



Navigating to 2050

A safe and sustainable maritime future

#NavigatingTo2050



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Navigation
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Services



Latest Thinking: *What Regulatory Framework for Maritime Autonomous Surface Ships?*

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15 November 2022

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What Regulatory Framework for Maritime Autonomous Surface Ships?

- MASS: A goal by itself?
- Developments at IMO and EU level
- A new regime emerging?: The role of flag, port and coastal States

MASS: A goal by itself?

- What is MASS? *Ship centric only?*
- What is it for? *Who are driving? Business case?*
- Optimisation through automation of logistic chains – no longer port-to-port but point-to-point or load on-load off
- Safety and protection of environment as drivers: *zero accidents, zero waste, zero pollution*
- Trust!

IMO work

- IMO regulatory scoping exercise (RSE) concluded in April 2021
- draft road map for maritime autonomous surface ships agreed at MSC 105 (April 2022)
- inter-sessional correspondence group (coordinated by Marshall Islands)

IMO work

Building on the RSE and decisions at MSC 105

- Ongoing work to provide a coherent international regulatory framework – Goal-Based Instrument - via a non-mandatory Code for MASS
- A Code facilitating scalable, safe, secure, sustainable and resilient solutions via a set of functional requirements
- Aims to support the safe adoption and integration of new technology for ship operations
- Safety assurance and approval requirements

EU work

- High-level Steering Group **Expert Sub-group MASS** (since 2018)
- EU Operational Guidelines for safe, secure and sustainable MASS trials
- DG MOVE Maritime website MASS
https://transport.ec.europa.eu/transport-modes/maritime/maritime-autonomous-ships-and-shipping_en
- Input together with MS to the RSE and the development of the MASS Code and structure
- EMSA (studies and tools, MASS workshop Nov. 2022)
- EU-supported research projects and Studies



Policy considerations for future development of MASS



- Degrees of autonomy: ocean going vs national/regional vessels
- Goal based approach: methodology to develop technology-neutral rules with several tiers, including hazard identification, which indicates what has to be achieved, rather than precisely how it should be achieved
- Transition and mixed traffic
- Communication and VTS operators?
- Global vs regional standards: approval of equipment, systems and shipyards
- Do we need the flag State in an era of powerful coastal States?

What Regulatory Framework for Maritime Autonomous Surface Ships?

Final word –

While autonomous technology is becoming available, the biggest challenge is building trust in higher levels of automation and possibly fully autonomous operations in the future.

Trust-building is a common effort

Слава Україні!



Thank you



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