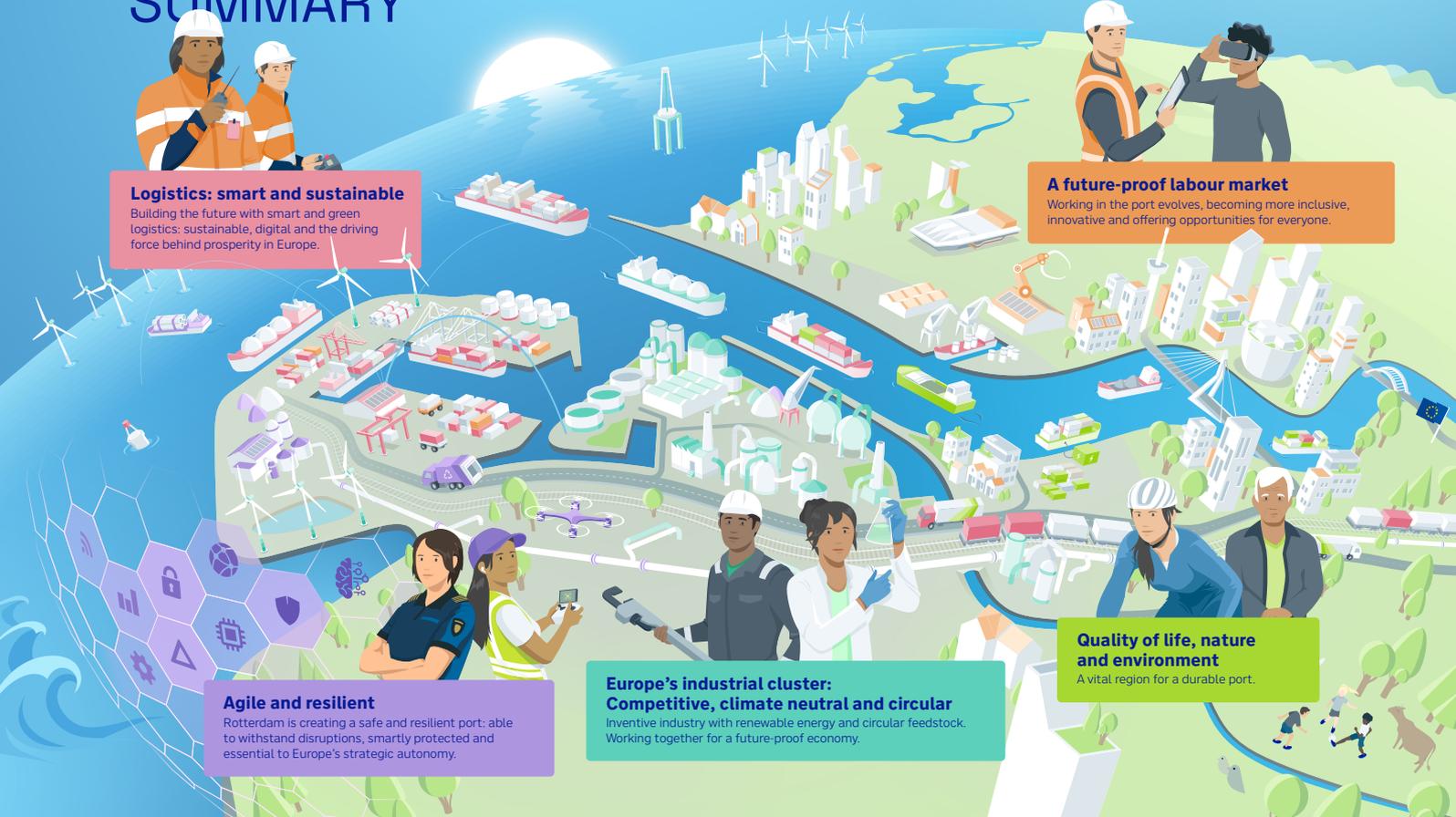


PORT VISION ROTTERDAM 2050 SUMMARY



Logistics: smart and sustainable

Building the future with smart and green logistics: sustainable, digital and the driving force behind prosperity in Europe.

