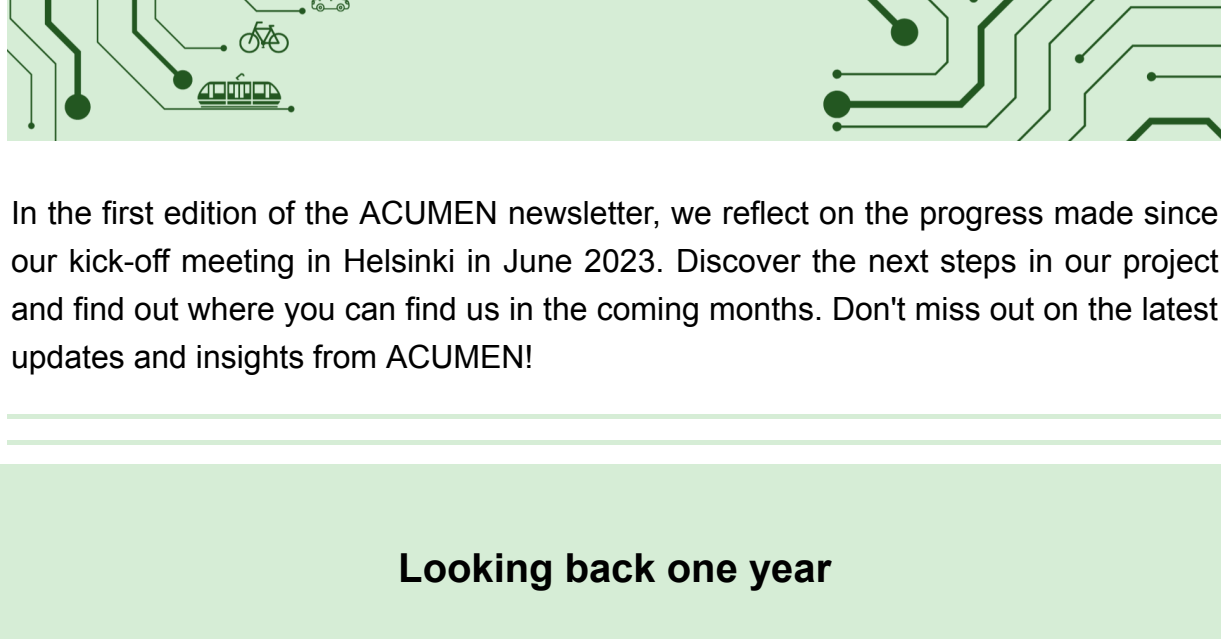
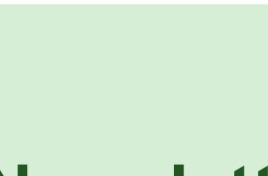


[View this email in your browser](#)



In the first edition of the ACUMEN newsletter, we reflect on the progress made since our kick-off meeting in Helsinki in June 2023. Discover the next steps in our project and find out where you can find us in the coming months. Don't miss out on the latest updates and insights from ACUMEN!

### Looking back one year

As we approach the end of 2024, we can reflect on an exciting and productive period since the launch of ACUMEN (AI-aided deCision tool for seamless mUltimodal nEtwork and traffic manageMent) in June 2023. This period has been marked by significant progress in our mission to innovate multimodal network and traffic management across Europe. We have made concrete progress in developing our methodologies and initiating pilot activities in our partner cities, while actively involving stakeholders from different sectors that are crucial for mobility and traffic management.

The importance of ACUMEN's work cannot be overstated in today's rapidly evolving urban landscapes. As our cities face increasing pressure on their transport networks, our project is at the forefront of addressing critical challenges such as congestion, pollution and the need for seamless multimodal integration. These are not just transport issues - they have a direct impact on our quality of life, economic productivity and environmental sustainability.

In this newsletter you will find highlights of our achievements over the past six months. These include updates on our progress in developing our privacy-preserving data sharing framework, breakthroughs in our AI-powered traffic prediction models, and insights from our work with mobility providers and city authorities to implement our decision support tools. In addition, our participation in the Multimodal Traffic Management (MTM) cluster ensures that our solutions are not developed in isolation, but are grounded in real-world needs and aligned with broader European goals for sustainable and intelligent mobility.

Looking ahead to 2025, ACUMEN is poised for even greater impact. We expect to see significant advances in the development and implementation of our technological and methodological framework, as well as its experimentation in the four pilots in European cities. These advances have the potential to transform the way we move within and between our cities, enabling more responsive, efficient and sustainable urban mobility.

