



# HARMONY

SPATIAL & TRANSPORT PLANNING FOR A NEW MOBILITY ERA



## HARMONY: MISSION ACOMPLISHED!

The HARMONY team is thrilled to announce the finalization of the Harmony MS- the HARMONY Model Suite: a new-generation platform for integrated spatial and transport planning modelling. After 4 years of dedicated work, the project's results will be shared publically at Harmony's Final Conference: on 24th February 2023, in Barcelona.



# EXCITING NEWS ALERT! HARMONY MS IS FINALLY HERE AND WILL BE THE MAIN FOCUS OF THE UPCOMING SUSTAINABLE URBAN MOBILITY CONFERENCE!

The highly-anticipated Harmony MS is ready for use and will be the main focus of the project's final conference. Don't miss this opportunity to learn more about this **game-changing** tool!

**Final conference**  
**February 24, 2023**


## NEXT GENERATION OF TRANSPORT PLANNING TOOLS FOR SUSTAINABLE URBAN MOBILITY

 **Barcelona**

 **09:00 h - 18:30 h**




 | HARMONY

 This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement N°815269. HARMONY is a project under the CIVITAS Initiative, an EU-funded programme working to make sustainable and smart mobility a reality for all. Read more - [civitas.eu](http://civitas.eu).

 CIVITAS  
Sustainable and smart mobility for all

**BOOK YOUR SPOT HERE!**

**BARCELONA CALLING: 24/02/2023**  **UAB CASA CONVALESCÈNCIA**

Indeed, it's been 4 years of dedicated work and we are eager to share our results with you ([read more about it here](#))!

This special occasion is **your chance** to learn first-hand from worldwide experts how to tackle urban challenges and ensure a variety of sustainable transport solutions for the safer, healthier and more fluid passage of people and goods.

The conference will gather an international community of urban

transport practitioners, urban planners, policymakers, local authorities, academics, and NGOs from across the globe have come together to debate key issues, highlight developments in sustainable urban mobility examining the challenges and solutions at hand: **University College of London, POLIS, Airbus, Bosh, Aimsun, Delft University of Technology, Oxfordshire City Council, TRT Trasporti e Territorio, City of Rotterdam, Enide Solutions and others.**

# SUMMARY - HARMONY H2020 PROJECT SUCCESSFULLY COMPLETES 4 YEARS OF WORK

**What inspired us:** Metropolitan areas are responsible for a large portion of greenhouse gas emissions and energy consumption. Access to key activities has worsened due to urban sprawl and private vehicle reliance, leading to congestion and decreased quality of life. Many metropolitan areas lack a sufficient public transport system and have disjointed mobility policies and transportation systems, resulting in inefficiencies and poor accessibility. New mobility services and technologies present a solution, but authorities face challenges in integrating them into spatial and transport plans to improve citizens' well being and achieve environmental targets. Metropolitan authorities often lack the expertise, knowledge, and tools for multiscale spatial and transportation planning.

**Our pride and joy:** The HARMONY MS platform is a cutting-edge solution to the complex challenges of sustainable urban development. The result of 4 years of hard work and dedication by a team of experts, the platform brings together the latest transport and spatial planning tools, models and data to create a comprehensive solution for metropolitan areas. The platform includes a total of 22 simulations and models, including new mobility services, concepts, and technologies for both people and freight, as well as co-creation labs to identify preferences and solutions. The team integrated automated vehicles and drones with traditional transport modes, collected data from citizens and freight operators, and integrated transport data with social, economic, and environmental data.

**Impact:** The research delivers crucial evidence of the long-term benefits of innovative transport technologies and business models for city, regional, and national authorities and spatial planners. With a focus on six diverse TEN-T corridor cities, including Athens, Oxfordshire, Rotterdam, Trikala, Turin, and Upper Silesian Zaglebie, the study provides a comprehensive view of the potential and challenges of the solutions. The team conducted real-life demonstrations of autonomous vehicles and drones in three cities to gather primary data and validate their model. The findings offer evidence-based recommendations for updating Sustainable Urban Mobility Plans, including the integration of autonomous vehicles and drones. The study also introduces MobyApp, a free smartphone app that collects real travel data through GPS to support the planning process.



