Welcome to the fifth issue of the SIMON newsletter

SIMON (asSted Mobility for OldeR aNd impaired users) is a demonstration project with four large scale pilots in Madrid, Parma, Lisbon and Reading aiming to use ICT services to promote the independent living and social participation of mobility impaired people in the context of public parking areas and multiple transport modes.

It focuses on the reduction of fraud in the pre-ICT implementation of the European Disabled Badge for public parking areas and the use of specific multimodal navigation solutions for elderly and people with disabilities.

SUMMARY

During the first half of 2016 the deployment of the SIMON applications and services have been incrementally applied at the pilot cities (Madrid, Lisbon, Parma and Reading). The particularities of each city have been taken into account in order to reach a deployment suited to the different needs. A lot of activities with users and authorities have been done to encourage the use of the SIMON applications. The adaptation of the new blue badges in Parma to the SIMON requirements is a key factor to ensure the continuity of the SIMON services after the project ends. Similarly, Madrid and Lisbon have designed accompanying cards to the existing badges that are being tested during the pilots. At all the cities, the involvement of the public administrations is a key factor to engage the citizens and ensure a high impact of the SIMON services.

Another important milestone during these months has been the launch of the iOS version of the SIMON Mobile App. This has been a persistent demand of the disabled citizens and associations, many of whom are Apple users due to the traditional emphasis on the accessibility of its devices. The expertise gained in usability and features during the design and initial tests of the Android version has eased the task of adapting the app to the iOS version. With this new app we expect to increase the number of users that will join the SIMON Pilots.

Last, many dissemination activities have been carried out to show how we are doing in SIMON and many others will take part during the last stage of the project. We invite you to read this newsletter and discover what can be done to support mobility for disabled and elderly users.
Welcome to the iOS version of SIMON Mobile

We are happy to announce that the SIMON Mobile is now freely available on the App Store! iOS users are now able to download, install and use SIMON Mobile on their iPhones and iPads.

This new version has been persistently demanded by disabled users and associations. Apple devices have been, from their beginning, engaged with accessibility for disabled people. They have traditionally included built-in features to adapt the software and the interaction to vision, hearing, learning and motor limitations. Voice Over, zooming, hearing aids compatibility, subtitles, switch control and others are some examples of the options available. Although the last versions of Android have included almost all of these features, many disabled persons are Apple users.

This is the main reason for developing the iOS version (although it was not initially foreseen at the project). We think that with this new app, we will be able to reach a larger amount of potential beneficiaries.

Simon Mobile integrates with a new concept of the EU parking card for the disabled (commonly known as Blue Badge) that is currently being tested in a large-scale pilot running at several European cities.

The goal of this ICT-enhanced badge is to reduce the fraudulent use of disabled parking spots to ensure that they are available to the persons that really need them, but also to provide the access to a new set of services for the badge holders, who are now able to achieve a better use of the smart infrastructure in their cities.

Combined with a SIMON disabled badge, disabled citizens can use Simon Mobile to validate for parking, to access restricted urban areas and to view the usage history of their badge.

The application is currently available for Android version at the Google Play Store, and now also for iOS at the app store. It is available in English, Spanish, Portuguese and Italian.
New features of SIMON Mobile: INDOOR NAVIGATION

New exciting features have been implemented in the latest versions of the SIMON Mobile app. One of the most remarkable ones is the possibility of receiving information and orientation at indoor spaces.

This feature includes two elements:

The first one is the inclusion of several indoor maps into the SIMON Mobile database. These maps are mainly train and metro stations. This allows the user to navigate through the inside of the buildings and to identify the accessibility facilities in buildings such as metro stations: elevators, ramps, wheelchair accesses, etc. The new feature works as follows: When moving the map to an area where a building plan is available, the app will show additional buttons to switch between the floor plans of different levels. Thereby, the app will only show the buttons for the levels that can be seen in the current view. Once moving away from the area, the view will switch back and the buttons will disappear.

The second element is the installation of beacons at the indoor locations. This possibility allows not only to see the indoor map, but also to navigate through the building, knowing exactly the own location.

These features are now being testing in Madrid and can be very interesting options for cities to increase the accessibility and safety at public buildings, stations, etc.

SIMON Authority Operator Tool

The Authority Operator Tool provides the user interface for the authority operation interaction with SIMON. It is a web application, and the users can get access to it by means of a Web browser.

