



M O M E N T U M

Modelling Emerging Transport
Solutions for Urban Mobility

Introduction, Structure and Project

Sergio Fernández Balaguer (EMT)
Mid-term Webinar, 4th March 2021



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 815069



Explanation of Miro & MentiMeter by Maria José Rojo

Our interactive tools

Mentimeter

- Go to www.menti.com
- Use code: **50 79 50 2**
- Several questions per presentation
- Use second screen or smartphone

miro

- https://miro.com/app/board/o9J_IR3SoOA=
- You can state your questions on a post-it
- Please put post-it in the right field
- If preferred, leave name and email on post-it
- Moderators might answer questions by email

You can find the links and access codes also in the chat!

How can you reach us?

Social Media:

Website: <https://h2020-momentum.eu/>

Twitter: @H2020_MOMENTUM

LinkedIn Group: <https://www.linkedin.com/groups/13733245/>

Coordination:

Irene Blázquez irene.blazquez@emtmadrid.es

Technical coordination:

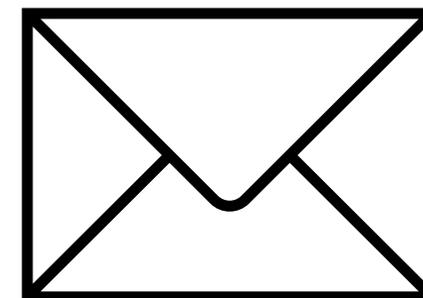
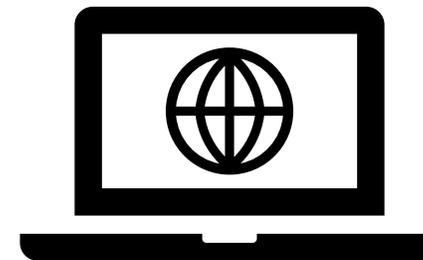
Javier Burrieza Javier.Burrieza@nommon.es

Oliva García Cantú oliva.garcia-cantu@nommon.es

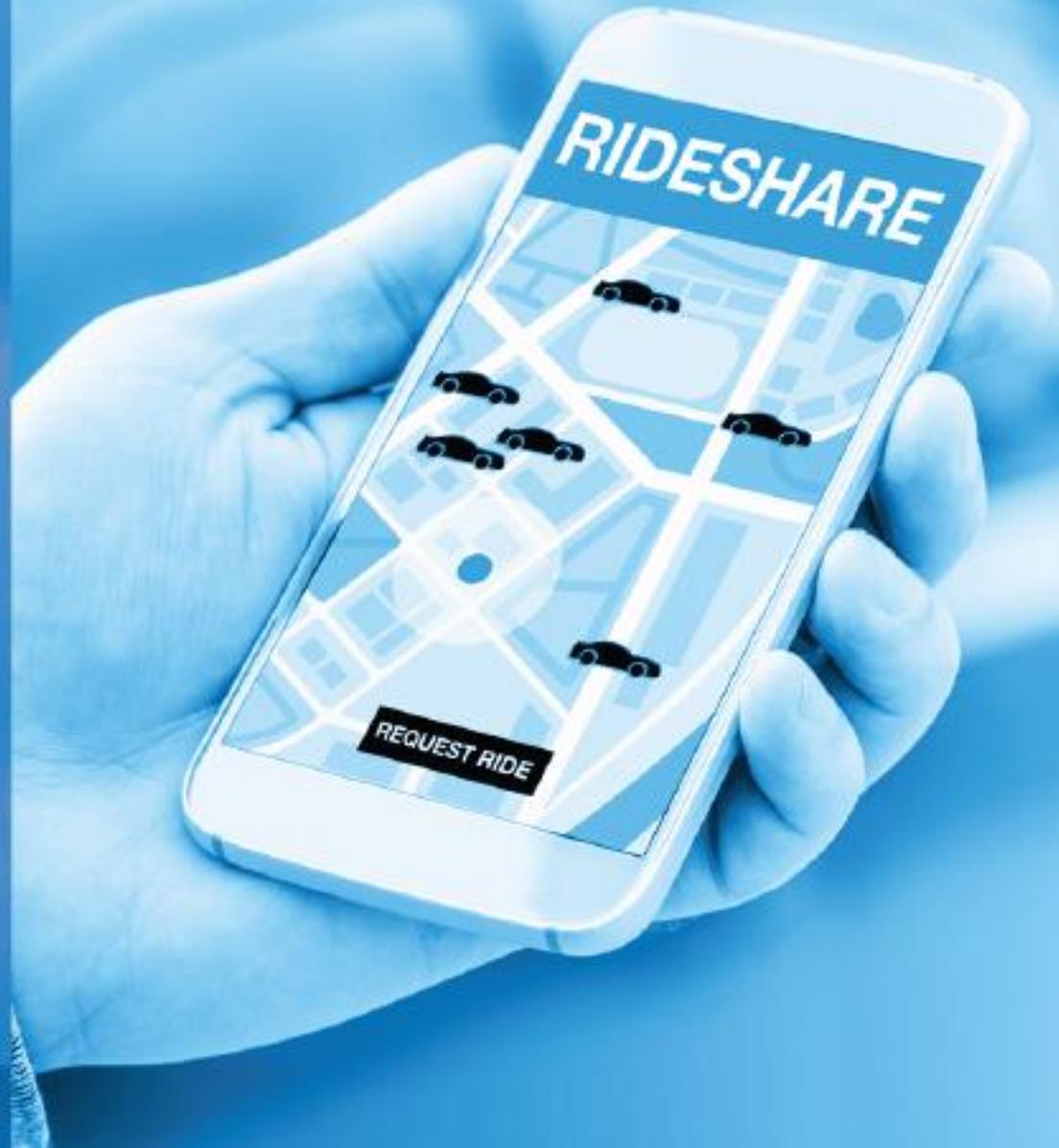
Communication and City Pool:

Niklas Schmalholz NSchmalholz@polisnetwork.eu

María José Rojo [MJRojo@polisnetwork.eu](mailto:MJRajo@polisnetwork.eu)



Overview of the project



Project Overview



- H2020 project, topic LC-MG-1-3-2018 ‘Harnessing and understanding the impacts of changes in urban mobility on policy making by city-led innovation for sustainable urban mobility’.
 - Start: 1st May 2019
 - Duration: 36 months
 - Budget: 2.9 M€
- Consortium: EMT Madrid (Coordinator) + 3 additional cities (Thessaloniki, Leuven, Regensburg) + 2 providers of technology solutions for transport planning (Nommon, Aimsun) + 1 transport consultancy (TML) + 3 research institutions (CERTH, TU Munich, Deusto) + POLIS + UITP.



Project Objectives



1. Identify a set of plausible **future scenarios** for the next decade to be taken into account for mobility planning in European cities.
2. Characterise **changes in travel behaviour**, with special focus on the demand for new forms of transport, profiting from the increasing availability of high-resolution data collected from personal mobile devices and digital sensors.
3. Develop **data-driven models** of the adoption and use of new mobility concepts and transport solutions and their interaction and complementarity with PT.
4. Develop **transport simulation and planning support tools** able to cope with the new challenges faced by transport planners.
5. Demonstrate the new methods and tools by analysing a variety of policies and innovative transport services in **Madrid, Thessaloniki, Leuven and Regensburg**.
6. Provide **guidelines for the practical use** of the methods, tools and lessons learnt delivered by the project in the elaboration and implementation of SUMP and other planning instruments.

Case Studies

Leuven

Develop a new transport model

- **Circulation** plan
- Shared mobility – public transport **intermodal hubs**
- New mobility solutions in **regional mobility strategy**

Madrid

Enhance the transport model

- **Modal shifts** from private car to new mobility solutions
- Shared mobility **inclusiveness**
- Shared mobility – public transport **complementarity**