# HARMONY MS FINAL TRAINING IN BARCELONA - 'SOLD OUT'!

**HARMONY H2020 CONCLUDES ITS SUCCESSFUL JOURNEY WITH A SOLD-OUT FINAL TRAINING EVENT IN THE BEAUTIFUL CITY OF BARCELONA, SPAIN  
([READ MORE ABOUT IT HERE](#))**

HARMONY Model Suite, HARMONY MS has been in the spotlight lately!

Our HARMONY MS tour scored highly in Europe ([read more about it here](#))!

The fall of 2022 was our busiest time as we launched HARMONY MS training and demos:

📍 5 CITIES: Delft, Athens, London, Katowice, Turin

- ✓ 3 Training Courses
- ✓ 3 Metropolitan Demos



The HARMONY training is designed to train the new generation of spatial and transport and city planners, while the HARMONY 1-day demo targets those who are directly involved in urban and transport planning in the cities, specifically focusing on achieving a zero-emission zone

The Harmony MS training course is the perfect opportunity for those looking to expand their skills and knowledge in the field of sustainable urban mobility! This final 2-day workshop which will take place in Barcelona on the 22nd and 23rd of February 2023 is designed to provide an in-depth understanding of the Harmony MS. This exclusive training is a collaboration between the Harmony H2020 project and [UIC](#) - the two prestigious Master Programs of [UIC Barcelona School of Architecture: \*the Master in Urban Design for Healthy Cities\*](#) and [the Master in City Resilience Design and Management](#).

# A PILOT DEMONSTRATION WAS SUCCESSFULLY COMPLETED AT MILTON PARK IN OXFORDSHIRE

A pilot demonstration for a set of innovative drone and electric van freight trials was completed on the 21st of August, 2022 at Milton Park - a science, technology, and business community in Oxfordshire, successfully highlighting that the mobility technologies tested enabled increased efficiency and speed of freight delivery. *'Quadrant Transport highlights how the trials mark a significant step in the transition towards highly sustainable mobility systems' (read more about it [here](#)).*



**INNOVATIVE ZERO-CARBON-READY TRANSPORT IS SET TO MAKE A HUGE IMPACT, IT JUST NEEDS US TO DEMONSTRATE HOW. HENCE THIS TRIAL, WHICH IS ANOTHER EXAMPLE OF OUR CLOSE WORKING WITH OUR WORLD-LEADING UNIVERSITIES, OF WHICH WE ARE EXTREMELY PROUD...**



**DR PETE SUDBURY  
OXFORDSHIRE COUNTY  
COUNCIL'S CABINET MEMBER  
FOR CLIMATE CHANGE  
DELIVERY AND ENVIRONMENT.**

This initiative was planned and overseen by **Oxfordshire County Council**, and supported by the academic partner, **University College London**, and organisations from the Harmony consortium such as **RUAS**, who managed the trial operation by providing and flying the drones, and **Airbus** through its Unmanned Traffic Management platform (UTM).

**The Milton Park pilot demonstration was a crucial step in the Harmony consortium's efforts to revolutionize urban transportation.** Following the successful first trial in Trikala (September 2021), this was the second of three planned pilot demonstrations. The goal of these demonstrations is to showcase the potential of electric automated vehicles (AVs) and drones in real-world conditions by integrating them with traditional modes of transportation.





## **A PILOT DEMONSTRATION OF THE ROSIE ROBOT TOOK PLACE AT THE FUTURE MOBILITY PARK IN ROTTERDAM**

In October 2022 Harmony team **completed the third planned demo!** The testing of the self driving delivery robot Rosie took place at the Future Mobility Park in Rotterdam (West) and it was delivered by part of the Harmony Consortium Team: **City of Rotterdam, Future Mobility Network, Future Mobility Park and Dutch Automated Mobility.**

Introducing **Rosie 2.0**, the revolutionary autonomous vehicle that is **changing the game for food and package delivery!** This cutting-edge technology has been thoroughly tested in a variety of environments, including on-road trials among other vehicles, intelligent traffic lights, mopeds, and pedestrians. The versatile Rosie 2.0 is not just limited to city streets, it also can navigate on campuses to deliver groceries from the supermarket to students.

