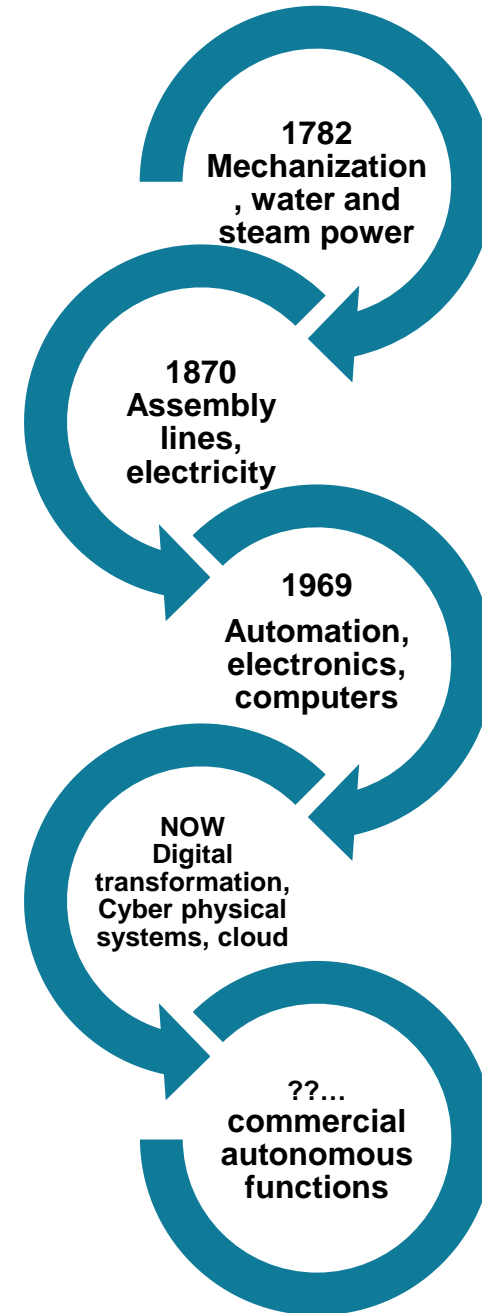


**METSTA**

**Avoiding over regulation –  
how standardization can  
accelerate digital innovation  
in maritime ecosystems**

**Päivi Brunou,  
Managing Director, METSTA**

# Maritime operations are adapting and evolving



**36%**

**Organizations trust they can  
sustain a cybersecurity attack**

**91%**

**Leaders believe their  
organization will suffer  
cybersecurity attack within  
24 months with long lasting  
impact**

2010

IACS UR E22 R1  
On board use and  
application of  
Programmable  
electronic systems

2016

**BIMCO Cybersecurity  
Guidelines,  
ABS Guidance Note,  
LR Guidance Note,  
DNV-GL Guideline,  
IACS UR E22 R2**

2017

IMO MSC-FAL. 1/Circ 3  
IMO Resolution  
and MSC.428(98)  
Maritime Cyber Risk  
Management in Safety  
Management Systems,  
IET Code of Practice  
Cyber Security for  
Ships

2019

**NK Cyber Security  
Management System  
for Ships Guidance**

2020

NK Guidelines for  
designing cyber  
security onboard ships

2024

**IACS 26/27 into effect  
on 1.1.2024**

**EU Cyber resiliency  
Act (estimated)**

2021

**IMO Resolution  
MSC.428(98) in effect  
(1.1.2021)**

2022

***EU AI Act is adopted***  
EU Proposal for Cyber  
resiliency Act  
EU Proposal AI Liability  
directive

2023

***EU Digital Markets  
act into effect (May-  
2023)***  
**EU data Governance  
act applicable from  
September 2023**

For autonomous solutions to succeed, the industry must be convinced of their business value and safety

**Standards  
support  
organizations  
to improve  
cybersecurity  
posture**

**Identify threats, manage risks**  
**Leverage meaningful measures and  
maintain comparability**  
**Select fit for context standards**  
**Competitive advantage through  
certification**

# Standards supporting maritime cybersecurity

**ISO/IEC 27001** – Information security mgmt systems

**ISO/IEC 27005** – Information risk mgmt

**ISO/IEC 27021** – Business continuity

**ISO/IEC 27035** – Incident management

**ISO/IEC 27036** – Supplier relationship

**ISO/IEC 27701** – Privacy information mgmt

**IEC 62443** – **series of standards** implementing and maintaining electronically secure industrial automation and control systems

**NIST SP 800** – **series of standards** Risk assessment (800-30) Supply chain risk management (800-161)

# The role of standards in cybersecurity

## ISO 8102-20

The first ever ISO cybersecurity standard for elevators, escalators and moving walkways – industry competitors put safe products first.

