Public Transportation - Accessibility for All

Funding: European (7th RTD Framework Programme)
Duration: Sep 2009 - Nov 2012
Status: Complete with results
Total project cost: €2,861,816
EU contribution: €1,807,662

Call for proposal: FP7-SST-2008-RTD-1
CORDIS RCN: 93399

Background & policy context:
The project was intended to raise awareness about the significance of accessibility in public transport. Barrier-free access to means of transportation is very important in order to provide effective and fair transport systems. The project will contribute to create a fully accessible railroad network for all clients.

Note that several Eastern European partners participate in the project. In many Eastern European countries accessibility is not yet sufficiently recognised as a problem.

Objectives:
Pubtrans4all set out to develop a prototype vehicle-based boarding assistance system that can be built into new rail vehicles or retrofitted into existing rail vehicles to improve accessibility for all persons. Accessibility for rail vehicles is particularly problematic since rail vehicles have a long service life, so many currently inaccessible vehicles will remain in service well into the future. PubTrans4all will help make existing public transport systems more accessible, improving service for everyone.

The PubTrans4all project's objective is to develop a standard boarding assistance system that can be used on many different types of rolling stock and infrastructures. The boarding assistance system will not simply be a device, but rather include contributing elements that make it possible to effectively use the device to access rail vehicles. The prototype will be developed by a multi-disciplinary consortium including users, public transport operators, academic researchers and manufacturers.

The PubTrans4all project was conducted by a well balanced and geographically diverse consortium. Especially beneficial is the participation of several Eastern European partners since accessibility is not sufficiently recognised as a problem in many of these countries. Accessibility for all is critical to creating an equitable, effective and efficient transport system. The project PubTrans4all will help build a fully accessible rail network.

Methodology:
As part of the process of developing the prototype boarding assistance system, the project will survey state of the art accessibility devices and make recommendations for best practices in the use and operation of these existing devices. The project will include an extensive dissemination program designed to communicate study results widely, but also to help inform the general public and decision-makers about the importance and challenges in providing accessibility for all.

Parent Programmes:
FP7-TRANSPORT - Transport (Including Aeronautics) - Horizontal activities for implementation of the transport programme (TPT)

Institute type: Public institution
Institute name: The European Commission
**Funding type:** Public (EU)

### Lead Organisation:

**Rodlauer Consulting Eu**

**Address:**
Hertha Firnberg Strasse 10/4/1 2
1100 Wien
Austria

**EU Contribution:** €365,000

### Partner Organisations:

**Mav Magyar Allamvasutak Zartkoruen Mukodo Rt**

**Address:**
Konyves Kalman Korut 54-60
Budapest
1087
Hungary

**EU Contribution:** €22,320

**Technische Universitaet Wien**

**Address:**
Karlsplatz 13
1040 Wien
Austria

**EU Contribution:** €304,783

**Slovenske Zeleznice Doo**

**Address:**
Kolodvorska Ulica 11
1000 Ljubljana
Slovenia

**EU Contribution:** €8,776

**Öbb-Personenverkehr Ag**

**Address:**
Wagramer Strasse 17-19
1220 Vienna
Austria

**EU Contribution:** €15,570

**Bdz - Tovarni Prevozi Eood**

**Address:**
Ul Ivan Vazov 3
1080 Sofia
Bulgaria

**EU Contribution:** €114,300
<table>
<thead>
<tr>
<th>Organisation Name</th>
<th>Address</th>
<th>EU Contribution</th>
</tr>
</thead>
</table>
| University Of Belgrade - Faculty Of Mechanical Engineering | Kraljice Marije 16  
11120 Belgrade  
Serbia | €80,400                       |
| Verkehrsbetriebe Karlsruhe                  | Tullastraße 71  
76131 Karlsruhe  
Germany | €145,620                     |
| Mbb Palfinger Gmbh                           | Fockeinstrasse 53  
27777 Ganderkesee  
Germany | €364,320                     |
| National Railway Infrastructure Company      | Maria Luiza Boulevard 110  
1233 Sofia  
Bulgaria | €95,820                      |
| Siemens Ag                                  | SIEMENSSTRASSE  
93026 REGENSBURG  
Germany | €130,200                     |
| Slovenske Zeleznice Doo                     | Kolodvorska Ulica 11  
1000 Ljubljana  
Slovenia | €14,099                      |
| Bombardier Transportation Gmbh              |                                             |                 |
The PubTrans4All project developed a prototype of a vehicle-based boarding assistance system (BAS) that can be installed into new rail vehicles but also retrofitted into existing rail vehicles and can be used on many different types of rolling stock and infrastructures.

As a part of developing a new prototype of a BAS, the consortium surveyed at the beginning of the project state of the art accessibility devices and made recommendations for best practices of use and operation of these devices.

Furthermore an international student contest was held in spring 2010 finding new ideas and innovative solutions for a new BAS. Any new idea improving the interface between platform and vehicle was accepted. In total 38 students from Austria, Hungary, Serbia, Croatia and Bulgaria participated at the contest and submitted their ideas.

After finalising the building phase, the prototype was first factory tested at the site of our consortium partner and lift manufacturer MBB Palfinger. Therefore a test bench (welded steel construction) was built displaying all technical restrictions of a classical UIC-wagon for testing purposes. Next, the prototype of a BAS has been sent to our project partner BDZ in Bulgaria and was installed into a UIC-wagon of the Bulgarian State Railways. Then, the prototype was tested on the railway network in Bulgaria.

**Innovation aspects**

From the perspective of the operator and the users the operation of the BAS is easy to handle and user-friendly. Due to the different limitations resulting from the vehicle construction, it was necessary to make several compromises but the developed compromise allows about 99% of all actual wheelchair users to board. In combination with a good personnel service at the entrance the wagons can also become accessible for nearly all passengers.

**Strategy targets**

An efficient and integrated mobility system: Service quality and reliability

**Documents:**
- D4.2 Vehicle Based 'BAS' Preliminary Design Recommendations (Other project deliverable)

**STRIA Roadmaps:** Vehicle design and manufacturing, Infrastructure

**Transport mode:** Rail transport
Transport sectors: Passenger transport
Transport policies: Digitalisation
Geo-spatial type: Infrastructure Node