Innovation in Europe's largest port → some examples

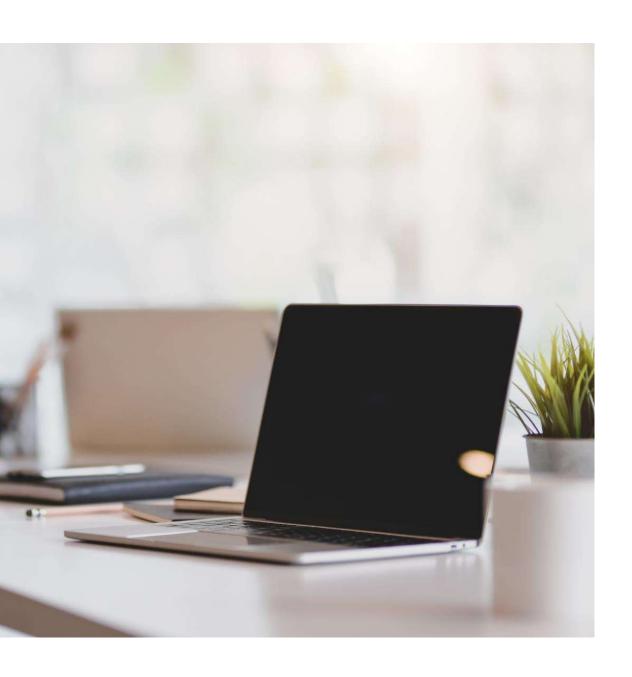
CILTNA - Innovation & Technology Developments

Dr.ir. Hans Moonen | VP Smart Logistics | CGI

16 June 2021







Agenda

- 1. Introduction
- 2. Rotterdam → facts & figures
- 3. Nextlogic
- 4. Container level ETA's
- 5. Autonomous shipping

Introduction





UNIVERSITY OF TWENTE.

Dr.ir. Hans Moonen

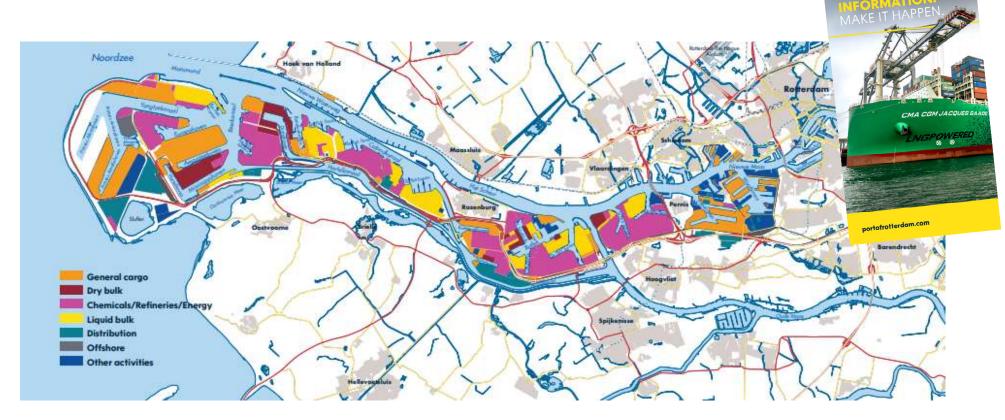
Hans Moonen splits his time between consulting and academia. At CGI – where he started early 2009 – he works as VP smart logistics. This is combined with a one day/week ass. professorship at University of Twente, one of the Dutch technical universities. Over the past twenty years, Hans always operated on the interplay between logistics, process change and innovative technologies. Before, Hans worked at enterprise software vendor Baan (2000-2002), followed by a research position at Erasmus University Rotterdam.

He has been a frequent participant and speaker at national and international conferences. He (co-)authored a series of publications, is a regular blogger, and is often involved in business development or inspiration sessions with clients. Hans holds an MSc in industrial engineering & management science from Eindhoven University of Technology, and a PhD from the Rotterdam School of Management on logistical planning.

