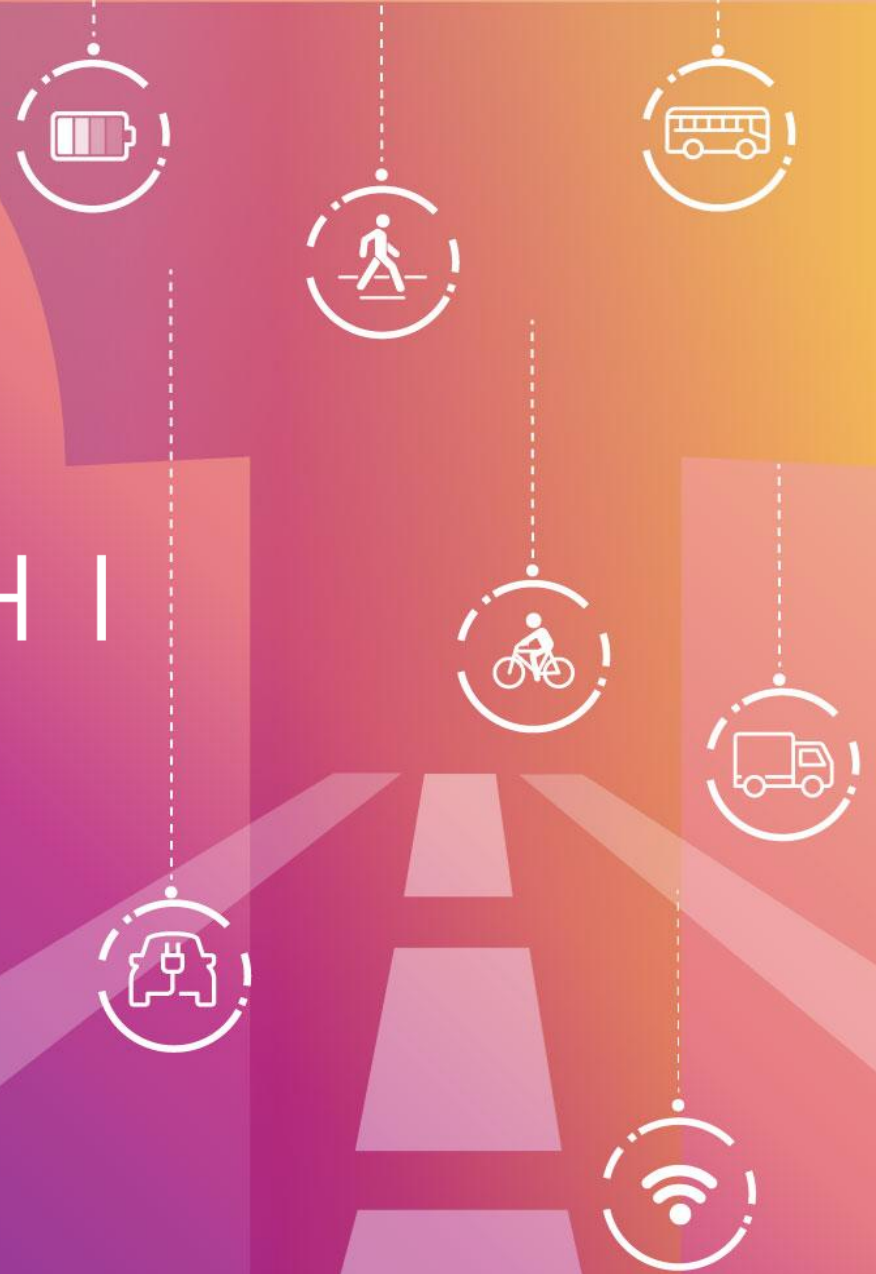




DELPHI

RTR Conference 2025

Multimodal traffic management for door-to-door transport of passengers and freight



