

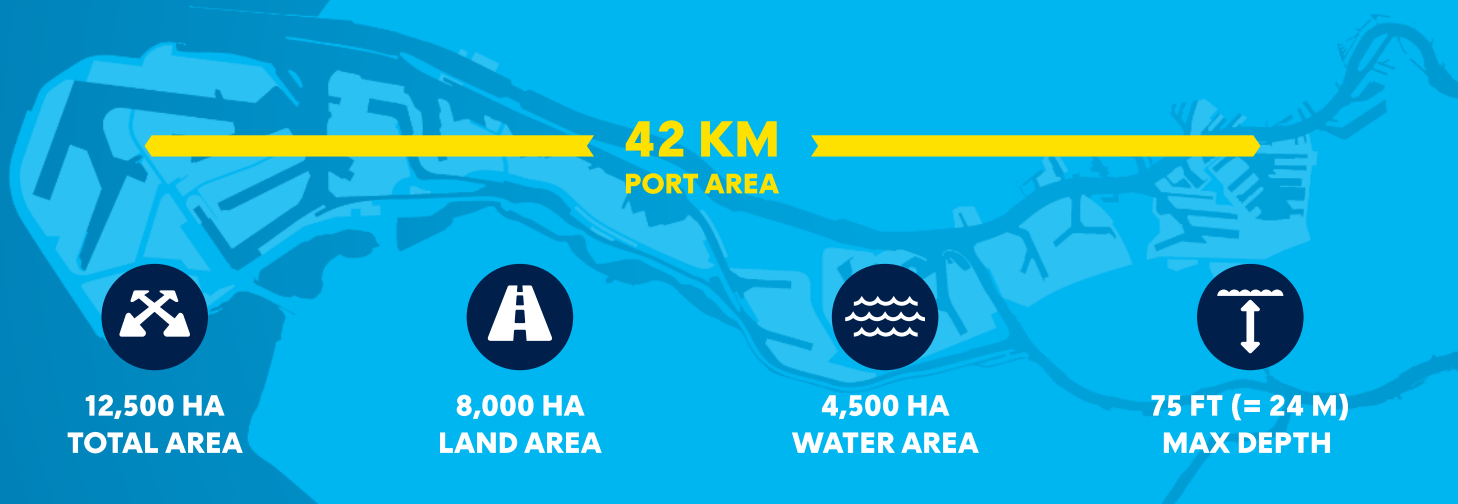
CONNECTING THE WORLD BUILDING TOMORROW'S SUSTAINABLE PORT

JOHAN GILLE, 16 SEPT 2026

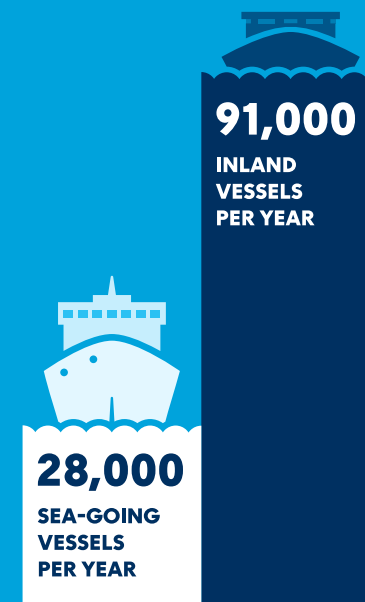


PORT OF ROTTERDAM

At a glance, general info



€29.6 BILLION
ADDED VALUE
2.9% OF DUTCH GDP



**AWARDED BEST
PORT INFRASTRUCTURE**

**FRONTRUNNER
IN SUSTAINABILITY**

**11TH PORT IN THE WORLD:
436 MILLION TONNES
OF FREIGHT THROUGHPUT**

**LARGEST
EUROPEAN PORT**

CA. 192,000
DIRECT & INDIRECT JOBS

WHAT IS HAPPENING IN THE PORT OF ROTTERDAM?

Logistics

Shipping, inland shipping, rail, road, pipelines, storage and transshipment terminals and distribution hubs

Industry

Refineries, chemicals and biofuels

Energy

Oil, LNG, coal, electricity and hydrogen



What does the Port of Rotterdam Authority do?

THE HARBOUR MASTER

is responsible for safety and the smooth clearing of shipping traffic. The Harbour Master is part of the Port of Rotterdam Authority and reports directly to:



Mayor of Rotterdam



Minister of Infrastructure & Water Management



CLEARING OF SHIPPING AND DEVELOPMENT OF THE PORT AREA

Shipping traffic control

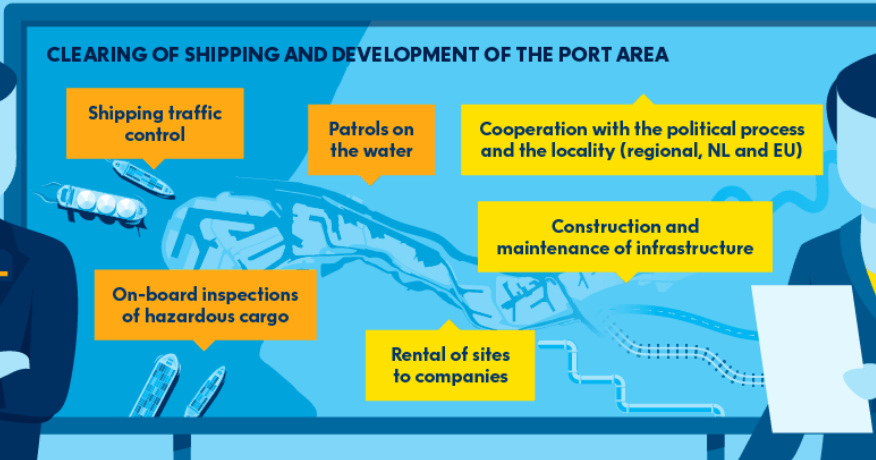
Patrols on the water

Cooperation with the political process and the locality (regional, NL and EU)