The website consists of different sections. The SIMON Users management menu allows to register / deregister and to manage the different security identity tokens of two users profiles: citizen who are parking badge holders (and authorized by the Public Authority in SIMON) and enforcement officers participating in SIMON to validate the on-street parking operations.

This tool also provides several dashboards displaying relevant statistical information about the usage of the system made by citizens. The following dashboards are available:

- Active users: Number of active users (users that validated in SIMON five or more times during the period) per month and city.
- Parking validations per token type: Number of parking validations made by users using each type of token, per month and city.
- Parking validations by end mode: Number of finalised parking validations classified by end mode (this means how the user notified that he left the parking place: normal, delayed, by the controller), per month and city.
- Parking validations per zone.
PILOT ACTIVITIES

EMEL designs new blue badge for SIMON pilots
EMEL, the Lisbon Mobility and Parking Company (https://www.emel.pt) and partner in the SIMON Consortium presented at the last Consortium meeting the new accompanying card that will be use for the SIMON pilots in Lisbon. This card will be complementary to the existing blue badge and will incorporate RFID and QR codes, in order that users can validate themselves at the parking spaces and that the enforcement officers can verify that the parked car has been correctly validated.
EMEL is giving this new card to all the participants that volunteer for the pilot and that are currently owners of a valid blue badge. The recruitment of users is being done by the associations.
If you live in Lisbon and are interested in joining these pilots, contact us through this page: http://simon-project.eu/teste-piloto-lisboa/

SIMON deployment in Parma
Parma city council officially presented SIMON Mobile app last April 15th. All the associations of persons with disabilities in Parma, the staff of socio-occupational and rehabilitation centers and who, for various reasons, are addressing the issue of disability were invited to attend this important meeting.
For the past few months, Infomobility began testing the application and, to date, about fifty users have been involved, including people with different types of disabilities, relatives, controllers and other interested individuals.
Parma plans to extend in brief the scope of application for all the SIMON services, as the city is renewing all the blue badges, which incorporate the ICT solutions needed to work together with the SIMON apps.
If you would like to participate in the Parma pilot activities, you can find additional information here:
http://simon-project.eu/progetto-pilota-parma/

Meeting with users in Reading
A meeting was held at Reading Borough Council’s Civic Offices to introduce the SIMON project and to recruit volunteers to test the app.
Letters and emails were sent to over 50 organisations representing people with disabilities and over 200 individuals who hold a Blue Badge. Around 20 people representing a variety of disabilities attended and everyone volunteered to help with the testing and giving feedback. More volunteers are replying to the emails and are keen to get involved.
The meeting was very positive. Many people said it was very good to have such a hopeful project that should make their journeys and parking in Reading easier.
Pilot activities in Madrid

Several activities are ongoing at the Madrid pilot. Associations and user group members have been promoting the activities and services related to SIMON Project.

One of the key events have been the meetings to recruit users. Several meetings have taken place in Madrid with the participation of the Madrid City Council, ETRA and IBV.

More than 40 users have participated at these events, in which they have been informed about the features of the SIMON apps and services and how to participate at the pilots. Moreover, in addition to install the application SIMON MOBILE app in their smartphone, these users had the opportunity to register their disabled parking card (blue badge) in order to take advantage of all the features of the app.

In parallel, the Madrid City Council has started to distribute the new blue badge accompanying card to all those users that are interested in participate at the pilots. Users can voluntarily opt for this possibility during the process of renewal of their blue badge.

All blue badge holders can ask for their new card for the pilots going to “Negociado de Autorizaciones del Ayuntamiento de Madrid” in C/ Albarracín 33 Pl. Baja, 28037 Madrid.

If you live in Madrid and have a parking card, you can participate in the pilot tests. Please register in our website and ask for more information on how to do it: http://simon-project.eu/pilotomadrid/

Project meetings

10th Project Meeting in Lisbon

EMEL hosted the 10th meeting of the SIMON project, held the 1st and 2nd of February in the EMEL facilities.

Partners reviewed the work done up to date, which included the activities at the big-scale pilots in Madrid, Lisbon, Parma and Reading. Additional topics that were discussed during the meeting dealt with the roadmap for deployment and the business strategy.

On the second day, the consortium had the yearly review with the project officer and the evaluators from the European Commission. During the meeting the evaluators were able to see a live demo of the SIMON Mobile app.