A future-proof labour market

Working in the port evolves, becoming more inclusive, innovative and offering opportunities for everyone.

Agile and resilient

Rotterdam is creating a safe and resilient port: able to withstand disruptions, smartly protected and essential to Europe's strategic autonomy.

Europe's industrial cluster: Competitive, climate neutral and circular

Inventive industry with renewable energy and circular feedstock. Working together for a future-proof economy.

Quality of life, nature and environment

A vital region for a durable port.

With more than 3,000 companies, an added value of €30 billion annually, and employment for 192,000 people (mainly in the region), the port of Rotterdam is the beating heart of the Dutch and European economy. At a time of major social and economic challenges and necessary transitions, the port has a unique opportunity to reshape its crucial role. Together with other European industrial clusters, it forms the foundation for a future-proof society. What's more, the port is a hub of innovation, collaboration and social connection, located in an ecologically valuable area, where nature, residential living and industry come together. Together with a strong region, this enables the port of Rotterdam to further develop and ensure an innovative, future-proof, resilient and competitive world-class port. Port Vision 2050 provides the compass for achieving these ambitions.

Initiated by



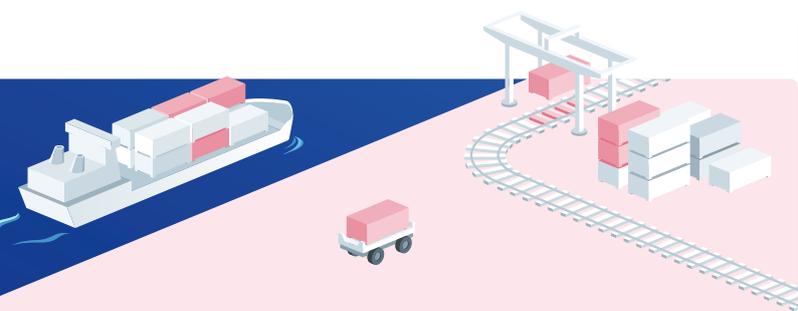
In collaboration with



Port Vision 2050 was initiated by the Port of Rotterdam Authority and the Municipality of Rotterdam and drawn up in collaboration between the Port Vision partners (Port of Rotterdam Authority, the Municipality of Rotterdam, the state ministries of Infrastructure & Water Management, Economic Affairs, Climate Policy & Green Growth and Housing & Spatial Planning, Deltalinqs, the Province of South Holland) and DCMR as advisor.

THE PORT IN 2050

By 2050, the port of Rotterdam is climate neutral and continues to meet society's essential material needs. It plays a key role in achieving climate targets, ensuring security of supply and energy, while contributing significantly to a circular society. The Port Vision focuses on five themes that are key to an ambitious future for the port of Rotterdam.



Logistics: smart and sustainable

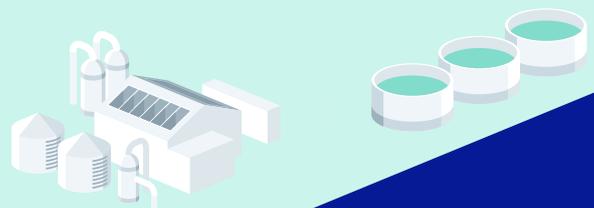
VALUE: As the logistical engine of Europe, Rotterdam ensures prosperity and security of supply and energy. It provides smart and reliable access to key freight flows, global trade routes and multiple modes of transport, logistical services and other options.

