

Present PoR initiatives / legislation on autonomous shipping



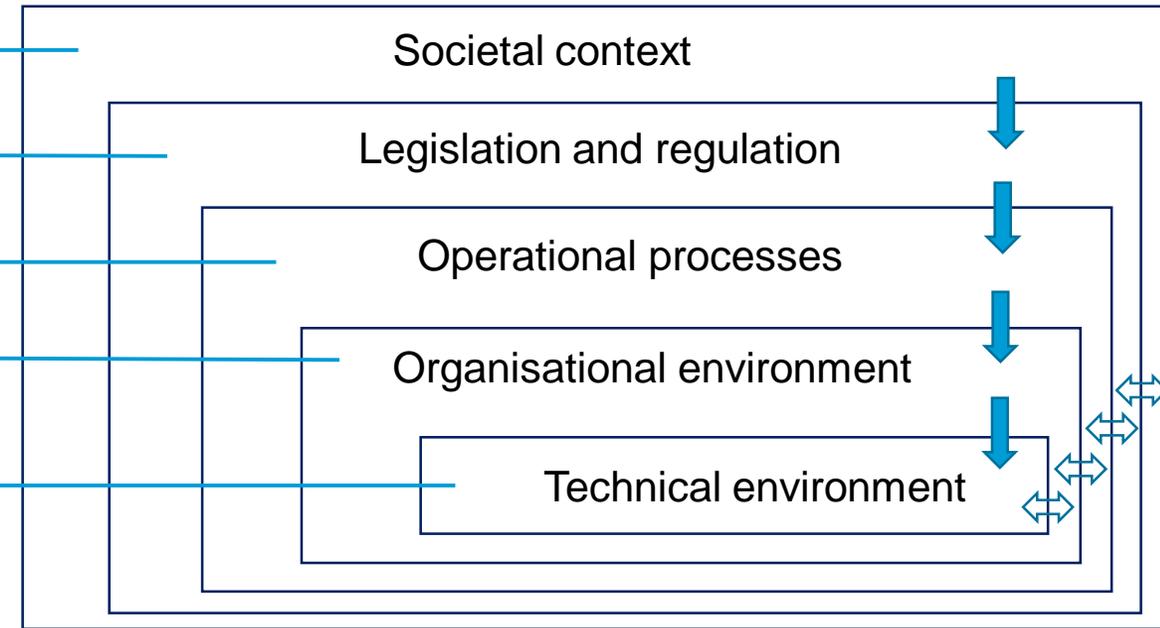
Rotterdam, 26 March 2019

Awareness

Remove legal barriers

Simplify port processes

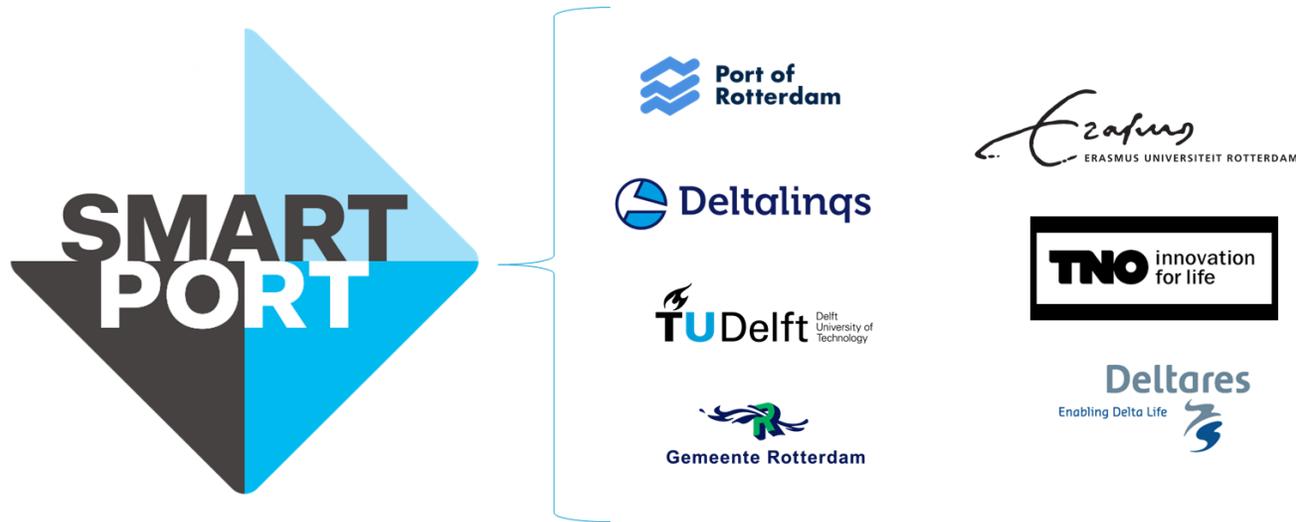
Digital transformation Org.



