

# CONTINUOUSLY WORKING ON THE FUTURE. MAKE IT HAPPEN.



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## **FOREWORD FROM THE EXECUTIVE BOARD**

### **Continuously working on the future**

The Rotterdam port and industrial complex has a strong position. The growth markets are developing positively and the new markets are expanding. The financial picture is upbeat as well. With a turnover of €706.6 million and an EBITDA of €433.4 million, our activities ensure that we maintain adequate investment capacity. This position is expected to remain stable in the coming years. At the same time, we can see developments around the world, at the national level and within the port which mean that continued success in the long term cannot be taken for granted. We are responding actively to those developments through our strategy.

### **Largest port**

With a total throughput of 469.4 million tonnes, we are the largest port in Europe by far. In 2019, we invested €338.3 million in, among other things, making the port more accessible, safer, more efficient and more sustainable.

### **Important developments**

We are working with declining markets in the fossil industry and new business models that generate opportunities. Geopolitical developments also play an important role. In 2019, for example, we saw tensions between the leading trading blocs. There is also ongoing uncertainty about the introduction of trade tariffs post-Brexit. These developments are rendering the prospects for the further growth of world trade uncertain.

### **Our role in a changing world**

In our changing world, one of our roles is to direct the port and industrial complex. That involves being active in the development of the client portfolio and initiating new activities. Not only do we come up with initiatives, we also implement them in collaboration with clients and partners. We believe it is important to establish an efficient energy and raw materials system so that existing activities have a future and so that new industry is located here. The arrival of Black Bear Carbon (for recycling car tyres) and uRecycle (for recycling batteries) are excellent examples of the second category.

We would also like to mention the arrival of Innocent as the first major player in the Rotterdam Food Hub. The Port of Rotterdam Authority is investing on this 60-hectare new site in order to provide the optimal facilities for

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companies in the agro-food sector. The producer of smoothies and fruit juices started preparations in the autumn of 2019 for the construction of a carbon-neutral factory.

### **High level of investment**

The investment portfolio is well filled at approximately €1.5 billion for the next five years. Some of this is finding its way to innovative projects in the energy transition and the digital transition in the logistics chain.

Investments were high again in 2019. Of course, we look closely at innovation and costs. A good example is our smart approach to the construction and maintenance of maritime infrastructure. By using a total package of optimisation and design tools, we find innovative ways to save on investments. The use of less and/or smarter materials plays an important role here. An example is the protection of quay walls from corrosion using impressed current. The new insights can be used by both our clients and ourselves. We approach our clients proactively with opportunities for improving the performance of the maritime infrastructure. In addition, we work hard for our clients on enhancing the reliability of the logistics chain. For example, the first pile for the Container Exchange Route was driven in 2019, optimising the exchange of containers between the deep-sea terminals. The construction of the Theemsweg route, which involves rerouting a section of the port railway line, is on schedule.

### **Digital transformation**

We also invested in the digital transition. As an independent party, we are eager to assume our responsibility for advancing the digital transition, calling in external expertise and forging strong coalitions. We continued to work on building a strong digital basis characterised by the integration of data management and services. Our products and services relate to shipping, commerce, port development and management, operations, logistics and accessibility. We follow two lines: improving our insight into the efficiency of logistical processes, and better management of the port infrastructure. An example of the latter is the development of a digital twin version of the port on an IoT platform. We have launched a pilot project in collaboration with ESRI, IBM and Cisco. The number of digital products that we develop, import and sell for the first line increased rapidly in 2019. Striking examples of products that have been developed further are Pronto and Navigate. The newcomers in 2019 included Boxinsider and OnTrack. Our initiatives in the digital transformation of the port and logistics allow us to enhance efficiency in the major trade routes, to cut costs and to reduce carbon emissions.

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## **Focus is important**

We are convinced that we are leading the way in the energy transition in the port and industrial complex. We can establish and maintain that position by implementing concrete projects on the basis of the 'in-3-steps-sustainable' approach. This also fits in with the National Climate Agreement of 2019 and the European Green Deal, which prioritise a cluster approach, the development of infrastructure and the combination of electrification and hydrogen. We are eager to collaborate with the national government on working up promising projects. In that respect, we note that the pace of planning, decision-making and realisation can and must be faster. In addition, we believe it is important for the introduction of the carbon levy to go hand in hand with the construction of the required physical infrastructure so that companies can reduce their carbon footprint. This is important for the business climate and the competitive position of the Netherlands. Porthos, for example, can make a useful contribution here. We made significant progress in 2019 with this project for capturing and storing CO<sub>2</sub>.

## **Together with partners**

As well as providing direction, we also drive developments. We have been talking for some time about using residual heat from the port and industrial area. In close consultation with all the partners involved, the Ministry of Economic Affairs decided in 2019 that Gasunie would construct the heat pipeline through the centre of South Holland. We will be working together on the connection to the port and industrial complex. This decision allows us to make the most of the valuable residual flows from the Rotterdam port and industrial complex. Another important development in the energy transition is the connection of Heerema's large offshore vessels to shore power. We are working on this area in close collaboration with Eneco, which supplies electricity through wind turbines in the immediate vicinity of the shore-based power location. Another important development: we are working with sixteen companies and organisations on the hydrogen economy in Rotterdam under the auspices of the H-vision project. This is a development that could allow us to reduce carbon emissions significantly in line with the target for 2030.