Construction and maintenance of infrastructure

On-board inspections of hazardous cargo

Rental of sites to companies



PORT OF ROTTERDAM AUTHORITY develops, manages and operates the port and industrial area in Rotterdam. Key focus points include safety and security, living environment, energy transition, resilience and investment climate. The Port of Rotterdam Authority is a Dutch public limited company with public shareholders:



Municipality of Rotterdam



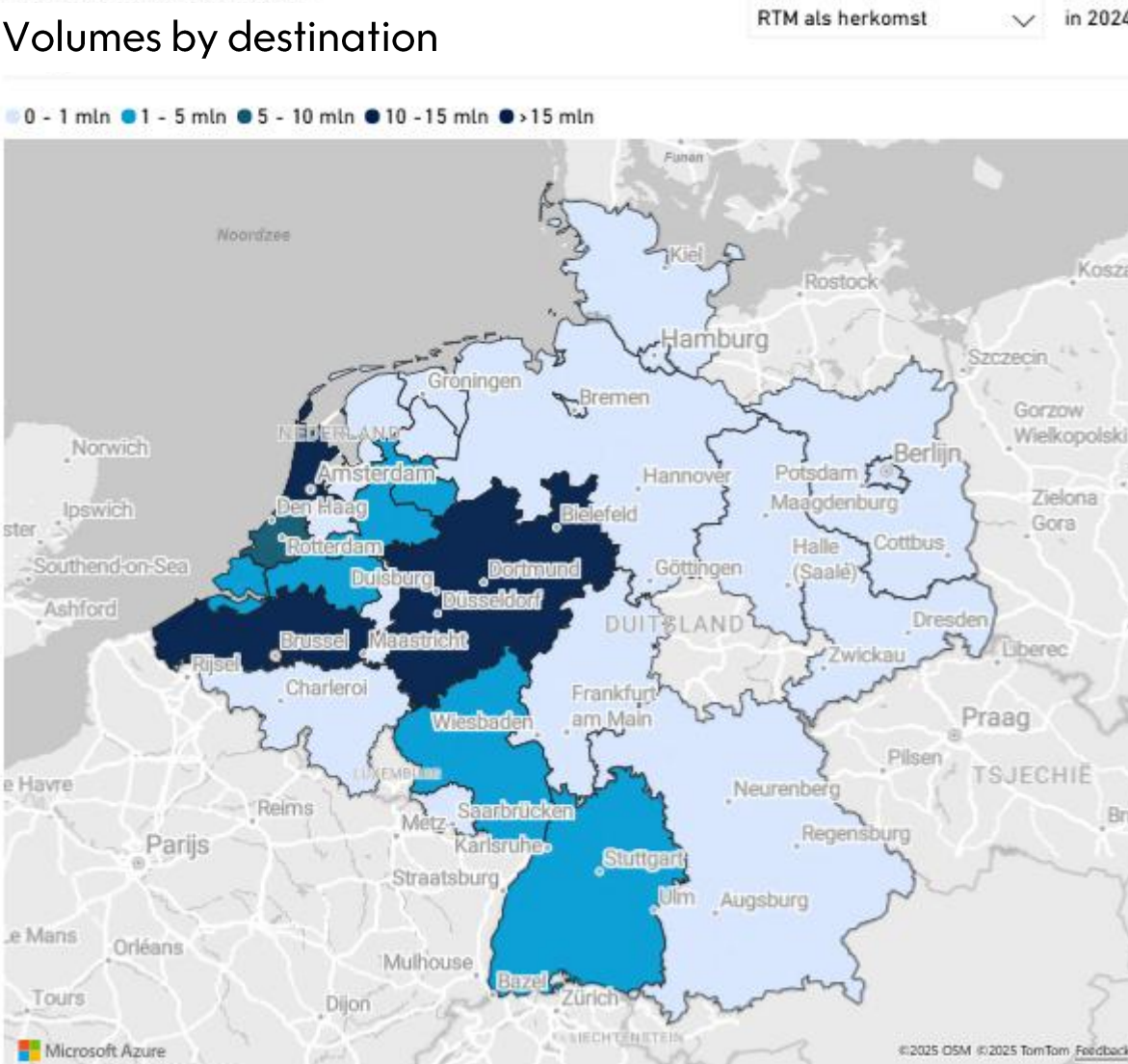
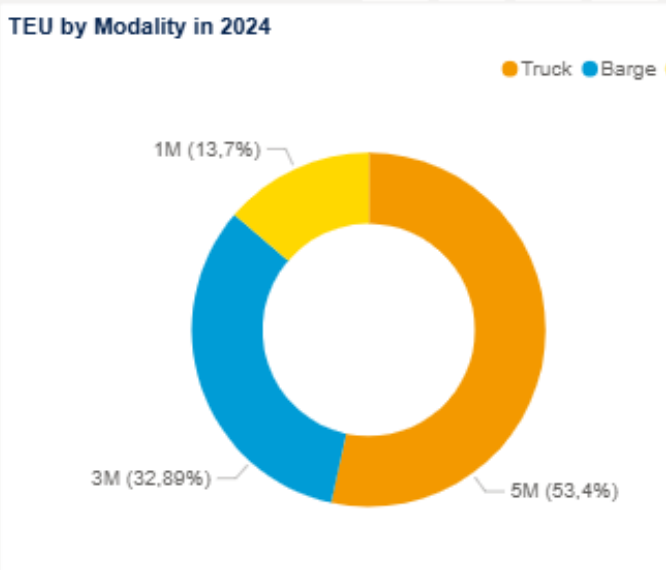
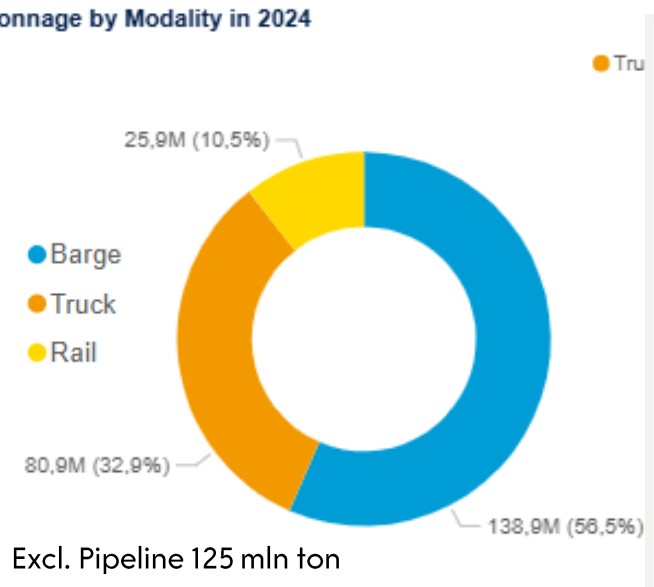
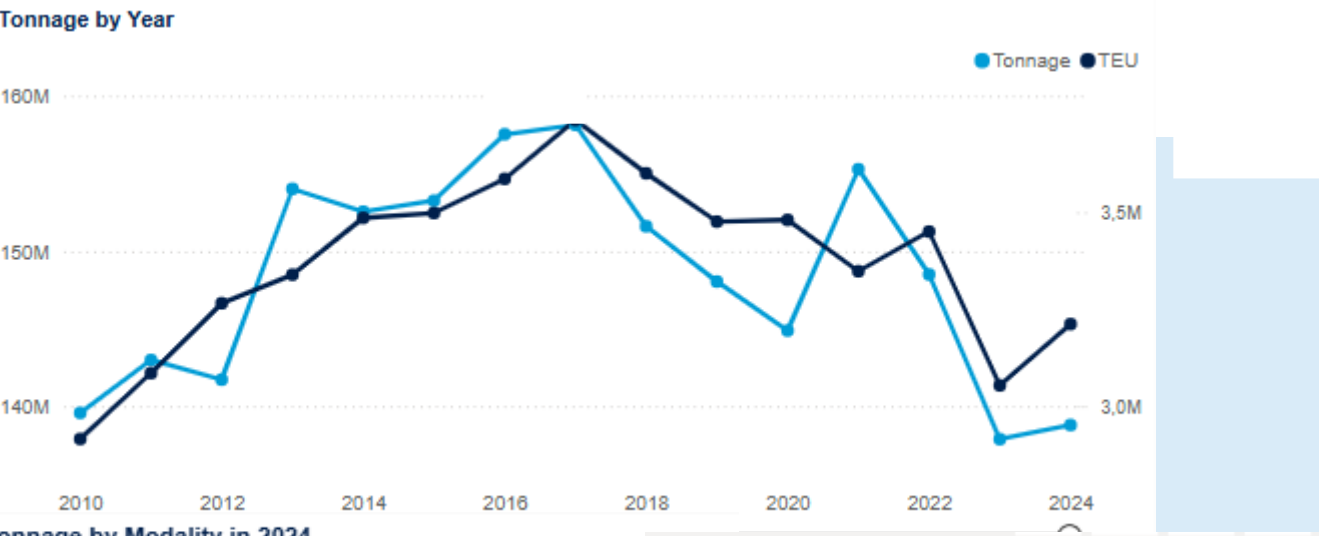
The State



