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„Flexible, multi-modal and Robust Freight Transport” - FOR-FREIGHT

Horizon Europe

FOR FREIGHT

www.for-freight.eu

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Duration: 36 months.
Estimated cost of the project: 8,935,495.00 €
EU contribution requested: 7,151,677.50 €

Galati Tehnopol Association is part of the implementation consortium, together with 17 other partners from Romania, Austria, Belgium, Greece, Spain and Cyprus.

The FOR-FREIGHT project aims to maximize the use of multimodal freight transport capacity and reduce the average cost of freight transport by developing new solutions and integrating them with legacy logistics systems.

The project is in progress.

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USE CASE 1

Blockchain & Digital Twins to support Decision Making Process in multimodal transport combined with a Subway-Based Network for sustainable last-mile distribution (Spain).

USE CASE 2

Port-to-Airport multimodal freight transport: End-to-end optimization with DSS and real-time monitoring & control capabilities (Greece).

USE CASE 3

Riverport to warehouse hub via railway network - Galati Port (Romania).

Involved Technologies

1. Big Data
Development of a (Big) Data database for handling all the necessary non & real-time data
of warehouse's status, arrivals predictions, truck/vessel/cargo location & conditions

2. AI
Decision Support Systems (DSS) on use of resources and end-to-end multimodal transport planning optimization.

3. Robotics
Build an automated/teleoperated semi-autonomous robotic manipulator for cargo/load picking-up and placing activities.

4. Cloud Technology
Back-end Apps and APIs facilitating AI-based decision making, data processing & optimization

Involved Technologies

5. 4G/5G/Wi-Fi
E2E communication & interconnection of the diverse systems participating in the overall operations (customs clearance, air flight booking, etc.)

6. IoT
Monitoring of roller cages in real-time.

7. Digital Twins
Support flexible and dynamic E2E transport planning.

8. Blockchain (BC)
Supply Chain governance based on BC for time reduction in the administrative and operational processes, provided by a Hyperledger Fabric blockchain platform.

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Consortium

Project Coordinator: Dr. Georgia Ayfantopoulou

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Thank you!

Galati Tehnopol Association

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