DELPHI project: Coordinated mobility for passengers & freight!

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DELPHI

DELPHI at a glance

Key facts & Team

DELPHI key facts

- Full Title: FEDERATED NETWORK OF PLATFORMS FOR PASSENGER AND FREIGHT INTERMODALITY
- Project ID: 101104263
- Call and Topic: HORIZON-CL5-2022-D6-02-05 (“Advanced multimodal network and traffic management for seamless door-to-door mobility of passengers and freight transport”)
- Funded Under: Horizon Europe
- Funding Scheme: RIA –Research and Innovation Action
- Duration: 36 months, 01 July 2023 – 30 June 2026
- Total Cost/EU contribution: EUR 4,999,561.5
- Project Coordinator: Institute of Communication and Computer Systems (ICCS)

Funded by the European Union

DELPHI project has received funding under grant agreement No 101104263. It is funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Climate, Infrastructure and Environment Executive Agency (CINEA). Neither the European Union nor the granting authority can be held responsible for them.

DELPHI consortium

DELPHI brings together a complementary consortium:

- of 16 partners (+1 associated partner and 1 affiliated entity),
- from 8 EU and associated countries

with the view to address the growing challenges of passenger and freight mobility.

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DELPHI’s vision

Concept, Objectives & Use Cases

DELPHI concept

DELPHI focuses on the strategic dimension of **integrating passenger and freight transport** in a single system, working towards integrating sectors, harmonizing data, and leveraging advanced methodologies, to transform transportation systems, for a sustainable future.

1st pillar
Governance, Ecosystem specification

2nd pillar
Architecture, Data, Processing, Optimisation

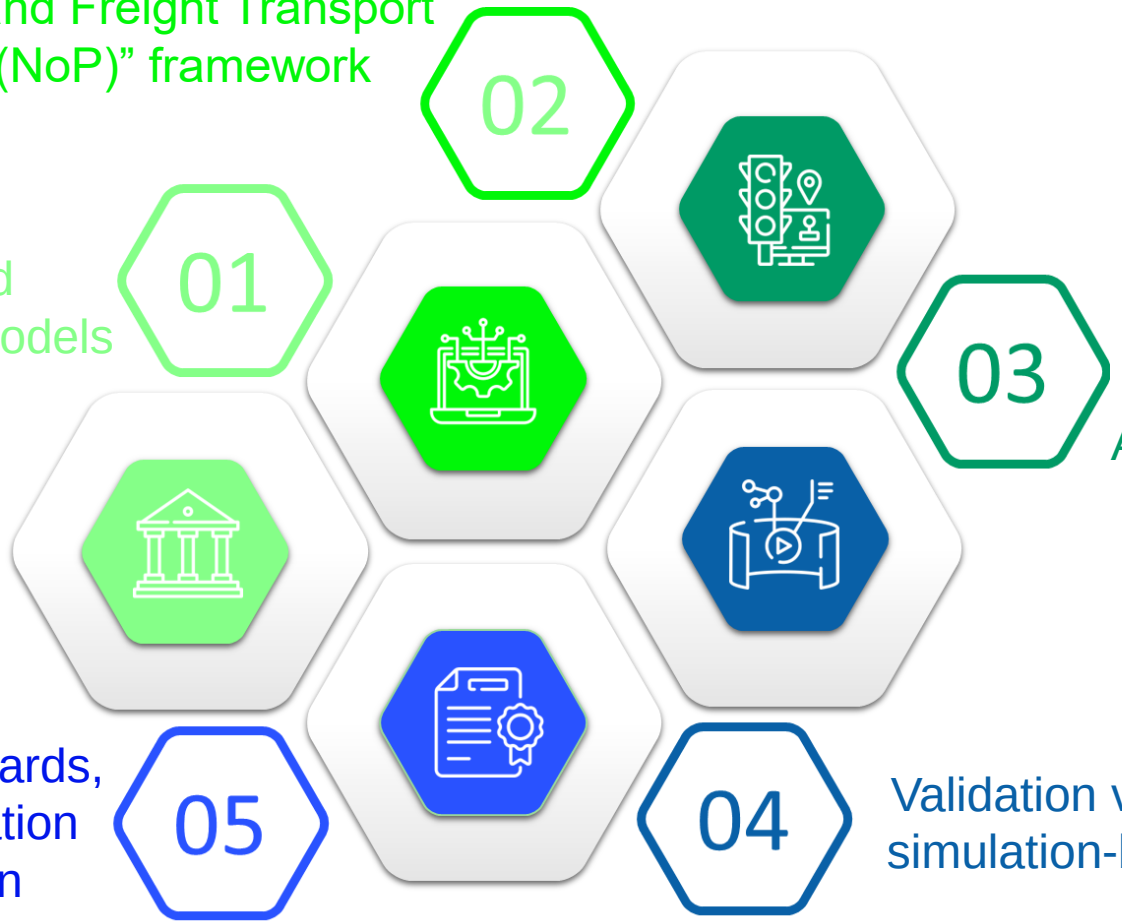
3rd pillar
DELPHI Validation activities through realistic pilot demonstrations

