# Automation in Short Sea Shipping from a safety perspective

The RBAT study

Shaping the future of European Short Sea Shipping: Autonomous & Automated technologies, 28 April 2021

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2.1 Safety and Security





## Why autonomous or automated?



"There is a growing interest in various applications of automation, among which may be mentioned:

- (a) Propelling machinery;
- (b) auxiliary machi
- (c) cargo handling
- (d) navigation and
- (e) communication
- (f) other miscellane

MSC VIII/11 9 March **1964** 



- The Council, at its eighth session in May 1963, asked the Secretary-General to collect from governments technical data in regard to automation.
- 2. As this matter is of a technical nature, the Committee is invited to give consideration to the various aspects of the problem. In perticuler, the Committee is requested to indicate what type of information should be sought from governments; how at is to be collated; and what further action, including possible studies either within the Secretariat or by a subsidiary body of the Committee, should be undertaken.

For the purpose of this paper, it is not intensed to discuss either the various processes of automatics, or its social implications.

#### Automation - Definition

 Generally speaking, "automation" refers to those processes in which maintase - often including electronic controls - adjust and control their own performance with little or no human intervention, once the operation is started.

## Why autonomous or automated?

## Aspirations of

- Improved safety;
- Improved sustainability;
- Financial benefits

## Is it safe enough? How do we prove it?

- EMSA's activities on MASS
- The Short Sea Shipping case



## **EMSA's main activities on MASS**

SAFEMASS study

Working on appropriate digital services

Involved in the RSE on behalf of the EC

Working on appropriate competencies for RCCs

Working on cybersecurity issues

Assisting the EC on the operational guidelines on MASS trials

**RBAT study** 



## **Objective**



#### Risk based assessment tool (RBAT):

Risk assess whether introduction of increased or new ways of using automaton is as safe or safer than conventional shipping.

#### RBAT is conducted by DNV and is separated in 3 parts:

- 1. Develop the framework for the tool (end 2020 mid 2021)
- 2. Develop the first version of the tool with limited functionality (mid 2021 mid 2022)
- 3. Develop the complete version of the tool (mid 2022 mid 2023)

## **RBAT & EU operational guidelines**



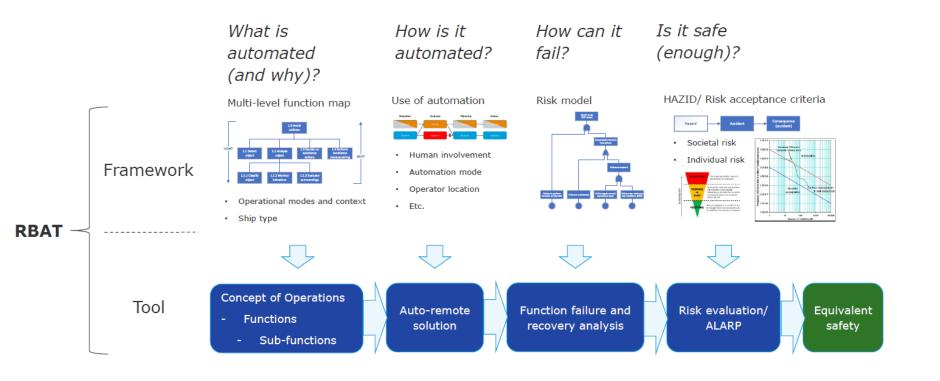
Two approval phases foreseen, RBAT to fit into preliminary approval phase;

Non binary outcome, ambition to identify risks and issues

Facilitate "assessing the assessment"

## **RBAT** framework and tool overview





## The Short Sea Shipping Case



## The main priority areas of the EC for SSS:

- Administrative simplification.
- Support industry in picking up new technologies for complying with new and stricter environmental legislation.
- Integration of short sea shipping in full logistics chains.

Can MASS be the answer?

### **Final remarks**





EMSA to continue working on supporting EU MS and the EC on MASS;



RBAT expected to standardise the early stages of the approval process of MASS concepts;



SSS is going to be the first field of application of advanced automation



Automation is the means, not the goal



## Thank you!

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