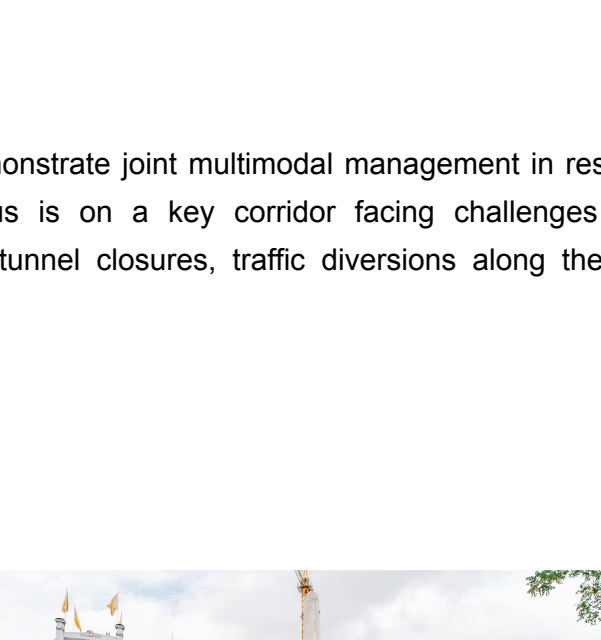
As we continue our journey, ACUMEN remains committed to its vision of smarter, more efficient and more sustainable seamless mobility. Our work isn't just about managing traffic; it's about improving the quality of life in our cities, fostering collaboration between mobility providers, and contributing to the EU's decarbonisation goals. We look forward to sharing our progress and working together to create more liveable and sustainable cities for all Europeans.

Yours sincerely,

Claudio Roncoli  
Coordinator - ACUMEN

### Meet our Pilots

To test and demonstrate the effectiveness of the ACUMEN approach, we have developed a series of four real-life and virtual pilots. Get to know them:



#### Athens

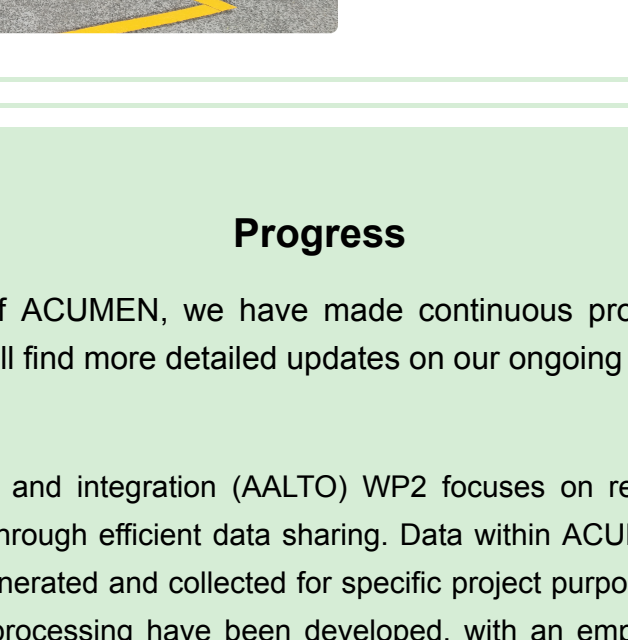
The pilot aims to develop a comprehensive mobility platform that collects multimodal data from different sources and provides traffic and transport analysis, short-term forecasts, and a simulation tool. It will be integrated into a Digital Twin for Athens.

[Learn more](#)

#### Amsterdam

The pilots aim to demonstrate joint multimodal management in response to infrastructure disruptions. The focus is on a key corridor facing challenges due to a bottleneck. Disruptions result in tunnel closures, traffic diversions along the ring road and longer journey times.

[Learn more](#)



#### Helsinki

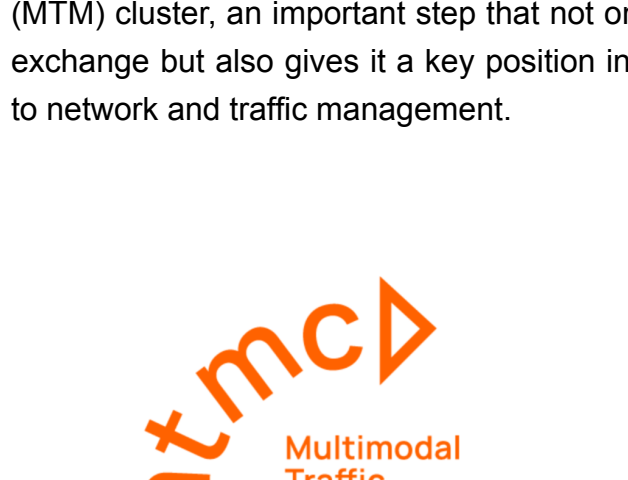
The pilot aims to dynamically influence travellers' route and mode choices in terms of sustainability and citizens' well-being by investigating dynamic traffic restriction zones (RZ) in the Helsinki West Harbour area.

