UNIACCESS

Design of Universal Accessibility Systems for Public Transport

Funding: European (6th RTD Framework Programme)
Duration: Jan 2005 - Dec 2006
Status: Complete with results
Total project cost: €1,300,000
EU contribution: €1,300,000

Call for proposal: FP6-2003-TRANSPORT-3
CORDIS RCN : 74793

Background & policy context:

The European Union has committed itself to providing all citizens with equal opportunities. This means that, in as much as possible, people with different degrees of mobility (the young, the elderly, people with disabilities, people carrying infants or shopping, pregnant women, etc.) should be granted the same comfort, speed and capacity when using public transport. The only way to guarantee this is to ensure that the entire public transport system (railway, buses, taxis and its supporting infrastructure) in the EU becomes universally accessible.

In addition, universal design is not only a way of solving a problem; it is also an opportunity to increase the quality, usability and safety of public transport as well as the competitiveness of the industry.

Experience has shown that accessibility design is a multidisciplinary problem that demands a highly co-ordinated approach. End-users must validate new designs; they must also communicate their needs and assessment of the current situation. Designers and manufacturers must find cost-effective viable solutions, and what works in the laboratory must also work in reality. Authorities must legislate and regulate taking all of this into account to achieve maximum effectiveness.

Objectives:

The aim of this project was to break with the traditional ways of dealing with these issues, which mitigate the problem but do not fully solve it.

1. To collect useful State-of-the-Art knowledge for designing universally accessibility systems for public transport in a way that allows this knowledge to be used and shared by all stakeholders in accessibility to public transport with a view to favouring synergies and better quality.

2. To produce a roadmap of future R&D in universal accessibility to public transport based on:
   - the current situation of accessibility to transport;
   - our vision of future accessibility to transport based on the universal design philosophy;
   - the emerging R&D concepts in this field;
   - the technology gaps that separate our current situation from the intended one.

3. To invent new R&D project proposals that allow us to bridge the existing technology gaps, such as for example:
   - to come up with promising ideas that allow us to make access easier and more comfortable for all;
   - to reduce time waste during access;
   - to achieve an efficient use of available space;
   - to obtain concepts that can be applied to different train, bus and car types with as few modifications as possible;
   - to maximise reliability to keep the devices always working properly;
   - to achieve a safe system.

4. To define an improved collaborative innovation process in accessibility to transport that takes
advantages of all the stakeholders involved in the field: end-users, operators, authorities, designers and manufacturers.

5. To spread knowledge of universal design among educational institutions, end-users, operators, designers and manufacturers with a view to facilitating the adoption of the new concepts.

**Methodology:**

The work comprised the following technical elements:

- Review of the State-of-the-Art. More than gaining new knowledge, the goal here was to establish a basis on which new ideas can be generated and new designs developed;
- Identification of concepts for new accessibility devices that can be used by people with or without mobility problems;
- Definition of a new improved collaborative innovation process which breaks the communication barriers which currently prevent us from taking full advantage of the contributions of all stakeholders to improve accessibility to transport;
- Dissemination of the results of the project to all the EU agents who can facilitate the adoption of universal accessibility systems to public transport: end-users, authorities, operators, manufacturers and designers, educators and the public in general.

**Parent Programmes:**

FP6-SUSTDEV-3 - Global Change and Ecosystems

**Institute type:** Public institution

**Institute name:** European Commission

**Funding type:** Public (EU)

**Lead Organisation:**

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<th>Grupo Interes Accesibilidad Transporte A.i.e.</th>
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<td>VITORIA</td>
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<td>Spain</td>
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<td><strong>Organisation Website:</strong></td>
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<tr>
<td>[<a href="http://www.eurotransportforall.com">http://www.eurotransportforall.com</a>]</td>
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**Partner Organisations:**

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<th>Siemens Transportation Systems Gmbh &amp; Co Kg</th>
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<td><strong>Address:</strong> Leberstrasse 34</td>
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<td>European Network On Independent Living</td>
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<td>Polis - Promotion Of Operational Links With Integrated Services, Association Internationale</td>
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<td>European Older People's Platform'</td>
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<td>Confederacion Coordinadora Estatal De Minusvalidos Fisicos De Espana</td>
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Key Results:

The Uniaccess project developed three key results:

1. Accessibility overview

UNIACCESS provided a comprehensive review on the situation of ‘accessibility’ in public transport in terms of infrastructure, vehicles, and legislation and standards. This was accomplished by collecting input of accessibility experts from around Europe, as well as gathering the viewpoints of the full range of stakeholders, i.e. end users, operators, authorities and manufacturers/designers.

2. Accessibility roadmap

The project designed a roadmap identifying future R&D needs, through a scenario-based analysis. The roadmap was prepared on the basis of an analysis of the Emerging Concepts and specifically, the solutions needed to deliver a given scenario-based accessibility requirement. The roadmap is organised according to the five steps in any journey chain: before the journey (e.g. travel information & booking); to the terminal or bus stop; at the terminal, platform or bus stop; getting into/out of the transport vehicle; during the journey. It also contains a separate section on R&D in relation to legislation, standards, policy and society.

3. Innovation process methodology

UNIACCESS’s next result was to provide a methodology that would encourage the collaborative innovation process with relevant stakeholders. This methodology is based on modern design methodology and insight in collaborative group processes. A description of the state-of-the-art in accessibility schemes was used as input to the development.

Policy implications

Currently, standards and laws are scattered and vary from country to country and between the different types of public transport. Therefore, UNIACCESS proposed a set of five institutional targets to be met by EU policy:

1. Conduct a comprehensive review of existing national/regional rules & regulations, enforcement and punitive measures on transport accessibility that should result in recommendations based on best practice for national/regional legislators/authorities.
2. Create a complete set EU standards for accessible vehicles, infrastructure, information and ticketing.
3. Create an EU-wide non-discrimination legislation which should cover all aspects of discrimination and all groups of people.
4. Create a European-level central agency on non-discrimination.
5. Develop accessibility certification for public transport products and services (vehicles, infrastructure, information & ticketing, etc).

However, the UNIACCESS project also made clear that legislation and standardisation alone would not deliver universal accessibility in public transport. Additional measures, notably of a social nature, are needed to complement them.

Documents:

- Project Presentation (Project presentation)
- Final Report Summary - UNIACCESS (Design of universal accessibility systems for public transport)
STRIA Roadmaps: Smart mobility and services
Transport mode: Multimodal transport
Transport sectors: Passenger transport
Societal/Economic issues,
Transport policies: Decarbonisation
Geo-spatial type: Other