How can technology help?

- Develop digital platforms >> collaboration amongst stakeholders
- Collect and analyse sensor data >> improve situational awareness
- Standardise and harmonise information >> improve service provision
- Process redesign / automate >> costs saving
- Develop digital competencies >> new 'online' service provision

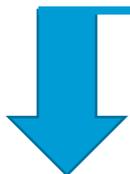
Research



‘Today, we are still pretty far away from autonomous shipping and the question remains if it ever will happen.

However the journey towards autonomous sailing brings already many new technologies with him, which could make shipping safer, cheaper and more sustainable’.

Reflection



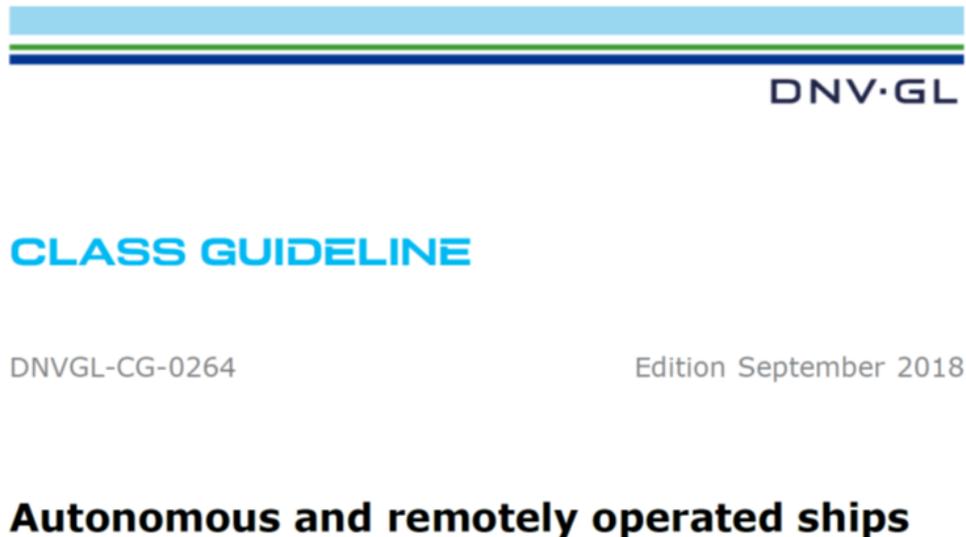
Which port bye laws are to be reviewed in order to accommodate autonomous shipping?

- Literature studies;
- MASS¹ and IMO's 'scoping exercise';
- Liaise with Dutch Government re. research';
- To include in the revision of the PoR bye laws';
- Facilitating test beds in confined areas in the port;
- Investing in port infrastructure (i.e. 5G);
- Automating ship clearance processes where practicable;
- Visit pilot projects abroad (Scandinavia).

IMO's scoping exercise – ongoing (1)

Revision/amending of IMO instruments, to facilitate the development of appropriate international regulation that allows the use of MASS

Development of a new suitable IMO instrument, based on the objectives and functional requirements for the construction and exploitation of MASS



IMO's scoping exercise – IMO/FAL



Review of FAL Convention starts from FAL43 and ends in FAL45 (April 2019 – April 2021)

Action // Deadline // Who?

- Upload of the initial review of the FAL Convention // September 2019 // Volunteering Member State(s);
- Commenting stage related to the initial review // November 2019 (two months) // All IMO Members;
- Consideration of comments and presentation of results // December 2019 (one month) // Volunteering Member State(s);
- Consideration of the results of the first step // April 2020 // FAL 44;
- Analysis of the most appropriate way of addressing MASS operations (second step) // May/June 2020 (two months) // Volunteering Member State(s);
- Commenting stage related to the initial analysis // July 2020 (one month) // All IMO Members;
- Consideration of comments and presentation of results // September/October 2020 (two months) – deadline for submissions to FAL 45 // Volunteering Member State(s);
- Final consideration // April 2021 // FAL 45

The Port of Rotterdam Authority tests autonomous navigation with a floating lab



Port of Rotterdam's Internet of Things (IoT)



Ronald Paul (COO): 'Important is that, due to this Cloud-platform and the real time sensor-data regarding infrastructure and hydro/meteo, we can further improve the mission-critical service provision to our clients'