## **Confidence in the future**

Last year, with our covenant partners, we presented the revised Port Vision. This vision acts as a compass: our ambitions are like dots on the horizon. Collaboration is crucial for the transformation of Rotterdam's port and industrial complex. There is a willingness to invest, and institutes such as the Erasmus University, Delft University

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of Technology, SmartPort and the RDM campus ensure that knowledge standards are high. The existing intensive collaboration between private companies, civil society, educational institutions and government makes Rotterdam an ideal place for innovations in areas such as the energy and digital transitions. We are grateful for this development, which boosts our confidence in a sustainable future for the Rotterdam port and industrial complex.

Our successes are based on our enterprising and effective organisation. The efforts of our workforce make that possible. Our thanks go out to everybody for their commitment. We also wish to thank our clients and other stakeholders – for whom we ultimately work – for their involvement, the trust they place in us and their cooperation. We are eager to maintain these sound relationships in 2020.

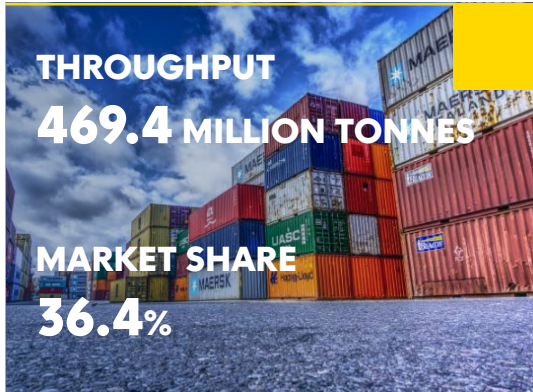
Port of Rotterdam Authority

Rotterdam, 20 February 2020

**The Executive Board**

**Allard Castelein, Ronald Paul and Vivienne de Leeuw**

## 2019 IN NUMBERS



### Goods throughput

Throughput remained stable in 2019. Container throughput accounted for most growth.



### Financial result

Port Authority turnover fell by 0.1% in 2019 by comparison with the previous year.



### Added value

The added value of the port of Rotterdam amounted to €45.6 billion (6.2%) of Dutch GDP (last known figure).



### Employment

The port of Rotterdam employed (directly and indirectly) 385,000 people in the Netherlands (last known figure).



## Safety

There was a very serious accident in August. A collision between a speedboat and a sloop on the Nieuwe Maas river resulted in one fatality and several casualties (some of them serious).



## Port of Rotterdam reputation

The port of Rotterdam has an excellent reputation among people living in the vicinity.



## Investments

In 2019, the Port of Rotterdam Authority invested €324.9 million in client-related areas, public infrastructure and in capital assets, and €13.4 million in participating interests.



## Sustainable business operations

The staff survey showed that 47.5% of our employees are committed and passionate. That is a good result by comparison with the benchmark (39.7%).

## MILESTONES 2019



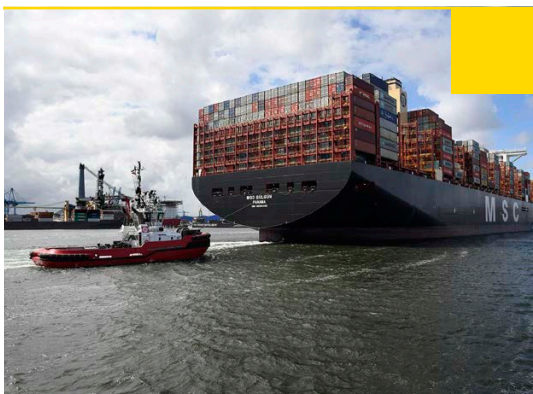
### Rotterdam food hub

This 60-hectare site is being engineered specifically to provide the optimal facilities for companies in the agro-food sector. Smoothie-producer Innocent was the first to move into the Food Hub.



### Tenth anniversary of FutureLand

FutureLand celebrated its tenth anniversary on 1 June. In recent years, more than 1 million visitors have visited our information centre about the port of Rotterdam.



### World's largest container vessel in Rotterdam

MSC Gülsün arrived at the quay of the APMT 2 terminal in the port of Rotterdam on 3 September. The 400-metre-long and 62-metre-wide vessel has a capacity of 23,756 TEU.



### Container vessel bunkers LNG in Rotterdam during transshipment

For the first time in Europe, a vessel bunkered LNG during the transshipment of containers.





### Deepening of the Nieuwe Waterweg

In 2019, the Port of Rotterdam Authority and Rijkswaterstaat completed the deepening of the Nieuwe Waterweg and the Botlek. The waterway is now one and a half metres deeper over a distance of 25 kilometres.



### Launch of Boxinsider

The Port of Rotterdam Authority launched 'Boxinsider' in October. The application allows shippers and freight forwarders to see where their containers are located at any given moment.



