

The Roadmaps are SmartPorts five focus areas. The programmes are part of the Roadmaps and provide a thematic cluster of projects to increase impact.



This Roadmap is the tool to make the port of Rotterdam frontrunner in smart logistics: in this concept supply chains are sustainable, reliable and efficient. Rotterdam is to be the hub in the global logistic network. The Roadmap focuses on the container market: in itself, it has the biggest growth potential in transportation, but it also shows the fiercest competition with other seaports. The two leading programmes within this Roadmap are:

Programme Digitization Logistics: is about the improvement of logistic processes and strengthening collaborations within the supply chains through digitization and exchanging data.

Programme Automation of Logistics: aims at improvement of logistics processes and strengthening collaboration in the supply chains through automation with the latest techniques. Automation provides efficient processes, increased safety, lower costs and less harmful emissions.

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21

Projects in progress

8

Projects completed

60

Participating partners

Smart Energy & Industry

This Roadmap focus is on an optimal performing and sustainable petrochemical cluster. Research is done on the implementation of sustainable energy in many ways, such as in production, use, and storage. Central in efforts to be done is as to how and how much wind energy can be picked up in the port of Rotterdam, and in what way depending on fossil fuels can be reduced. The two leading programmes within this Roadmap are:

Programme Wind at Sea: is about integrating sea-based wind energy into the port of Rotterdam activities. 'Wind at Sea' is likely to provide more and more sustainable energy, with the help of which sustainable hydrogen can be produced, amongst others. The question is which opportunities will be provided to Rotterdam.

Programme Electrification Industrial Cluster: dependence on fossil fuels can be reduced and CO₂ emission of the HIC can be limited substantially, through electrification of production processes and the use of sustainable energy in these processes.



6

Projects in progress

8

Projects completed

47

Participating partners

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Future proof port infrastructure

This Roadmap is aimed at optimising added value to the port area, through smart use of both the maritime infrastructure and of the waterways. Port construction and development of the port are leading in constructing and use, in order to reduce harm to nature, the environment, people and businesses to the minimum. The three leading programmes within this Roadmap are:

Programme Navigation through fluid mud: Efforts are done to achieve an appreciation for the idea for sailing across sludge from the nautical sector. It is an advantageous concept that can lead to less dredging or to additional loading of vessels to carry.

Programme Nautical transport models: Is about optimising transport models providing an insight into the shipping traffic within the port to increase safety and efficiency in the handling of vessels.

Programme Quay wall of the future: The use of existing quays and improvement of the design of new quaysides can be optimised by positioning sensors and analyse the resulting data.

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8

Projects in progress

5

Projects completed

16

Participating partners

World Port City

This Roadmap is to supply the Rotterdam municipality and other stakeholders objective decision information. There are three leading themes: innovation, business climate, and skills of the future. The Roadmap has to contribute directly and concretely to municipal policy related to the three themes for the years to come, at least in the year 2030. The Roadmap Next Economy of the Metropol Region Rotterdam Den Haag (the region Rotterdam and The Hague) is leading in this municipal policymaking.



1

Projects in progress

4

Projects completed

9

Participating partners

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Port Strategy

This Roadmap's target is to develop knowledge to make the port of Rotterdam the most sustainable, smart and competitive port in Europe. Primary questions are what the current state of affairs is in the innovative area in the port of Rotterdam, and which new trends and developments are to be expected. The projects within this Roadmap are to contribute to strategic development done by the Port of Rotterdam Authority.

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1

Projects in progress

2

Projects completed

4

Participating partners

Roadmap videos

Roadmap general



Roadmap Futureproof Port Infrastructure



Roadmap Smart logistics



Roadmap World Port City



Roadmap Port Strategy



Roadmap Smart Energy and Industry





Ontwikkeld door SmartPort