**The objective was to understand how robot Rosie reacts to different environments and other moving and non-moving obstacles, within different traffic situations and on a public road near the Future Mobility Park.**

Rosie 2.0, is not only a **solution to the worldwide driver and personnel shortage**, but it also **opens up new job opportunities** in the control room, where the robot is monitored. With Rosie 2.0, not only the efficiency is increased but also new jobs are created, making it a **win-win** for both the delivery industry and the job market (*read more about it [here](#)*).

**INTRODUCING ROSIE,  
THE ROBOT THAT  
REVOLUTIONIZES CITY  
LOGISTICS!**

**HARMONY TESTING  
CONFIRMS ROSIE'S  
ABILITY TO NAVIGATE  
DIFFERENT ROAD  
TYPES AND WEATHER  
CONDITIONS, MAKING  
IT A VALUABLE ASSET  
IN DECIDING THE  
MOST EFFICIENT  
ROUTES.**



# BLAST FROM THE PAST: 2022!

HARMONY's overview of the latest activities in the 2022!



## HARMONY WORKSHOP DURING THE EUROPEAN MOBILITY WEEK IN TURIN

HARMONY hosted a workshop (in-person and streaming) during the EU Mobility Week in Turin on Monday, September 19th, 2022 to **discuss passenger mobility habits and key transport topics in the Turin metropolitan area**. The event has been **organised by Torino Urban Lab** in collaboration with the **City of Turin, Infra. To and 5T**.

The results of the survey passenger mobility survey performed in February 2022 with the MobyApp smartphone application were presented in this workshop (*read more about it [here](#)*).



## HARMONY THIRD CROSS METROPOLITAN WORKSHOP TOOK PLACE AT THE POLIS CONFERENCE 2022

HARMONY held the Third Cross Metropolitan Workshop at the POLIS Annual Conference, organized by Enide Solutions. **The workshop's objective was to Inform the audience on the HARMONY project and its outcomes, explore the applicability of the current HARMONY MS in matters concerning spatial planning in other areas (=regions/cities) and Identifying potential improvements and extensions** (*read more about it [here](#)*).



## WE TOOK PART AT THE TRA 2022 CONFERENCE, IN LISBON!

Our partners from **ENIDE Significance** and **MobyX** represented the project at Transport Research Arena (TRA) Conference 2022 by sharing their experiences and research findings with members of the industry (*read more about it [here](#)*).

- ✂ **SPECIAL INTEREST SESSIONS/ PANEL DISCUSSIONS**
- ✂ **POSTER PRESENTATIONS**
- ✂ **PROJECT PRESENTATION**

## DON'T MISS OUT!

A free online HARMONY MS course! Check out the BLOCK 2- HARMONY: A NEXT-GENERATION TRANSPORT PLANNING PLATFORM.



*Smart mobility  
Data-driven approach to SUMP*

*Within this changing world models are used to help us predict the future, impacts and possible outcomes of certain actions. Within mobility, models are often used to predict impact of traffic flows in the real-world. Within the CIVITAS program there are several projects where modelling and new data sources takes an important role. Within this course you will learn about the activities and results of three different CIVITAS projects: HARMONY, MOMENTUM and SPROUT.*

Get this course

### GOOD READ:

HARMONY PUBLICATIONS: <https://harmony-h2020.eu/publications/>

HARMONY PRESENTATIONS: <https://harmony-h2020.eu/presentations/>

HARMONY DELIVERABLES: <https://harmony-h2020.eu/deliverables/>

HARMONY PRESS KIT: <https://harmony-h2020.eu/presskit/>

HARMONY EVENTS: <https://harmony-h2020.eu/category/updates/events/>

#### FACTSHEET

Duration: 1 June 2019 - 30 November 2022

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Dissemination: Francesc Rosinés, ENIDE, [francesc.rosines@enide.com](mailto:francesc.rosines@enide.com)

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