### SOHAR Port and Freezone celebrates its fifteenth anniversary

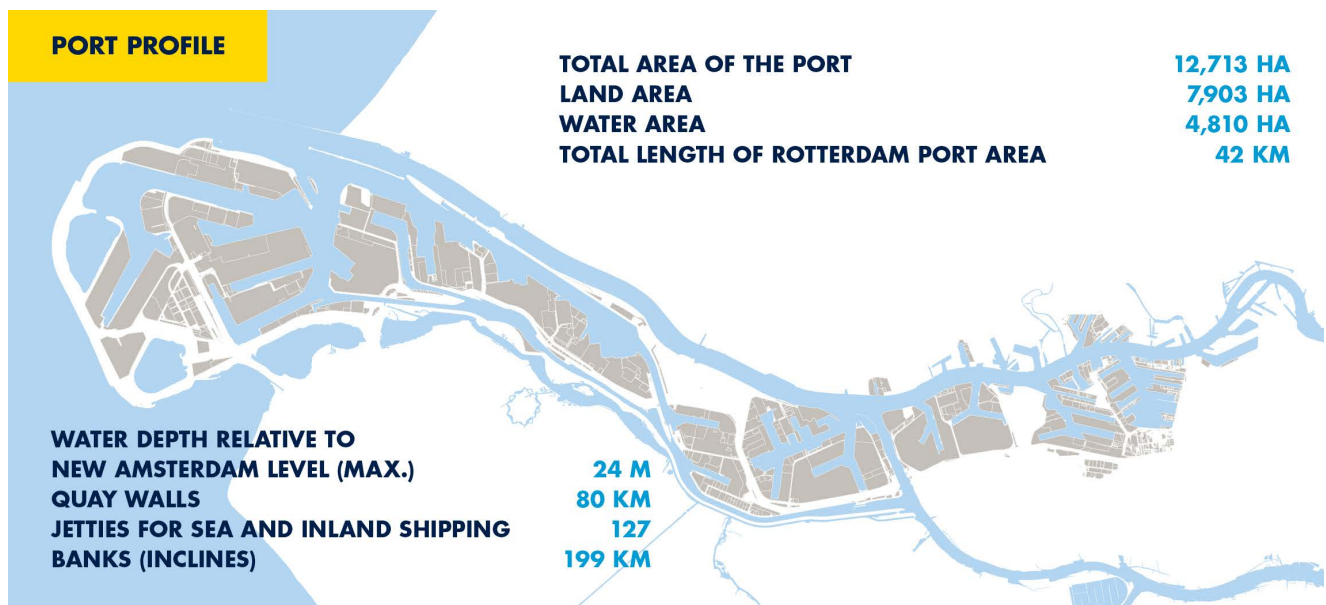
The fifteenth anniversary of SOHAR Port and Freezone was celebrated in Oman on 4 November 2019.



### Porthos

The project organisation Porthos (EBN, Gasunie and the Port of Rotterdam Authority) has signed an agreement with ExxonMobil, Shell, Air Liquide and Air Products to work in parallel over the next nine months to prepare for the capture, transport and storage of CO<sub>2</sub>. Capture will be located at these refineries and hydrogen producers in Rotterdam.

## THE PORT AREA



With a total throughput of 469.4 million tonnes of goods, the port of Rotterdam was, once again, Europe's largest seaport in 2019. The port owes this position to a range of factors that include good accessibility from the sea, world-class clients, adequate space for development, natural hinterland connections and an increasing focus on social infrastructure. With a maximum water depth of 24 metres, it is the only one of the four largest ports in the Hamburg-Le Havre range with unlimited access for the vessels with the deepest draughts. The port brings together shipping, inland shipping, rail, road and pipeline modalities. In 2019, 29,491 seagoing vessels and 85,969 inland vessels visited the port of Rotterdam.

## ADDED VALUE



The added value of the port of Rotterdam amounted to more than €45.6 billion (including backward and forward effects) in 2017 (last known figure). That is 6.2% of the Dutch gross domestic product (GDP).

Source: 'The Rotterdam Effect - Impact of mainport Rotterdam on the Dutch economy' by Erasmus University Rotterdam.

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## VISION ON PORT AND INDUSTRY

Disruptive trends such as the energy and digital transitions are changing the world around us fundamentally. In response, the Port of Rotterdam Authority, together with our covenant partners (the Dutch government, the provincial authority of South Holland, the City of Rotterdam and Deltalinqs), decided to reassess the existing Port Vision.

That has led to a shift from the 2030 Port Vision in the central concepts of Rotterdam as a world-class industrial complex and logistics hub as a consequence of the full adoption of the ambitious objectives set out in the Rotterdam contribution to the Dutch National Climate Agreement (from the ports of Rotterdam and Moerdijk). In this way, Rotterdam aims to be a leader in the field of sustainable and efficient chains, and sustainable industry.