**Based in IEC 62443 and safety minded**

The cybersecurity protection that the new standard brings will ensure that when connections are made in order to update systems remotely, the risk of outside interference is minimized.

**Released in 08-2022**



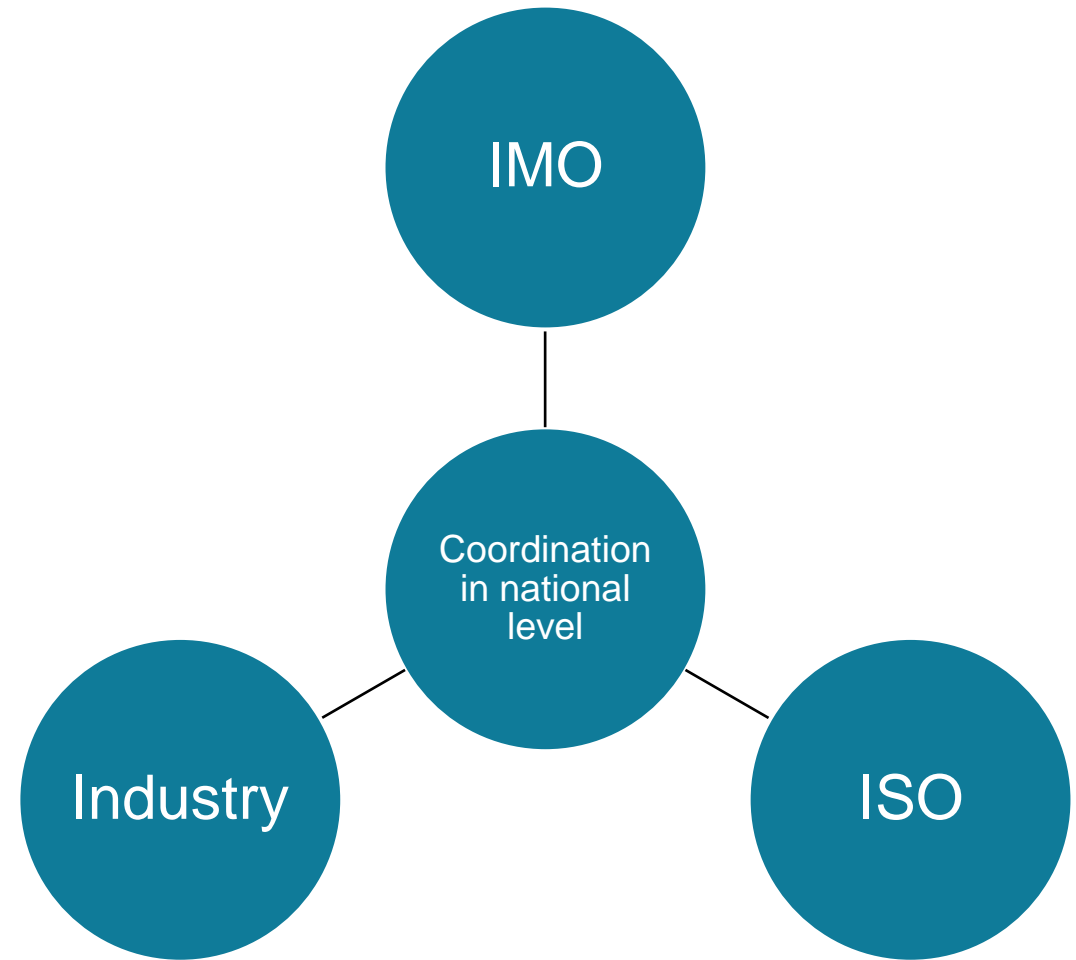
Maritime ecosystem  
needs to identify gaps  
and prioritize initiatives  
for standards

Where is standardization done?

**ISO/TC 8 Ships and marine technology**  
is responsible for standardization related to the sector of ships and marine technology.