THE PORT AS A MIRROR OF THE WORLD



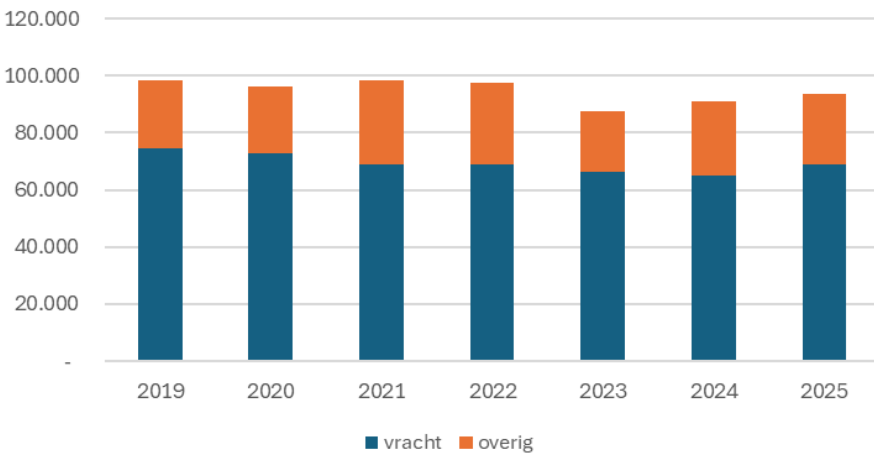
IWT IN NUMBERS



IWT VISITS TO ROTTERDAM: 93.680 (2025)

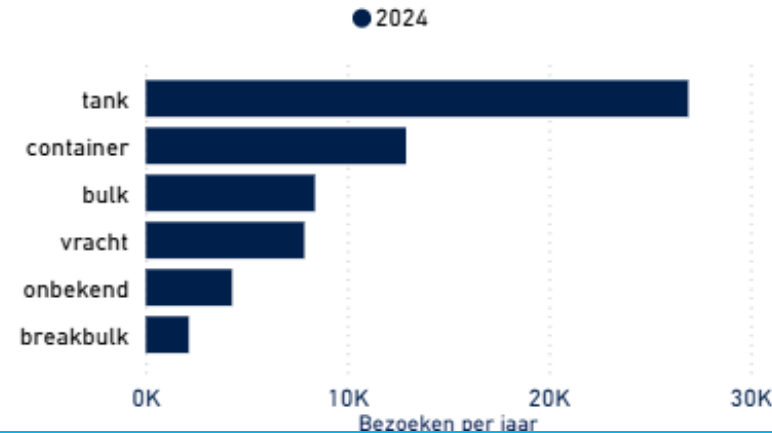
- Most cargo is transported in tankers
- Rotterdam is one of the largest bunker ports worldwide and supplying ~13% of Europe's energy demand.