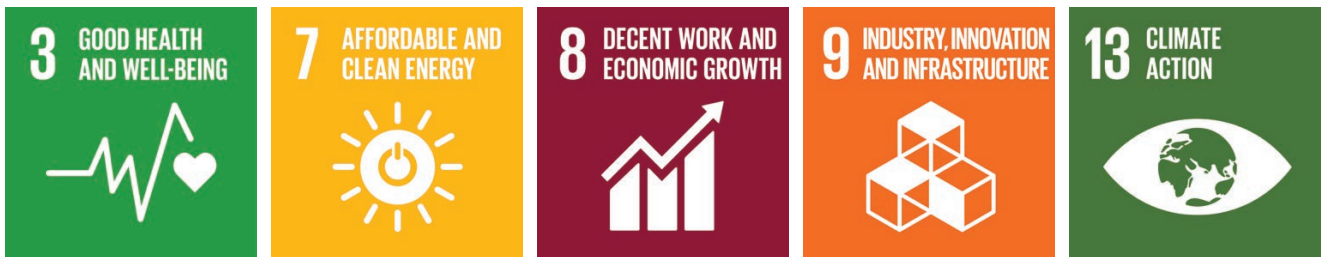
The transitions will result in greater interconnectivity between the port and the city. A strong logistical hub and industrial complex will further Rotterdam's international position as the most diverse and competitive maritime capital in Europe (Rotterdam Maritime Capital), and vice-versa. In addition, the transitions provide opportunities to attract more high-quality urban economic activities because innovative manufacturing industry, research institutes and business services (particularly digital) are increasingly interlinked.

Finally, the Sustainable Development Goals (SDGs) adopted by the United Nations have been given a central position. In this way, the covenant partners are underlining the importance of generating social and economic value.

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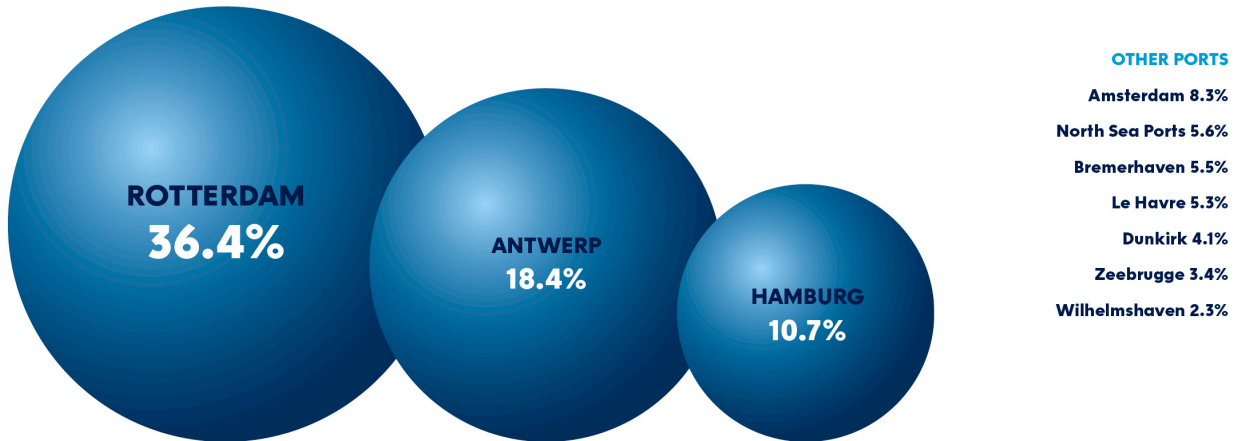
## CONTRIBUTION TO SUSTAINABLE DEVELOPMENT GOALS

The seventeen United Nations Sustainable Development Goals (SDGs) are the international reference point for sustainable development for all countries in the world. We have linked our material themes to the leading SDGs and the subsidiary goals. Using our KPIs, we measure our direct contribution to the achievement of the SDGs in the Netherlands, focusing on five SDGs (3, 7, 8, 9 and 13).



## MARKET POSITION

### TOP 3 IN MARKET SHARE IN THE HAMBURG-LE HAVRE RANGE



In 2019, Rotterdam retained its position as the market leader in the Hamburg–Le Havre range in terms of total throughput. By comparison with 2018, our market share fell from 36.7% to 36.4% (up to and including our third quarter of 2019) because of a decline in dry and liquid bulk. The figures show that Rotterdam is the largest port in Europe by far.

At 469.4 million tonnes, total throughput in the port of Rotterdam (including the seaport of Dordrecht) rose marginally in 2019 (2018: 469.0 million tonnes). Container handling accounted for most growth, with a tonnage increase of 2.5%. In TEUs, the standard unit for containers, the increase was 2.1% and the annual total was 14.8 million TEU. The largest container port in Europe is therefore strengthening its position in this strategically important market segment.

### Dry bulk

The port of Rotterdam provides enough facilities for the transshipment of dry bulk. Due to our location and the depth of the port, vessels can enter Rotterdam without any difficulties. A strained market led to a 4.0% decrease in throughput by comparison with 2018. Coal throughput in particular fell sharply. The throughput of energy coal fell because more energy was generated by solar, wind and gas. Cokes were also under pressure due to declining steel production in Germany. The throughput of iron ore & scrap remained virtually the same as in 2018. The throughput of biomass increased by 62.8% because of imports of wood pellets for co-firing in coal-fired power stations.

