PubTrans4All

Public Transportation - Accessibility for All

Deliverable 1.3

Periodic Management Report 2

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Table of Versions:

Version	Date	Authors	Description	Date of Approval
0.1	29. 11. 2012	ROD	First Version	

PubTrans4All – Public Transportation – Accessibility for All

Project Introduction

The R&D-project "Public Transportation – Accessibility for All" (PubTrans4All) is funded under the European Community's 7th Framework Programme and the aim of this project is to develop of a prototype vehicle-based boarding assistance system (BAS) that can be built into new rail wagons or retrofitted into existing rail wagons to improve accessibility for all persons. Accessibility for rail wagons is particularly problematic since rail wagons have a long service life (30 to 40 years or longer) and so many currently inaccessible wagons will remain in service well into the future. Therefore PubTrans4All will help make existing public transport systems more accessible, improving service for everyone – not only for handicapped people but also for people with huge luggage, parents with baby carriages or elderly.

The PubTrans4All project's objective is to develop a prototype of a standard boarding assistance system that can be used on many different types of railway rolling stock and railway infrastructures all over Europe. As one part of the project, the consortium surveyed state of the art accessibility devices and made recommendations for best practices of use and operation of these existing devices.

The construction and testing phase of the prototype has started in January 2011. Till September 2012 the prototype will be incorporated into an UIC-wagon which is one of the most demanding wagon types due to their restricted entrance area and currently no boarding assistance device for this type of wagon exists. The UIC-wagon with the incorporated prototype will be exhibited on the InnoTrans2012 in Berlin end of September to the interested public.

For being able to fulfill these demanding tasks, the PubTrans4All project is completed by a well balanced and geographically diverse consortium, including users, public transport operators, academic researchers and manufacturers. Especially beneficial is the participation of several Eastern European partners – since accessibility is not sufficiently recognized as a problem in many of these countries.

Accessibility for all is essential for creating an equitable, effective and efficient transport system. Therefore the PubTrans4All project will help building a fully accessible rail network.

Figure 1 – List of PubTrans4All-partners

Number	Beneficiary organisation name	Short name	Country	Date Enter Project	Date Exit Project
1	RODLAUER CONSULTING	ROD	AT	1	39
2	Vienna University of Technology, Institute for Railway Engineering	TUV	AT	1	39
3	University of Belgrade, Faculty of Mechanical Engineering	UB	RS	1	39
4	Austrian Federal Railways	OBB	AT	1	39
5	Verkehrsbetriebe Karlsruhe GmbH	VBK	DE	1	39
6	Swiss Federal Railways	SBB	CH	1	39
7	Bulgarian National Railway Infrastructure Company	NRIC	BG	1	39
8	MÁV-START Railway Passenger Transport Co.	MAV	HU	1	39
9	MBB PALFINGER GmbH	MBB	DE	1	39
10	Bombardier Transportation	BT	DE	1	39
11	Siemens Aktiengesellschaft Österreich	Siemens	AT	1	39
12	Slovenian Railways	SZ	SI	1	39
13	BDZ Passenger Traffic EOOD	BDZ	BG	1	39

Project Objectives

The PubTrans4all project has three main objectives:

1. Survey existing practices for the use of vehicle and platform based boarding assistance systems (BAS) and develop best practice recommendations for their design and use;
2. Develop a prototype for a standard BAS that can be retrofitted into all types of existing rail vehicles or installed on all types of platforms. Note that current research supports development of a standardized vehicle-based BAS, however the project will assess the potential for a platform-based BAS as well, and will develop a platform-based prototype if it is found that this would lead to an optimum solution.

   Note further that the proposal text below reflects the vehicle-based solution, if the platform-based solution is selected, the same general work plan would be followed, with some minor changes. These changes would be outlined in an amendment to this Description of Work.
3. Disseminate information about the project findings and recommendations widely.

The following table summarizes how success will be measured and verified.

For detailed information about the objectives and completion please see specifically the list of deliverables and the list of project milestones.

Figure 2 – Project Objectives

Project Objective	Measures of Completion	Expected Completion
1 – Survey existing BAS practices and develop best practices	Submission of project deliverables D2.1 (BAS Evaluation Criteria), D2.2 (BAS Evaluation Matrix), and D3.1 (Recommendations for Improved BAS) to EC	Month 16
2 – Develop prototype BAS and perform field test	Submission of deliverables D4.1 (Conceptual Design Recommendations), D4.2 (Prototype Design Report), D4.3 (Prototype Building and Installation	Month 32

	Report), D4.4 (BAS Design and Evaluation Report) to EC.	
3 – Disseminate information about project findings and recommendations widely	Website on-line and usable.	Month 5
	Project newsletters (3) prepared and distributed (D5.1, D5.2, and D5.3).	Months: 5, 16, 34
	Submission of project deliverable D1.4 (Final Report) to EC	Month 39

The minimum goal for the PubTrans4All project is to develop a BAS that works for wheelchair users; the ultimate goal is to develop a BAS that works for many other user groups. Many platform/vehicle-specific solutions for providing rail vehicle access already exist, but no standardized universal solution.

