

Towards a digital port

How can ports prepare for the autonomous shipping

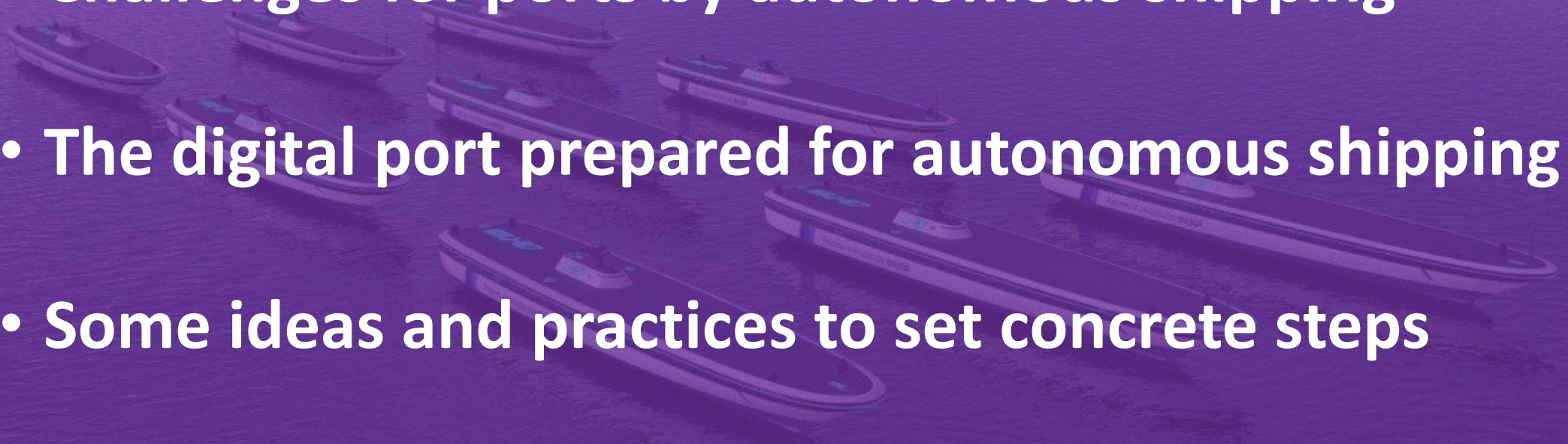
Jan Gardeitchik

- Background in Chemistry and ICT
- 35 years Port of Rotterdam
- Middle East Ports
- Now a.o Sr. Lead Digitization at Port of Rotterdam



Agenda

- Challenges for ports by autonomous shipping
- The digital port prepared for autonomous shipping
- Some ideas and practices to set concrete steps



Challenges for ports by autonomous shipping

- **Autonomous shipping**
 - What do autonomous ships need from a port?
 - What would be helpful?
 - Process information
 - Sensor data
- Can we make a good determination yet?



Digital port

- As a precise picture now is not easy to draw up:
- Building the innovation eco system
- Finding solutions that will benefit both autonomous shipping but also conventional shipping and hybrid solutions.
- Build a organization open to innovation and agility
- Supported by e.g FERM Cyber security



SHANGHAI, CHINA
30° 37' 35.54" N. + 122° 3' 53.85" E

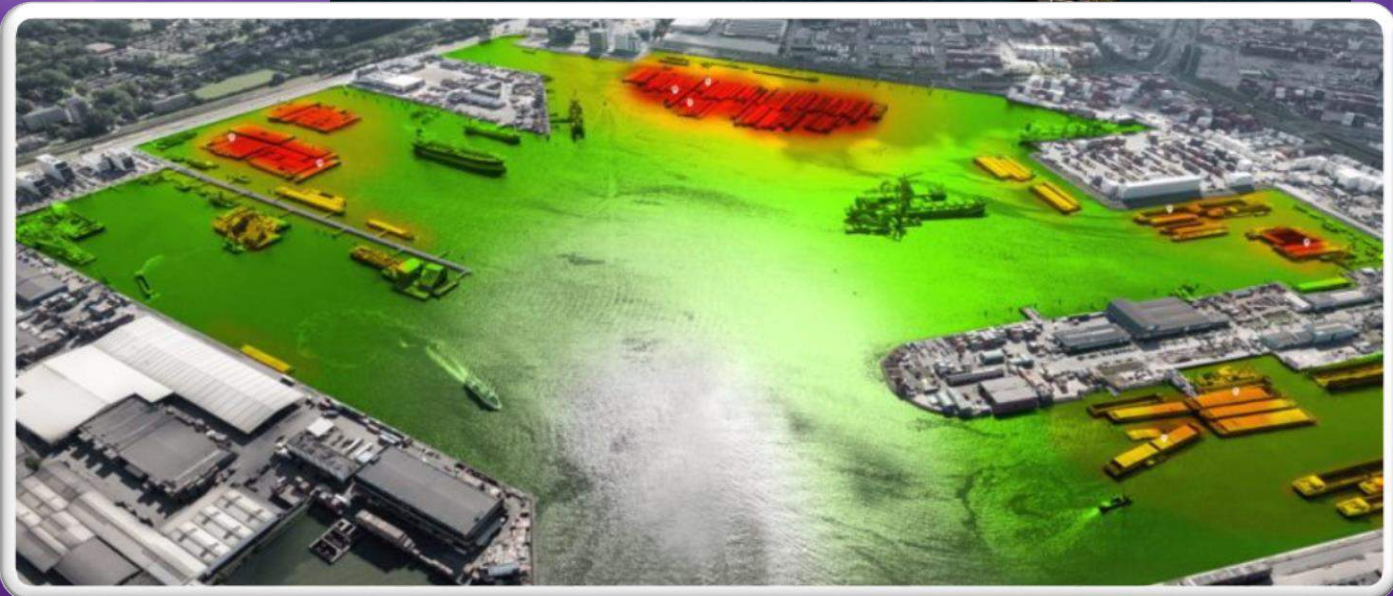
Digital port

- World connected ports -> information position



Digital port

- Administrative data platform
- Event data platform
- IoT platform



Digital port

- IOT platform
- Digital twin
- Artificial Intelligence
- Agile organization
- Step by step



DIGITAL TWIN

Rotterdam and IBM prepare for digital ship clearance

The Port of Rotterdam is the largest freight terminal in Europe for commercial shipping. The port is teaming up with IBM to digitalize and automate its logistic operations.

Digital port



Digital port

- Example: Waste Shark Port XL



Digital port

- Example: RPA 3 Patrol vessel



Digital port wrap-up

- Still diffuse
- Find the steps that are needed in almost all scenario's
- Data & Connectivity
 - Sensor platform
 - Towards digital connected ports
- Cyber security

Digital port

- Thank you for your attention
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