Automation-Ready Framework

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#H2020CoEXist
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CoEXist in brief

• **Uncertainties for EU Local Authorities**
  – Current hype creates unrealistic expectations of the technology (pro-innovation bias)
  – (Connected) Infrastructure requirements are not clearly formulated yet.
  – Long transition phase where conventional vehicles coexist with partially and fully automated vehicles.
  – Result: Automation not mentioned in strategic transport plans

• **Objective:**
  – The mission of the H2020 CoEXist project is to systematically increase the capacity of local authorities and other urban mobility stakeholders to get ready for the transition towards a shared road network with increasing levels of connected and automated vehicles (CAVs)

• **Automation-Ready:**
  – Micro- and Macroscopic Transport Modelling
    • VISSIM and VISUM
  – Hybrid Road Infrastructure
    • Automation-ready design recommendations
  – Local Transport Policies
    • Automation-ready action plans

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What is certain and what is not?

**Uncertainties**

**Certainties**

- Overall *mobility* will increase
- Benefits only gained from a future where:
  - Electric
  - Shared
  - Connected
  - Cooperative
  - Proactive planning
## Key measures to be taken in the next 15 years

<table>
<thead>
<tr>
<th>Mobility Aspect</th>
<th>Automation Awareness</th>
<th>Planning for Automation-readiness</th>
<th>Automation-ready measures implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policy</td>
<td>Policy screening: Liveability as top priority – how can CAVs contribute to it?</td>
<td>Reassessment of strategic mobility plans; incorporating new mobility forms</td>
<td>Mobility pricing for “SPAM” roaming cars</td>
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<tr>
<td>Infrastructure</td>
<td>Is there a conflict between people friendly vs. automation friendly?</td>
<td>Preparation of physical and digital infrastructure</td>
<td>Modifications to infrastructure and accompanying traffic code</td>
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<tr>
<td>Planning</td>
<td>Engagement with citizens &amp; support testing activities and research</td>
<td>Update travel demand models and evaluate road capacity needs</td>
<td>Assessment of required land use changes based on integrated land use and transport modelling tools</td>
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<tr>
<td>Capacity Building</td>
<td>Try out level 1 &amp; 2 functionalities</td>
<td>Identify new skill requirements – ‘less concrete more bytes’</td>
<td>Organisational restructuring for traffic management and public transport operations</td>
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<tr>
<td>Traffic Management</td>
<td>Road authorities need to engage with OEMs</td>
<td>Back office for data exchange in traffic management</td>
<td>Defining data management responsibility with new management schemes</td>
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</tbody>
</table>

### Time Period

- **0-5 years**
  - Policy screening: Liveability as top priority – how can CAVs contribute to it?
- **5-10 years**
  - Preparation of physical and digital infrastructure
  - Update travel demand models and evaluate road capacity needs
- **10-15 years**
  - Modifications to infrastructure and accompanying traffic code
  - Assessment of required land use changes based on integrated land use and transport modelling tools
  - Organisational restructuring for traffic management and public transport operations
  - Defining data management responsibility with new management schemes

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Challenge Questions

- What aspects about the deployment of CAVs are most uncertain and certain to you? How can these uncertainties be reduced?
- In which phase is your city located? Have you taken any measures?
- How does mobility management has to change with the introduction of CAVs?
- What automation-ready measures can you think of? Now, 5 years, 10 years?
Thank you for listening

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