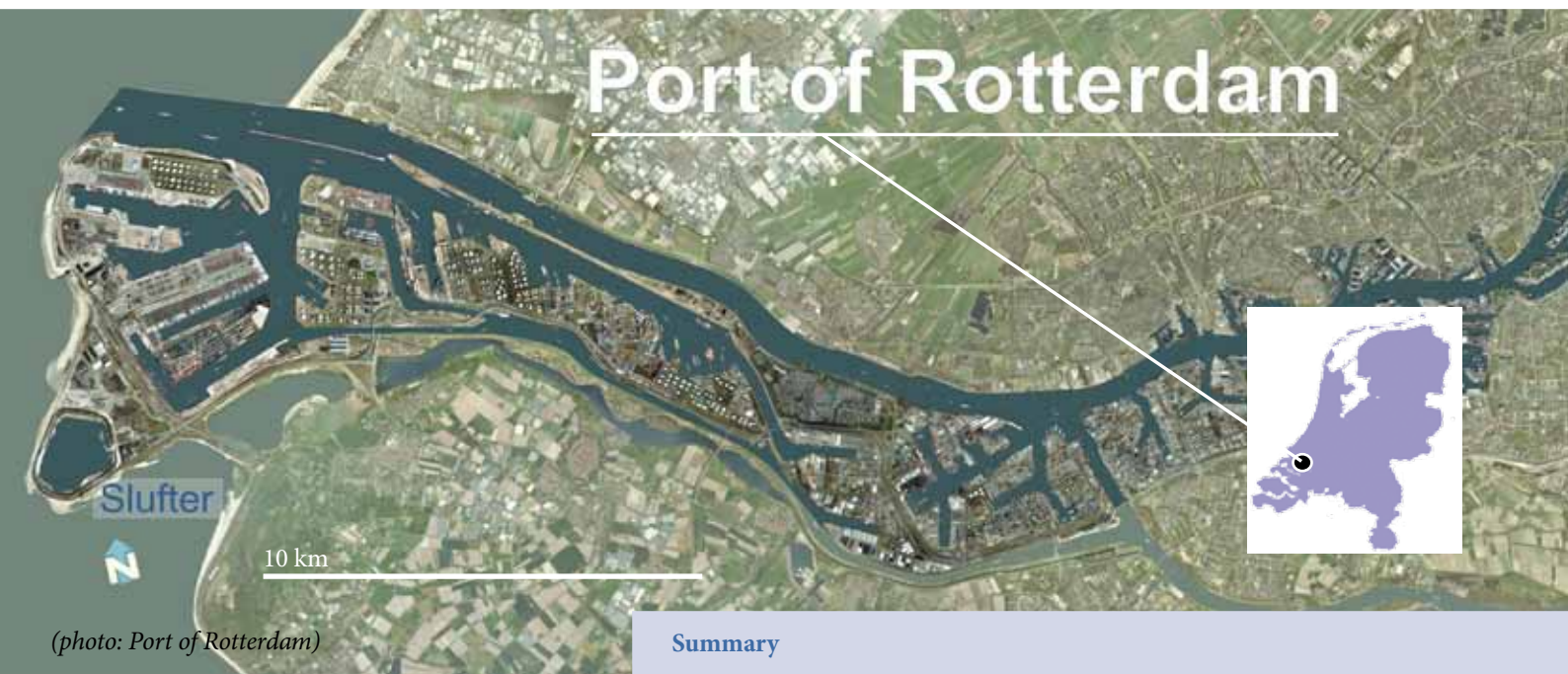


Rotterdam: sustainable harbour development

Long-term sustainable development is actually good for the economy and environment

Robbert Misdorp



(photo: Port of Rotterdam)



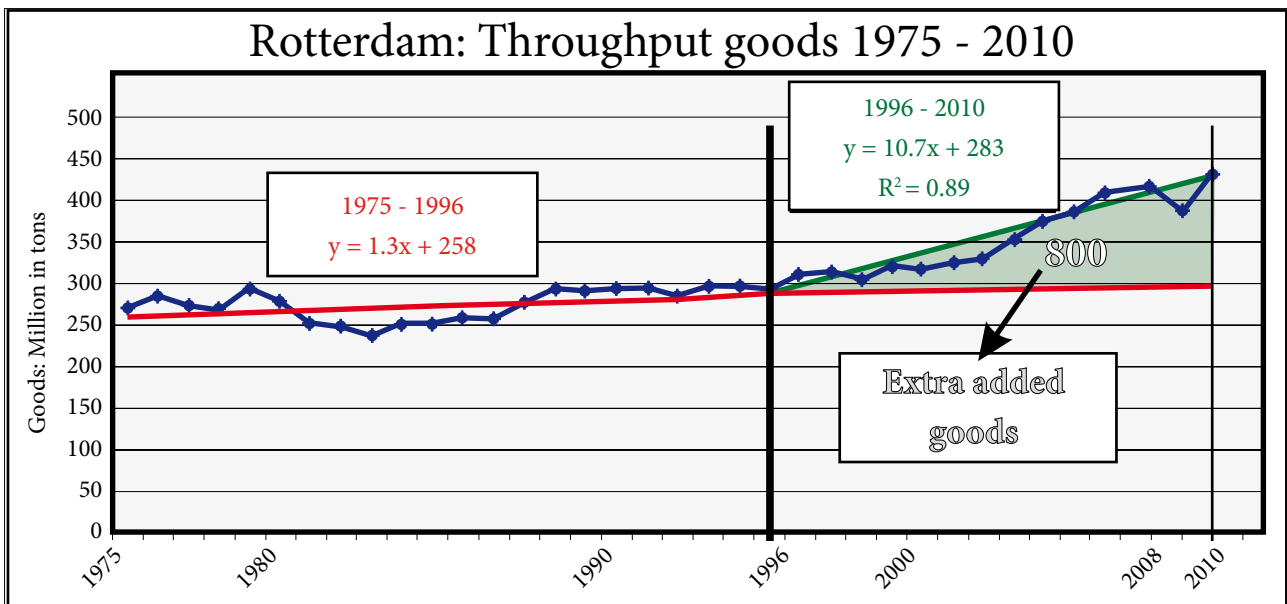
Maasvlakte -2: 2000 ha landreclamation in progress. (photos: NASA)