In 2050, alongside high-quality infrastructure, smart technologies ensure efficient handling of freight flows, with minimal impact on the environment. By 2050, transshipment in the port of Rotterdam consists to a significant degree of containers, a flow of freight that grows in line with population and prosperity. Algorithms determine the best routes and modes of transport in real time. By 2050, Rotterdam is not only the European hub for container transport, but also for sustainable energy flows. Fossil-based cargo flows have decreased significantly. All cargo, transport and infrastructure are digitally connected, across all continents. Roads, railways, waterways, ships and land-based transport have smart sensors that communicate with each other. This also enables autonomous transport.

Europe's industrial cluster: competitive, climate neutral and circular

VALUE: Rotterdam's industry is indispensable for making society more sustainable through local production of circular raw materials, sustainable energy and strategic materials, thereby strengthening the strategic autonomy of the Netherlands and Europe.

By 2050, industry in the port will have undergone a radical transformation. It is climate neutral, with factories that mainly run on electricity and hydrogen, and is key to a circular economy. Industry utilizes waste plastics and CO₂, as well as biobased and secondary feedstocks. Fossil-based feedstocks are kept to a minimum, but are unlikely to disappear completely. Residual CO₂ emissions are captured and stored. There is a thriving, versatile and sustainable industrial complex, including the chlorine and salt cluster, maritime manufacturing industry, bio-refining, electrolysis, plastics production, reuse of critical raw materials, base chemicals from the new feedstocks and chemical recycling. The ARRRR cluster (industrial areas in Germany, Rotterdam and Belgium) remains important for greater synergies and economies of scale. Existing sites are utilised to their full potential; a diligent process has led to a decision on whether or not to expand the Maasvlakte seaward. Through the production of fuels and materials, the port contributes to the circular economy and the strategic autonomy of the Netherlands and Europe.

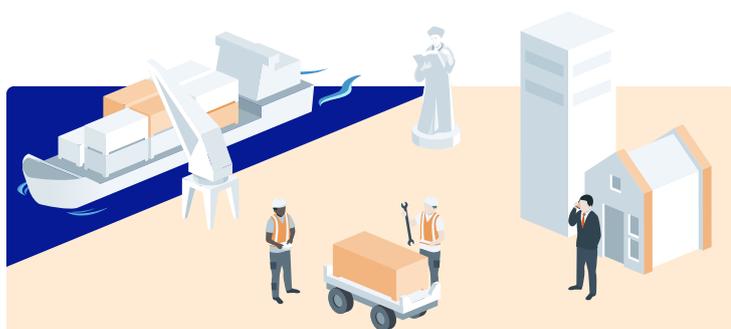


Quality of life, nature and environment

VALUE: Thanks to the transitions, the port is contributing to the realisation of climate targets. At the local level, the port has a major impact on the living environment, both positive and negative. A great quality of life contributes to a thriving society and is essential for maintaining public support for the port.

By 2050, the quality of the living environment has improved further without compromising the potential for entrepreneurship. Cooperation in the port of Rotterdam NOVEX area has given a boost to the living environment in the region and enables construction in the vicinity of the port to address the housing shortage. Ships use green fuels and shore power. Noise limits for industry are lower in some areas, and European agreements guarantee environmental safety on the

water, roads, railways and in pipelines. The transport of large volumes of hazardous substances is carried out as much as possible via an extensive pipeline network that connects Rotterdam to other seaports and industrial clusters. Thanks to an area-specific approach, the protected nature reserves in the vicinity of the port are restored to a healthy condition and biodiversity in the port has increased. The port is resilient to climate change, with improved freshwater availability and protection against sea-level rise and droughts. The quality of water, soil and air is good.



A future-proof labour market

VALUE: The port's businesses offer work that is rewarding, meaningful and important for people's personal development. The port of Rotterdam promotes inclusivity and well-being by organising work according to needs, which fosters social and economic growth.