Regensburg

Enhance the transport model

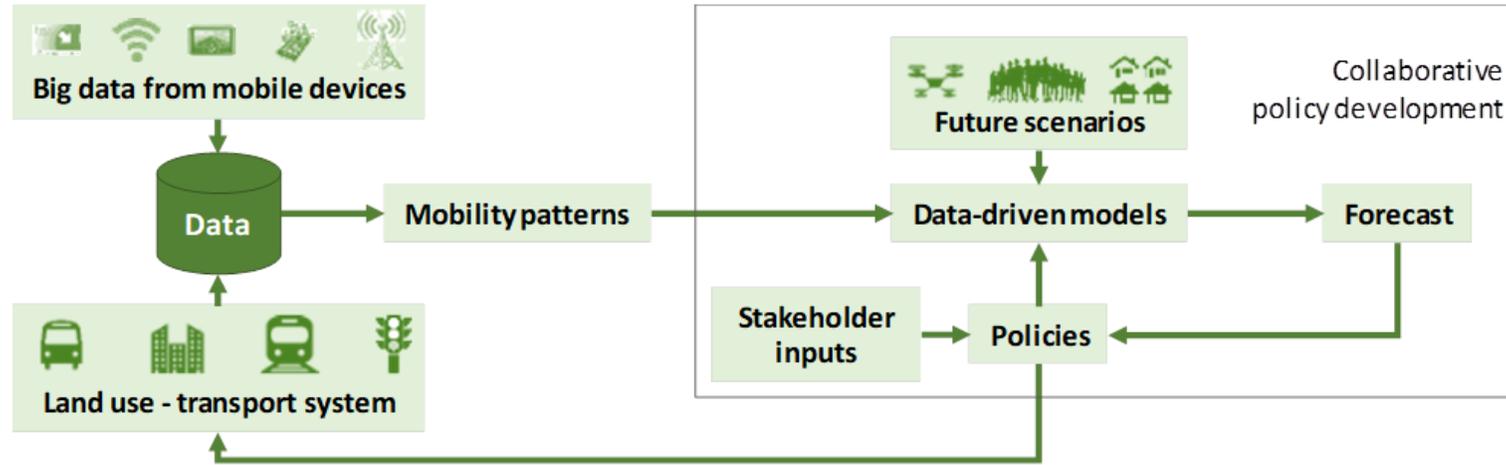
- **Autonomous people mover** in public transport
- **Car ownership** decreases
- **Emission reductions** from new mobility services

Thessaloniki

Enhance the transport model

- Extension of **DRT services**
- **Ridesharing** role
- Regulation frameworks for **micromobility and bike sharing**

Approach and Key Outputs



1. Future scenarios + relevant policy questions

More information: [D2.1 Challenges and opportunities for transport planning and modelling](#)

2. Data collection and analysis methods

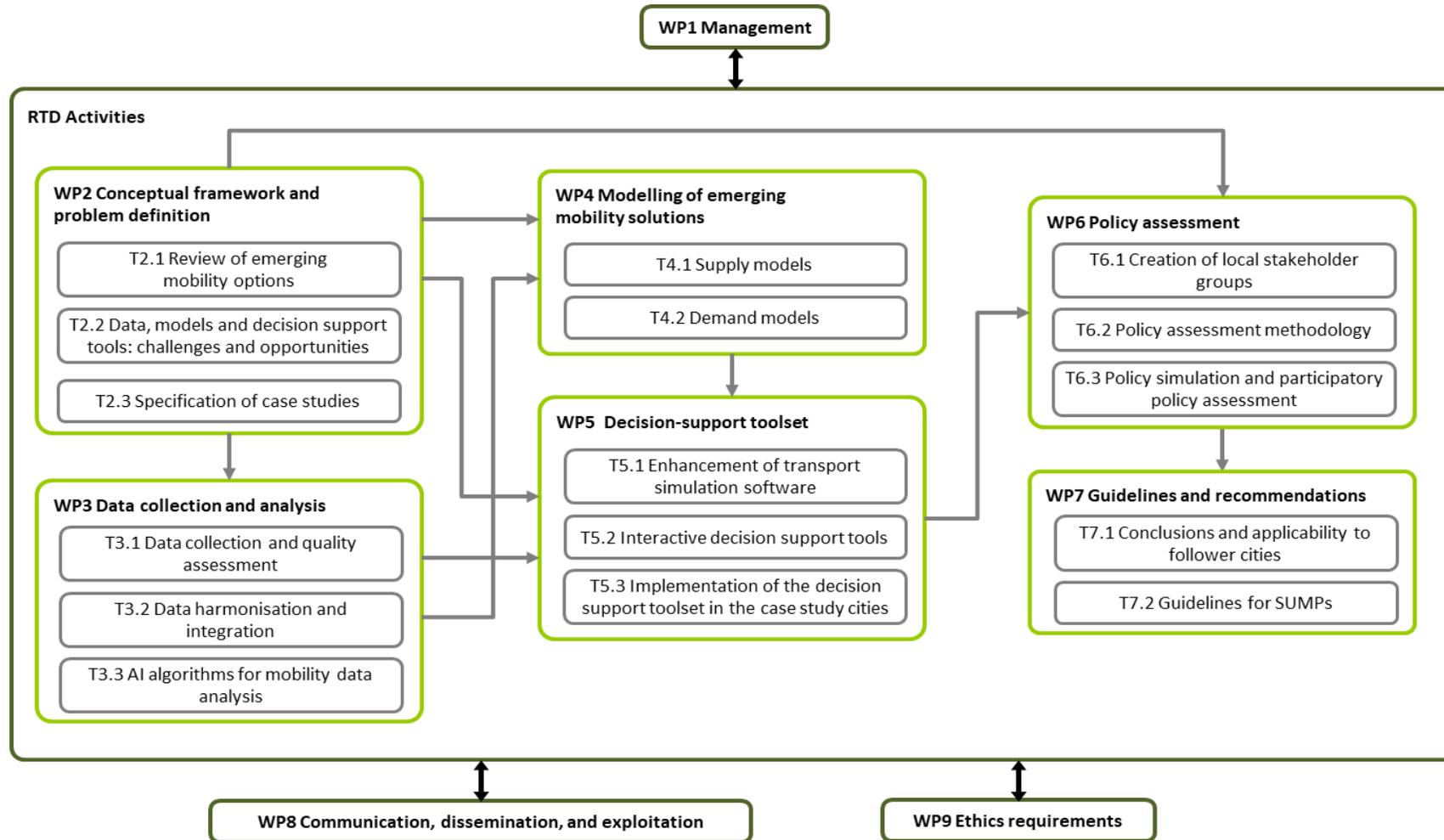
More information: [D3.1 Data Inventory and Data Quality Assessment](#)

