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CityMobil2: a large scale demonstration of AVs in Trikala & lessons learned

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Agenda

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2 Trikala large demonstration

3 Lessons learned

4 Conclusions

5 Q&As

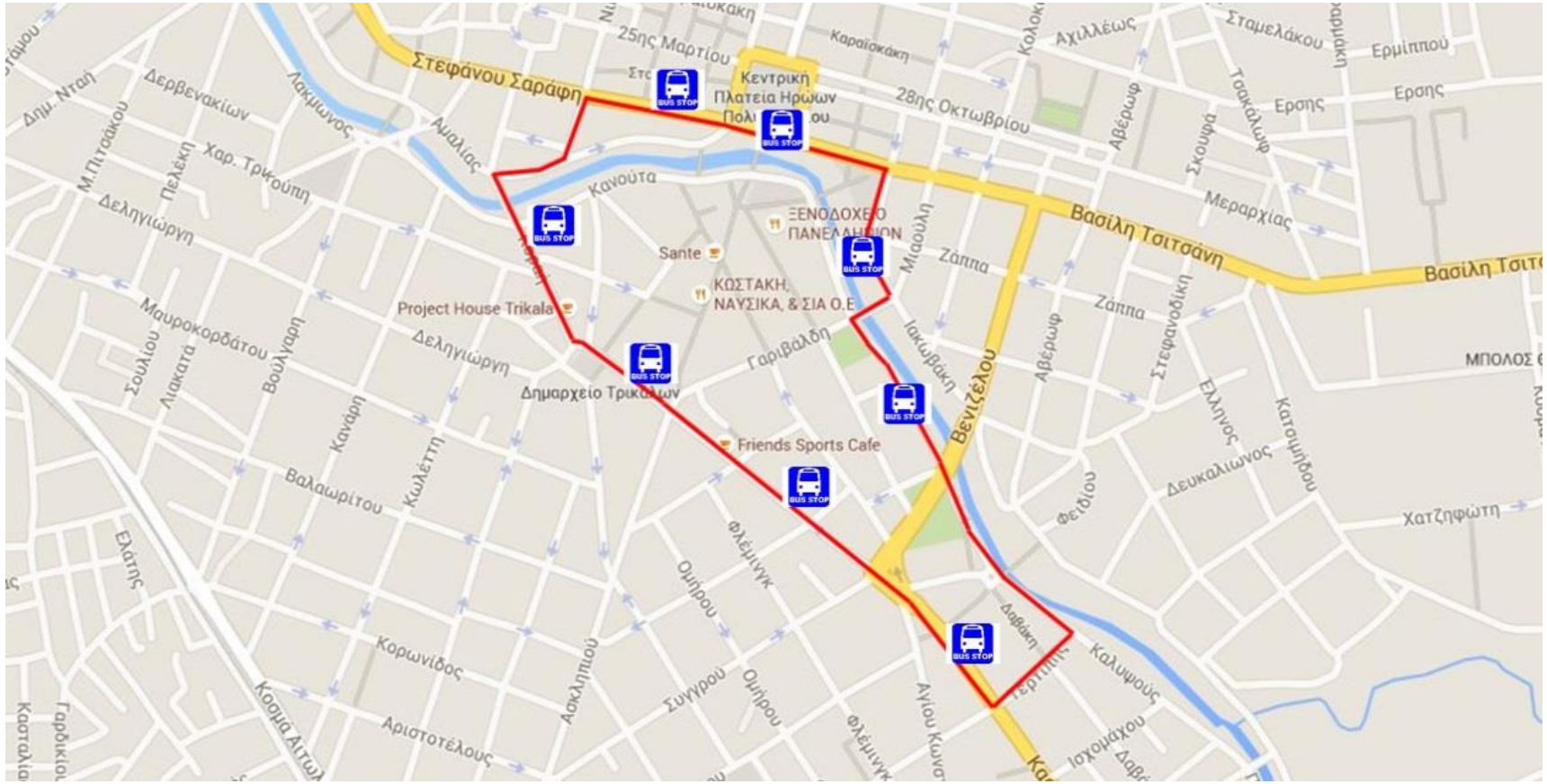
CM2 in a nutshell

CityMobil2
CITIES DEMONSTRATING AUTOMATED ROAD PASSENGER TRANSPORT

- OBJECTIVE
  - The main objective of CityMobil2 is to remove the main barriers to the implementation of automated road transport systems in cities.

- TARGETS
  - An automated road transport service running for at least six months at five sites across Europe,
  - Guidelines to design and implement an automated transport system,
  - Improved understanding of the interaction between automated vehicles and other road users,
  - A legal framework proposal for certifying automated road transport systems in Europe,
  - Showcases at numerous sites across Europe,
  - Technical specifications for interoperable automated road transport systems, including a communications architecture.