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## Liquid bulk

The throughput of liquid bulk fell slightly in 2019 by comparison with 2018 (-0.3%). In this segment, the throughput of mineral oil products was down due to a fall in incoming and outgoing flows of fuel oil. A downward trend in recent years that was exacerbated by the decline in trading in fuel oil as a result of the new global emissions regulations for shipping with effect from 2020. The throughput of crude oil exceeded 100 million tonnes for the fifth year running, increasing by 3.9%. Refineries in Rotterdam and linked to Rotterdam started producing more after investments in their plant in recent years and they therefore needed more crude oil supplies. The increase in other liquid bulk goods consisted mainly of imports of biofuels. In 2019, total LNG throughput amounted to 7.1 million tonnes, an increase of 36.6% by comparison with 2018. The increase in LNG throughput was mainly due to the fact that a larger proportion of the gas produced around the Atlantic Ocean was imported into Europe instead of being exported to Asia.

## Containers

With a market share of 31.7% (up to and including the third quarter of 2019), the port of Rotterdam is the market leader in the container segment in the Hamburg-Le Havre range. This means that Rotterdam is the most important container gateway and transshipment port in Europe. Our market share remained the same by comparison with 2018 (31.7%). In 2019, throughput in the port of Rotterdam was 152.9 million tonnes. After a good start in the first six months of the year, container throughput hardly increased at all. Overall growth slowed down slightly, mainly due to lower industrial production in Germany.

## Roll-on Roll-off and other general cargo

The port of Rotterdam is an important logistics hub for the imports and exports of Roll-on Roll-off (RoRo) cargo. Rotterdam's market share of RoRo throughput in the Hamburg-Le Havre range increased from 36.1% (up to and including the third quarter of 2018) to 36.8% (up to and including the third quarter of 2019). In 2019, RoRo throughput volumes rose slightly by comparison with 2018. Throughput in 2019 was erratic, particularly as a result of Brexit. In the first quarter, a lot of additional stocks were built up in the run-up to the first Brexit date. After the postponement, volumes fell before increasing again in September as the new Brexit date approached. Our assessment is that we will feel the impact of Brexit as a consequence of less trade, customs and inspection frictions, and the emergence of import tariffs. The throughput of other general cargo increased by 2.9% over 2018. In the light of the general development of throughput in other European seaports, this is an exceptionally good result.

## PORT OF ROTTERDAM THROUGHPUT

(Gross weight x 1,000 tonnes)	2019	2018	Diference (#)	Difference (%)
Ore and scrap metal	30,006	30,059	-53	-0.2%
Coal	22,449	26,356	-3,907	-14.8%
Agribulk	9,809	9,853	-44	-0.4%
Biomass	887	545	342	62.8%
Other dry bulk cargo	11,333	10,802	531	4.9%
<b>Dry bulk cargo subtotal</b>	<b>74,485</b>	<b>77,615</b>	<b>-3,130</b>	<b>-4.0%</b>
Crude oil	104,200	100,294	3,906	3.9%
Mineral oil products	68,164	77,673	-9,509	-12.2%
LNG	7,149	5,234	1,915	36.6%
Other liquid bulk cargo	31,697	28,640	3,057	10.7%
<b>Liquid bulk cargo subtotal</b>	<b>211,211</b>	<b>211,840</b>	<b>-629</b>	<b>-0.3%</b>
<b>Total bulk cargo</b>	<b>285,696</b>	<b>289,455</b>	<b>-3,759</b>	<b>-1.3%</b>
Deep-sea cargo	95,782	93,062	2,720	2.9%
Feeder cargo	30,510	27,640	2,870	10.4%
Short-sea cargo	26,613	28,406	-1,793	-6.3%
<b>Containers</b>	<b>152,905</b>	<b>149,111</b>	<b>3,794</b>	<b>2.5%</b>
Roll-on Roll-off cargo	24,253	24,057	196	0.8%
Other general cargo	6,548	6,361	187	2.9%
<b>Break bulk</b>	<b>30,801</b>	<b>30,418</b>	<b>383</b>	<b>1.3%</b>
<b>Total general cargo</b>	<b>183,706</b>	<b>179,529</b>	<b>4,177</b>	<b>2.3%</b>
<b>Total cargo throughput</b>	<b>469,402</b>	<b>468,984</b>	<b>418</b>	<b>0.1%</b>
Total numbers of containers	8,781,185	8,635,782	145,403	1.7%
Total TEUs	14,810,804	14,512,661	298,143	2.1%

Throughput including throughput in the terminals Hook of Holland, Dordrecht, Schiedam and Vlaardingen. In 2019, this throughput accounted for 3.7% of the total throughput volume for incoming and outgoing flows. The associated seaport dues do not accrue to the Port of Rotterdam Authority and they have therefore not been included in the financial reporting.



## FOCUS ON SAFETY, ENERGY TRANSITION AND DIGITAL SERVICES



Safety



Energy transition



Digital transition

In addition to working on the competitiveness of the port, the Port of Rotterdam Authority is in the process of transforming the port and industrial complex. There is a strong focus on the energy and digital transitions.

Developments that contribute to a robust and sustainable port and industrial complex.

Naturally, safety was also a focus in 2019.