11th Project Meeting in Madrid

The Madrid Transport Consortium (CTRM) hosted the 11th meeting of the SIMON Project. In addition to the project consortium members, members of disabled associations also attended to this meeting.

During the session, the main topic was the revision of the pilot implementation at the participating cities: Madrid, Lisbon, Parma and Reading. All the cities detailed their information about the recruitment of users, which is crucial to ensure the success of the pilot phase. New models of blue badges were designed to be issued in Madrid, Lisbon and Parma. In Parma these new ICT models are replacing the current blue badge.

The development of the iOS version, the roadmap for deployment of the SIMON system as well as an analysis of the exploitation options were also an important part of the discussion.
NEWS

Workshop in Madrid: Smart cities, mobility and inclusion

Last June 14th it took place in Madrid a seminar, organized by the Madrid City Council, about mobility and inclusion within the framework of smart cities. The applications and services proposed by the SIMON project were presented to show how to ease mobility and parking to disabled and elderly people. About a hundred attendants, including public authorities, mobility managers and associations from Spain, participated at this event in which several proposals, initiatives and studies were presented.

The opening was carried out by representatives of the Madrid City Council, ETRA and the Madrid Transport Consortium: Inés Sabanés, Delegate of Environment and Mobility in Madrid City Council expressed the willingness of Madrid to build a city that is more inclusive and better, more open to citizens and their needs. José Antonio Fernández, CEO in GRUPO ETRA highlighted the technological developments that can make feasible to achieve a smart city designed for mobility impaired users. Juan Ignacio Merino de Mesa, Managing Director in CRTM, talked about accessibility plans in the public transport in Madrid.

During the first part, Eva Muñoz from ETRA presented the applications and services developed at the SIMON project, and showed how they can easy mobility and parking for disabled and elderly users. Francisco Javier Font, from FAMMA-COCEMFE Madrid, explained the main difficulties for disabled people regarding accessibility, mobility and transport, and how ICT initiatives (like SIMON) can contribute to remove these obstacles. Pedro J. Marrón, from Locoslab, showed the technological background existing at the SIMON applications and how they can evolve and be adapted to different cities and environments. The last intervention was from Antonio Marques, from ETRA. He explained how the technology and the inclusion are pushing towards a change at the paradigm in urban mobility.

The second part was devoted to show experiences and studies related to urban mobility and accessibility, from the ICT perspective. Francisco J. López Carmona, from the Madrid City Council, explained how Madrid has planned the deployment of the SIMON services and applications, and how to participate at the Madrid pilot. The new Madrid accompanying blue badge was also presented. He remarked the economical and social impact of fraud and, therefore, the importance of the initiatives to avoid the misuse of blue badges. José Antonio Cascales from CRTM, showed data about mobility and accessibility from different studies, showing the importance of an inclusive transport, designed not for disabled but for everyone. Mª Soledad Frias Martín, from the Madrid City Council explained the perspective of the elderly people and their problems and perceptions regarding mobility. Finally, Pedro Gouvella, from the Lisbon City Council, explained the SIMON pilot in Lisbon and also different technological initiatives to enhance the accessibility in Lisbon.

Antonio Ortín, General Manager of ETRA I+D, closed this very interesting workshop.
**CONFERENCES AND EVENTS**

**SIMON presented at the TRA2016 Conference**

SIMON project was present at the 6th European Transport Research Conference that took place 18-21 April 2016 in Warsaw (Poland).

SIMON poster was included at the session about Human Factors Impacting Transport Safety.

Eva Muñoz from ETRA showed the main tasks done at the project and the applications and services developed that are currently on deployment in Madrid, Lisbon, Parma and Reading. Public attending this event showed a great interest in SIMON architecture and applications.

The scope of the TRA conference covered all modes of surface transport: road, rail and waterborne, as well as co-modality, applied to both passenger and freight, in urban, inter-urban and long distance settings. Airports are integrated for their contribution to the transport systems. The latest achievements of European research and technological developments were presented.

**SIMON at the ITS European Congress**

SIMON project results were presented at the ITS European Congress that took place from 6 to 9 June at the Scottish Exhibition and Conference Centre in Glasgow.

Our project was included at a technical session called ‘ITS making cities smarter’. Eva Muñoz from ETRA showed how the SIMON system has been deployed in Madrid, Lisbon, Parma and Reading and how the SIMON services are adapted to the city’s mobility infrastructures. The initial results of the pilots were showed, and the audience showed great interest regarding the possible application of the SIMON concept in Europe.