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 101104263





DELPHI at a glance

DELPHI – Key facts & Team

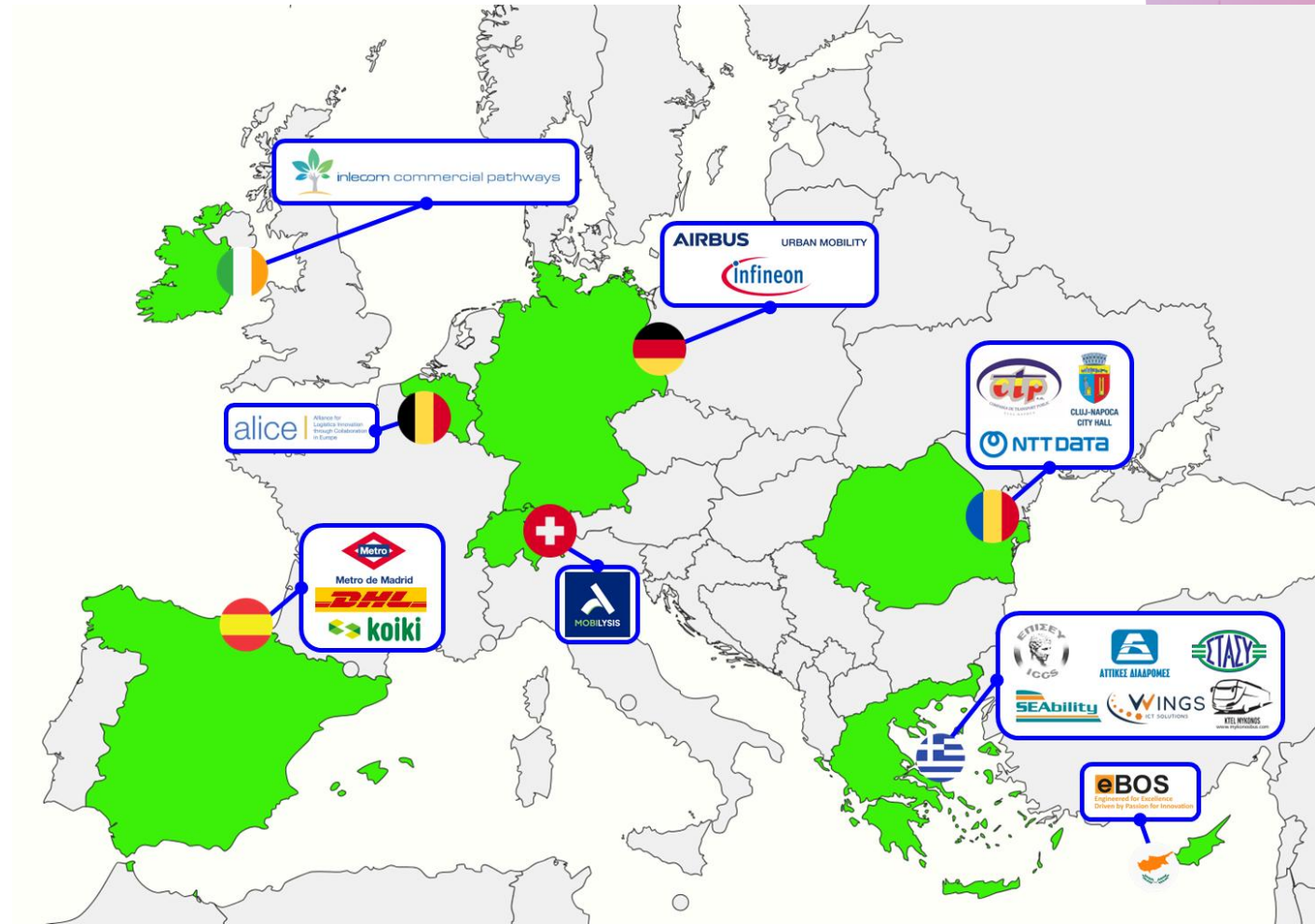
- **Full Title:** FeDerated nEtnetwork of pLatforms for Passenger and freiHt Intermodality
- **Project ID:** 101104263
- **Call and Topic:** HORIZON-CL5-2022-D6-02-05 (“Advanced multimodal network and traffic management for seamless door-to-door mobility of passengers and freight transport”)
- **Funded 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)

DELPHI – Key facts & Team

DELPHI brings together a complementary consortium:

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

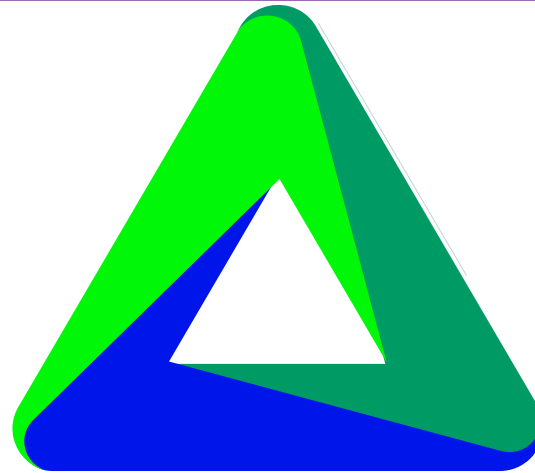
with the vision to address the growing challenges of passenger and freight mobility.



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

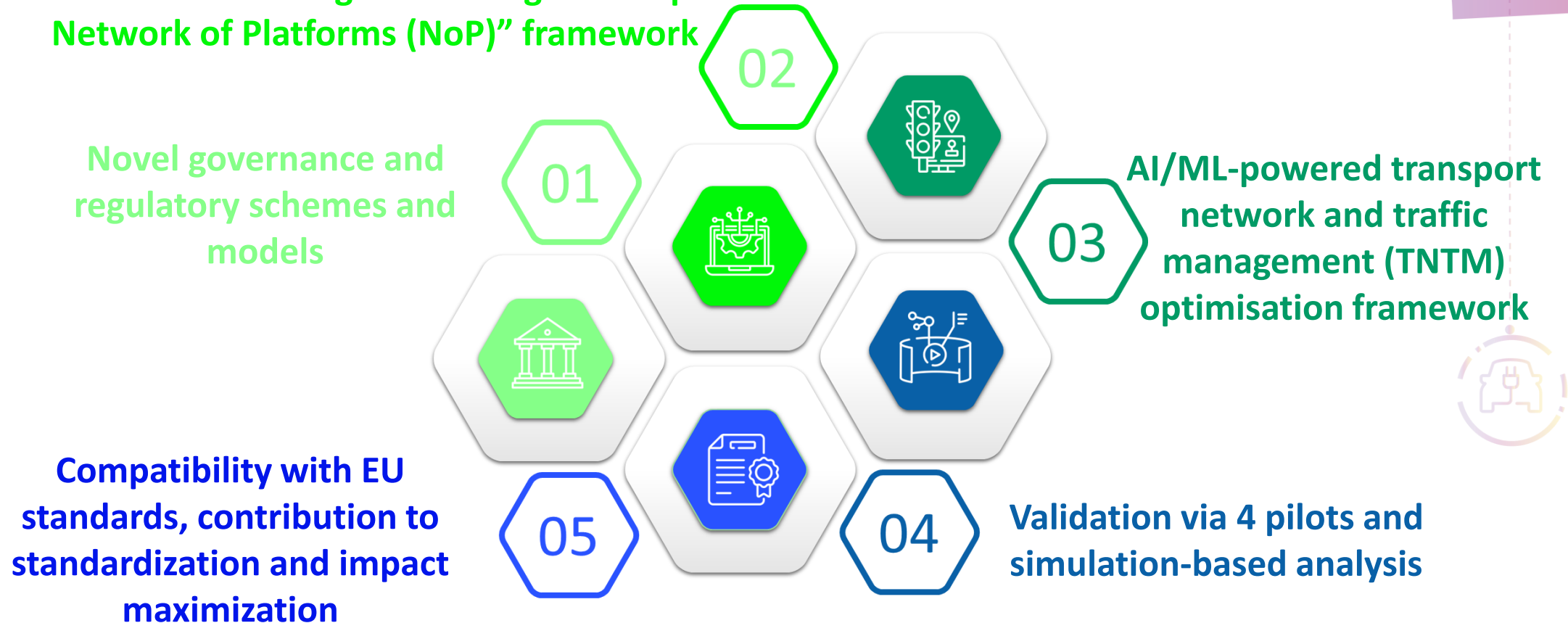


2nd pillar
Architecture, Data, Processing,
Optimisation

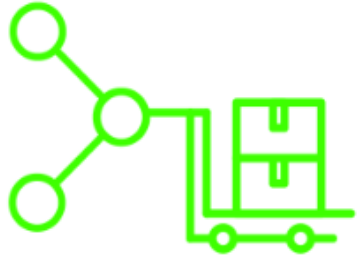
3rd pillar
DELPHI Validation activities through realistic pilot
demonstrations

