

Ride 2Rail

ATHENS DEMO SITE

2nd of February, 2021

Annie Kortsari, CERTH

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 881825.





BRIEF INTRODUCTION TO THE ATHENS PILOT SITE

Objectives:

- a) Examine smart multimodal integration for the Public Transport (PT)-rideshare mode, where ridesharing works as a complement to PT (i.e. feeding it) for the first/last mile part of a journey

→ Increasing both car occupancies and urban rail ridership, when connecting low- and high-density areas of Attica;
- b) Serve as test site for the platform assessment taking into account new forms of shared mobility,
- c) Evaluate innovative concepts of multimodality.



IMPLEMENTATION PLAN (1/2)

Phase	Actions	Other stakeholders involved
1. Preparation	<ol style="list-style-type: none">1. Stakeholder identification2. Stakeholder outreach (Letter and material)3. Preparatory meetings with stakeholders4. Cooperation agreements with participating stakeholders (COLAs)	Municipalities of Markopoulo, Koropi, Penteli, Vrilissia, Pallini, Paiania, Spata.
2. Implementation	<ol style="list-style-type: none">1. Software tools customization & integration with local service2. Smartphone app deployment, internal test3. App usability testing, performance user test4. Testing of infrastructure & software integration and debugging5. KPI definition	



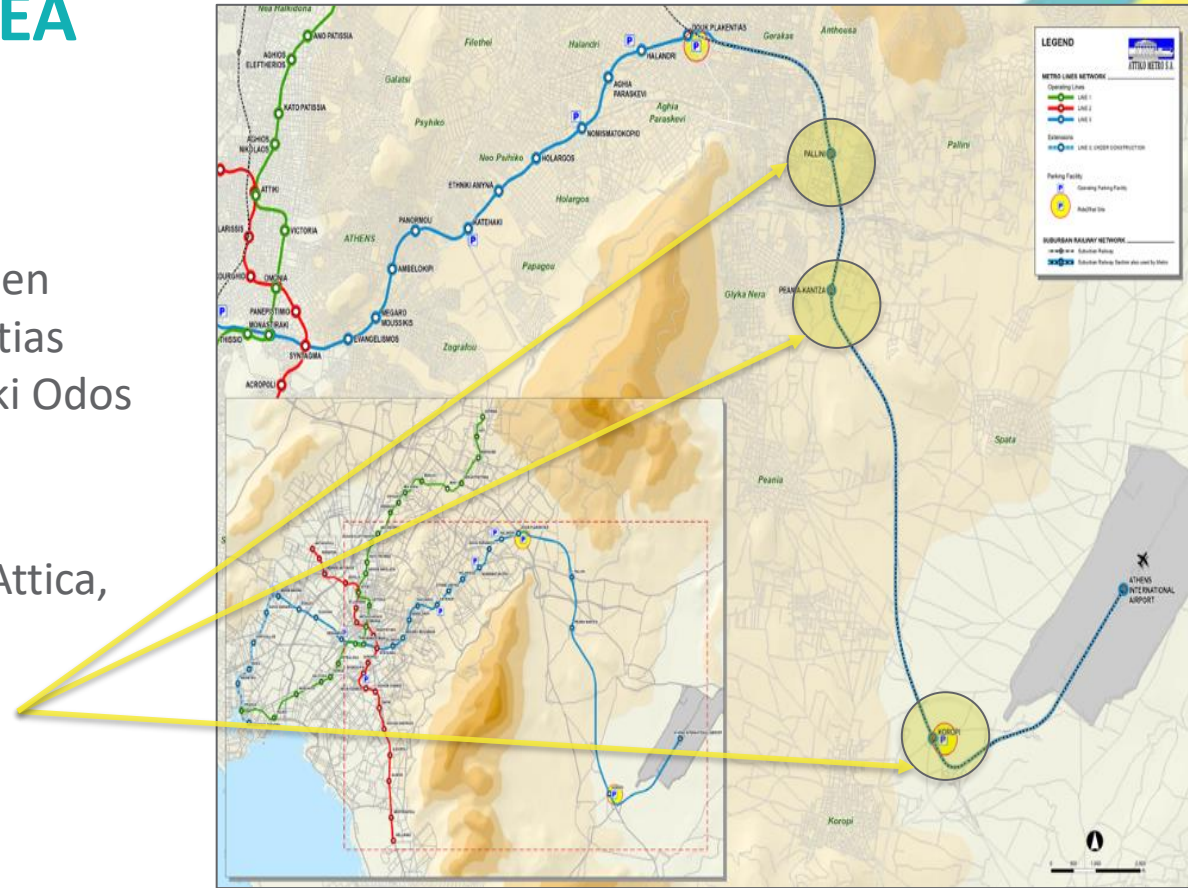
IMPLEMENTATION PLAN (2/2)