The Congress theme was “Delivering Future Cities Now” and is based on Glasgow’s pioneering work on Smart Cities. The event consisted of an extensive exhibition, with an adjacent area for live demonstrations and a programme of high level and technical sessions providing the opportunity for the industry’s experts and political leaders to discuss current issues both formally at over 100 sessions and more informally during an extensive social programme.

**Accessibility and urban mobility: towards participative research**

Eva Muñoz, from ETRA participated on May the 3rd in the Round Table of the session “Innovations technologiques et projets collaboratifs” at the International Symposium “Accessibility and urban mobility: towards participative research” organized by the School of Higher Studies in Social Sciences of Paris (EHESS). The colloquium was part of the axis “Urban Mobility” of the research program “Accessibilité, autonomie et droits”, and different perspectives were presented and analyzed regarding mobility of impaired people and citizen initiatives.

The main objective was to question the notions of mobility and accessibility in a context of transformation of habits and ways to move. At the same time, the event sought to analyze the modes of participation of disabled people in the design of solutions and cooperation between various stakeholders to develop innovative proportions.
Accessibility mapping party

SIMON participated in the “accessibility mapping party 6.0” that took place in the Valdeacederas neighborhood in Madrid. Citizens, professionals and institutions were brought together to this interesting activity that have the aim to check the accessibility of the different elements and services at this area, to classify the places that have been evaluated and finally to publish in an open platform all the information so it can be available for everybody.

The volunteers were initially trained on how to assess accessibility and to check the urbanistic and architectonic barriers present at the streets, shops and services. Each element was rated into one of these three levels:

- Full accessibility
- Limited accessibility
- No accessible

Lastly, all the field data were introduced at the OpenStreetMap to be visualized in Wheelmap.

This initiative is closely related with SIMON activities, as our system can include information from these sources in order to offer a lot of options about accessibility.

BJ-Adaptaciones supports the SIMON Mobile app

The ICT company BJ adaptaciones has shown their interest about the SIMON project activities and specially about the SIMON Mobile app.

BJ adaptaciones is a company working to help improve the quality of life of people with disabilities through own products, distributions or customized solutions. Since their founding in 2002, they are pioneers in improving the personal autonomy, the ability to communicate and the access to work and entertainment of people with disabilities.

ANNOUNCEMENTS AND UPCOMING EVENTS

SIMON Project has sent abstracts, papers and presentations to several important European events. By now we have the confirmation of the following conferences, in which we will present our activities and the results of the pilot demonstrations:

- European Transport Conference. October 7-9, 2016 Barcelona, Spain
- 2016 Annual Polis Conference "Transport innovation for sustainable cities and regions“. 1and 2 December 2016 - Rotterdam.

3rd SIMON End Users Workshop

Want to participate in the SIMON final event? By the last months of 2016, the last End Users Workshop will take place in Madrid, to show the results of SIMON Project. Keep connected!! We will announce more details in the upcoming weeks.
**PARTNER PROFILE**

**Locoslab**

Founded in 2012 as a spin-off of the University Duisburg-Essen, Locoslab GmbH specializes in developing and offering customized location-based services, including, but not limited to, indoor positioning, in- and outdoor routing and navigation as well as location-based advertisement.

Within the SIMON project, the Locoslab team leads the development of the services and applications related to indoor and outdoor navigation including the Simon Mobile app for iOS and Android. Locoslab’s research in SIMON focuses on the integration of its existing software systems into the SIMON platform to provide location-based services that are powered by the multitudes of different data sources available in the pilot cities.

Website: [https://www.locoslab.com](https://www.locoslab.com)

**Pedro J. Marrón**

Pedro José Marrón received his bachelor and master’s degree in computer engineering from the University of Michigan in Ann Arbor in 1996 and 1998 and his Ph.D. from the University of Freiburg in 2001. After a professorship at the University of Bonn, he is currently full professor at the University of Duisburg-Essen, where he leads the Networked Embedded Systems Group. Pedro Marrón is co-founder of Locoslab GmbH, and is also the president of UBICITEC, the European Center for Ubiquitous Technologies and Smart Cities, which counts with over 20 institutional partners from industry and academia.