Aantal bezoeken binnenvaart



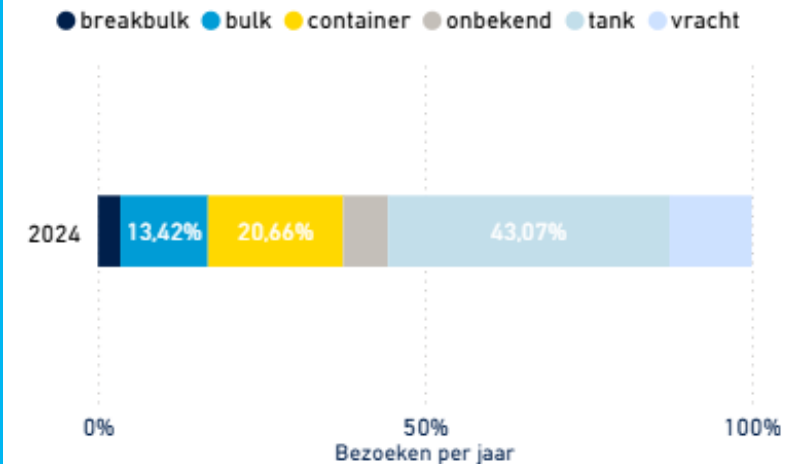
LADINGTYPE

Wat voor type lading is door de haven vervoerd



LADINGTYPE VERDELING

Wat voor type lading is door de haven vervoerd



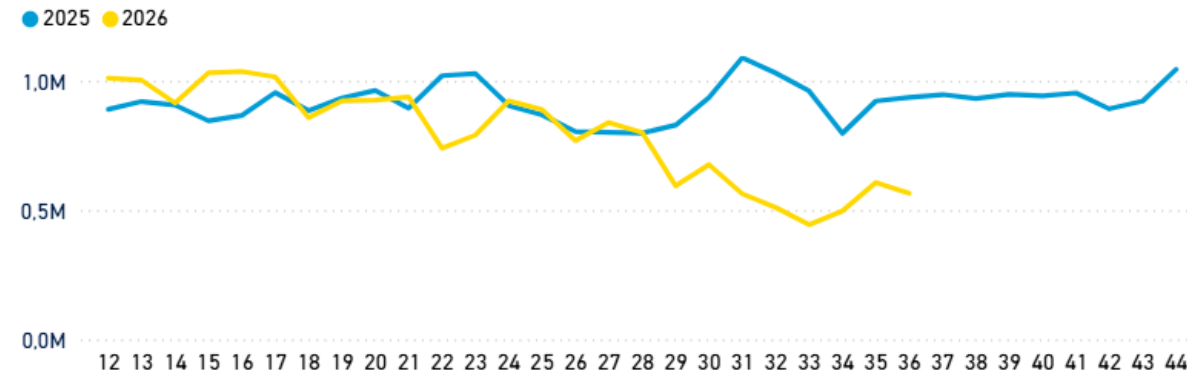
LOW WATER IMPACT

- International Rhine: shallow sections – lower tonnages
- Within NL: siltation & keeping fresh water – limited lock operations & closure of some canals

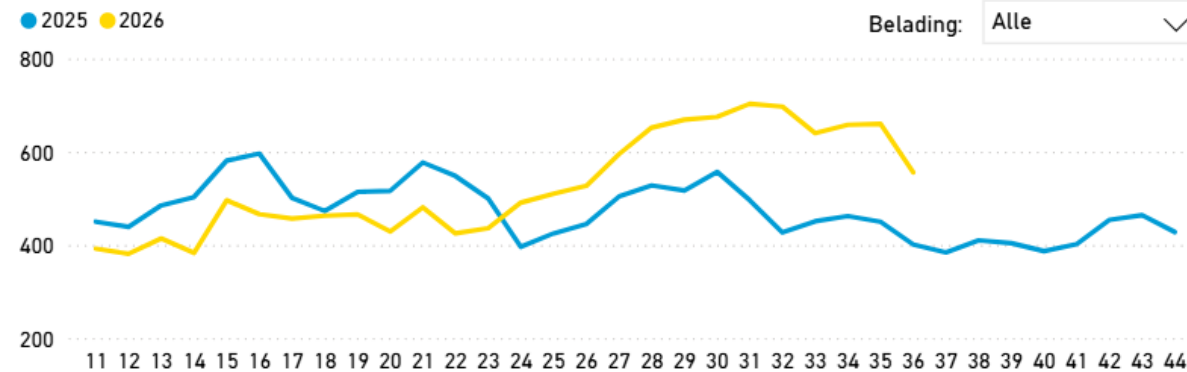
Impact on the Port of Rotterdam

- Decline in volume to Rhine
- Growth within NL
- Increase of port calls
- Shorter port stay duration
- Less optimal quay use