By 2050, the port of Rotterdam is still a major employer that people really want to work for. Automation is shifting jobs towards technology and services, from routine tasks to more complex and creative tasks. However, the port's share of the working population remains the same. Employees work flexibly, combine learning and working, and feel valued. There is a strong focus on well-being, career development and social innovation with diversity and inclusivity at the forefront. The port has become more accessible and offers suitable accommodation for everyone, including migrant workers. Employees take pride in their work because it is innovative, future-proof and impactful.

Agile and resilient

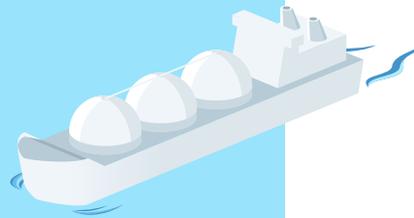
VALUE: The port of Rotterdam plays a key role in ensuring logistical continuity and limiting disruptions. The presence of industry and good overseas connections also reduces dependence on undesirable actors and strengthens the strategic autonomy of the Netherlands and Europe.

By 2050, the port of Rotterdam has strengthened Europe's resilience through global connectivity, diversified import flows, local industry and boosting the circular economy, helping to reduce dependence on specific countries. Thanks to digitalisation, collaboration and flexible infrastructure, the port responds quickly to disruptions and hybrid threats such as cyber attacks and digital espionage. Organised drug-related crime and subversive activities are under control. By 2050, the port has a flexible, integrated energy system that processes new energy carriers, balances supply and demand, and protects critical infrastructure. The port remains an energy hub, connected to global producers and European industrial clusters, thereby contributing to the energy security of the Netherlands and Europe.



FROM VISION TO REALITY

The Port Vision 2050 outlines an ambitious and inspiring future of the port of Rotterdam. At the same time, the reality is that many essential preconditions for realising the vision and the necessary transitions are currently not in place or are under threat. Important ones include:



Strengthening the innovation and investment climate

A strong climate for innovation and investment is of great importance for the transition of the port of Rotterdam. Comparable costs with neighbouring countries, suitable (European) regulations, predictable permitting and a strategy focused approach on creating a competitive and renewed energy system are essential in this regard. As is extensive dialogue with the surrounding community. Breaking the political impasse on nitrogen in the Netherlands, cooperation on water quality and availability, and stimulating demand for sustainable products are necessary for new projects. Finally, innovation is strengthened by knowledge development, digitalisation and cybersecurity, while providing space for experimentation in the port.

World-class connections

To make the port future-proof, substantial investments are needed in energy, hydrogen and CO₂ infrastructure, such as pipelines and connected terminals, systems and equipment. Rail, road and inland waterway transport also need to be modernised. Projects such as the Delta Rhine Corridor are essential for the port's transition. Smart digitalisation and investments in dual-use infrastructure (e.g. logistics and defence) strengthen resilience.

Strengthening the labour market

There is a shortage of staff. It is essential to invest in a closer alignment between education and the labour market. This includes the port's image and its workplace accessibility, as well as suitable accommodation for temporary workers in the port's vicinity. Additionally, new public transport points and tax arrangements for businesses should make the port accessible to everyone.

Distribution of space

The transition of the port and space-intensive sectors such as defence, nuclear energy and offshore wind are placing demands on scarce physical and environmental space—as are social challenges such as the need for housing in the surrounding area. Strategic autonomy must also be included as a criterion in spatial choices in the port, in favour of activities that contribute to security of supply and resilience. The port of Rotterdam NOVEX programme brings together its partners to collaborate on careful spatial planning, based on each partner's specific role and mandate. Combined, they accelerate the port transition and create coherence in strategic spatial choices. Developing the port in harmony with the living environment is an integral part of this.

TOGETHER TOWARDS 2050

The Port Vision 2050 outlines a Rotterdam port that not only delivers freight, but also offers opportunities, connections and a bright future. This vision can only be realised by working together, investing and making choices that are future-proof. Rotterdam will then remain not only an economic engine, but also a source of pride, (sustainable) progress and social value.

