

Partners

ACUMEN draws on a wide range of multidisciplinary expertise. The project, led by Aalto University, will run until 2026 and includes the following partners:



For more information

Contact the project coordinator:

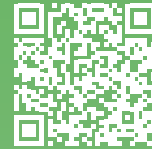
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Ai-aided decision tool for seamless multimodal network and traffic management



ACUMEN aims to facilitate access to seamless, environmentally friendly mobility

The project was born out of the realisation that addressing the complexities of multimodal transport - meeting the needs of travellers, improving safety, reducing congestion and contributing to decarbonisation - is no small task.

ACUMEN addresses these challenges with the following solutions:

Secure and Distributed Data Framework:

ACUMEN is developing a robust, privacy-preserving and decentralised data framework that enables real-time information sharing between mobility providers. This promotes collaboration and informed decision-making.

Advanced Monitoring and Prediction:

Using explainable AI and hybrid intelligence, ACUMEN is developing state-of-the-art tools for accurate traffic analysis. Stakeholders can predict and proactively manage traffic patterns.

Decision-making and Management Solutions:

ACUMEN aims to provide optimised urban management solutions. From intersections to fleet management, ACUMEN promotes cooperation between mobility providers and increases efficiency.

ACUMEN's mission is clear – **to create a methodological and technological framework that combines mobility modelling, data processing, forecasting and visualisation.**

Using digital twins and hybrid intelligence, ACUMEN is developing tools that foster human-AI collaboration for smart cities.

Pilots

To achieve its objectives, ACUMEN will carry out a series of real and virtual pilots in four EU cities.

These pilots will address different aspects, including the development and evaluation of an innovative mobility platform to support decision-making in the metropolitan area (Athens), incentivising users to manage multimodal traffic (Helsinki), enabling coordinated multimodal management during incidents (Amsterdam), and optimising multimodal mobility services (Luxembourg).

These methods and tools will enable Mobility-as-a-Service (MaaS) and logistics services, transform data sharing and orchestrate efficient effects at network level.



Paving the way towards sustainable transport

ACUMEN's long-term vision revolves around an adaptable and customisable digital twin platform that allows seamless integration with existing systems. To ensure widespread adoption beyond the scope of the project, ACUMEN will develop AI-based decision support tools for multimodal management and facilitate communication with relevant stakeholders.

As a result, ACUMEN aims to increase the share of sustainable transport modes, improve the integration of multimodal transport and logistics chains, and reduce the cost of mobility for citizens, industry, SMEs and public authorities. Through an improved and resilient infrastructure, ACUMEN will pave the way for a cleaner, safer, and more inclusive future of urban mobility.