Phase	Actions	Other stakeholders involved
3. Execution	<ol style="list-style-type: none">1. Demo outreach & recruitment2. Demo execution (3-month period) with incremental levels of end-user involvement	Municipalities of Markopoulo, Koropi, Penteli, Vrilissia, Pallini, Paiania, Spata.
4. Monitoring	<ol style="list-style-type: none">4.1 Definition of monitoring tools4.2 Indicators & KPI validation4.3 Data collection4.4 Data processing4.5 Monitoring report	



ATHENS DEMO AREA

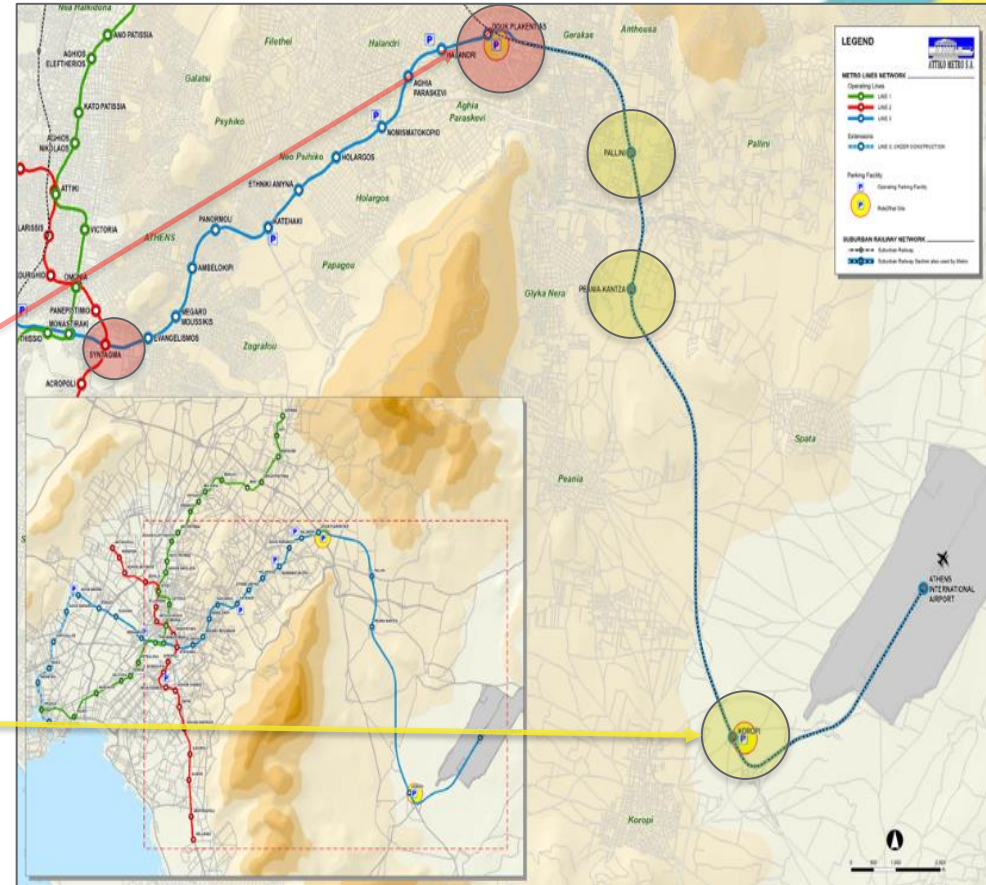
- 90 days
- 20km-long air-rail corridor between Athens Airport - Doukissis Plakentias (metro station & P+R), along Attiki Odos toll road.
- Metro and suburban rail serves 3 intermediate stations in Eastern Attica, **Pallini, Kantza and Koropi.**





