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**Transport Resilience against Cyber and Non-Cyber Events** to prevent Network Disruption

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# **BUILDING A BRIDGE BETWEEN KNOWLEDGE AND MARKET**







# Challenges

VUCA (Volatility, Uncertainty, Complexity, and Ambiguity)

### Transport is a highly vulnerable sector

Supply Chain becomes more complex and global

Freight transport increasingly depends on digital systems











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## Transport Resilience against Cyber and Non-Cyber Events to prevent Network Disruption

- Funding tool: HORIZON-CL3-2023-INFRA-01-02
- Topic: Supporting operators against cyber and non-cyber threats to reinforce the resilience of critical infrastructures – Innovation Action
- Duration: 36 months starting on September 1, 2024
- 21 partners
- Budget: around 5M€ (EC contribution: 4.38M€)  $\bullet$

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# TRANSCEND Consortium and pilots



### **THE REGULATORY AUTHORITIES**



INSTITUT LUXEMBOURGEOIS

**DE RÉGULATION** 







LE GOUVERNEMENT DU GRAND-DUCHÉ DE LUXEMBOURG Haut-Commissariat à la protection nationale



# TRANSCEND Objective and approach

## **Focus on Freight Transport**

**Objective:** Provide an integrated set of advanced tools, guidelines and technological solutions to reduce risk, and enhance the protection and resilience of their critical infrastructure and interrelated critical infrastructures against physical, cyber and hybrid threats.



# TRANSCEND Control Tower Concept

# Approach with embedded business intelligence to increase resilience of transport critical infrastructures

To build freight transport resilience by:

- improving transparency
- minimizing risks and exposure to shocks
- building capacity to resist
- absorbing and recovering from disruptive incidents



# TRANSCEND Expected results

### **IDENTIFIED VULNERABILITIES AND RISKS**

To define mitigation strategies and improve capacity to prevent, resist, absorb and recover from disruptive incidents

Vulnerability assessment

**Resilience** assessment

**Process mining analysis** 

Strengthened cooperation

### POLICIES AND **PROCEDURES**

Guidelines for a resilience plan

Resilience plan for each pilot

Security operational procedures

Inputs for a national risk assessment and resilience strategy

### **TECHNOLOGICAL SOLUTIONS**

To support implementation of policies and plans for costeffective risk reduction and resilience

Machine-readable threat modelling for large-scale simulations

State-of-the-art analysis and experimentation of physical and cyber detection technologies

ML/AI-based predictive models and algorithms to detect early signs of disruption

Generic TRANSCEND Control Tower

### **REAL WORLDS PILOTS**

To demonstrate the impacts of the TRANSCEND solutions to the freight transport sector

To secure cargo integrity

To coordinate capacities between CIs at the regional level

To monitor security incidents in multimodal transport

Concept for testing human behaviour and procedures in realistic attack scenarios









# Challenges



Facilitating collaboration & Proactive risk management

Managing complex interconnected relationships & New types of risks



Flexibility in adapting to emerging threat and technological changes



Seamless integration of NIS 2 & CER Directives





# Key takeaways

- NIS2 and CER are complementary
- Breaking silos is essential ullet
- ightarrowto energy



### Application to other critical sectors from healthcare



### **Public resources and upcoming events**









# Come and meet the team at the LIST booth!



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