## Nasiering Maritime Efficiencev

with new digital communication standards

Webinar 1: Digitalizing Operational Communication Between Ship and Shore with ISO 28005

## DYNAPORT

#### ITS Norway





#### Agenda

#### **1. Introduction**

Alv Øidvin, Project Manager, ITS Norway

#### 2. ISO 28005-1

Ørnulf Jan Rødseth, Director Maritime ITS, ITS Norway

#### 3. ISO 28005-3

Marianne Hagaseth, Senior Research Scientist, SINTEF Ocean

## 4. Q&A





Sign up here for webinar 2 on nautical communication standards

May 14th 13:00 CET







# DYNAMIC NAVIGATION AND PORT CALL OPTIMISATION IN REAL TIME



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#### **DYNAPORT key facts**

R&D and University SINTEF (ma TUHH (mari		(maritime technology) (maritime logistics)	Simula (AI-based simulation) Aalborg Port R&D	
Ports	orts Aalborg I Harwich*		Barcelona* Rotterdam* Gothenburg*	
Shipping Companies	NCL (C Grieg S Latsco	(Container) <b>  Star</b> (Breakbulk, Drybulk) <b>:o</b> Marine Management (Tanker)*		
Equipment, Software & Services providers		NAVTOR (nagivation; voyage planning, port arrival) Kongsberg Norcontrol (vessel traffic; surveillance) Kongsberg Discovery (VDES equipment / systems) Space Norway (communication infrastructure)		
Standardization		ITS Norway (Maritime digital standardization) FixLog (Port digitalization) Norwegian Coastal Administration		
	Project title:	<b>DY</b> NAMIC <b>NA</b> VIGATION A	AND <b>P</b> ort Real <b>T</b> ime	
	EU Funding:	7,2 M€		
	Call: HORIZON-CL5-2023-D5-01-13			
		on: innovation action		



Budget:

8,8 M€

Consortium: 19 Partners (5 associated\*), 9 countries





## **DYNAMIC NAVIGATION AND PORT CALL OPTIMISATION IN REAL TIME**





- Reduced GHG & harmful emission at sea and port
- Improved supply chain
- Reduced resources and
- Economic sustainability



## **DYNAPORT WP5: Communication standards**

The International Taskforce on Port Call Optimisation (ITPCO): "...improve and standardise wherever feasible the exchange of nautical, administrative and operational data between ship and shore, ensuring all relevant parties are able to 

- Operational and administrative information standards:
  - ISO 28005-1/2/3 Electronic Port Clearance ٠
- Nautical information standards:
  - S-124 Navigational Warnings ٠
  - S-127 Marine Traffic Management (IHO) ٠
  - S-131 Marine Harbour Infrastructure (IHO) •
  - S-212 VTS Digital Information Service ٠
  - S-421 Route Exchange (IEC) ٠









#### **ENDORSERS**



International associations are invited to endorse the standards of IHO, IMO and ISO



## **Purpose of ISO 28005**







- Ship-centric ship-shore operational and administrative communication.
- Facilitate communication between all ships and • shore in all ports and countries.
- Technical specification enabling consistent development of APIs.

## **ISO 28005 conforms to the IMO Compendium**



Nautical data



## **Operational** data







#### **Administrative** data



## International collaborative effort





## 2000

• The FAL Compendium defined how the FAL Convention could be implemented by electronic means.

2019

DYNAPORT

## Main components of ISO 28005



A technical specification for development of a set of consistent APIs to support a business process. A data model where data elements can be selected to meet the requirements of the business process.

https://

Principles and semantics for data exchanges between ship and shore in line with IMO guidelines.

#### ISO 28005-1 (API design principles)





Message Implementation Guides (MIG) that specify the APIs to support a business process, e.g. maritime single window, just in time etc.

#### ISO 28005-2,3,... (business processes and data elements)

Source: A brief overview of ISO 28005, ISO TC8



#### Thank you for your attention!



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