The Port of Rotterdam

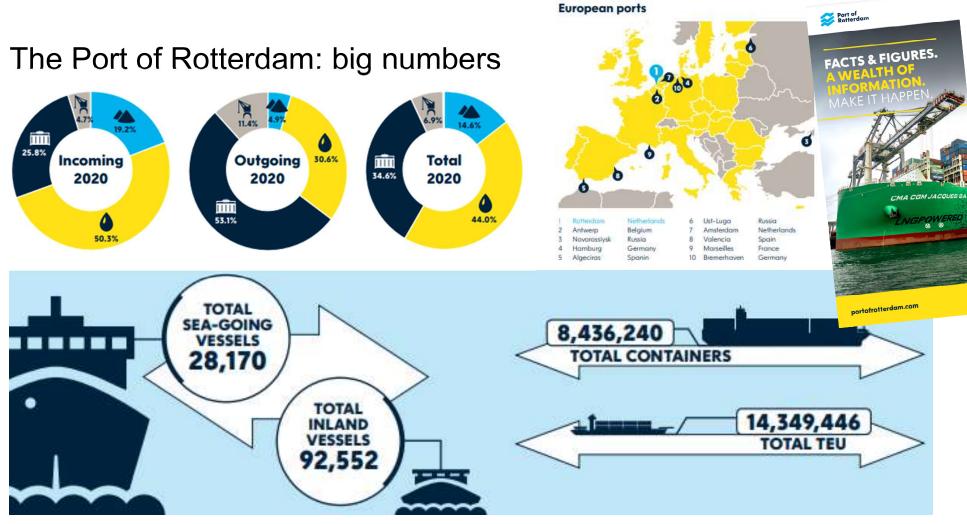
Europe's largest port

The Port of Rotterdam: 42km long, 24m water depth (max)



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Port of Rotterdam

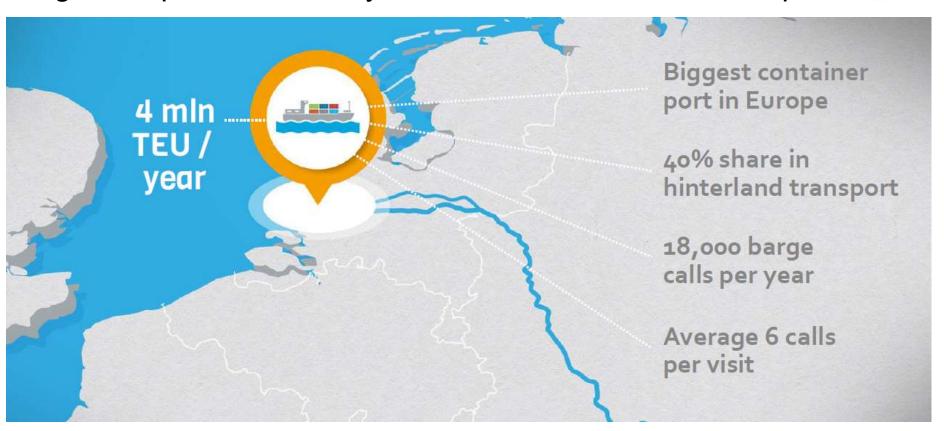


Nextlogic

Neutral 3rd party that optimizes the handling of container barges

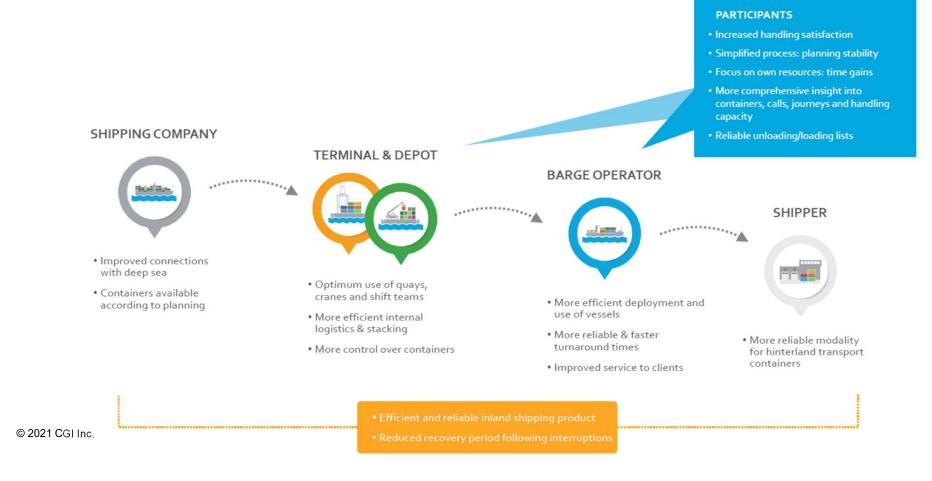
NEXTLOGIC ketenoptimalisatle container binnenvaart

