

## A.I.Per.T. – anual meeting speech

"Harnessing AI for Enhanced Cargo Safety and Operational Efficiency in Modern Logistics"

Date: 10th of October 2024

Place: Genova

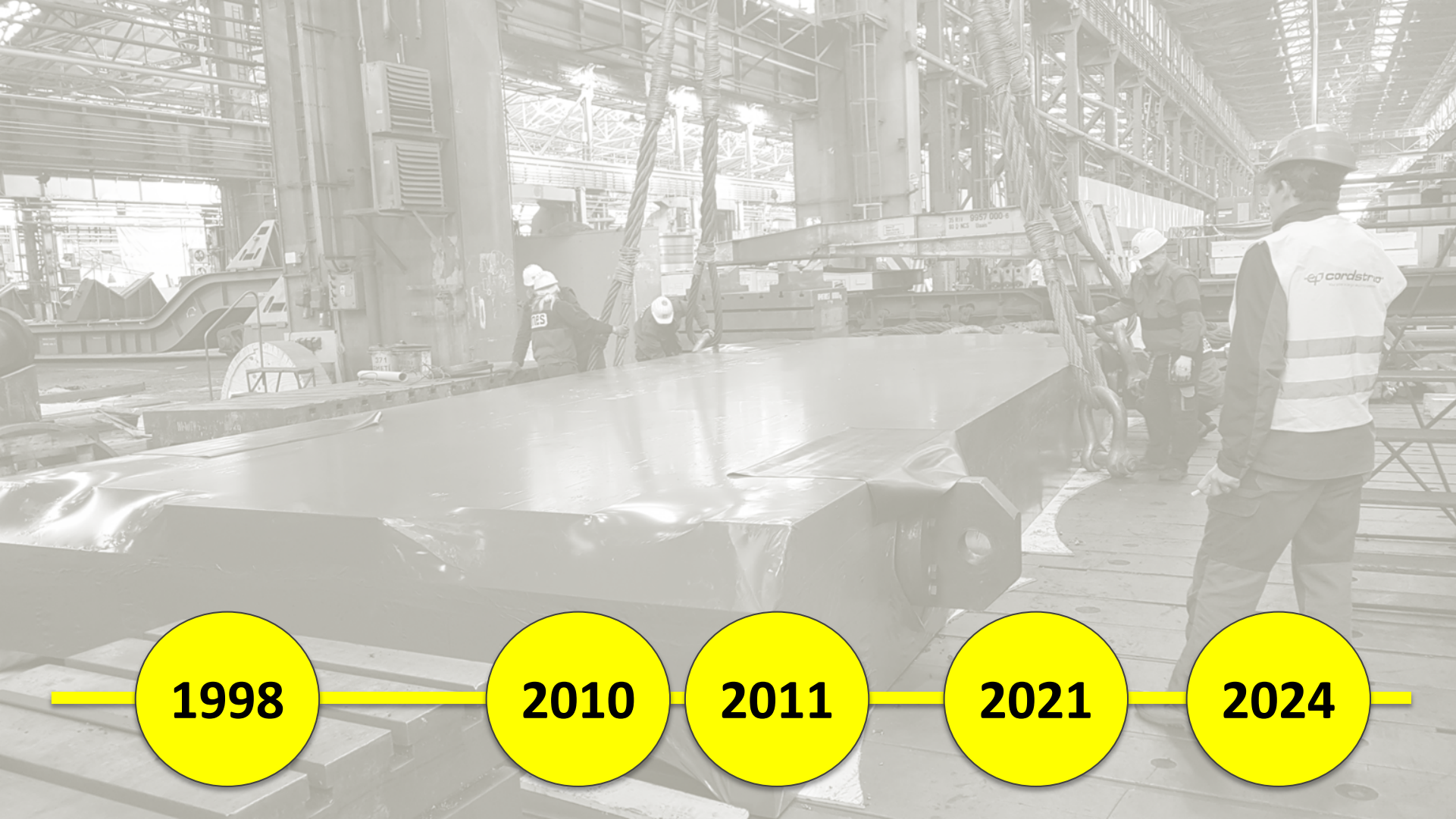
Presented by: David Marous, Mnager Technical Support, Cordstarap

***cordstrap***

The role of AI in addressing technical and operational challenges.

The overall positive impact AI can have on the Supply chain.