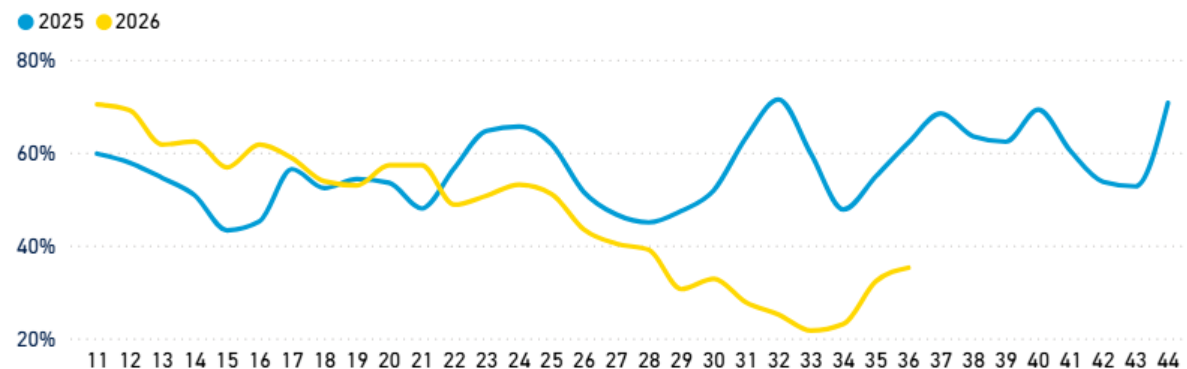
Volumes to/from the Rhine



Port visits to/from Rhine

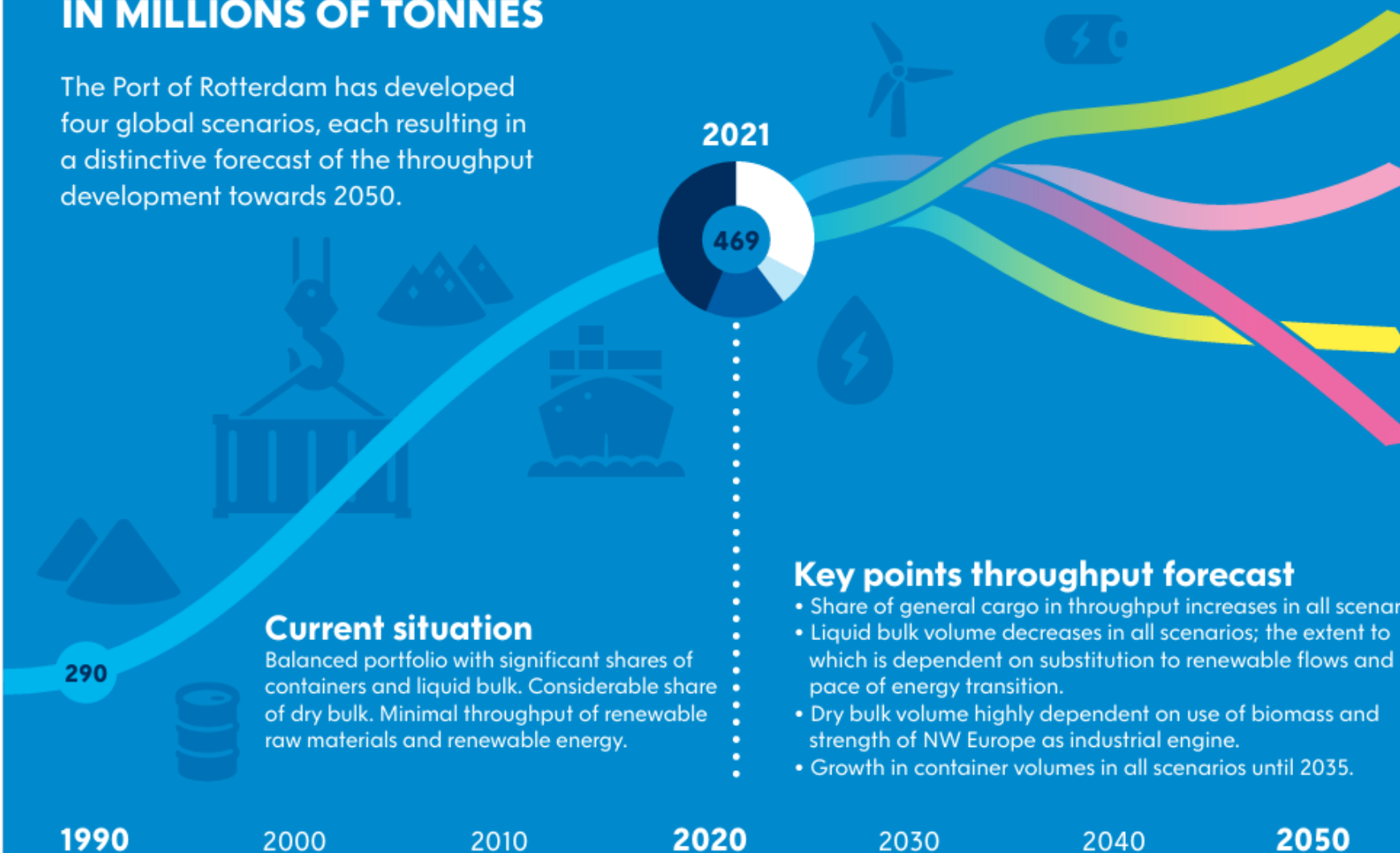


Average load (excl. empty sailings)



THROUGHPUT PER SCENARIO TOWARDS 2050 IN MILLIONS OF TONNES

The Port of Rotterdam has developed four global scenarios, each resulting in a distinctive forecast of the throughput development towards 2050.

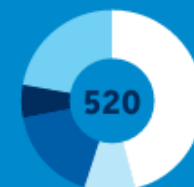


CONNECTED DEEP GREEN



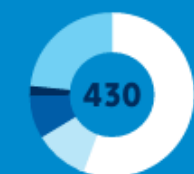
Fossil energy falls to zero in 2050; instead large amounts of renewable energy (e.g. H₂, NH₃). Strong increase in containers due to growing global trade.

WAKE-UP CALL



More biomass imports as feedstock for energy and chemicals. Late but rapid energy transition requires CO₂ storage. Increase in containers due to favourable economic climate.

REGIONAL WELL-BEING



Strong decline in crude oil, coal, iron ore due to contraction of energy-intensive industries. As a result, more general cargo volume due to imported semi-finished products.