Project Meetings

Communication plays a key role in successful project completion and therefore the project management team (namely ROD as coordinator and the work package leaders TUV, UB and MBB) met frequently – not only in virtual meetings but also in physical meetings – to review project progress and quickly address any scientific or administrative problems. These meetings were supplemented by regular communication via telephone and e-mail.

The consortium had five full consortium meetings over the three-year and three months length of the project. The preparation, execution and post-processing of the five consortium meetings were part of the present WP.

The project management group and participants in the different WPs had additional meetings as part of their work packages.

Figure 3 – Consortium meetings during the project

Meeting Name	Venue	Month	Date
Project Kick-Off Meeting	Brussels	3	30th November and 1st December 2009
Existing BAS Evaluation Meeting	Vienna	9	18th May 2010
BAS Recommendations Meeting	Belgrade	15	30th November 2010
BAS Deployment and Testing	Vienna	25	27th September 2011
BAS Evaluation			
Project Final Report	Vienna	39	6th November 2012

Additionally to these 5 full consortium meetings, the prototype development group (PDG) held six PDG-meetings for discussing and finding the appropriate design criteria for the BAS prototype.

Figure 4 – Prototype Development Group Meetings during the project

Meeting Name	Venue	Date
1st Meeting Prototype Development Group	Hennigsdorf (BT)	8th July 2010
2nd Meeting Prototype Development Group	Bremen/Hoyenkamp (MBB)	16th September 2010
3rd Meeting Prototype Development Group	Vienna (ROD)	16th November 2010
4th Meeting Prototype Development Group	Vienna (ROD)	19th July 2011
5th Meeting Prototype Development Group	Sofia (UB)	9th November 2011
6th Meeting Prototype Development Group	Bremen/Hoyenkamp (MBB)	22nd May 2012

Last consortia meeting

On November 6th 2012 the consortium had the last consortia meeting in Vienna. Nearly every beneficiary was present at the meeting.

The objectives of the 5th full consortia meeting in Vienna was to inform all project partners about the last steps that had been done in the project and that were very important for the project, for example the construction and test of the lift prototype, as much as the exhibition at the InnoTrans in Berlin and the reaction of the testers concerning the lift. Also the final reporting for the reporting period 60 days after the project's end was explained. Another objective of the 5th consortia meeting was the decision finding about the disposition and the future of the lift.

With active participation the results oft he last few months have been presented. There were four presentations from different beneficiaries.

Modification works of UIC wagon and InnoTrans (UB):

At the beginning Mr. Simic on behalf of UB and BDZ explained Development of the lift installation documentation and installation work comprising: Replacement of the existing mechanical coupling of the folding step with the door mechanism by means of a pneumatic actuator, shifting of the head wall in the entrance in order to avoid a collision with the lift during the lift swing out, removal of the outer double wall between the toilet and the side corridor to ensure the corridor width for a wheelchair and installation of the lift fixing plates. There were also shown the problems identified during the assembly and testing, and the recommendations for their possible correction, for example the independent unscrewing of the platform locking, the position of the feet of the roll-off-protection, the lack of access to the handle for swivel in the lift and so on. But this were all problems that are relatively easy to solve, that should contribute to the improvement of the prototype.

The organizational steps for the exhibition of the wagon of BDZ with installed lift prototype at the InnoTrans fair in Berlin were also briefly discussed.

Design, construction and testing of the lift (MBB):

Ms. Wendelken started with the final steps in the construction work for the BAS-prototype. There was a problem at the installation tests made by MBB. There was a Overlap in the region of the handrail when swivelling the lift out, as much as a collision at the dashboard covering at the boarding area.

At the visit at BDZ in Sofia there occurred a collision with the door lock. MBB has resolved this problem by the appropriate adjustment for the lower lift support.

For testing the lift under laboratory conditions Bombardier Passenger, Siemens AG and MBB developed a Mock-up together to demonstrate the installation and functioning of the lift with the stated loads.

Also there was a short part about the fair InnoTrans in Berlin in the presentation.