**1998**

**2010**

**2011**

**2021**

**2024**

***cordstrap***

# Our playground



PALLETIZING, UNITIZING AND  
BUNDLING



CONTAINER  
PROTECTION



HEAVY DUTY SECURING

# Our playground



PALLETIZING, UNITIZING AND  
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# HEALTH & LIFE



# ENVIRONMENT



# CARGO



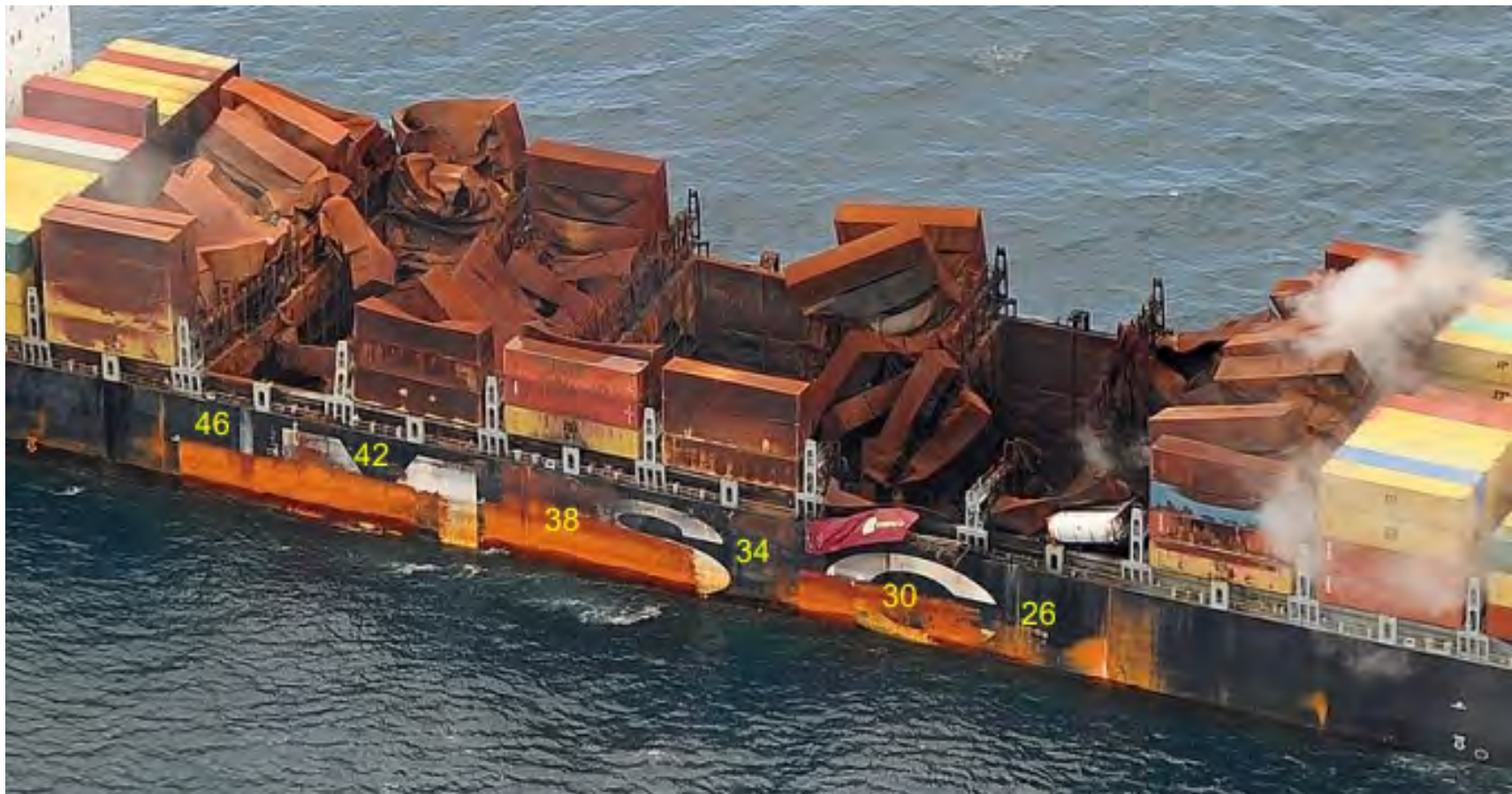
# CARGO



# ASSETS



# ASSETS
















# COST AND EFFECTIVITY

# EDUCATION

# RULES & REGULATIONS

# RULES & REGULATIONS

		Road	Sea	Railway	Intermodal
Europe		<ul style="list-style-type: none"> <li>EN 12915</li> <li>EN 12640</li> <li>EN 12642</li> </ul>	<ul style="list-style-type: none"> <li>CSS Code</li> <li>SOLAS</li> </ul>	<ul style="list-style-type: none"> <li>EN 16860</li> </ul>	<ul style="list-style-type: none"> <li>CTU Code of Practice</li> <li>SOLAS</li> </ul>
		<ul style="list-style-type: none"> <li>ADR</li> </ul> 	<ul style="list-style-type: none"> <li>IMDG Code</li> <li>SOLAS</li> </ul> 	<ul style="list-style-type: none"> <li>RID</li> </ul> 	<ul style="list-style-type: none"> <li>IMDG code</li> <li>CTU Code of Practice</li> <li>SOLAS</li> </ul> 
North America		<ul style="list-style-type: none"> <li>Federal bridge formula weight</li> <li>Road weight and size limitations by state</li> <li>Carrier safety</li> </ul>	<ul style="list-style-type: none"> <li>CSS Code</li> <li>SOLAS</li> </ul>	<ul style="list-style-type: none"> <li>Intermodal loading guide</li> <li>AAR open top loading rules manual</li> </ul>	<ul style="list-style-type: none"> <li>CTU Code of Practice</li> </ul>
		<ul style="list-style-type: none"> <li>Hazardous material safety</li> </ul> 	<ul style="list-style-type: none"> <li>IMDG</li> <li>SOLAS</li> </ul> 		<ul style="list-style-type: none"> <li>IMDG</li> <li>CTU Code of Practice</li> <li>SOLAS</li> </ul> 
Rest of World		<ul style="list-style-type: none"> <li>GOST 26653-2015 (Rusko)</li> <li>IRU standards</li> </ul>	<ul style="list-style-type: none"> <li>CSS Code</li> <li>SOLAS</li> </ul>	<ul style="list-style-type: none"> <li>GOST ... (Rusko)</li> <li>UIC standards</li> </ul>	<ul style="list-style-type: none"> <li>IMDG code</li> <li>CTU Code of Practice</li> <li>SOLAS</li> </ul>