PROTECTIVE MARKETS

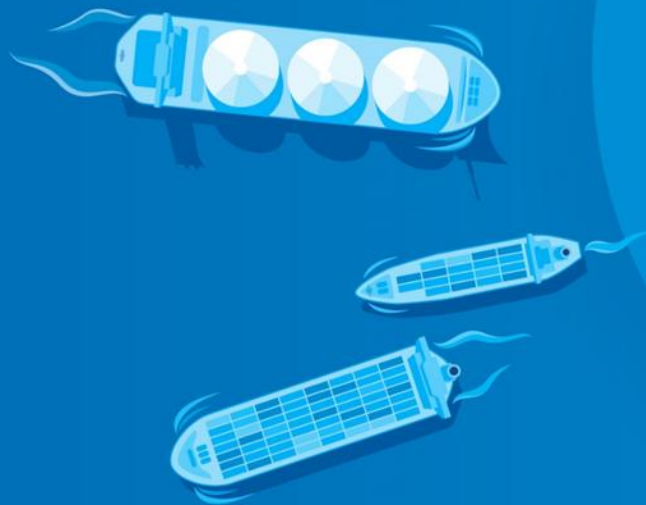


Trade barriers lead to delayed substitution to renewable energy. Considerably less crude oil refining. Less general cargo due to reshoring and nearshoring.

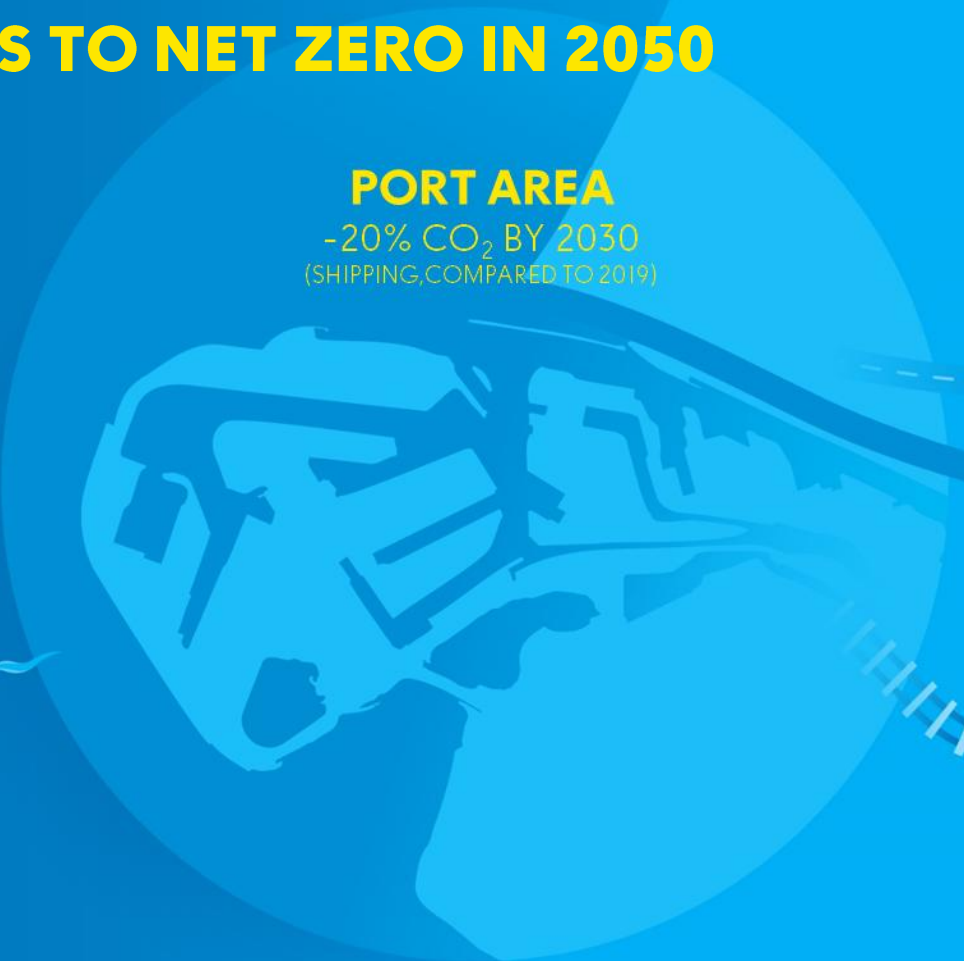
OUR JOINT CHALLENGE

TRANSPORT EMISSIONS TO NET ZERO IN 2050

MARINE
DEEP SEA
SHORT SEA



PORT AREA
-20% CO₂ BY 2030
(SHIPPING, COMPARED TO 2019)