3. Modelling algorithms

4. Decision support tools

5. Guidelines for policy making

Work Plan





M O M E N T U M

Achievements so far

Achievements so far



- **Review of the conditions for successful implementation of smart mobility services, based on the experience of cities over the last decade.**
 - Identification of key drivers and barriers
 - Identification of missing data analysis techniques and required functionalities in transport models
 - Required adaptation of SUMP cycle to include advanced transport modelling in a seamless way
- **A set of future scenarios to be considered in the planning and design of urban mobility policies in Europe.**
 - Downscaling worldwide climate change scenarios to European urban mobility
 - Relate exogenous factors (e.g. demographics, economics) to the likely evolution of smart mobility services
 - Collect experts opinions on the future role of smart mobility services

Achievements so far



- **A set of data analytics methods that exploit the emerging data sources in the mobility sector to identify the use and adoption patterns of the new transport options.**
 - Develop techniques for data fusion, taking advantage of all available data and taking into account the differences in data availability across cities
 - Enable a continuous monitorisation of travel demand, allowing cities to improve the resilience of their transport systems
 - Develop methods for collecting more evidence on the use and adoption patterns of smart mobility services, measuring the impact of new transport options on public transport
- **Momentum City Pool**

NEW EU SUMP Guidelines on Resilience

M O M E N T U M

MOMENTUM at the new and recently launched EU Topic Guide, “Planning for More Resilient and Robust Urban Mobility”. Drawing on lessons learned during the COVID-19, the Topic Guide introduces the concept of resilience in urban mobility and presents the importance of integrating it into the SUMP process

<https://civitas.eu/news/new-topic-guide-planning-more-resilient-and-robust-urban-mobility>



The banner features the logo of the European Platform on Sustainable Urban Mobility Plans (E-SPUMP) on the left, which consists of three stylized yellow leaves. To its right is the text 'OUT NOW!' in bold blue letters. Further right is the European Union flag. Below these elements is a photograph of a city street at sunset, showing people riding bicycles and walking. At the bottom of the banner is a yellow bar with the text 'TOPIC GUIDE: PLANNING FOR MORE RESILIENT AND ROBUST URBAN MOBILITY' in black capital letters.

European Platform on Sustainable Urban Mobility Plans

OUT NOW!



TOPIC GUIDE:
PLANNING FOR MORE RESILIENT AND ROBUST URBAN MOBILITY



Structure of Webinar

What are we going to see?



AGENDA:

- WP2: Transport Modelling Supports Future Planning (Nommon – Javier Burrieza)
- WP3: Methodologies and Algorithms for Mobility Data Analysis (Deusto – Antonio Masegosa)
- WP4: Modelling of Emerging Mobility Solutions (TUM – Santhanakrishnan Narayanan)
- WP5: Decision Support Tool (CERTH – Josep María Salanova Grau)
- Q&A in Miro (POLIS – María José Rojo)

Thank you for your attention!

Sergio Fernández Balaguer, EMT Madrid

<https://h2020-momentum.eu/>



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 815069