**ISO/IEC JTC 1/SC 27 Information security, cybersecurity and privacy protection**

The development of standards for the protection of information and ICT. This includes generic methods, techniques and guidelines to address both security and privacy aspects



ISO = International Organization for Standardization  
TC = Technical committee  
JTC = Joint Technical committee

# ISO/TC 8 Ships and marine technology

**409**

**Published  
standards**

**84**

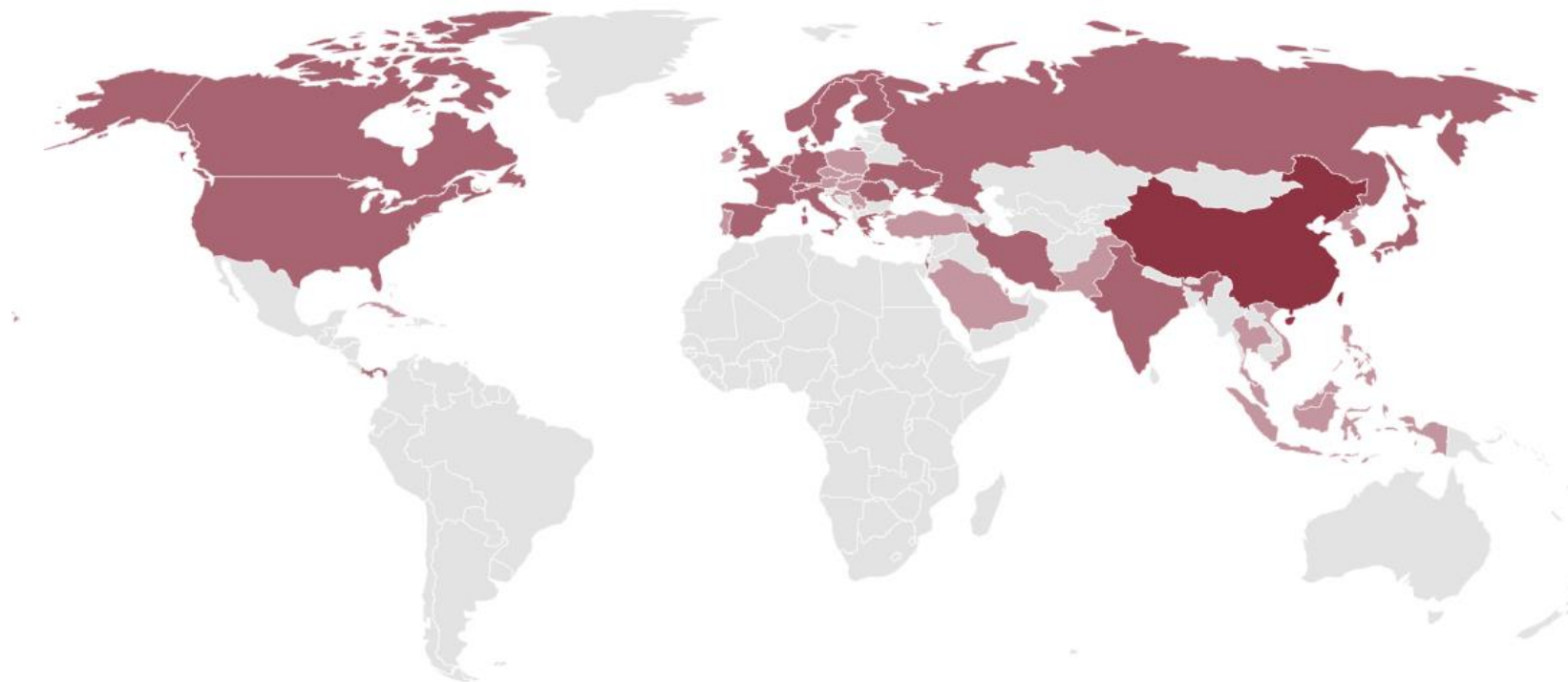
**Standards  
wip**

**27**

**Participating  
members**

**22**

**Observing  
members**



**METSTA**

Secretariat China dark red, Participating members red, observing members pink

# Standards prepare for the future

## **Creation of standards take time**

- Consensus principle
- Average 2-4years but can take longer

**New committees are established, and technical reports are created to support technological development**

**The terms and vocabulary used in standards is helping industry to “speak the same language”**

# TOP 10 EMERGING CYBER-SECURITY THREATS FOR 2030



In maritime cyber security,  
you need to be prepared not only for  
today or tomorrow but what is coming  
in next decade

**METSTA**

**Thank you!**

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