

Holistic Approach For Providing Spatial & Transport Planning Tools And Evidence To Metropolitan And Regional Authorities To Lead A Sustainable Transition To A New Mobility Era



HARMONY consortium

























moby



















21 partners from 9 European countries



Background



- Submitted to the call Mobility for Growth 2018-2020
- Only proposal funded under topic LC-MG-1-2
 Sustainable multi-modal inter-urban transport, regional mobility and spatial planning (RIA)
- Budget: 7,649,645.25 Euro
- Duration: 06/2019 11/2022





Enable metropolitan area authorities to lead the transition to a low carbon mobility through **new** harmonised spatial and multimodal transport **planning tools.**



Objectives

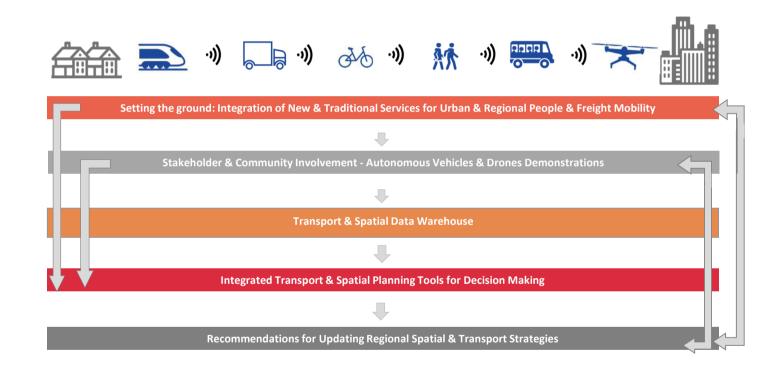


• new mobility services, concepts and technologies for people and freight
 • co-creation labs for people and freight
 • Integration of AVs and drones integrating with traditional transport modes
 • Collect data from citizens and freight operators
 • Develop methodologies to combine and integrate multidisciplinary data related to new forms of mobility, collective transport and planning
 • new spatial and transport planning model suite (MS)
 • Apply the HARMONY MS to support metropolitan planners and decision-makers
 • Link the HARMONY MS (metropolitan-level to EU-wide transport models
 • Recommendations to update spatial and transport strategies and SUMPs
 • disseminate the developed model suite



HARMONY conceptual architecture enide







HARMONY Metropolitan Areas' Activities



Rotterdam

- Electric AV demonstration freight
- **HARMONY MS Freight**

Oxfordshire

- Electric AV demonstration Passenger & freight
- Drones demonstration Freight
- HARMONY MS Passenger

Athens

HARMONY MS - Freight

Turin

HARMONY MS - Passenger

Trikala

HARMONY MS - Passenger

GZM

HARMONY MS - Passenger

Trailblazing

Aspiring

Follower





Estonia

ithuania

Bulgaria

Slovakia

Latvia

Belarus









HARMONY methodology



PHASE 1

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Regional spatial and transport planning requirements & scenarios	Review of services and planning practices	stakeholders enga activities	co-created scenarios		HARMONY MS architecture		
i							PHASE 2
Demonstrations, data collection	electric AVs and drones demonstrations	Accessing existing Pass transport models		Passenger & freight surveys		data collection	
PH							
Development of HARMONY model suite	data warehouse	Simulators development		egrations of simulators: the MS software		Prognostic & diagnostic tool development	
							PHASE 4
Application & commercialization	MS applications & co-created scenarios simulations	Recommendations fo updating SUMPs		admaps & iness cases	Training c and confe		Commercializati on plan



Main outcomes



- The HARMONY MS (software)
- Training material and activities for using the HARMONY MS
- Recommendations for SUMPs update (AVs & drones included)



Thank you for your kind attention!

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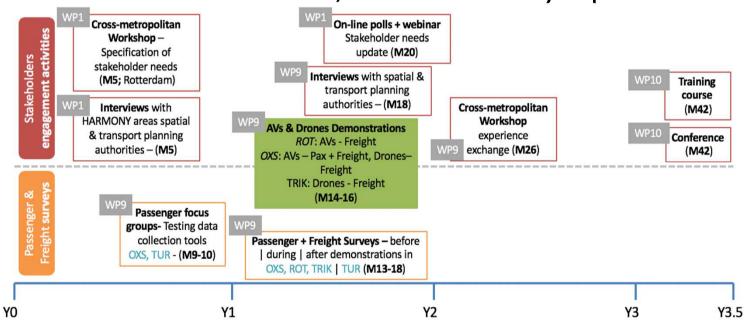








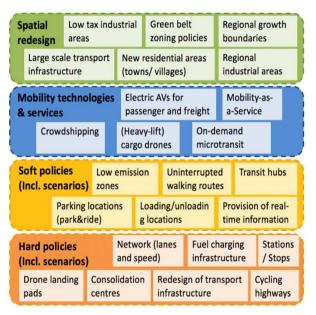
Stakeholder engagement activities, demonstrations, and surveys plan







HARMONY Model Suite

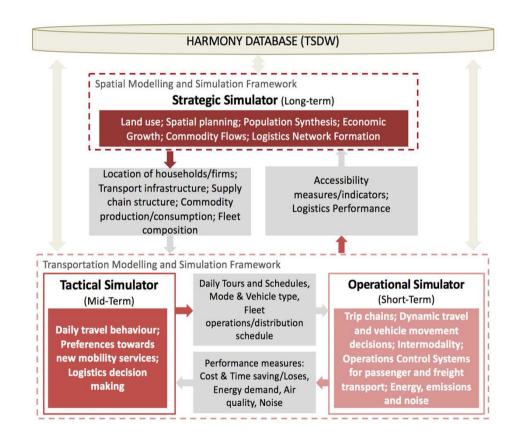


Land-Use & Infrastructure	Environment	Regional Economy	Inclusive communities
Change in inter-	Noise levels (e.g. Persons	Change in population	Transport
/intraregional transport	highly annoyed)	density	affordability/poverty
infrastructure capacity			
Mode sharing infrastructure/	Carbon intensity (CO2,	% change in number of	Transit accessibility /
Public space	NOx emissions)	VAT registered business	desserts
Increase of risk mitigation	VMT per mode	Investments attracted in €	Measures of well-being
measures (resilience)			





HARMONY Model Suite







HARMONY conceptual architecture

