Integrated rural mobility - case Finland

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Finland

- Population: 5.5 million
- Density: 18 inhab./km² (Lapland: 2 inhab./km²)
- Around 188 000 lakes
- Long winter

50% of Finns live below the line
(Statistical yearbook of Finland 2018, Statistics Finland)
<table>
<thead>
<tr>
<th><strong>Cities</strong></th>
<th><strong>Suburban areas</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objectives:</strong></td>
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<tr>
<td>• Reduce the use of private cars (congestions, parking)</td>
<td>• No need for a 2nd car</td>
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<tr>
<td>• Reduce emissions</td>
<td>• First-/last-mile accessibility</td>
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<tr>
<td><strong>Based on:</strong></td>
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<tr>
<td>• Existing public transport</td>
<td>• Park &amp; ride -services, on-demand transport and other services connecting suburban to city transport services</td>
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<tr>
<td>• Extended with rental and shared cars and bikes...</td>
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<thead>
<tr>
<th><strong>Rural areas</strong></th>
<th><strong>National and international levels</strong></th>
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<tr>
<td><strong>Objectives:</strong></td>
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<tr>
<td>• Increase efficiency and utilization rate</td>
<td>• Offer easy all-in-one packages</td>
</tr>
<tr>
<td>• Maintain sufficient service level</td>
<td><strong>Based on:</strong></td>
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<tr>
<td>• Improve accessibility</td>
<td>• Long-haul transport including air traffic</td>
</tr>
<tr>
<td><strong>Based on:</strong></td>
<td>• Additional services: accommodation, event tickets, activities...</td>
</tr>
<tr>
<td>• DRT, taxis, busses and connections to long-haul transport, and car pooling</td>
<td></td>
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<tr>
<td>• Additional services: parcel deliveries, library services, and food and medicine distribution...</td>
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MAASiFiE project: Eckhardt & Aapaoja 2016
### SWOT: Rural MaaS

<table>
<thead>
<tr>
<th><strong>Strengths</strong></th>
<th><strong>Weaknesses</strong></th>
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<tbody>
<tr>
<td>• Decision-makers are development oriented</td>
<td>• Silo effect of stakeholders</td>
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<tr>
<td>• ICT: extensive infrastructure, digitalization</td>
<td>• Procurement</td>
</tr>
<tr>
<td>• Local stakeholders and knowledge</td>
<td>• Expensive current system</td>
</tr>
<tr>
<td>• Stable situation (population and services)</td>
<td>• Lack of IT systems and information</td>
</tr>
<tr>
<td>• Trust (sharing and peer-to-peer services)</td>
<td>• Concentration to population centres</td>
</tr>
<tr>
<td>• Subsidized transportation (backbone)</td>
<td>• Inefficiency (flows, distances, occupancy rates)</td>
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<table>
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<tr>
<th><strong>Opportunities</strong></th>
<th><strong>Threats</strong></th>
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<tbody>
<tr>
<td>• Collaboration of public stakeholders</td>
<td>• The Transport Code will benefit large companies</td>
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<tr>
<td>• Reform and changes in legislation</td>
<td>• Uncertain future → development stops</td>
</tr>
<tr>
<td>• Needed technology exists, open data</td>
<td>• Lack of collaboration and separate visions</td>
</tr>
<tr>
<td>• Combine rides and create travel chains</td>
<td>• Support and subvention is decreasing</td>
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<tr>
<td>• Improved accessibility</td>
<td>• Condition of the road network</td>
</tr>
<tr>
<td>• Bringing services to customers</td>
<td>• Urbanization, aging population in the countryside</td>
</tr>
</tbody>
</table>

Rural MaaS vision

“Ensure for everyone adequate mobility services and accessibility relative to well-being, cost-efficiently with an appropriate service level”

Potential solutions for rural areas

- **Combine:**
  - Mobility of people and goods
  - Publicly subsidized and market-based transport services

- **Create:**
  - Travel chains
  - On-demand transport services

- **Share, prosume:**
  - Ridesharing for people and goods
  - Sharing services (cars, taxi rides…)
  - Peer-to-peer rental services
  - Ridesourcing
  - Organized hitchhiking

Photo: Jenni Eckhardt
PPPP network

Smart Solutions for Integrated Regional Mobility Services (’ALPIO’)

- The Finnish Innovation Fund Sitra funding call for regional mobility
- Duration: 05/2018 – 10/2019
- Regional pilots:
  - Combine statutory health and social service transportation, service routes and self-paying customers using a mobile app
  - Demand-responsive-transport services
- Companies work on creating a digital platform
- VTT performs impact assessment

REGIONAL ACCESSIBILITY
VEHICLE OCCUPANCY RATE
SERVICE LEVEL IN SPARSELY POPULATED AREAS
MOBILITY COSTS
GREENHOUSE GAS EMISSIONS

Figure: Sitra, VTT and other project partners 2019
Open Arctic MaaS
#ArcticMaaS

- Enabling rural MaaS and sustainable growth of tourism in Lapland
  - Area of ~100 000 km²

- Joint effort to make mobility as easy as possible
  - 11 remote travel destinations joining their resources to improve internal accessibility and digital transport service level

- Up-scale deployment towards open and shared mobility platform
  - by utilizing and further developing common open source public transport information systems

Open Arctic MaaS core team
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More: www.arcticmaas.fi
Ylläs Around pilot 2017-2018 as Proof of Concept

Ylläs Around Journey Planner

Ylläs Tiketti Integration to ticketing & payment application

Ylläs web portal integration
Conclusions

- Collaboration and interoperability
  - National and international: policy making, regulation, technical...
  - Business sector, public sector, PPPP...
  - Between modes and service providers

- Data: collection, updates, digitalization, integration, quality

- Pilots
  - Benchmarking of best practices
  - Impacts on different levels
  - Pilot duration and marketing
  - Continuation after pilots
Thank you!

Questions?

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