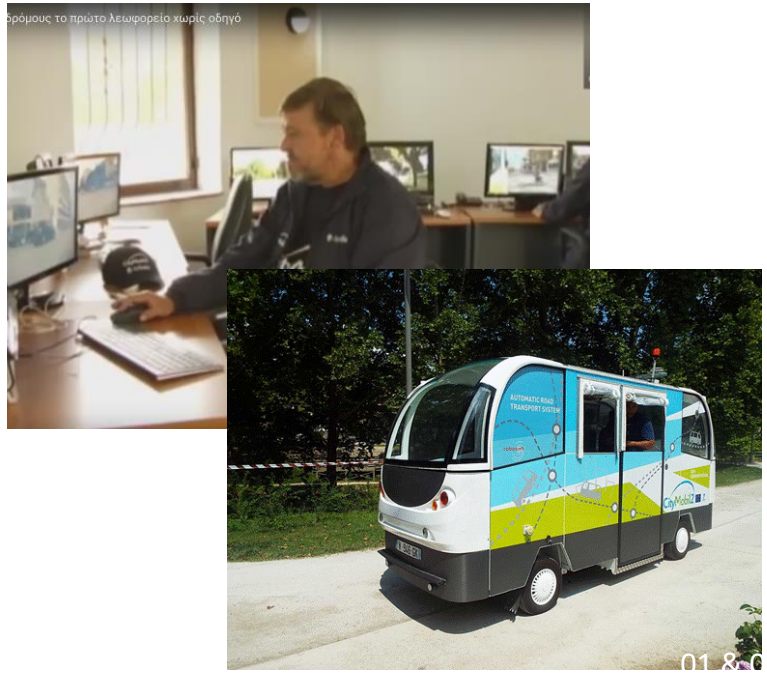
Trikala Demo – Bus lane & stops



2,4 km bus lane in mixed environment (width 2.4-2.8 m)

Route:

- City centre
- Dense residential areas
- Public administration services
- Touristic sites and hotspots
- Reduce transport obtrusion



- Operator on remote control center & on board
- 11-passengers vehicle
- Emergency button
- Suitable for people with disabilities
- Localisation through
  - GPS
  - Laser scanner
  - SLAM for route planning

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Dedicated Bus lane

- Dedicated lane
- Light segregation (road studs)
- 7 new (or modified) smart traffic lights installed

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Trikala Demo in numbers

1,490
Number of total routes

4,030 km
Total distance covered

12,138
Total number of total passengers on board

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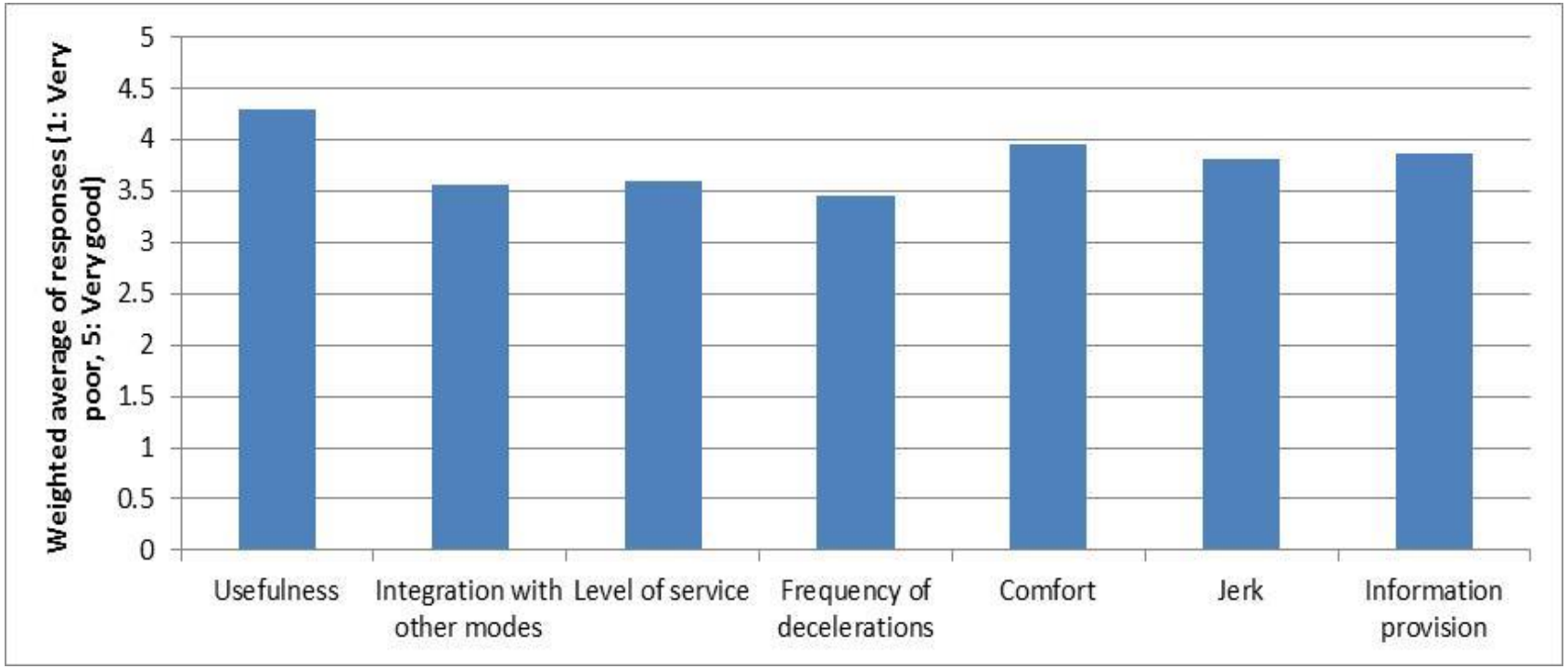
Ex- post Evaluation Questionnaire for users

