



# Ensuring smart waterborne transport and safe equipment

DG MOVE's Maritime Safety Unit @ SMM 2022

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*DG MOVE D2 / 09/09/2022*

# Autonomous ships: context

- advancing technology
- autonomous ships not yet defined (does not mean fully unmanned, non-controlled ships) – includes ships with higher levels of automation but still manned/remotely controlled)
- projects worldwide at various levels of ship autonomy
- 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) for a non-mandatory goal-based code (intend mandatory later)
  - inter-sessional correspondence group (coordinated by Marshall Islands)
- national policies (e.g. Norway, Belgium)
- relevance also for inland waterway transport
- monitoring regulatory developments (e.g. describing, verifying, certifying functions)

# EU work on Autonomous ships

- High-level Steering Group Ad hoc 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](https://transport.ec.europa.eu/transport-modes/maritime/maritime-autonomous-ships-and-shipping_en)
- studies (e.g. on the social dimension of the transition to automation and digitalisation in transport, focusing on the labour force, 2021)
- EMSA (studies and tools, MASS workshop Nov. 2022)
- EU-supported research projects



# International Ship Autonomy and Sustainability Summits

- annually, since 2019
- in alternation between Norwegian Forum for Autonomous Ships and European Commission, supported by the Norwegian ministry for Trade and Industry
- international profile
- dialogue of industry, researchers, test projects and administrations
- recent Summit 5 April 2022 in Oslo
- next edition on **8 June 2023** (Norshipping)  
<https://nor-shipping.com/autonomy-summit/>



# Messages from the Summits

Fora for international exchange on smart & sustainable Autonomous Ships

- What is the real future of autonomous ships?
- Expect a gradual transition, first for Short Sea Shipping
- Gradual technology development, disruptive changes in business models and operations
- Mixed traffic situation (interaction)
- Autonomous ships as a means: as safe/safer than current operations (trust)
- Potential in achieving policy goals: Zero accidents, zero waste, zero pollution
- Green Deal objectives (Sustainable and Smart Transport Strategy - targets)
- Integrate with ports and hinterland in intelligent maritime transport systems (MAS logistics), ships – fairways – ports
- Regulation: national waters – bilateral agreements; cooperate and coordinate
- EMSA support



**Next (4<sup>th</sup>) Summit**

**8 June 2023**

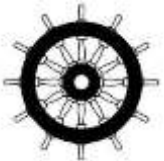
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*Safety is no accident -  
Directive 2014/90/EU  
on Marine Equipment*

## MED – Unique and common features

- Follows the international instruments / testing standards
- Standards are made mandatory



- Concerns placing on board EU ships where ever they are

# Conformity Assessment

- The procedures for conformity assessment in Directive 2014/90/EU follow Decision No 768/2008/EC on a common framework for the marketing of products
- Conformity can only be assessed by a third party (notified body)



# Modules:

B (= Type Examination) always has to be combined with another module

Conformity to type based on:

B + D (QA of production process)

B + E (Product QA)

B + F (Product Verification)

G (Unit verification)

# Modules:

## **D (QA of production process):**

NB audits quality system for production, final product inspection and testing

## **E (Product QA):**

NB audits quality system for final product inspection and testing

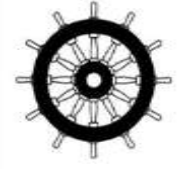
## **F (Product Verification):**

NB examines and tests either each product or products on a statistical basis

# Notified Bodies

- Accreditation preferred
- No conflict of interest
- Qualified personnel and access to facilities
- Shall participate in/be informed of MarED
- Procedure for challenges of competence

# Wheelmarking



- General principles refer to Regulation (EC) 765/2008 setting out the requirements for accreditation and market surveillance relating to the marketing of products.
- Wheelmark is followed by NB ID
- Manufacturers may use electronic tags

# Implementing Regulation (EU) 2018/608 of 19 April 2018 laying down technical criteria for electronic tags for marine equipment

- The Implementing Regulation sets up a system for the identification of marine equipment through electronically readable tagging.
- Manufacturers of marine equipment may use Radio Frequency Identification (RFID) tags or optically readable tags containing data matrix codes.
- Marine equipment with tags which replace the wheel mark shall visibly, legibly and indelibly display a specific symbol.



# Market Surveillance

- Obligation for MS to conduct market surveillance in line Regulation (EU) 2019/1020 on market surveillance and compliance of products
- In particular Flag State responsibility
- Checks are possible irrespective of whether equipment has been placed on board (no destructive testing of already installed equipment)
- Detailed rules for dealing with non-compliant products (lex specialis)
- ADCO MED has been set up

# Thank you



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