Summary

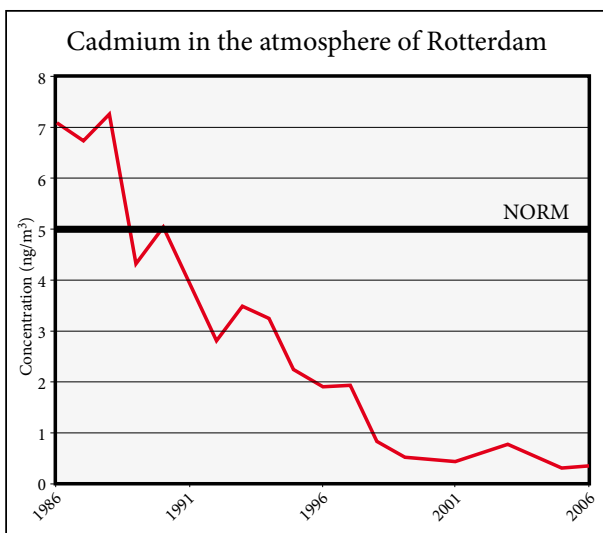
It became clear in the 1980s that the growth of Rotterdam Harbour could not continue without creating serious environmental problems. These in turn had an adverse impact on the local population and on economic growth. By bringing all the local stakeholders together in the long term ROM-Rijnmond programme (1993-2010) and with a shared financial risk, it has been possible to realise economic growth and environmental protection. The programme partners were each responsible for the implementation of 28 identified projects. The Port of Rotterdam, one of the major actors, is responsible for building a 2000 ha new harbour extension, Maasvlakte-2. The economic growth of the Rotterdam harbour increased during the programme to such a level that the economic value of the 'Extra added goods' (see 'Throughput of Goods 1975 - 2008') is of the same order as the investments of the entire programme. The environmental restoration resulted in improved quality of the air, water and soil in the Rotterdam harbour area. A marine Nature Reserve and several win-win situations, involving green solutions, were also created. Central to this was the development of an integrated and co-operative programme defined by regional spatial planning within a national legal framework. Mitigation of climate change is one of the current challenges. The development of the Rotterdam harbour is a good example of successful sustainable development in practice, involving the planning and implementation of a coastal area programme. The programme involved long-term cooperation, which was sometimes unwieldy and required careful coordination. However, the time and money invested certainly paid off, both economically and environmentally. These lessons and the national legal framework for regional development are important components for the next coastal cooperation cycle for the Rotterdam harbour (2010 - 2020). This will address future challenges, such as mitigation of climate change and adaptation to its impacts.

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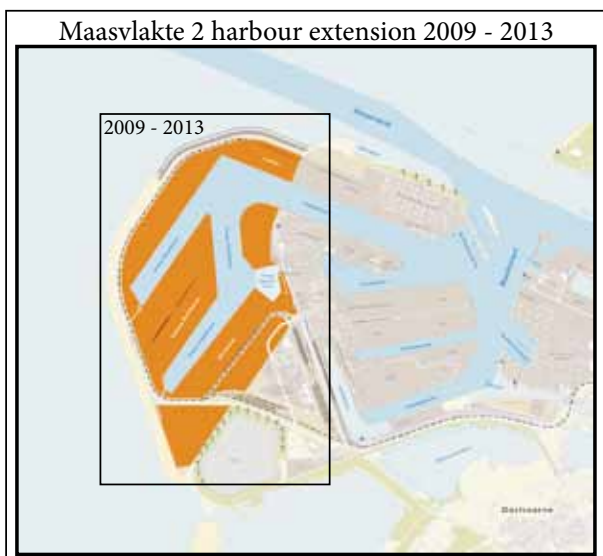
Port of Rotterdam: the strong increase in 'Throughput of Goods' - the period of 'Extra added goods' - began in 1996, three years after the start of the ROM-Rijnmond programme; the economic value of the 'Extra added goods' is more than the 7 Billion € investments of the entire programme. (source: R.Misdorp based on Port of Rotterdam statistics)



← Strongly reduced cadmium in the atmosphere of Rotterdam during the period 1986 - 2006, and since 1990 is well below the target level ('norm') of 5 ngr/m³ air, indicating strong environmental improvements during the 1990s.



The man-made 'Slufter' basin (40 m deep) safely stores contaminated dredged harbour material, surrounded by beaches and shoals being part of a Nature Reserve, providing e.g. habitat for seals. (photo: //beeldbank.rws.nl, Rijkswaterstaat)



← The 2009 - 2013 Maasvlakte-2 harbour extension, 2000 ha land-reclamation in the sea (orange), executed by the Port of Rotterdam under severe environmental conditions put forward by Netherlands Government and European Commission, in accordance with EU Birds and Habitats Directive. (source: Rotterdam Port Authority; adapted)