DELPHI Objectives

“Multimodal Passenger and Freight Transport Network of Platforms (NoP)” framework



DELPHI – Use Cases



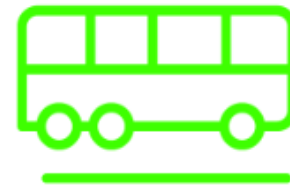
MADRID USE CASE

Multimodal transport for a Sustainable LMD for sharing economy in the e-commerce Channel.
Based on combined passenger and freight traffic over the Madrid metro network (Spain)



ATTICA USE CASE

Optimized freight and passenger traffic models and data sharing framework in the Attica transport network (Greece)



MYKONOS USE CASE

Integrated freight and passengers' models and data sharing framework taking advantage of the fleet of the public transport network to optimize traffic between main hubs and interest points (port, airport and Mykonos city) (Greece)



CLUJ-NAPOCA USE CASE

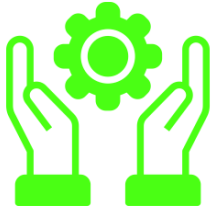
Integrated freight and passengers' data sharing and relevant governance framework in the Cluj-Napoca Metropolitan Area based on the creation of an IDSA compliant dataspace (Romania)



Results presentation

DELPHI – Achievements so far (1/2)

DELPHI has just entered M20 of its duration. Project's main achievements so far include:



*Completion the **Use Cases design***



*Participation in **MTM Cluster** for the promotion of results of traffic management projects and the generation of a relative Roadmap*