User Satisfaction by the ARTS in Trikala



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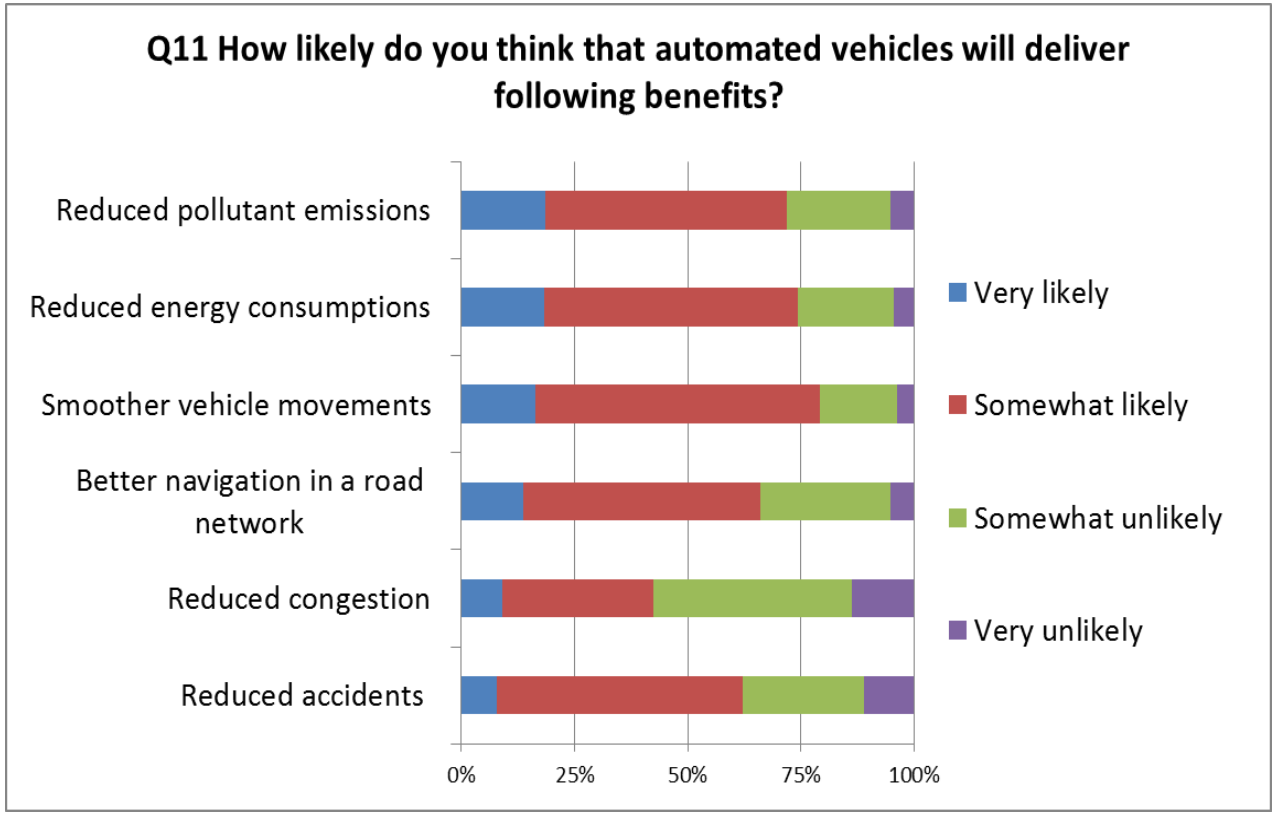
Wider public survey- Trust to the benefits promised