First evaluation results of prototype (TUV):

Mr. Tauschitz from the Vienna Technical University presented the first evaluation results from the test drives in Bulgaria. The evaluation was made from the perspective of users and operators. A total of 10 stations were approached in Bulgaria were there where different problems. One problem, for example, was the use of the lift on to high platforms. The operation of the lift at the tests was about 3 minutes. Trained stuff will take up to 30 seconds less. The experience of the operators were very positive. One problem is only the danger of damage some parts of the lift because of improper operation. The operators wanted a manual for operating the lift.

Also the users had much positive feedback for the lift. They only had a strong feeling of uncertainty when rolling out of the vehicle at low platform heights and sloping platforms. It is a problem to get off the lift on the side when there is a uneven platform. There was an accident with a wheelchair user at the test drives because his front-wheel got into a gap on the platform and he overturned together with the

wheelchair. There was a short discussion about this accident and Mr. Rodlauer suggested to get out of the lift backwards.

At the presentation on the InnoTrans in Berlin the users had positive impressions with the lift. The lift was tested in Berlin from wheelchair users, electric-wheelchair users, mentally handicapped children and from children in wheelchairs.

Final Report (ROD):

In the last presentation of the meeting the next organisational steps were discussed. Rodlauer Consulting presented the reports to the audience and the challenges ahead got explained. The tasks for the last steps were sent to all partners with a list with the different deadlines on it for the next two months.

Discussion and further steps - Status and disposition of BAS:

It was noted that the lift should stay in the wagon because it was much work to put the lift in the wagon. Anyway there was the suggestion that the lift should stay at BDZ.

This time the lift is in the wagon at the depot of BDZ because they have to wait for the certificates for the lift and the wagon.

Maybe BDZ will buy a second lift to allow accessibility. Then it is possible to adapt the lift with the new impressions from the tests.

To visit the lift in Bulgaria you should register 2 weeks in advance, to get to know where the wagon with the lift is.

The prototype is built into the wagon and thus finished. In conclusion, the prototype represents a milestone in the accessibility, especially in the barrier-free design of already existing rolling stock. The decision to have the prototype at BDZ is also a milestone for the Bulgarian railways in terms represent barrier-free mobility for people with disabilities.

Dissemination Tour

Since the last periodic report Rodlauer Consulting organized a so called Disseminationtour. The intention of the Disseminationtour was to reach as much people as possible who are affected by the project and the projects' objecitves. The stations of the Disseminationtour were Brussels, Budapest, Zagreb and Belgrade. Please find the list of the several destinations below.

In every city Dr. Bernhard Rüger from the Technical University of Vienna, Prof. Goran Simic from the University Belgrade and Mag. Barbara Birkenmeyer from Rodlauer Consulting presented the intentions, goals and achievements of the project PubTrans4All.

The Disseminationtour was attendet by many interested parties. At the different stations of the Disseminationtour many interessted people, disability associations and disabled persons participated. We saw that it was necessary to go directly to the people to show them our work and to point out what this work could change in their quality of life. That is also why we choosed mainly cities in Eastern Europe, because there the accessibility is not as good as in other countries in Europe.

Figure 5 – List of Disseminationtour Stations

Number of Station	Venue	Month	Date
1st Station of Disseminationtour	Brussels, Belgium	31	28th March 2012
2nd Station of Disseminationtour	Budapest, Hungary	33	9th May 2012
3rd Station of Disseminationtour	Zagreb, Croatia	33	30th May 2012
4th Station of Disseminationtour	Belgrade, Serbia	34	13th June 2012

Disseminationtour Brussels (March, 28th 2012)

The first destination of our disseminationtour was the European capital Brussels. We welcomed guests from various industries at our presentation. Among other representatives from the European Disability Forum, from the European Multiple Sclerosis Platform and also from STIB-MIVB, the largest Belgian urban public

transport company, were among the guests. Focuses of discussion at the first destination of our Disseminationtour were the possibility of installing the lift also in tramways. Generally, an installation into trams has been planned, but often there are already low floor vehicles purchased. Thus, the installation of the lift in a UIC wagon is more urgent. There was also a discussion about the possibility of operating the lift for persons in big electronic scooter/wheelchairs. The lift can carry up to 350 kg loading.

Disseminationtour Budapest (May, 9th 2012)

In May the PubTrans4All presentation as part of the Disseminationtour was held in Budapest. The event was well attended and we were glad about a full auditorium. Our project partner from the MÁV, the Hungarian railways, Mr. Gitta Ferenc was also our guest at this destination of the disseminationtour. Of course there were especially questions addressed to Mr. Gitta Ferenc at the discussion that followed our presentation.