### Safety





KPI	<h2 style="text-align: center;">SAFETY &amp; QUALITY SHIPPING HANDLING</h2> 		
	<b>Number of major nautical incidents</b> Target: 0 Actual: 1 2018: 1	<b>Safety &amp; environmental index (SEI)</b> Target: >7.50 Actual: 7.61 2018: 7.72	<b>Nautical Safety Index (NSI)</b> Target: >7 Actual: 6.56 2018: 6.43
OBJECTIVE	 <b>The most efficient and safest handling via all modalities</b>		
SDGs	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;"> <span style="font-size: 2em; color: green;">3</span>  <span style="font-size: 2em; color: red;">8</span> </div> <div style="text-align: center;"> <p style="color: green; font-weight: bold;">GOOD HEALTH AND WELL-BEING</p> <p style="color: red; font-weight: bold;">DECENT WORK AND ECONOMIC GROWTH</p> </div> <div style="text-align: center;">    </div> </div>		

Safety is a top priority in our port. Obviously for shipping, but also for local residents, employees in the port, companies and users (including leisure users) of the port area. We work on nautical safety, transport and environmental safety, flood risk management and cyber security.

## Accidents

2019 was a relatively safe year for shipping in the port of Rotterdam. By comparison with 2018, the number of accidents was almost the same: 116 as opposed to 118 (2018). There was a fatality in two incidents, with one of them being attributable to the nautical accident. At the presentation of the nautical annual figures, the Harbour Master expressed his concern about the increasing involvement of passenger shipping in unsafe situations on the water. Three out of four serious accidents involved passenger shipping, and the same applied to ten percent of all accidents. Supervision of this vulnerable group has been intensified and the Harbour Master is discussing additional measures with the government.

## Energy transition

KPI	<h1 style="text-align: center;">ENERGY TRANSITION</h1>  <p style="text-align: center;"><b>Progress on investment decisions and energy infrastructure</b></p> <p style="text-align: center;">Target: <span style="color: red;">●</span> <span style="color: orange;">●</span> <span style="color: green;">●</span>      Actual: <span style="color: red;">●</span> <span style="color: orange;">●</span> <span style="color: green;">●</span></p>		
OBJECTIVE	 <p style="text-align: center;"><b>Leading role in sustainability for chains and clusters</b></p>		
SDGs	<span style="font-size: 2em; color: yellow;">7</span>  <span style="font-size: 2em; color: green;">13</span>	<p style="color: yellow;"><b>AFFORDABLE AND CLEAN ENERGY</b></p> <p style="color: green;"><b>CLIMATE ACTION</b></p>	  

We are generating high levels of economic and social added value in the Rotterdam port and industrial complex. At the same time, we (Rotterdam and Moerdijk) are responsible for a large proportion of carbon emissions in the Netherlands (18%). In part for that reason, the Port of Rotterdam Authority introduced the Energy Transition programme in 2016 with the aim of transforming the port and industrial complex into a carbon-neutral cluster. Our approach is a comprehensive one: we help existing industry to reduce their carbon emissions while at the same time drawing sustainable industry or businesses into the area. In Rotterdam (and Moerdijk), we have volume, infrastructure, knowledge and ambition. The challenges of the energy transition offer opportunities to make the port of Rotterdam an outstanding example for the world as a whole.

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This is possible if we stop seeing the energy transition as the end of the industrial era and as the beginning of a new and sustainable economy.

Climate policy affects industry and transport. That is why the Port of Rotterdam Authority commissioned research into transition pathways for industry in Rotterdam (Wuppertal I in 2017) and into making transport to and from Rotterdam more sustainable (Wuppertal II in 2018). We combined these studies with our knowledge about companies, science, NGOs and local and regional authorities based here. That constituted the basis for the report presented in 2018 from the regional industry consultation platform for the National Climate Agreement: 'In three steps towards a sustainable Rotterdam-Moerdijk industry cluster'.

That report contains a three-step plan including a range of concrete business opportunities supported by clients and the locality that will bring the Rotterdam industrial cluster into line with the climate objectives.

1. Energy infrastructure and efficiency: develop energy infrastructure for today and tomorrow.
2. Development of a new and sustainable energy system: electrification and renewable energy.
3. Development of a new raw materials system: renewable fuels, chemicals, hydrogen and a circular economy.

The three steps will not necessarily be successive; on the contrary, they will actually take place in parallel. They will be successive in terms of the level of impact. We made important progress on three major projects in 2019.

### **Heating networks**

In South Holland, the presence of industry, a relatively high population density and the concentration of greenhouse horticulture provide a strong basis for the development of heat networks. These networks draw on residual heat from the port and industrial complex and, for example, geothermal energy. In 2019, the Ministry of Economic Affairs and Climate asked Gasunie to develop the 'Leiding door het Midden' (LdM) and the 'Vondelingenplaat' (VP) pipelines. We were closely involved in this decision and, in cooperation with Gasunie, we are working on connecting the Leiding door het Midden pipeline to the port and industrial complex.

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## **Porthos**

Gasunie, Energie Beheer Nederland (EBN) and the Port of Rotterdam Authority share the ambition of establishing a basic infrastructure for the collection and transport of CO<sub>2</sub> in the Rotterdam port and industrial complex for storage in depleted gas fields in the North Sea. This is the Porthos project: Port of Rotterdam CO<sub>2</sub> Transport Hub & Offshore Storage. It fits in with the Dutch government's proposed Climate Agreement of June 2019. The government sees CO<sub>2</sub> capture, transport and storage as an important way of fulfilling the climate targets. The role of the Port of Rotterdam Authority revolves primarily around making substantial investments in Porthos. In addition, we will be contributing our knowledge of the process industry and the area where Porthos will be located. We are also using our good contacts at the head offices of the relevant international players to make this project a success.