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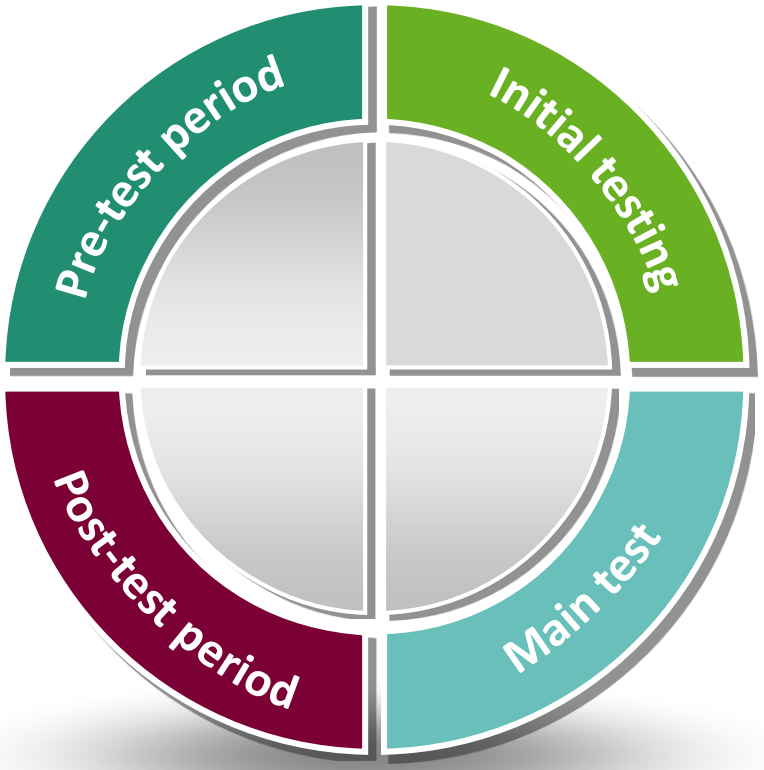
Key findings for user attitudes

- Negative feelings for the road adaptation
- High expectations for the technology

- Change understanding
- Technology adopters vs technology sceptics
- Require a quicker and longer implementation
- Judge actual operational parameters



- Keeping distances while driving
- Eager to test
- Realising the actual limitations and potentials

- Using the system regularily
- Over-confident for system operation
- Require better integration
- Have high expectations from transport efficiency

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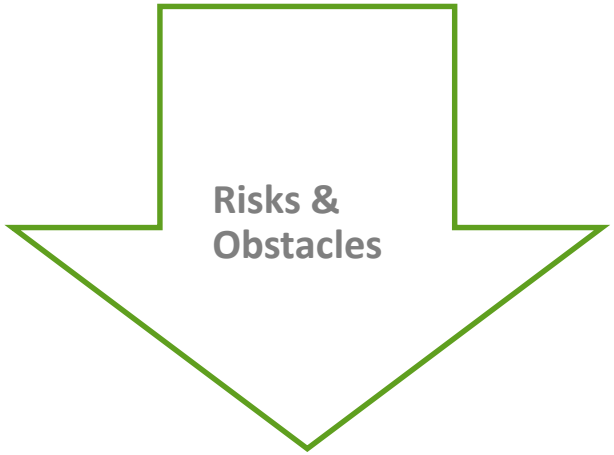
Benefits and Obstacles

1. High rate of user acceptance and satisfaction
2. Touristic attraction and media coverage
3. High level of expertise- continuation to automate mobility implementation
4. Infrastructure adaptation
5. Cyclist road



1. Early and extended communication strategy to gain the citizens cooperation
2. Lack of legislation framework
3. Complaints for the lose of parking space and the extended construction ad work

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Conclusions- Recommendations

Evaluation outcomes

- People were more aware of automated mobility (in theory) than expected (78%)
- People realize that AVs are the future of driving however prefer partial automation (29%) from fully automation (13%)
- As far as future use of public transportation automated vehicles are concerned people prefer to be used for services in tourist zones (45%)

recommendations

- staff member on board might be required for overnight/peri-urban routes
- Bottlenecks to address: Higher vehicle purchasing cost, Legal liability in case of an accident, cybersecurity
- Leap of faith needed (gradually not suddenly – technology evolution pace is much more steep) – More live road demonstrations with active participation is needed
- Low operational speed, small integration with existing transport infrastructure is a strong drawback. For such a system to be viable this needs to be an ACTUAL transport system and not a simple add-on (futuristic) solution

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Thank you!

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