Mobility as a Service – The Austrian Case

Research dissemination workshop

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AustriaTech
Federal Agency for Technological Measures Ltd.

... federal agency owned by Austrian Ministry of Transport, Innovation and Technology (bmvit)

... a neutral partner, coordinating between infrastructure operators, industry and governmental institutions and supporting in...

- ITS, Urban Mobility & E-Mobility
- Innovation, Implementation & Deployment
- Analyses and Studies
- Support in the development of the Austrian Position
- Support in the Implementation of Regulations
- Cooperation between Governments, Cities and Transport & Mobility Provider, Start-ups and R&D
A developed country is not a place where the poor have cars, it’s where the rich ride public transportation.

Enrique Peñalosa, Mayor of Bogotá 1998 - 2001
What we were asked for...

...ongoing research
...pilots
...projects

...the high-level conclusions and research questions
Traveller Benefits from Intelligent Mobility

- **Demand and Supply**
- **Access**
- **Integration**
- **Automation**
- **Seamless end-to-end Mobility**

1. 'Inter-modal Demand Management' of travellers
2. Integrated traveller flow optimisation
3. Integrated 'Mobility as a Service' offers
4. 'Autonomous Taxis'
5. Flow optimised swarm of autonomous vehicles (only at scale)

Source: UK Transport Catapult
Mobility as a Service: Planning Paradigms → Service Thinking
Building Blocks for a MaaS Eco-System

Strategy → Framework

Platforms → Structures

Projects → Operation

- ITS Action-plan
- ITS LAW
- ITS Clearing + Nominated Body
- ITS Austria
- ITS Vienna Region
- ITS West
- GIP Geo-data
- VAO RTTI Service
- C-ITS Testbed Eco-AT VIE-ROT
- SMILE Ticketing & Booking
- FCD Model-region

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ITS RDI Roadmap – ITS Austria

Topics

MOBILITY AS A SERVICE

SHARING MOBILITY

AUTOMATION

TRANSPORT MANAGEMENT

CONNECTIVITY
Mobility as a Service

- Public Transport:
  - bus – tram – rail – etc.

- Demand Responsive Transport:
  - Sharing Mobility – Taxi – etc.

Sub-Services:
- ticketing
- booking – routing
- information

Connectivity
Transport Management
Automation
ITS RDI Roadmap – ITS Austria

**Awareness** on Operator-Level

**Foster cooperation** amongst Mobility Providers

Support **development of Platforms**

Specific support for service providers to develop **cross-sector data-ecosystems**

Develop/agree on data exchange formats and Service APIs

Promote **open data** concepts

**Standardise data structures** of different service domains

Develop & pilot **business- & operating-models** for MaaS (e.g. Mobility Aggregator)

Develop **cooperation-models** for MaaS

**Macroeconomic evaluation**

**Impact analysis – Mobility Behaviour**

User-expectations & user acceptance
ITS RDI Roadmap – ITS Austria

Outcomes of the interviews
• There is no common understanding on MaaS
• It is (all) about Mobility Services
• There are no big actions in the field of research at the universities
• Impact analysis – Mobility Behaviour, User-expectations & user acceptance
• Research-Focus on automated driving → not just technological → more on social impact, spatial development...
• Privacy
• Logistics & City-Logostics

“We are beavering around on a level that could be much better!”
Pilots & Projects

smile einfach mobil

The future of mobility

simple, versatile, integrated

Mobility is an important element of people’s lives – both now and in the future. The nature of how we will be mobile, however, is changing.

The challenge is the combination of individual mobility needs, climate protection and sustainable development. Therefore new or improved means of transport - amongst others electric vehicles - will emerge and grow their share. However, the crucial factor will be the individual choice and possibilities of linking individual and public transport according to our needs.

This is the future of mobility.

The advantages of classic public transportation systems that act as the backbone of our transportation ecosystem will be combined with the values of individual means of transport. To own a private car will have significantly less meaning in urban and metropolitan areas. A wide range of alternatives are offered there: car rental, taxis or car- and bike-sharing. Using - not owning - a vehicle is the trend in mobility.

Today integrated mobility is still many times a complicated matter.

The missing key to integrated mobility was the platform for all means of transport - a single key which would always be in our pockets. Crafting this key was the goal of smile.
Pilots & Projects

Wiener Stadtwerke

Beam Beta

Wiener Linien

WiPark

Using more....

- Städtischer ÖV: 26%
- Bahn: 22%
- Car-Sharing: 15%
- Bikesharing: 10%
- Taxi: 7%
- Fahrrad: 6%
- e-Bike: 4%
- e-Carsharing: 4%

Using less...

- Taxi: 22%
- Privatauto: 21%
- Fahrrad: 6%
Smart Commuting (proposal)

Optimized Mobility as a Service

• “Main objective is to develop a decision support for optimized MaaS. This general objective can be subdivided into (1) the identification of success factors for the implementation of new mobility services, (2) the formulation of optimization problems and (3) the configuration of the optimization framework.”

Wetter-PROVET (Weather-PROPHET) (past)

• The main objective of Weather-PROPHET was the design and development of a guardian angel in the form of a service app which its users timely, personalized and situational indicates mobility relevant weather conditions. In addition, models have been developed in weather PROVET with which the weather-related demand for transport can be found.
Pilots & Projects

CargoRider
- CargoRider aims to explore whether for ships a platform comparable to InterRail can be constructed which would provide an alternative to air travel, especially for young people.

Student Research Project
- Programmes Mediatechnologies and Rail Technology & Mobility
- The aim is the development of a Mobility-Service-App for routing, booking & ticketing.
Pilots & Projects

Urban Mobility Labs

1st Phase 2014: Call Feasibility Studies for UML

- Projects to design and probe suitable lab environments and governance structures (activation, orientation, organization)
- Mutual learning and open innovation process (“how to design and establish UML”)
- Accompanying support process (networking, safeguard & exchange of knowledge)
- 8 projects (+1) in progress

2nd Phase 2016: Call for UML Implementation

- New Funding Instrument under construction (Innovation support measures and R&D Infrastructure)
- Implementation projects to bring UML to life and ensure continuity (Spring 2016)
Pilots & Projects

Urban Mobility Labs

• Accumulating and applying knowledge pool measure for behavior change
• Combined approaches for industry and personal mobility
• Mobility innovations in the new city development area in Vienna
• Strengthen competences and impacts of Vienna-based ITS companies in LL setting
• Smart Urban Freight Logistics 4.0
Outlook

Current objectives

- Preparation and launch of regular large-sized annual flagship initiatives, coordinated with the Horizon 2020 programme
- Preparation and launch of small- and medium-sized transnational research and innovation funding initiatives.
- **Expansion of cooperation network** and increased windows of opportunities for transnational collaborations, involving more national and regional funding programmes.
- **Enhanced and smoothened implementation of transnational cooperation actions through structural adaptations of funding schemes and procedures in partner countries/regions.**
- Exploration and – if possible – deployment of new ways, geometries and settings for transnational cooperation and funding, e.g. through deployment of Structural and Cohesion funds.
- **Enlarged visibility of national research and innovation funding activities, their results and achievements and of the added value of transnational collaborations** through ENT and thereby increased impact in the ERA.
Thank you for your attention
and for being our crowd!

Future Mobility made by Social Innovation

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