MOBILITY CHALLENGES IN EU LOW DENSITY AREAS, TRENDS AND SOLUTIONS

Presentation of a case study in the Swiss Jura

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A DIVERSE MEMBERSHIP

1400 member companies
- Operators
- Authorities
- Policy decision-makers
- Research institutes
- The public transport supply and service industry

16,000 contacts

96 countries

International network for mobility and PT actors
A WORLDWIDE ASSOCIATION

16 offices, 2 centres for transport excellence
PART 1: MOBILITY CHALLENGES IN EU LOW DENSITY AREAS
• In EU, rural areas’ population is decreasing.

• Rural areas are drained from essential services.

• Mobility poverty in rural areas = general poverty & social exclusion

• Mobility = key role in a region’s economical and demographical dynamism.
CHALLENGES

CHARACTERISTICS OF RURAL MOBILITY

• Low density = low PT demand
• Different mobility needs
• High operating costs
• High car dependency/Low use of PT
• PT at peaks hours, DRT in between
• Lack of systems integration

Hard for PT companies to survive
CHALLENGES
LIFE STYLE CHANGES

• Population is ageing: car dependent
• Young people: new technologies + flexibility
• Workers: regular and fast connections
• PRM: specific needs
SOLUTIONS AND TRENDS

Quality, Flexibility, reliability, information, integration

• Optimisation of the transport network
• On demand transport (DRT)
• Car-sharing and car-sharing stations
• Ride-sharing and peer to peer ride-sharing
• Cycling facilities for short distances
• Autonomous vehicles
• Uber-like systems
EXAMPLES

1. PUBLIC TRANSPORT

Regular lines in France’s Tarn Region

58% passenger increase in 10 years.
EXAMPLES

1. CAR-SHARING AND RIDE SHARING

Peer to peer e-car-sharing in Austria’s small villages

CARUSO: The 1€ car.
EXAMPLES

1. CAR-SHARING, RIDE SHARING, ORG HITCHHIKING

Peer to peer ride-sharing in Blauen

Taxistop in Belgium

Rezo pouce in France
EXAMPLES

1. DRT

Telebusz in Budapest suburbs (Hungary)

Tedibus in France
EXAMPLES

1. BIKING AND E-BIKING

Biking highways in the Netherlands

http://www.arhemnijmegecycling.com/
EXAMPLES

1. AUTONOMOUS VEHICLES

- The Netherlands, Gelderland Province
- Switzerland, Sion
AUTONOMOUS SCHUTTLE – ON THE ROAD IN SION (SWITZERLAND)
UITP RECOMMENDATIONS

Services

• Customer segmentation / adapted services.
• Adapt and support changed lifestyles (IT and communication tools)
• Additional services (shopping, post, health centers, etc.)
• Support PT + biking and shared mobility
• Provide a fast and reliable services competing cars.
• Act on land use (densification of housing around public transport zones)
• Communication and sensitization
UITP RECOMMENDATIONS

- **Financial:**
  - Financial incentives to operators.
  - Stabilize financial support.
  - Connect public transport services with *commercial activities*.

- **Integration**
  - Integrate local with regional policies.
  - Integrate the mobility services under high standards recognizable to the passenger.
  - Support the local drivers to keep people in rural areas.
PART 2

CASE STUDY: DELEMONT
## PORTRAIT OF SWISS POSTBUS

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<th>Switzerland</th>
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DELEMONT LOCAL SETTING AND CHALLENGES
DELEMONT

- Population of **12,000**
- Fragmented urban structures with **low population density**
- Regular bus lines and on-demand transport
- Urban network with approx. **240,000 pax / year**
- Passengers are primarily **commuters and students**
DELEMONT URBAN PT

Urban bus lines

1. Hôpital
2. Cras-des-Fourches
3. Mexique – Gros-Pré – Hôpital

On demand transport (in defined areas)