Disseminationtour Zagreb (May, 30th 2012)

Also at the Disseminationtour in Zagreb our project attracted great interest. Many Croatian disability organizations attended our event and they hat great interest in the course and the results of our project. Also we welcomed one representative from HŻ, the Croatian railways. Many questions regarding the lack of accessibility at the trains and the train stations of the Croatian railways were addressed to the representative from the Croatian railways. Other questions from our guests were addressed to Prof. Simic from the University of Belgrade.

Disseminationtour Belgrade (June, 13th 2012)

The last destination of our Disseminationtour was finally Belgrade. In June the presentation of our project took place in the Serbian capital with many interested guests from different sectors. Among others we welcomed representatives from the Institute of Transportation – CIP. In addition to many other organizations from Belgrade and the surrounding environment, we could welcome the Accessibility Audit Association, which has as part of the European Concept for Accessibility already done a lot in the area of accessibility. Focuses of discussion in Belgrade were especially the bad condition of the Serbian railways. It was mentioned that the Serbian Railways have to make many more changes before they could deal with absolute accessibility at their trains and stations. In the current trains of the Serbian railways the entry and exit is difficult, even for a physically healthy person. Also the national and international railway connections need to be developed.

Figure 6 – List of planned Deliverables

Deliverables to be submitted for review to the EC		WPWP no.	Lead Beneficiary	Estimated Indicative Person Months	Nature	Dissemination Level	Delivery Date
No.	**Deliverable Name**						
1.1	Final Project Management Plan & Schedule	1	RAB	2	R	PU	5
1.2	Periodic Management Report 1	1	RAB	2	R	PU	18
1.3	Periodic Management Report 2	1	RAB	2	R	PU	39
1.4	Final Management Report	1	RAB	2	R	PU	39
2.1	Boarding Assistance System Evaluation Criteria Report	2	TUV	21	R	PU	10
2.2	Existing Boarding Assistance System Evaluation Matrix Report	2	TUV	18	R	PU	12
3.1	Recommendations for Improving Boarding Assistance Systems	3	UB	36	R	PU	16
4.1	Vehicle-Based Boarding Assistance System Conceptual Design Recommendations	4	MBB	16	R	PU	10
4.2	Prototype BAS Detailed Design Report	4	MBB	20	R	PU	16
4.3	Prototype BAS Development Report	4	MBB	29	R	PU	28
4.4	Vehicle-Based Boarding Assistance System Prototype Design and Evaluation	4	TUV	40	R	PU	32
5.1	Newsletter 1: Project Goals & Schedule	5	RAB	2	R	PU	5
5.2	Newsletter 2: Boarding Assistance Device Evaluation & Recommendations	5	RAB	9	R	PU	16
5.3	Newsletter 3: Project Results Summary	5	RAB	10	R	PU	34
5.4	Final Report on Project Results	5	TUV	2	R	PU	39

Figure 7 – List of Milestones

Milestone		WPs Involved	Lead Beneficiary	Expected Date (month)	Means of Verification
#	Name				
1	Finalize Work Plan and Schedule	1	RAB	2	D 1.1 approved by team and released to public.
2	Complete Boarding Assistance System (BAS) Evaluation	2	TUV	12	D 2.2 approved by team and released to the public.
3	Complete BAS Conceptual Design Recommendations	4	MBB	10	D 4.1 approved by team and released to the public.
4	Complete BAS Recommendations	3	UB	16	D 3.1 approved by team and released to the public.
5	Start Building BAS Prototype	4	MBB	16	Team agreement on prototype to be developed. D 4.2 approved and released.
6	BAS Prototype Complete	4	MBB	24	Prototype delivered for installation in vehicle. D 4.3 approved and released.
7	BAS Prototype Field Test Start	4	MBB	26	Prototype delivered to operating company for field testing.
8	BAS Prototype Field Test End	4	MBB	32	Completion of field evaluation, data supplied to team for analysis and evaluation.
9	Final Report	5	RAB	39	Final report released to the public.

Further procedure

In the next two months the focus of the project PubTrans4All is the project completion. The consortium has to construct the final report, which will get uploadet at the ECAS system, and the consortium has also to full fill the Form C.

The support of the partners in this project is very extensive, as many partners are in an EU project for the first time.

The most important steps for the project coordinator and for the beneficiaries are:

- Preperation and delivery of the Final Report (parts of the questionnaire in the ECAS system that has to be completed by the coordinator).
- Preperation and delivery of the Final Periodic Report (including the explanation on the use of ressources and the explanation of the work progress and achievements from the work packages leaders).
- Preperation and delivery of the Financial Report (Form C)

All data and documents will be collected by the project coordinator Rodlauer Consulting and will be send to the European Commission in time.