



# Overview EU projects on traffic management

SYNCHROMODE and ACUMEN

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**Ai-aided deCision tool for seamless mUltiModal nEtwork and traffic management**

**Facilitating the  
access to seamless mobility**






# Project in a nutshell

ACUMEN's mission is to ensure seamless, sustainable and safe door-to-door travel for people and goods.

To reach this aim ACUMEN will be implementing:

-  **Secure and Decentralized Data Framework**  
ACUMEN is designing a robust, privacy-preserving, and decentralized **data framework that facilitates real-time information sharing among mobility providers and operators.**
-  **Advanced Monitoring and Forecasting**  
ACUMEN is developing cutting-edge monitoring and forecasting tools with exceptional accuracy. These tools empower stakeholders to **analyse and predict traffic patterns, supporting proactive management strategies**
-  **Decision-Making and Management Solutions**  
ACUMEN aims to create and test new **decision-making and management solutions** that operate at various urban scales



# Key concepts and pilots

## ACUMEN's Key Concepts:

- ▶ Shared and distributed Intelligence
- ▶ Stakeholder Integration
- ▶ Multi- level human centred design
- ▶ ACUMEN conceptual architecture, digital models, tools and city twins
- ▶ Pilot demonstrations

## Pilot demonstrations:

- ▶ **Athens:** Including the integration of transport and logistics into digital twins
- ▶ **Helsinki:** Incentivising users to manage traffic
- ▶ **Amsterdam:** Enabling coordinated multimodal management during incidents
- ▶ **Luxembourg:** Optimising multimodal mobility services





# Outputs and opportunities

- ▶ Creation of a Reference Group (i.e., Policymakers; Technology suppliers; Mobility providers; Traffic managers)
- ▶ Management and decision digital tools
- ▶ ACUMEN Platform
- ▶ Impact assessment and guidelines
- ▶ Open data
- ▶ Set up four workshops

Opportunity for members





**SYNCHROMODE**



# Project in a nutshell

SYNCHROMODE is a three-year Horizon Europe (2023-2026) project that will deliver a suite of services for **improving the overall transport network management, fostering the coordination of different agents** involved in the provision and control of the transport services.

These services are:

- Transport network-wide data exchange and integration system;
- Cooperative dashboard for real-time monitoring and prediction of network-wide multimodal transport and traffic;
- Resilient multimodal transport network and traffic management support tool

Funded by the European Commission under the Research and Innovation Programme, which started in May 2023 and will end in April 2026.

# Key concepts and pilots

- SYNCHROMODE aims to develop **data-driven ICT tools** for improving the management of transport operations from a multimodal perspective and managing the overall transport network as a whole.
- SYNCHROMODE will provide to transport managers **new predictive and network optimization capabilities for balancing the transport supply and demand**, and capable of reacting to different types of events.



SYNCHROMODE tests and validates its results in **3 real case studies**, Thessaloniki (GR), Netherlands (NL) and Madrid (SP), with real data from various modes of transport under different traffic events, such as bottlenecks, accidents etc







# SYNCHROMODE's OBJECTIVES

## Objectives

- To develop advanced **multi-actor cooperation models for multimodal mobility service operation**, network and traffic management
- To develop a set of **new interoperable solutions for data gathering**, harmonisation, fusion and analysis
- To **perform simulations** for assessing the impacts of the provision of the most efficient and effective multimodal traffic management strategies, capable of reacting to various events disrupting the transport network
- To integrate models, algorithms and tools in the SYNCHROMODE toolbox, for an efficient multimodal traffic management framework
- To develop a **framework guiding through replication capabilities** for innovative multimodal traffic management in Europe, relying on interoperability and scalability capabilities of the developed services and the SYNCHROMODE toolbox

## Future Opportunities for members

- Liaison with ACUMEN and DELPHI
- Participation in local (per case study) activities and workshops





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