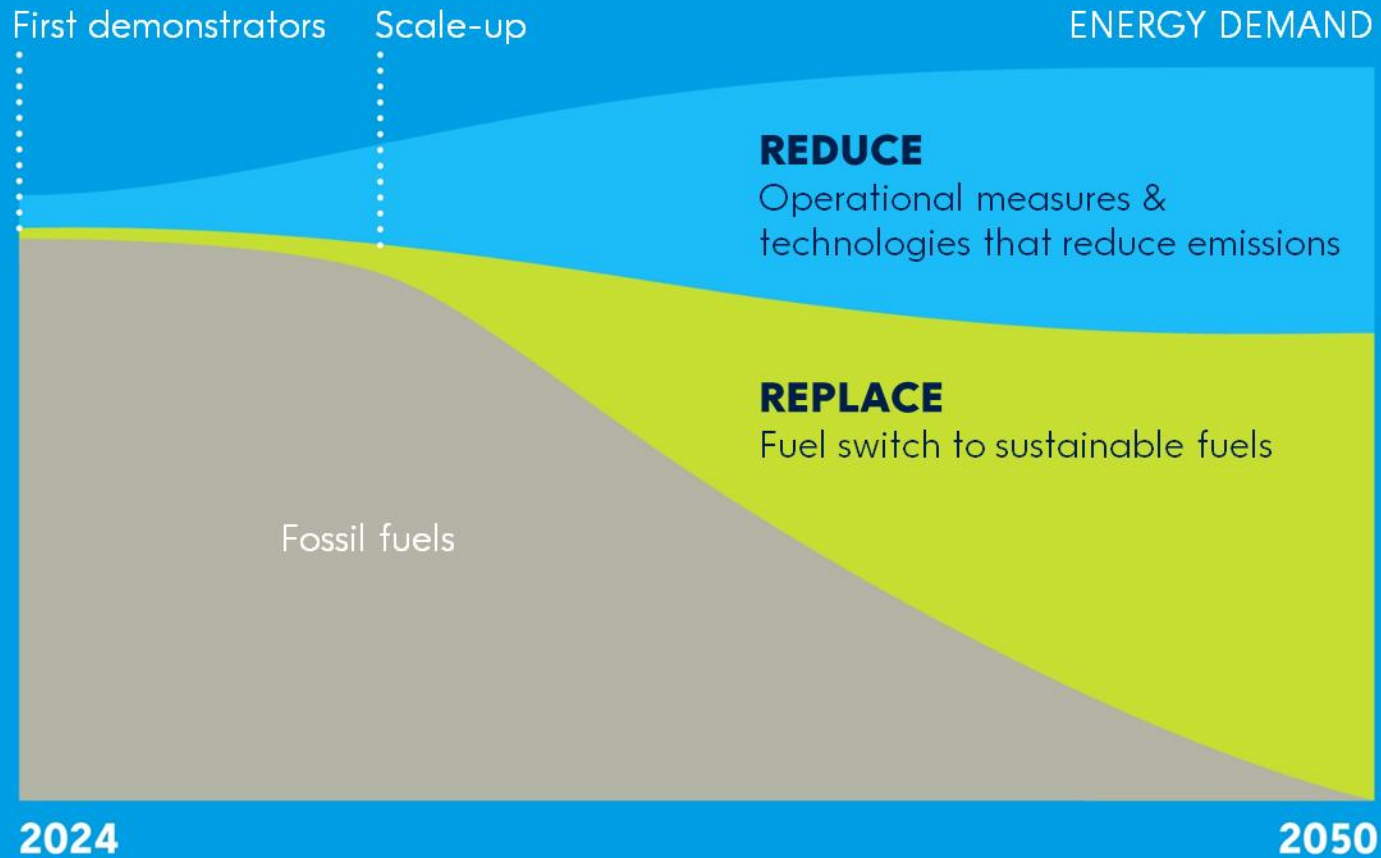
INLAND
RAIL
BARGE
ROAD



OUTSIDE PORT AREA
IMPACT BEYOND PORT AREA

DUAL PATHWAY

TO ACHIEVE NET ZERO WE MUST REDUCE & REPLACE FOSSIL FUELS



Any sustainable alternative needs to be:



ALLOWED

Safety & regulations



AVAILABLE

Technology, infrastructure & energy



AFFORDABLE

Competitive at scale

ENERGY TRANSITION PROVES TO BE QUITE TOUGH...

NUL UITSTOOT EN DUIZENDEN NIKES

Eerste keer emissieloos: mee op de maidentrip van H2 Barge 1

Vers geschilderd in felgroene verf ligt de FPS Maas donderdag 25 mei afgemeerd aan de kade van de BCTN containerterminal in Alblasserdam. Het revolutionaire op waterstof varende 110-meterschip ligt klaar voor haar maidentrip richting Rotterdam. Daar zal ze officieel haar nieuwe naam krijgen. Een bijzondere tocht, want het gaat om het allereerste emissieloze binnenvaartschip ter wereld. Schuttevaer vaart mee.

Jelmer Bastiaans Rotterdam, 01 juni 2023, 07:08



TWEEDE SCHIP

FPS Waal naar werf Holland Shipyards Group voor ombouw waterstof

Het containerschip FPS Waal heeft haar laatste tocht met dieselmotoren gemaakt. Eindbestemming was de werf van Holland Shipyards Group. Daar wordt het schip van rederij Future Proof Shipping (FPS) uitgerust met een waterstof-aandrijving.

Jelmer Bastiaans Werkendam, 22 augustus 2023, 10:26



Het containerschip gaat na de ombouw containers vervoeren tussen Rotterdam en Duisburg. © Foto LinkedIn /



LEVERINGSPROBLEMEN

Waterstofloze Antonie maakt eerste proefvaart

Met een gapend gat voorin het ruim heeft de Antonie haar eerste officiële proefvaart voltooid. Op het Haringvliet werd een topsnelheid van 19 kilometer per uur bereikt. Dat gebeurde dieselelektrisch, want de waterstofcontainers zijn er nog niet.

Jelmer Bastiaans Rotterdam, 31 oktober 2023, 17:25



Nog geen waterstofcontainers voor de Antonie. Maar geseen wordt er al wel. © Foto WVV

NIUWBOUW

Alphenaar: elektrisch en emissieloos over Gouwe

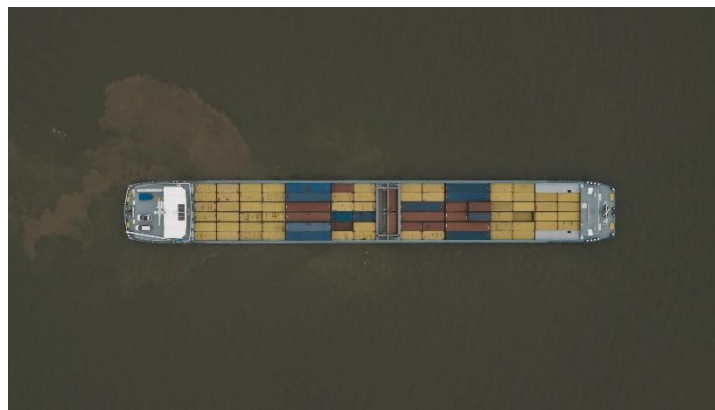
09/05/2019 door Redactie 3



Nieuwbouw

Letitia is paradepaardje voor de hele binnenvaart

04/12/2024 door Redactie 0



DERDE DUWBOOT

Zand- en grindhandel ROS voegt E-usher Kotug toe aan vloot

nd- en grindhandel ROS is een E-pusher rijker. De naar een ontwerp van Kotug bouwde 16 meter lange duwboot is afgelopen week bij Padmos Stellendam aan OS afgeleverd.