## **Waste-to-Chemicals**

Together with the companies Air Liquide, Enerkem and Nouryon, we have been working for some time on the development of a 'Waste-to-Chemicals' plant (W2C) in Rotterdam. In 2019, W2C welcomed Shell as a fully-fledged partner. The Waste-to-Chemicals project in Rotterdam is an important step on the road to a more sustainable chemical industry and a circular economy. The plant uses the cleantech technology of the Canadian company Enerkem, and so it is the first commercial plant in Europe to provide a sustainable solution for non-recyclable waste by converting non-recyclable plastic and other aggregated waste streams into new raw materials.

## Digital services

<b>KPI</b>	<h1 style="margin: 0;">DIGITAL TRANSITION</h1> 		
<b>OBJECTIVE</b>		<h2 style="margin: 0;">The most efficient and safest handling via all modalities</h2>	
<b>SDG</b>	<h1 style="margin: 0; color: red;">8</h1>	<h2 style="margin: 0; color: red;">DECENT WORK AND ECONOMIC GROWTH</h2> 	

In addition to our statutory responsibility for the handling of shipping, the Port of Rotterdam Authority assumes an active role in ensuring, together with customers and our partners (nautical and otherwise), the perfect coordination of arrivals, planning of services, terminal operation and transshipment to the hinterland. The aim is to improve the competitive position of the port of Rotterdam. The digital transition plays an important role here.

In recent years, we have worked on building a strong digital basis characterised by the integration of data management and services. Our products and services relate to shipping, commerce, port development and management, operations, logistics and accessibility. In broad terms, we follow two lines: improving our insight into the efficiency of logistical processes, and better management of the port infrastructure.

### Better insight into the efficiency of logistical processes

In the course of digitalisation projects targeting improvements in logistical processes, we invest in the competitive position and added value of the port of Rotterdam. In order to plan shipping movements as effectively as possible, shipping companies need detailed information about matters such as water depth, acceptance policies, and arrival and departure times. Ports pass on this information in different ways. This can be inefficient. As a member of the Port Call Optimisation Task Force, which includes numerous companies and ports, we have been collaborating since 2014 and harmonising standards in the nautical

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and logistics sectors, and getting data to match. Important factors here are:

- optimising the load factors in vessels visiting the port;
- reducing port stays to a minimum through efficient handling by nautical service providers, terminal service providers and the Harbour Master;
- delivering reliable information so that vessels can determine an optimal approach speed to the port.

By means of clear communications, we optimise safety, cargoes and turnaround times. In addition, we save costs and reduce carbon emissions. Examples of products in the field of Port Call Optimisation include:

### **Pronto**

Pronto allows shipping companies, agents, terminals and other service providers to optimise the planning, execution and monitoring of all activities during a port call on the basis of standardised data exchange.

### **Navigate**

Navigate was designed for companies who want to plan their container transport better. The online tool provides a complete overview of the most efficient deepsea, shortsea, rail and inland shipping routes via Rotterdam.

### **Shiptracker**

With Shiptracker, we provide an extra boost in terms of making the logistics chain more sustainable and efficient. This online tool allows us to show vessel arrival times more accurately.

### **Nextlogic**

Nextlogic provides integrated planning for the handling of inland container shipping in the port of Rotterdam. That allows us to deploy assets optimally and makes the inland shipping chain efficient and reliable.

### **Boxinsider**

We launched 'Boxinsider' in 2019. The application allows shippers and freight forwarders to see where their containers are located at any given moment. Not only is this more reliable than the approach used until now, it is also more user-friendly and efficient than collecting information yourself from all kinds of sources.

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## **OnTrack**

The Port of Rotterdam Authority introduced OnTrack in 2019 to improve the efficiency of rail transport to the hinterland. This application provides a real-time overview of rail transport in the port of Rotterdam and handling at the terminal.

## **BlockLab**

BlockLab puts blockchain technology into practice. The focus of BlockLab is to develop technological solutions for energy and logistics. The first blockchain container was shipped to Rotterdam this year. The container is paperless and fully traceable from door to door with DELIVER.

## **Improved management of port infrastructure**

The Port of Rotterdam Authority has been investing in smart infrastructure for some time now. The emphasis here is on the introduction and use of a safe, reliable and standardised Internet of Things platform (IoT).

## **Digital twin**

An important step has been the construction of a digital twin version of the port on an IoT platform. We have launched a pilot project in collaboration with ESRI, IBM and Cisco. The digital twin is an exact digital copy of the port, including all the infrastructure, ship movements, weather conditions and hydro-information. We link all the properties we have about the individual components, such as data from sensors and radar images, to this digital version of reality. How deep is the water, what is the condition of a quay wall, where is a given container located, is a ship on course? That allows us to keep an eye on the technical condition of assets, to conduct digital inspections and to make forecasts. The further development of this IoT platform should lay the foundation for, among other things, autonomous shipping in the port of the future.