 PubliCar Urbain
REGIONAL TRANSPORT NETWORK

Agglomeration: 25000 inhabitants

Urban PT
1. Hôpital – Gare – Hôpital
2. Cras-des-Fourches
3. Mexique – Gros-Pré – Hôpital

Regional PT
11. Moutier
12. Lucelle
13. Pleigne
14. Roggenburg
16. Châtillon
17. Montsevelier
18. Rebeuvelier
20. Vermes

UITP
CHALLENGES: RISING COSTS AND DECLINING DEMAND

Situation in the 1990’s and early 2000’s:

- passenger numbers on urban and regional bus services.
- Revenues
- costs, global and per passenger
- discontentment of the public authorities
- public transport deficit

... a call for action!
MEASURES AND SOLUTIONS:
THREE COURSES OF ACTION

a) **Integration** of urban and regional transport systems

b) **Combination of scheduled and on-demand transport**, also in urban areas

c) **Communication face-lifting**: applying metropolitan best practices
A) INTEGRATING URBAN AND REGIONAL TRANSPORT SYSTEMS

- Regional lines with more urban bus stops.

- Improved interconnections between urban and regional lines.

- Integrated tickets for the entire bus and train network in Switzerland sold in busses (2012).

- CIBO ticketing with Smartphone (2016)
B) COMBINING SCHEDULED AND ON-DEMAND TRANSPORT

step-by-step implementation

1. **Scheduled on-demand transport** (1998)
   Reduced frequency of existing bus lines by making scheduled service available on demand only.

2. **Flexible on-demand transport** (1999)
   Transport service along defined line, without timetable.

3. **Door-to-door transport** (2000)
   No timetable, no bus stops.

4. **Reintroduction of regular scheduled bus lines** (since 2004)
C) INTRODUCING METROPOLITAN BEST PRACTICES

Communication face lifting:

• Improved **design** of signs, maps and timetables.

• **Intuitive colour codes** for bus lines, use on vehicles and info-screens.

• **Real-time** passenger information: LCD-screens in key locations, with additional infotainment services (+Wifi).

• **Automatic** passenger counting systems for detailed demand analysis.
RESULTS: MORE PASSENGERS

Urban Public Transport Delémont

- Scheduled Busses
- On-demand transport

Switch to scheduled transport
KEY ENABLERS

On-demand transport as a catalyst

- Completion and replacement of traditional bus lines, while simultaneously identifying and creating future demand.
- Real-time market research allows constant optimisation.
- Introduction of new conventional bus lines based on stronger demand.

Lower entry barriers for customers

- Stronger integration of transport offer for better ease of use.
- Improved accessibility through better passenger information.
- Dynamic and positive image of the transport offer increases attractiveness.
KEY SUCCESS FACTORS

• Close **collaboration** between public and private entities.
• Implementation strategy explicitly based on a long term, **evolutionary and step-by-step approach**.
• Public and political backing through a constant dialogue between all stakeholders.
• **Organic growth** of transport system based on market demands and thus highly adapted to customer needs.
• “The biggest success for an on-demand service is for it to be replaced by a scheduled transport offer.”
LESSONS LEARNED AND FUTURE MEASURES

• **High dispatching costs** of a callcenter-based on-demand service (dial-a-ride).
  ➔ Use of modern technologies to reduce callcenter expenses.

• **Low occupancy** of on-demand vehicles.
  ➔ Further optimisation of passenger grouping.

• When switching to scheduled transport, difficult definition of optimal frequencies for an **optimal price-performance ratio**.
  ➔ Challenge: Present offer defines future demand!
SUMMARY AND CONCLUSION

• Overall passenger numbers rose significantly (between +5% and +700% per line; +13% on average 1st year).

• The overall quality and quantity of Delémont’s PT received a boost.

• Accessibility and ease of use significantly improved, actively generating demand and increasing the usage of PT.

• The integrated urban/regional approach created a basis for the overall expansion of the PT system.

We are convinced that this success story can be replicated in other small city areas.
THANK YOU! ANY QUESTIONS?

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