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ISPM 15

ISPM 15

ISPM 15

VGM

# IMDG-Code 2020

IMDG-Code inkl. Amdt. 40-20

# Operational tasks

# EDUCATION

# EDUCATION





# IRREGULARITY OF TRANSPORT

# IRREGULARITY OF TRANSPORT



# PLANNING

# STANDARDIZATION OF CARGO SURVEY

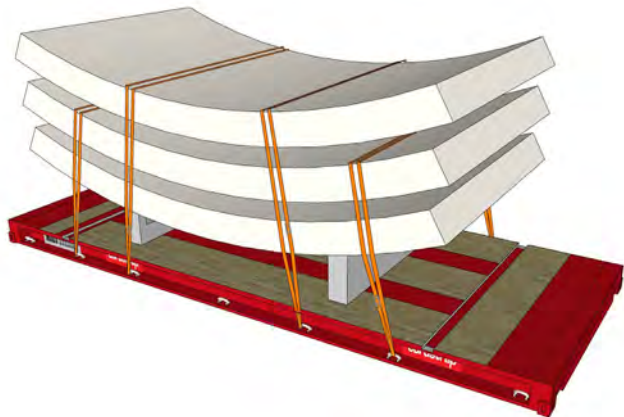
# STANDARDIZATION OF CARGO SURVEY

ing to EN 12195)

$$n \geq \frac{(c_{x,y} - \mu \times c_z) m \times g}{2\mu \times \sin \alpha \times F_T} f_s$$

Top segment  
Longitudinal

	Value	Units	Notes
m	21429	kg	(Strabag)
Cx	1		(longitudinal)
Cz	1		(relevant to long scenario)
g	9,81	m/s <sup>2</sup>	
μ	0,52		confirmed
α	80 °		update
Fs	1,1		originally 1,25
Fs=(Cx,y-μ*g)*Fs	110.995	N	force acting on the cargo
	7.500	N	Cordstrap (tensioner CBT 50)
= 2*STF*SIN α*μ	7.682	N	(assume max tension on both sides)
= Fs / effectivity	15		



# STANDARDIZATION OF CARGO SURVEY

## CTU CODE OF PRACTICE

# STANDARDIZATION OF CARGO SURVEY

**EN 16860**

**CTU CODE OF PRACTICE**

# STANDARDIZATION OF CARGO SURVEY

**EN 12195-1**

**EN 16860**

**CTU CODE OF PRACTICE**



# STANDARDIZATION OF CARGO SURVEY

**CSS CODE**

**EN 12195-1**

**EN 16860**

**CTU CODE OF PRACTICE**

# Technical tasks

# HANDLING UNIT STABILITY

# HANDLING UNIT STABILITY



# HANDLING UNIT STABILITY



# HANDLING UNIT STABILITY



# LOAD DISTRIBUTION

# LOAD DISTRIBUTION





# LOAD DISTRIBUTION



# AUTOMATION

# AUTOMATION



# CARGO MONITORING

# CARGO MONITORING



# CARGO MONITORING



# CARGO MONITORING



# SKILLS LOADING...





**CRITICAL THINKING**

**QUESTIONING**

**COOPERATION**

**COMMUNICATION**



# PROJECTS POWERED BY ai

# COIL LOADING

# COIL LOADING



# IDENTIFICATION OF LOADING PLANS



# PHOTOS ANALYSIS

# PHOTOS ANALYSIS





# TT CLUB INNOVATION IN SAFETY

**TT CLUB  
INNOVATION IN  
SAFETY**

**ICHCA**  
INTERNATIONAL

**TT**



**Thank you for your attention.**

**Don't panic !**