[Learn more](#)

#### Contern

The pilot aims to demonstrate the seamless on-demand mobility of conventional and automated vehicles, focusing on people travelling to and from mobility hubs (e.g. train stations), with the possible combination of goods delivery. Both conventional and autonomous shuttles will be used, offering increased responsiveness and integration with public transport.

[Learn more](#)



### Progress

Since the launch of ACUMEN, we have made continuous progress in a range of areas. Below you will find more detailed updates on our ongoing work:

**WP2 - Data sharing and integration (AALTO)** WP2 focuses on real-time transport and traffic management through efficient data sharing. Data within ACUMEN will be classified as re-used, newly generated and collected for specific project purposes. Specifications for data collection and processing have been developed, with an emphasis on privacy and security. An innovative data fusion framework integrating sources such as drones will be refined to detect unexpected mobility patterns and improve overall network performance.

**WP3 - Traffic Demand and Supply Forecasting (NTUA)** WP3 will develop advanced models to predict future traffic demand and conditions at key locations. These models will help authorities to make informed and timely decisions to prevent congestion. The models will be enhanced with human-in-the-loop mechanisms to allow human intervention when forecasts are uncertain, improving reliability and accuracy.

**WP4 - Seamless Mobility Management** WP4 (TU Delft) explores AI-driven traffic management to reduce urban delays and congestion. Key discussions at the consortium's plenary meeting in Naples focused on the use of AI to improve traffic management by integrating different modes of transport. Future efforts will prioritise strategies such as path pricing and multimodal route guidance.

**WP5 - Digital Twin Development (LIST)** WP5 is progressing with the development of the ACUMEN Digital Twin, a microservice architecture that integrates the mobility management tools from WP2, WP3 and WP4. Key components such as the data manager and the API gateway have been deployed, with further enhancements planned for scenario management and 2D visualisation.

**WP6 - Pilots and demonstrators (UNI.LU)** An in-depth update on WP6 will be provided in the next issue of the newsletter after the workshops (details below).

**WP7 - Capacity Building (POLIS)** Four online workshops, each focusing on a different pilot city, will discuss and promote the ACUMEN governance framework for AI-driven traffic management, involving the main traffic management stakeholders in each city. The workshops will take place in Luxembourg/Conten (November 2024), Helsinki (December 2024), Athens (December 2024) and Amsterdam (January 2025).

### MTM Cluster

ACUMEN has recently become a member of the Multimodal Traffic Management (MTM) cluster, an important step that not only provides an opportunity for knowledge exchange but also gives it a key position in shaping the European Union's approach to network and traffic management.



#### Introducing the MTM Cluster

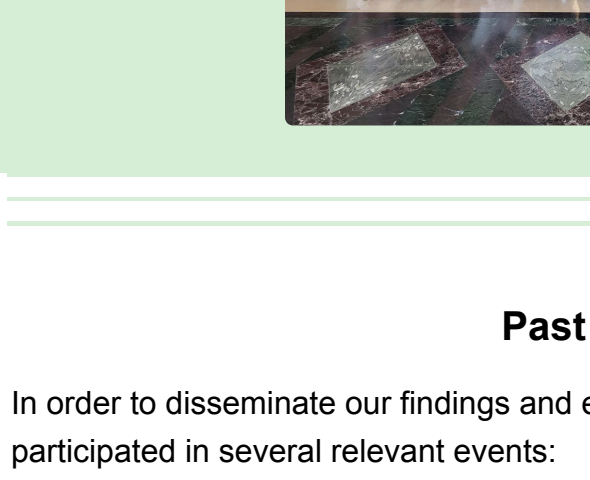
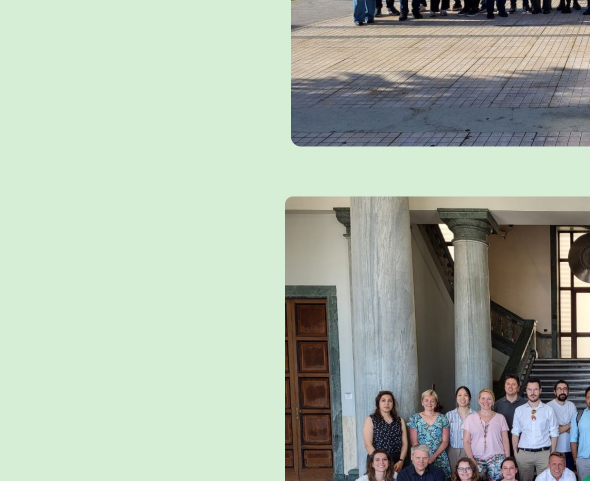
Curious about the main objective of the MTM cluster, its future goals and its current objectives? Want to know how ACUMEN fits into the picture? Discover all this and more in our article introducing the MTM Cluster.