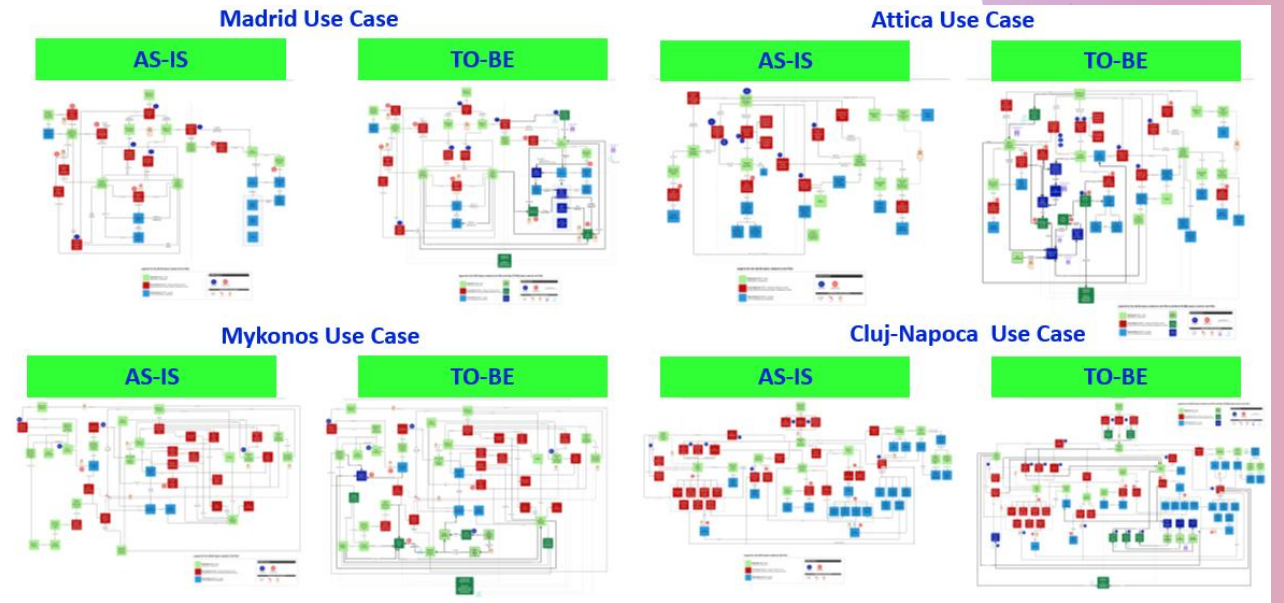


*Generation of a combined passenger and freight traffic **governance framework** including 21 tailored recommendations*

DELPHI's Governance Framework - Methodology

1. Data collection and analysis:

- Working sessions per DELPHI pilot that led to the co-creation of the AS-IS and TO-BE setups associated with each pilot



- the DELPHI WP2 **Questionnaire** addressed to Advisory Board members, Frontier Projects Cluster and Consortium Partners, with focus on the following critical aspects:
 - a) Multilevel Governance of Urban Mobility
 - b) Stakeholder Roles and Engagement
 - c) Policies Related to Urban Mobility for Passengers and Freight

DELPHI's Governance Framework - Methodology

2. Recommendations:

The aforementioned actions resulted in the consolidation of 21 recommendations* that constitute the backbone of **DELPHI Novel Integrated Mobility Governance framework (DeNIM-Gov)**, including among others the following key areas:

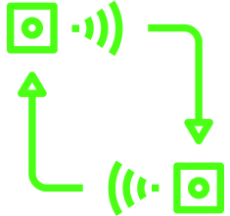
- *data interoperability*
- *development of a shared vision and collaborative business models*
- *harmonization of regulations across sectors and jurisdictions*
- *smart contracts and dynamic data sharing protocols*

DeNIM-Gov is to be validated through the DELPHI pilot implementations and constitutes the suggested framework for **DELPHI town**.

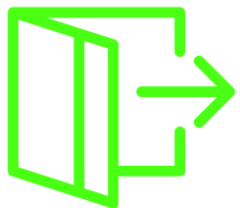
DELPHI – Achievements so far (2/2)



Drone flights completion for the gathering of real time traffic data



Sensor & camera network for data collection at junction points deployed



Acquired the required datasets for the development of the optimization models



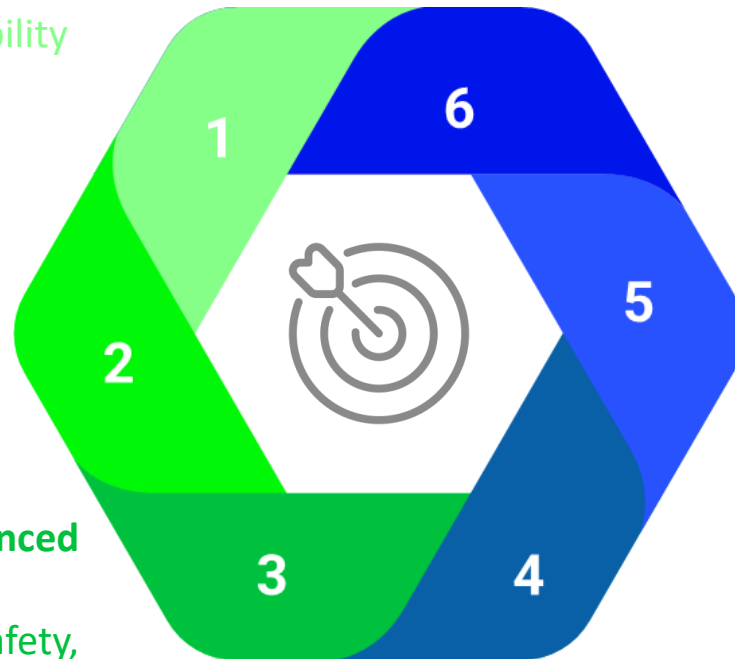
Mid to long term expected impacts of the project

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 (CO₂, SO_x, NO_x, particles, noise)



THANK YOU



www.delphi-project.eu



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