DELPHI objectives

02 "Multimodal Passenger and Freight Transport Network of Platforms (NoP)" framework

01 Novel governance and regulatory schemes and models

03 AI/ML-powered transport network and traffic management (TNTM) optimisation framework

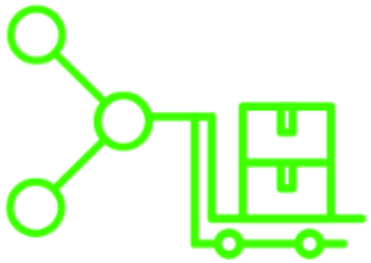


05 Compatibility with EU standards, contribution to standardization and impact maximization

04 Validation via 4 pilots and simulation-based analysis

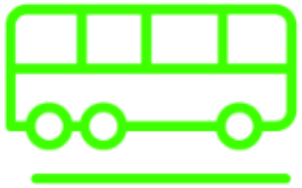
DELPHI use-cases

DELPHI's federated ecosystem will be extensively evaluated in real life settings through four pilot demonstrations across the participating transportation networks located in Spain (**Madrid**), Greece (**Athens and Mykonos**), and Romania (**Cluj-Napoca**).



USE CASE #1
Multimodal transport for a Sustainable LMD supported by blockchain for sharing economy in the e-commerce Channel (Spain)

USE CASE #2
Integrated freight and passengers' models and data sharing framework in the Attica region (Greece)



USE CASE #3
Integrated freight and passengers' models and data sharing framework at the island of Mykonos (Greece)

USE CASE #4
Integrated passengers' models and data sharing governance framework in the Cluj-Napoca Metropolitan Area (Romania)

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DELPHI’s impact

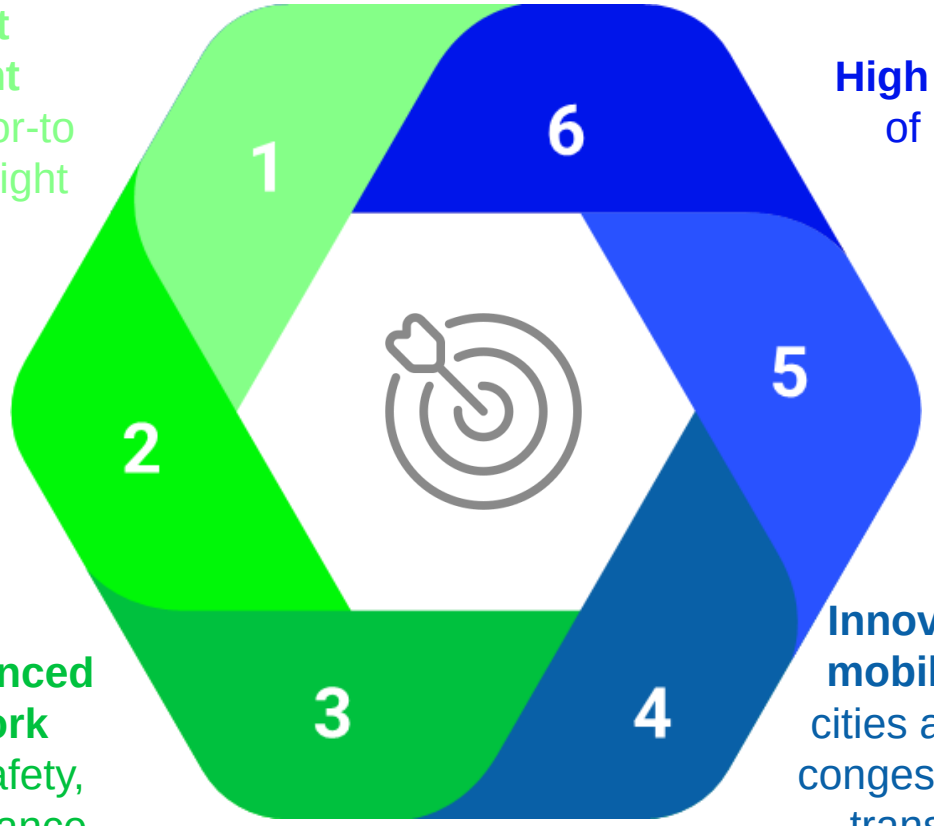
Expected impact

DELPHI's Impact

Improved multimodal transport network and **traffic management** capabilities, facilitating seamless door-to door mobility for passengers and freight

Effective and **resilient network-wide data exchange** and new integrated data management systems for **dynamic and responsive** multimodal network and traffic management

Tested and validated systems for **enhanced prediction and resolution of network** bottlenecks, substantially increasing safety, security, resilience and overall performance of the entire transport network



High market adoption and **transferability** of innovations to different ecosystems

New governance arrangements for multimodal transport network and traffic management, in view of further regulatory and policy actions.

Innovative tools and services for optimising **mobility flows of passengers and freight** in cities and other operating environments, cutting congestion, journey times and traffic jams across transport modes, and thereby **significantly reducing emissions** (CO_2, SOx, NOx, particles, noise)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Thank you!