Barge is important modality for hinterland container transport



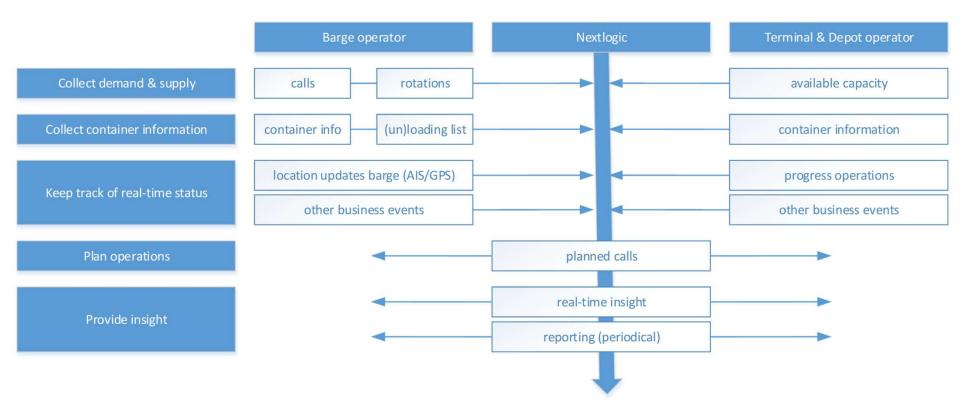


Integral planning has positive impact on everyone's business





Functional view on newly designed integral planning process

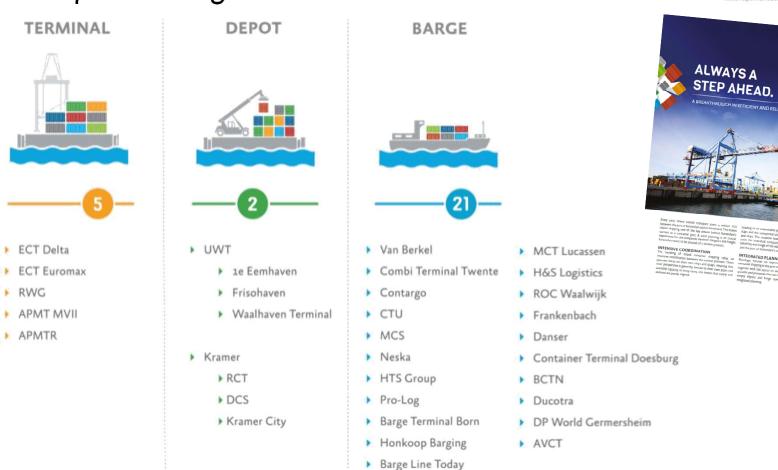


more: www.nextlogic.nl/uk

Nextlogic is expected to go live late summer 2021



🥸 NEXTLOGIC



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Container-level ETA

Boosting the modal shift through better information on the availability of import containers at the deepsea terminal



Multimodal LSPs tend to truck priority (import) containers

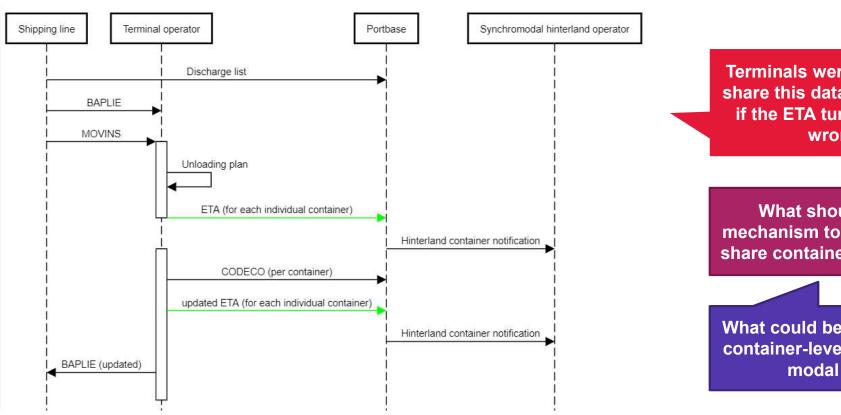


smart_wayz.nl

Larger deepsea vessels have longer (48-72 hours) port stays



Idea: start to share the container-level ETA's



Terminals were reluctant to share this data before: what if the ETA turns out to be wrong?

