With public participation to a stopless and timetableless urban quarter bus in the Real-world lab Schorndorf

Matthias Klötzke, Eva Fraedrich*, Laura Gebhardt, Tim Sippel, Frank Ulmer
International Sustainability Transitions Conference 2016, Wuppertal

The German Aerospace Center (DLR), the University Esslingen, the University Stuttgart, the Verkehrs- und Tarifverbund Stuttgart (VVS), Knauss Linienbusse, Daimler AG and the City of Schorndorf have been engaged in a project (“Realabor Schorndorf – Reality Lab Schorndorf”) to develop an innovative, demand-oriented operational system as well as a vehicle concept for public busses in the city of Schorndorf in Baden-Württemberg. A crucial aspect of the project is the integration and participation of users of Schorndorf’s transport system into the development process against a transdisciplinary background.

Reality Lab Schorndorf

In the “Reality Lab Schorndorf,” a bus concept for the inner city area is currently being developed. On call – and by means of digital solutions, the bus shall pick up passengers at a desired stop and drop them off at their destination. Thus, the bus system complements the main transport connections in times of lower demand. In addition, smaller vehicles will be developed. On call – and by means of digital transport system.

In the “Reality Lab Schorndorf,” a bus concept for the inner city area is currently being developed. On call – and by means of digital solutions, the bus shall pick up passengers at a desired stop and drop them off at their destination. Thus, the bus system complements the main transport connections in times of lower demand. In addition, smaller vehicles will be implemented. The project shall contribute to a resource-efficient, flexible and user-friendly transport system.

- Sponsor: Ministerium für Wissenschaft, Forschung und Kunst, Baden-Württemberg
- Funding volume: 1.2 Mio. €
- Project duration: 01.02.2016-31.01.2019

Project Structure

Crucial within the project is the integration of knowledge in a transdisciplinary manner that is reflected in the project's structure:

<table>
<thead>
<tr>
<th>Participation</th>
<th>Operation Concept</th>
<th>Vehicle Concept</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Reid position</td>
<td>Specification analysis</td>
<td>Specification management</td>
</tr>
<tr>
<td>2. User perspective</td>
<td>Specification development</td>
<td>Specification development</td>
</tr>
<tr>
<td>4. Monitoring phase</td>
<td>Testing/ Pilot phase</td>
<td>Contributions</td>
</tr>
<tr>
<td>5. Public change</td>
<td>Investigation</td>
<td>Investigation of demonstrator</td>
</tr>
</tbody>
</table>

Knowledge Management

Project Coordination

Research questions

1. What are the requirements for innovative concepts that allow for flexible, comfortable mobility?
2. What could a public transport concept look like that is based on user requirements and developed from their perspective?
3. What would an innovative vehicle look like?
4. How can the users be integrated into the development process?

Innovative Mobility Concepts for Urban Areas

First evidence of transformations in urban mobility systems demand for new solutions1,2,3,4:
- Increase in the use of public transport as well as active modes
- Increase in the flexible use of different modes (multimodality, intermodality)
- Decrease of car usage (in particular among young transport users)
- Increase in digital (information) services within the mobility sector

Public participation approach

A group of Schorndorfer volunteers will act as “co-designers” in the development process. In joint “Design Thinking Workshops”, they will contribute to the requirements analysis, develop solutions and evaluate pilot concepts.

In the project, various methods (qualitative social research, creativity methods, citizen participation procedures) are used to generate benefits in the development and planning process:
- Enhancement of acceptance and transparency from user perspectives
- Practical findings, based on everyday mobility practices and knowledge of crucial actors

References


www.reallabor-schorndorf.de