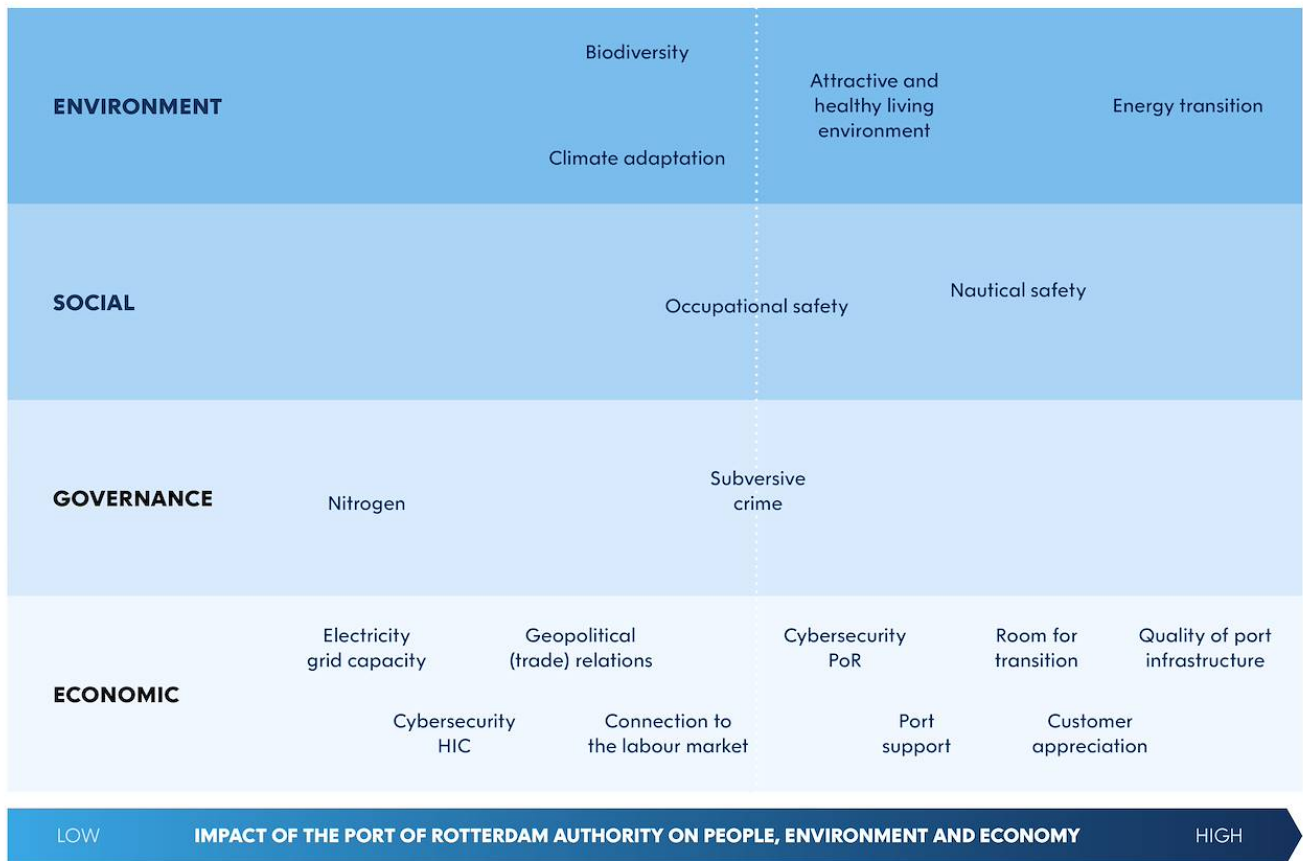
	Negative	Positive
Real impact	Severity (scale, scope, remediability)	Scale, Scope
Potential impact	Severity (scale, scope, remediability) + likelihood	Scale, Scope + likelihood

We assessed economic themes only in terms of the size of their economic impact. The significance of an impact is determined in relation to the other impacts. The introduction of a threshold makes it possible to distinguish material from non-material issues. An important pre-condition for that threshold is the classification of safety & security topics as material.

Theme	Definition	Type
Energytransition	The implementation of the transition from fossil energy to non-fossil energy in the port of Rotterdam.	ESG
Safety (nautical)	Ensuring safety in the port of Rotterdam (including nautical safety and crisis response).	ESG
Cybersecurity (PoR)	Protecting the Port of Rotterdam Authority against cyber crime in the port processes and terrorist attacks.	Economic
Quality of port infrastructure	Ensuring the ongoing availability of quality of client-related and public port infrastructure.	Economic
Attractive and healthy living environment	Safeguarding a clean and appealing living environment around the port of Rotterdam.	ESG
Room for transition	The development of space through the restructuring and modernisation in the port of Rotterdam (including environmental space).	Economic
Client appreciation	Improving the ease of doing business for clients.	Economic
Occupational safety	Safeguarding safety at work at the Port of Rotterdam Authority and in our projects.	ESG
Subversive crime	Working in partnerships to tackle subversive crime in the port of Rotterdam.	ESG
Support for port	Support for the licence to operate and develop of the port of Rotterdam	Economic

We present our impact on people and the environment on a single axis. The economic impact of the port of Rotterdam is also plotted on this axis. The table above shows which themes we classify as ESG themes and which as economic. By setting a threshold, we introduce focus to the themes required for reporting in line with GRI guidelines.





The themes to the right of the dotted line are the material themes for the 2023 annual report. With respect to these themes, we report on the management approach and at least one indicator in accordance with the GRI method.

We also report on the other themes, but less extensively in line with previous years. The outcome of the materiality analysis was presented to, and adopted by, the Management Team. The members of the Management Team are responsible for the direction and management of all the topics in the matrix. The [Management Structure and Governance](#) chapter provides more information in this respect.

As a result of the extensive analysis, some topics that were included as material themes in the previous annual report have been dropped: digitalisation, accessibility, efficient handling of shipping, future-resilient portfolio and links with the labour market.

### Double materiality

In preparation for double materiality as required by the European directive 'Corporate Sustainability Reporting Directive' (CSRD), we also looked at the financial impact of the outside world on the Port of Rotterdam Authority. We opted not to publish this yet because we report in accordance with the GRI. With effect from the 2025 reporting year, we are required to report in accordance with the CSRD. The double materiality analysis focuses on both financial materiality (the impact of the outside world on the Port of Rotterdam Authority) and impact materiality (the impact of the Port of Rotterdam Authority on the outside world).

# Credits

## Publication

Port of Rotterdam Authority

## Feedback

We would like to hear what you think of our annual report. You can send your comments to our [contact page](#).

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