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## FINANCIAL RESULTS AND INVESTMENT PORTFOLIO

The Port of Rotterdam Authority must continue to invest as an enterprising developer in the port infrastructure and respond to the opportunities provided by the energy transition, digital transition and innovation. Adequate investment capacity is therefore crucial.

The financial scope to invest depends on, among other things, operating costs and revenue, the returns on our investments, the size of our investment portfolio (past, present and future) and agreements with our financiers.

### **Robust result**

We continued to be financially healthy in 2019. Our turnover of €706.6 million remained virtually unchanged by comparison with 2018 (-0.1%). The result before tax was €241.0 million, which is €13.2 million (-5.2%) less than in 2018. This is mainly due to higher depreciation as a result of increased investments.

### **Focus on strategic themes**

As in 2017 and 2018, we released additional funds in 2019 for our strategic themes: the energy transition, the digital transition and innovation. The aim is to accelerate the development of the opportunities afforded by the strategic themes for the port of Rotterdam. In this area, we are working on preparations for projects such as Waste-to-Chemicals, large-scale CO<sub>2</sub> capture and storage, and a range of digital solutions to improve the logistics chain and port operations

### **Investment portfolio**

In 2019, we invested €338.3 million: €324.9 million euros in tangible fixed assets and €13.4 million in financial fixed assets. Our investments relate to the development of infrastructure for our new and existing clients, and the development of the public part of the Rotterdam port and industrial complex. Investments for new and existing clients generate a direct financial return; investments in the public domain do not. We monitor the balance between the two. In 2019, 46.3% of our investments were client-related, 44.9% were in public infrastructure and 8.8% were in capital assets. Our investment portfolio is well filled at more than €1.5 billion for the next five years.



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The port of the future depends crucially on plans that involve more than infrastructural developments alone: we must also focus on the digital transition, the energy transition, national and international alliances and new business models. The Port of Rotterdam Authority has ambitious goals in these areas. There are opportunities and our portfolio is becoming richer and more complex. Structure, transparency and clear choices are needed for development of these ideas.

### **All ratios are well above the standard values**

The Port of Rotterdam Authority aspires to the financial position appropriate to an A rating to achieve our investment ambitions and to maintain our operating activities in the event of unexpected negative developments.

On the basis of our long-term financing plan, our cash flows are positive. The most important financial ratios that we follow are: net debt in relation to EBITDA, solvency and the interest coverage ratio. All ratios are well above the standard values stated in the financing contracts. Our external financing needs are limited.

### **Taxation**

Since 2017, the Rotterdam Port Authority has been required to pay corporation tax. Over 2019, we paid a total of €80.9 million in tax; approximately €25.9 million of that sum was corporation tax.

# BALANCE SHEET

	31-12-2019	31-12-2018
<b>Assets</b>		
<b>Fixed assets</b>		
Tangible fixed assets	3,915,027	3,824,130
Financial fixed assets	1,279,997	1,247,563
	5,195,024	5,071,693
<b>Current assets</b>		
Inventories	591	677
Accounts receivable	192,650	214,753
Cash and cash equivalents	136,093	135,736
	329,334	351,166
<b>Total assets</b>	<b>5,524,358</b>	<b>5,422,859</b>
<b>Liabilities</b>		
<b>Shareholders' equity</b>		
Subscribed capital	900,000	900,000
Share premium reserve	391,200	391,200
Statutory reserves	75,016	63,261
Other reserves	2,350,245	1,240,646
Result for appropriation	238,860	1,215,323
	3,955,321	3,810,430
Provisions	59,726	59,779
Long-term debts	1,308,943	1,298,531
Short-term debts	200,368	254,119
<b>Total liabilities</b>	<b>5,524,358</b>	<b>5,422,859</b>

(Amounts x € 1,000)

## INCOME STATEMENT

	2019	2018
Net revenue	669,874	676,169
Other operating income	36,700	31,077
<b>Total operating income</b>	<b>706,574</b>	<b>707,246</b>
Wages, salaries and social security costs	-116,685	-109,256
Depreciation and impairment of non-current assets	-153,394	-146,322
Other operating expenses	-156,489	-158,584
<b>Total operating expenses</b>	<b>-426,568</b>	<b>-414,162</b>
<b>Operating result</b>	<b>280,006</b>	<b>293,084</b>
Financial income and expenses	-41,732	-43,834
<b>Result from ordinary operations before taxation</b>	<b>238,274</b>	<b>249,250</b>
Taxation on result from ordinary operations	-2,094	961,178
Result from participating interests	2,680	4,895
<b>Result</b>	<b>238,860</b>	<b>1,215,323</b>

(Amounts x € 1,000)

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## PORT OF ROTTERDAM AUTHORITY

The aim of the Port of Rotterdam Authority is to strengthen the competitive position of the port of Rotterdam as a logistics hub and a world-class industrial complex. The Port of Rotterdam Authority manages, operates and develops the Rotterdam port and industrial complex in terms of both size and quality. The Port Authority is responsible for maintaining the safe and smooth handling of shipping. We invest in the development of the existing port area, in new port areas, public infrastructure and in the handling of shipping.

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## CONTACT

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