What should be the mechanism to calculate and share container-level ETA's?

What could be the impact of container-level ETA's on the modal shift?

Autonomous shipping

The impact of autonomous shipping on port operations

Autonomous shipping → foreseen impact on port operations

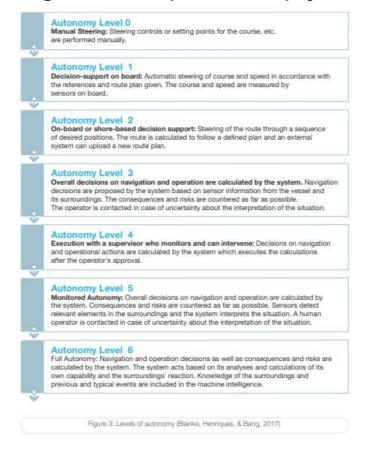


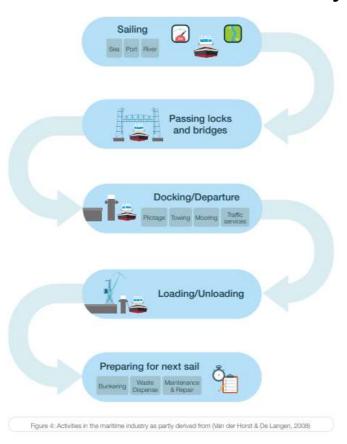


How digitalization and advanced automation of barges, service vessels and sea ships create new opportunities and challenges for the maritime industry



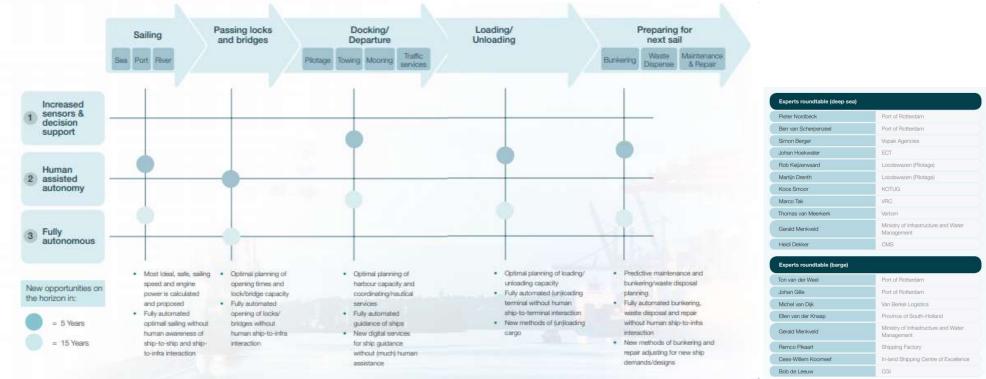
Combing the deepsea ship journey with the levels of autonomy



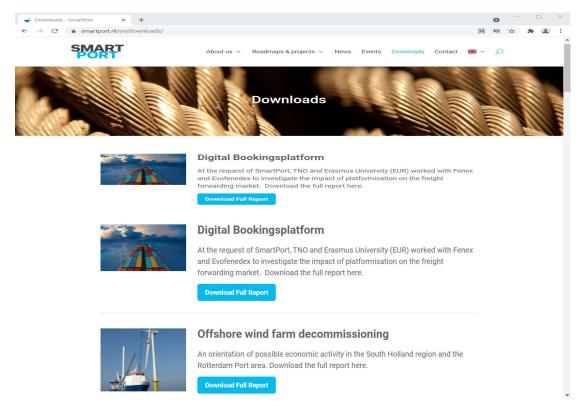


Consolidated view from our expert panel on future impact





Whitepaper is available for download





URL: https://smartport.nl/wp-content/uploads/2019/04/SmartPort-whitepaper-SmartShipping.pdf

Let's continue the conversation





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