

# Title Abstract: Innovations needed for autonomous and sustainable shipping technology

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Harmen van Dorsser is a true innovator and Intrapreneur in the Port of Rotterdam organization. He advises the Harbourmaster on nautical innovations and is involved as a mentor, coach and trainer in various innovation projects. He is program manager of the VTS innovation lab and co-author on the paper "Impact of MASS on VTS" approved by the 71th IALA council. Within the VTS innovation lab he would like to explore concepts of Full digital situational awareness, Interacting objects and Advanced decision support for future VTS services.



## Abstract:

Lots of research on autonomous and sustainable shipping technology has been done in the last years. The first steps on autonomy are foreseen on harbour crafts, fixed route services and on demand service like tugboats. The port area will be the place where everything comes together and port service providers, with many traffic movements within busy ports, most likely will be the first movers. However, R&D on VTS - vessel traffic service has not been a main topic of the discussion on autonomous shipping yet. The changes for a safer port approach and port stay with a more digital and interactive traffic management system are big.

Port of Rotterdam would like to support the development of a traffic management system and actively works towards a system that is future-proof for traditional and digital controlled ships. The basis must be a solid and state of the art system. Port of Rotterdam has the ambition to have a VTS system further developed towards adaptive, silent and smarter (more monitoring) with decision support. It has to have a positive effect on the interpretation of the VTS operator's profession and supports an international standardized approach on digital supportive VTS.

Port of Rotterdam has pre-launched a working space for innovation, experimentation and interaction on VTS development between different partners in the network. In collaboration with Saab (current supplier PoR) and other stakeholders we are creating a test environment and we have placed this in a broader program of a VTS Innovation Lab. Other partners who are interested in being part of the development are welcome to join.

I hope to motivate an increase the awareness for innovations needed in the maritime world and especially VTS systems with a presentation on this matter during the 14th IALA Conference, as a Senior advisor in the Port of Rotterdam.