Ise Van Andel Schiedam, 28 juli 2025, 13:21



duwboot gaat varen tussen de Maasvlakte en laad- en loslocaties van ROS in Rotterdam. © Foto Kotug

Tweede ZES-schip Den Bosch Max Groen eindelijk in de vaart

EMISSIELOOS

Het tweede schip dat emissieloos vaart op batterijcontainers - ZESpacks - is in de vaart. De Den Bosch Max Groen werd woensdag 17 september feestelijk ingehuldigd door Inland Terminals Group, Zero Emission Services en Nedcargo.

JELMER BASTIAANS 17 september 2025 19:14

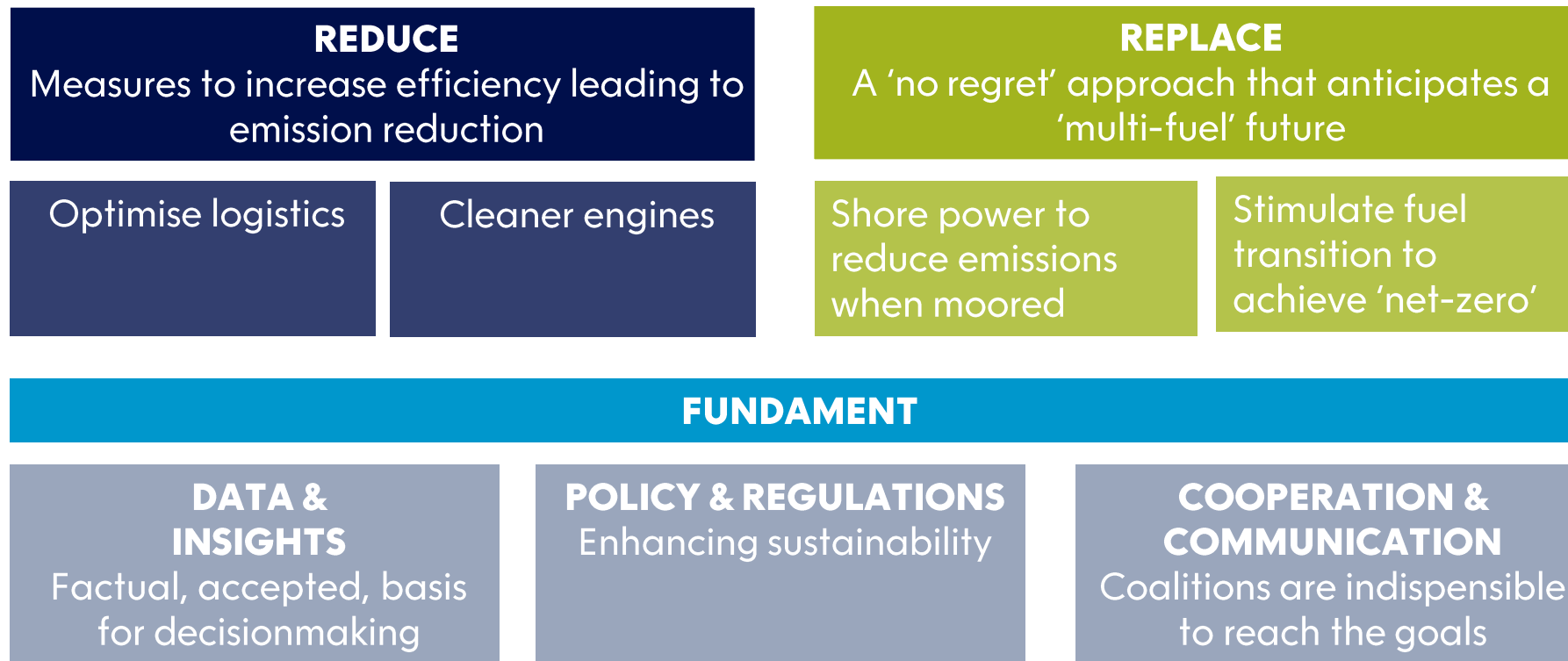


© Foto Randi Cruis



CARGILL EN KOTUG LAN CEREN DE EERSTE ZERO-EMISSIE ELEKTRISCHE DUWBOOT EN DUWBKCOMBINATIE TER WERELD.

OUR EFFORT CONCENTRATES ON THREE PILLARS



OUR INSTRUMENTS



Shore power + generator ban (will be: shore power obligation)

- Expanding the availability of locations



Port dues discount scheme

- Sustainability contribution – funding clean shipping



Carbonbid – 2 IWT cases rewarded



Shareholder ZES

- Realise loading & swapping locations in the Port together with terminals

Cooperate, work together with other ports, participate in projects and initiatives (e.g. MAGPIE, RH2INE, CONDOR-ZE)

- Aim: achieve feasible investment decisions



WHERE WE NEED (& MEET) CESNI

- Pooling enabled through separate GH2 tank certificate:

Appendix
Model of inland navigation swappable GH2 tank certificate

INLAND NAVIGATION SWAPPABLE GH₂ TANK CERTIFICATE

No

- This is also required for swappable battery packs

Photo CESNI/PT/FC on 3 & 4 July 2024



Photo ZES/ITG
Photo ZES/ITG



Thank you for your attention



Johan Gille

j.gille@portofrotterdam.com

+31 6 1149 0619