ATHENS DEMO AREA

- Two test sites are foreseen:
 1. Paid P+R with 500 parking spaces (PS) at the urban gate Doukissis Plakentias about 12kms from the city centre (Syntagma place)
 2. Free municipal P+R with 300 PS at the extra-urban Koropi station, 13kms south of D. Plakentias station





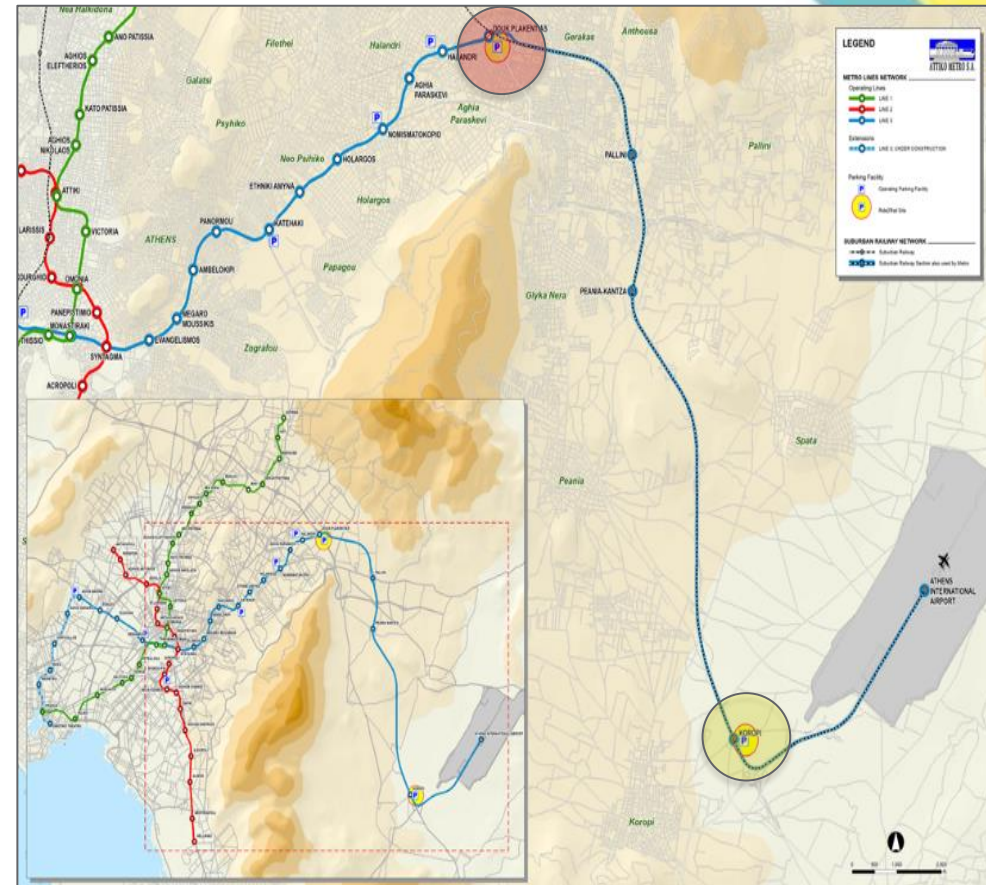
ATHENS DEMO AREA

Stated Preference (SP) experiment will involve:

- at least 250 solo parkers and
- bus feeder users at both test sites to assess ridesharing acceptance as access/egress mode to rail.

Main segmentation by trip purpose:

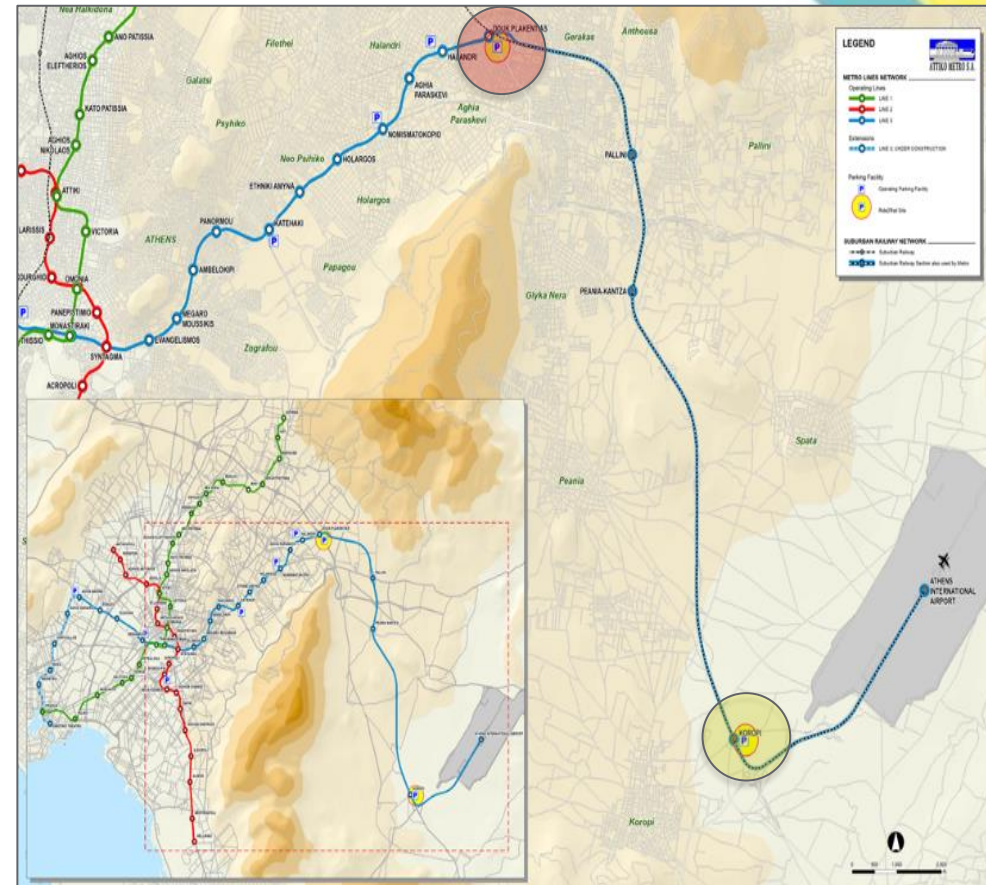
1. Potential riding commuters matched to driving commuters
2. Potential occasional riders matched to all drivers (commuting and occasional travelling).





ATHENS DEMO AREA

- User groups
 - Urban rail users who also use bus for the first- or last-mile of their journey via multi-modal hubs (P&R stations/bus terminals, i.e. D.Plakentias and Koropi);
 - Personal vehicle single users (drivers) parking at metro Park & Ride locations;
 - Personal vehicle users (drivers) with additional passenger(s), parking at metro Park & Ride locations;
 - Personal vehicle users (passengers) parking at metro Park & Ride locations.





STORY TELLING

- Marietta is an employee living in Koropi.
- She commutes daily from Koropi to Zografou.
- She needs to go shopping after work.
- On her return trip to home, she looks for a bus ride to reach Evangelismos metro station.
- After shopping in the vicinity, rides on the metro to Doukissis Plakentias station in the late evening when bus service level is low.
- Thanks to the Travel Companion, she uses a ridesharing driver to reach home.





TARGET VALUES

Indicator	Target
Number of RIDE2RAIL app users	50
Number of completed RIDE2RAIL app trips	500
Number of completed multi-occupancy vehicle trips with R2R app	10
Number of completed trips involving public transit/rail with R2Rapp	2
Number of completed commuter trips with R2R app	187
Number of completed rural/semi-urban trips with R2R apps	500
Number of parking spaces designated for Ride2Rail at the urban gate D. Plakentias	10 (during demo)
Number of parking spaces designated for Ride2Rail at the extra-urban Koropi station	5 (during demo)



ENVIRONMENTAL GOALS

- Reduce VKT/GHG emissions/energy consumption through ridesharing and metro use;
- Reduce traffic and parking congestion in CBD areas through ridesharing & metro use.



EXPECTATIONS FROM RIDE2RAIL

- Interconnecting ridesharing and urban rail
- Optimising the designation of ridesharing lots in P+R hubs
- Capturing short-distance journeys to ridesharing
- Tackling low bus feeder service level to the P+R hubs in Attica region, thus increasing the ridesharing propensity
- Exploiting RIDE2RAIL methodologies and using the platform by low density municipalities:
 - for developing new mobility services, and
 - for running associated scenarios that will increase metro system ridership and ridesharing as access/egress mode.



Thank you!

Annie Kortsari

akorts@certh.gr

Lambros Mitropoulos

Alex Deloukas

Emy Apostolopoulou

Eirini Kastrouni

