Innovative Mobility Solutions: An Overview of Best Practice in Europe

Smart Villages: A Common Perspective Through Different Visions

Courmayeur, Italy: 23 May 2019
Agenda

• Introduction KCW
• Introduction of the Project ‘Cross-border mobility’
• Mobility and Digitalization
  – Digital Solutions (Example: E Ticketing)
  – Shared Mobility (Example: Carpooling, Autonomous Shuttles, On Demand Transport)
• Conclusions
Introduction KCW

• We are the largest consulting firm for strategy and management consulting for public transport in Germany. We've been here since 1998.
• We provide interdisciplinary and independent advice on all organizational, economic and legal aspects of public transport.
• Our customers are municipalities, public authorities, transport associations and ministries on a national and international level.
WP4 of the Cross-Border Project

Title:
“Improvement of cross-border mobility and passenger flows – Innovative solutions for public authorities and transport operators”

Project Duration:
January 2019 - July 2019

Project Working Steps:
1. Best Practice Examples and Stakeholder Analysis
2. Innovative Solutions (SWOT Analysis)
3. Test Run: Participation and Discussion in Workshops
4. Synthesis and Final Report
Project Status - Where do we stand today?

1: Best Practice Examples and Stakeholder Analysis

2: SWOT Analysis of the Archetypes

3: Discussion of Results at Local Workshops

4: Synthesis and Final Report

Completed (February-April 2019)

May 2019

June 2019

Deduction of Archetypes

Collecting and Incorporating Feedback

Collecting and Incorporating Feedback
Location of Best Practice Projects

- Classic projects (e.g. infrastructure, scheduling cooperation)
- Innovative projects, including digitalization projects.
- New players in the mobility landscape
## Cross-Border Mobility Archetypes

1. Physical Link
2. Physical Link +
3. Public Transport Cross-Border Cooperation
4. Experimental / Research Projects
5. Shared Mobility in Urban Areas
6. Shared Mobility in Rural Areas
7. Digital Solutions
8. Harmonizing Standards
9. Multimodal Hubs
10. Joint Ventures (Cross-border)
## Cross-Border Mobility Archetypes

1. Physical Link
2. Physical Link +
3. Public Transport Cross-Border Cooperation
4. Experimental / Research Projects
5. Shared Mobility in Urban Areas
6. **Shared Mobility in Rural Areas**
7. **Digital Solutions**
8. Harmonizing Standards
9. Multimodal Hubs
10. Joint Ventures (Cross-border)
Mobility and Digitalization

Connected

Autonomous

Electric

Shared
Example: Digitalization of Ticket Sales
Mit dem Zug in 20 europäischen Ländern reisen

Digital Solutions

A digital service or solution acts as a connector between the user and the transportation service provider.

It generally does not need any extra infrastructure investment by the public sector.

Urban  Suburban  Rural
# Digital Solutions

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>• No physical infrastructure needed, low operating costs</td>
<td>• Custom solution / in-house development in the public sector can have high costs, take a long time, and require intense cooperation</td>
</tr>
<tr>
<td>• Quick implementation (if solution available on the market)</td>
<td>• Provider may not need to cooperate with public sector</td>
</tr>
<tr>
<td>• Improved service/ information access</td>
<td>• Does not share data</td>
</tr>
<tr>
<td>• Modal shift, multimodal journeys</td>
<td>• Exploits loopholes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Improved access to information</td>
<td>• Not accessible to everyone (need to own smartphone, roaming, extensive data package)</td>
</tr>
<tr>
<td>• Personalizing and/or reducing complexity of information available</td>
<td>• Variety of apps confusing customers</td>
</tr>
<tr>
<td>• Bundling (Whim) and best price (Fairtiq) lead to customer cost savings</td>
<td></td>
</tr>
</tbody>
</table>
Shared Mobility

Classical Services
- Taxis
- Car Rental
- Public Transport
- Private Hire Vehicles

Innovative Services
- Bikesharing
- Carsharing
- P2P Carsharing
- E-Scooter Sharing
- On Demand Transport
- On Demand Pooled Transport

Carpool
Covoiturage Bassin Lémanique

What are you looking for?
- Carpool Terminals
- Park-and-ride Facilities
- Public Parking

The latest innovation is the Hé!Léman solution (inaugurated on 21 March 2019).

Source: Photos https://www.covoiturage-leman.org/
Autonomous Shuttle (Zug, CH)

Photo: https://www.mobility.ch
TERMINAL – Cross Border Autonomous Shuttle
Field Test

Source: https://terminal-interreg.eu/en/
Shared Mobility in Rural Areas

These services usually require financial subsidies and are introduced into low density areas to provide mobility where public transport offer is either weak or non-existent (e.g: Call-a-bus). Furthermore, such services could be used to encourage tourism and stimulate the economy in rural areas.

Suitable in Rural areas

Strong potential for cooperation for PTO/PTA depending on regulatory landscape and general attitude towards experimentation.
## Shared Mobility in Rural Areas

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Innovative offer, multimodal when included in PT</td>
<td>• Cost for implementing, operating subsidies for private partner needed</td>
</tr>
<tr>
<td>• Promotes sustainable travel to/in the touristic destination</td>
<td>• Not accessible to anyone (license, credit card, etc.)</td>
</tr>
<tr>
<td>• Need for cooperation</td>
<td></td>
</tr>
<tr>
<td>• Services can be tailored to specific locations and needs</td>
<td></td>
</tr>
</tbody>
</table>

### Opportunities

| • Increased mobility options/accessibility | • Lack of or limited demand (eg: seasonal) |
| • No need for (second) car ownership (seniors-low income youth) | • Inability to find private partner or a willing provider for the services |
| • Pay as you go — reduced costs for users, no ownership required | • Vandalism |
| • Convenience, ease of use, door to door | |

### Threats
Conclusions

- Digitalization offers great potential for users as well as for regions and public transport companies.
- Greater integration between modes is expected.
- The combination of fares and ticketing with other archetypes offers the widest range of possibilities for users.
- Digital information and sales seem particularly suitable for the implementation of mobility offers in border regions.
- Shared mobility should play a greater role not only in cities but also in rural areas.
- Authorities are advised to start with small pilot projects to test new concepts in their field. This means that authorities will have to invest money to test citizens' acceptance of new innovative solutions such as on-demand carpooling or shared electric bicycles.
Thank you!

Nabil Nakkash
KCW GmbH
Bernburger Str. 27
10961 Berlin
E-Mail: nakkash@kcw-online.de
Tel.: 030 4081 768 -30
www.kcw-online.de
Weitere Informationen

KCW
sippel@kcw-online.de

Office of the Tyrolean Government, Department of Transport Planning
patrick.skoniezki@tirol.gv.at ; eusalp.mobility@tirol.gv.at

Swiss Center for Mountain Regions SAB
Thomas.egger@sab.ch; peter.niederer@sab.ch

CIPRA International
Wolfgang.pfefferkorn@cipra.org; jakob.dietachmair@cipra.org