









# Action

# Related Tasks

## Design and test inclusive automated mobility concepts

System & Services /  
Society-related

Sami Koskinen &  
Satu Innamaa (VTT)

Why is this action important? 	Key uncertainties 	Action description 	Possible impacts 															
<ul style="list-style-type: none"> <li>Support needed for independent living and mobility: 20% of over-65-year-olds do not drive at all, 12% of disabled workers live in zero-vehicle homes vs. 4% non-disabled (U.S. statistics)</li> <li>Alternatives needed for taxi transportation of special groups: 30% of taxi trips in Finland are supported by the society</li> <li>Social inclusion should be supported by easy-to-use mobility concepts, CAD provides new means for that</li> <li>Accessibility should be ensured for all</li> <li>New CAD-based solutions for affordable, easy-to-use rides to seniors, children and disabled individuals can be developed</li> <li>Coverage and range of public transport should be extended in many areas and for more user groups to support use of sustainable transport modes</li> <li>Not many automated vehicle prototypes currently address the needs of special user groups</li> <li>The technology is not ready yet, but different user needs should be identified early to ensure user-centric design</li> </ul> <p><b>Further arguments?</b></p>	<ul style="list-style-type: none"> <li>What are the needs of special user groups from mobility concept viewpoint</li> <li>How to design inclusive CAD-based mobility concepts</li> <li>How to design these concepts still ensuring sufficient purchasing power and number of users (market potential), keeping the services affordable</li> <li>How to ensure flexibility of services with respect to range of disabilities (in comparison with flexibility of taxi drivers)</li> <li>How to ensure CAD-service understanding the intentions of the client to ensure safe use of service (unclear communication, memory challenges, etc.)</li> <li>How to ensure feeling of safety and confidence for all users</li> </ul> <p><b>Further key uncertainties?</b></p> <p><b>Specific key uncertainties for urban areas?</b></p> <div data-bbox="667 1155 1418 1281" style="background-color: #4CAF50; color: white; padding: 5px; text-align: center;"> <b>Cause-effect or working mechanism</b>  </div> <ul style="list-style-type: none"> <li><b>Cause:</b> Mobility concepts built reflecting needs of special user groups</li> <li><b>Effect:</b> Improved social inclusion</li> <li><b>Working mechanism:</b> If mobility concepts can fulfil the needs of special user groups, improved mobility enhances the quality of life for them.</li> </ul> <p><b>Questions/ Feedback?</b></p>	<ul style="list-style-type: none"> <li>Identify the needs of different special user groups (elderly, children, different disabilities)</li> <li>Design mobility concepts fulfilling these needs                             <ul style="list-style-type: none"> <li>Use living labs, real-world studies, field operational trials and naturalistic studies</li> <li>Include end users in early design</li> <li>Design teams to include specialists</li> </ul> </li> <li>Plan how these new services can be integrated with the existing transport system</li> <li>Run public discussion and regulation forums</li> </ul> <p><b>What needs to be done out of your perspective?</b></p>	<ul style="list-style-type: none"> <li>Independent living and mobility for more citizens, better quality of life</li> <li>Cheaper door-to-door rides for special user groups</li> <li>Availability of mobility services in areas poorly served by mass transit (also when re-arranging public transport lines)</li> </ul> <p><b>Further possible impacts?</b></p> <div data-bbox="1944 1060 2890 1281" style="background-color: #2E8B57; color: white; padding: 5px; text-align: center;"> <b>Stakeholders</b>  </div> <table border="1" data-bbox="1973 1312 2626 1543"> <thead> <tr> <th>Actor</th> <th>Task</th> <th>Role</th> </tr> </thead> <tbody> <tr> <td>Public sector</td> <td>Regulations</td> <td>Legal, financial</td> </tr> <tr> <td>Federations of special user groups</td> <td>Expertise, discussion forums</td> <td>End users</td> </tr> <tr> <td>AV design teams</td> <td>Inclusive design</td> <td>Engineering</td> </tr> <tr> <td>Research organisations</td> <td>Impact and HMI assessment</td> <td>Evaluation</td> </tr> </tbody> </table> <p><b>Further stakeholders?</b></p>	Actor	Task	Role	Public sector	Regulations	Legal, financial	Federations of special user groups	Expertise, discussion forums	End users	AV design teams	Inclusive design	Engineering	Research organisations	Impact and HMI assessment	Evaluation
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<ul style="list-style-type: none"> <li>Acceptance and suitability of new mobility concepts for the special user groups</li> <li>Number of citizens served by new concepts of those who have now limited mobility due to their special needs</li> <li>Societal cost–benefit ratio</li> </ul> <p><b>Further evaluation criteria?</b></p>		<p><b>Key references?</b></p>																