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

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Agenda

1. CM2 at a glance
2. Trikala large demonstration
3. Lessons learned
4. Conclusions
5. Q&As
CM2 in a nutshell

• 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
Dedicated Bus lane

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

23/03/2016
Ex-post Evaluation Questionnaire for users

User Satisfaction by the ARTS in Trikala

![Bar chart showing weighted average of responses for various factors related to ARTS satisfaction.]{connected automated driving.eu}
Wider public survey- Trust to the benefits promised

Q11 How likely do you think that automated vehicles will deliver following benefits?

- Reduced pollutant emissions
- Reduced energy consumptions
- Smoother vehicle movements
- Better navigation in a road network
- Reduced congestion
- Reduced accidents

Very likely
Somewhat likely
Somewhat unlikely
Very unlikely
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 regularly
- Over-confident for system operation
- Require better integration
- Have high expectations from transport efficiency
Benefits and Obstacles

Benefits

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

Risks & Obstacles

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
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
Thank you!

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