[Learn more](#)

#### Policy brief on data sharing for improved traffic management

The Multimodal Traffic Management Cluster has published a new policy brief focusing on data sharing for traffic management. This collaboration between EU-funded traffic management projects aims to improve traffic management strategies through better data sharing and governance.

[Learn more](#)



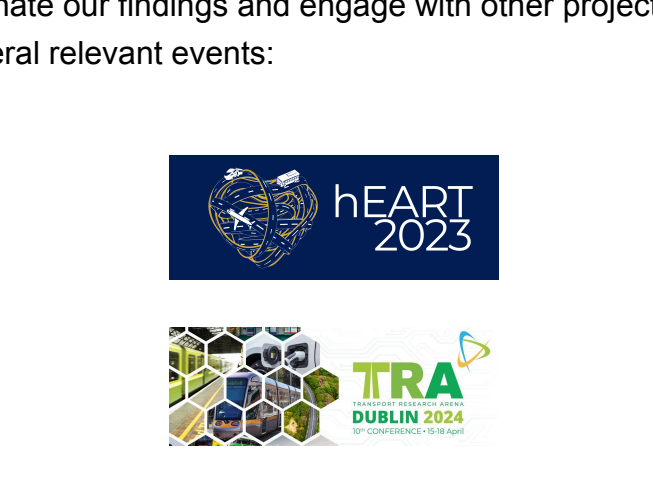
#### Multimodal Traffic Management Cluster Roadmap

This MTM Roadmap sets forth a comprehensive strategic vision to transform Europe's transport networks into multimodal, sustainable, and resilient systems, aligning with EU climate neutrality and resilience goals and preparing the transport sector for future challenges and opportunities.

[Learn more](#)

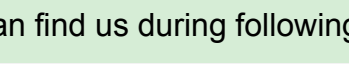
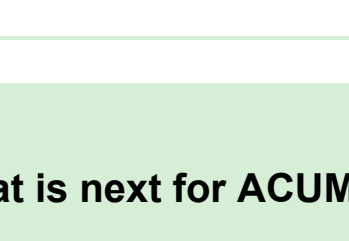
### Internal Meetings

Since our kick-off meeting in Helsinki, partners have had the opportunity to meet in Athens in January and in Naples in July to discuss challenges, progress and next steps.



### Past Events

In order to disseminate our findings and engage with other projects and initiatives, we participated in several relevant events:



### What is next for ACUMEN?

In the following months you can find us during following events:



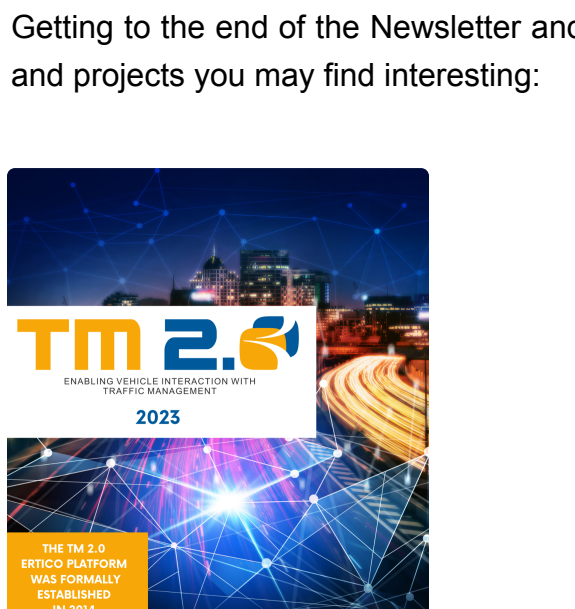
## Workshops

The first workshop, focusing on the Contern Pilot, will take place online on Thursday 14 November. Further details, including the agenda and registration link, will be communicated in the coming weeks.

## Webinar

ACUMEN will participate in the MTMC webinar "Network and Traffic Management: Current status and future developments in EU R&D activities" on 12 November 2024 from 11:00 - 12:30.

[Register here](#)



## Resources

Getting to the end of the Newsletter and looking for more? Here are some resources and projects you may find interesting:

### TM2.0 Innovation platform

This platform provides a discussion forum around the topic of interactive traffic management for all relevant stakeholders in the entire Traffic Management Procedure value chain. The platform aims to agree on common interfaces, principles and business models, which can facilitate the exchange of data and information between road vehicles and Traffic Management and Control Centres.

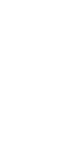
[Learn more](#)

### How traffic data can make cities safer and more efficient

Urban regions are evolving beyond the traditional notion of a single urban hub, transforming into vast networks of interconnected, urbanized areas. Given this scenario, cities face the challenge of minimizing the environmental impact of traffic, enhancing the sustainability of urban spaces, and optimizing the use of their resources.



[Learn more](#)



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