**Marcus Handte**

Marcus Handte is a co-founder of Locoslab GmbH and a researcher of the Networked Embedded Systems Group at the Universität Duisburg-Essen. He received his PhD from the Universität Stuttgart in 2009. His research focuses on systems and algorithms to capture and analyze sensor data as well as concepts to deal with the resulting security and privacy challenges. At Locoslab GmbH, he is working on the technical aspects of commercializing his research results with a focus on location-based services and applications.

**Stephan Wagner**

Stephan Wagner is a co-founder of Locoslab GmbH and a researcher of the Networked Embedded Systems Group at the University Duisburg-Essen. He has received his Diploma in Computer Science from the University of Bonn in 2010. From 2010 he has been working as a researcher at the University Duisburg-Essen. During his time in Duisburg, he worked on research projects in the area of ambient assisted living with a specific focus on developing low-cost and easy-to-deploy localization systems for people and objects. As CEO of Locoslab he focuses on commercializing his research.

**SIMON USER GROUP**

The Project counts on the support of the following organisations, which form the SIMON User Group:

- **AGE platform Europe** (network representing over 30 million older people in Europe)
- **EPA** (European Parking Association)
- **POLIS** (network of European cities and regions working together to develop innovative technologies and policies for local transport)
- **CERMI Madrid** (the Spanish Committee of Representatives of Persons with Disabilities of the Region of Madrid)
- **Unión Democrática de Pensionistas Y Jubilados de España, UDP** (Elderly Spanish Association)
- **ANMIC** (Italian National Association of Civil Impaired and Handicapped People – Parma Region)
- **Università degli studi di Parma**
- **ACAPO** (Association of blind people of Portugal)
- **Municipality of Lisbon**
PARTNER PROFILE

Instituto de Biomecánica de Valencia

The Instituto de Biomecánica (IBV) is a technological centre that studies the behavior of the human body and its interaction with products, environments and services. Founded in 1976, the Institute is currently coordinated under the agreement of the Valencian Institute of Business Competitiveness (IVACE) and the Universitat Politècnica de València (UPV).

With the aim to improve competitiveness among the business sector, the IBV promotes people’s well-being through the combination of knowledge in areas such as biomechanics, ergonomics and emotional engineering, and its application to diverse sectors such as: Automobile and mass transport, Elderly people and Ageing, Rehabilitation and personal autonomy, Health in the workplace, Healthcare technology, etc.

The overall contribution of IBV to the SIMON project is to act as a link between the technical aspects of the project and the end-users. To do that, IBV meets the needs, expectancies and barriers of the different stakeholders, involving them through interviews, focus groups and questionnaires along the different stages of the project. The conceptual design, usability and accessibility criteria have also been assured under the IBV’s guidance.

Website: http://www.ibv.org/en/

Alberto Ferreras  Degree in Industrial Psychology. Degree in Social Work. Job Risk Prevention Technician (Ergonomics and Psycho-sociology). He is senior researcher at IBV. He has participated and conducted R&D projects in several national and European calls. His expertise is related to the development of projects, assessment and training about ergonomics, adaptation of workplaces for disabled people, evaluation of job risks and design of furniture, ICT products and other equipment for people with special needs.

José Solaz  (PhD. Industrial Engineer) co-ordinates the R&D activities of the IBV in the area of Automobile and Mass Transport. He has a wide experience in R&D activities for developers of components of automobiles and also for manufacturers of public transport and for public transport companies. He is expert in ergonomics and Human-Machine-Interface, fields in which he has several international publications.

Amparo López  MSc Social Welfare (Aging and Disability) from University of Valencia. She has a wide experience in the development and the application of research methods to the specific characteristics of the elderly and disabled. He has participated in numerous projects that incorporate user involvement throughout the development process, including user-centred design, co-creation, usability, driving innovation and inclusive design.

CONTACT

You can stay in touch with the latest news and activities of the SIMON project visiting our website:

http://simon-project.eu/

If you are interested in the SIMON project objectives and results, we want to encourage you to join us and to subscribe to the newsletter. You will receive updated information on the progress of the project and will be invited to the project workshops via email.

Of course you will also receive the current and following versions of the electronic project newsletter.

http://simon-project.eu/subscribe-to-newsletter/

SOCIAL NETWORKS

You can find us on

Facebook: https://www.facebook.com/SIMONsolution

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LinkedIn: https://www.linkedin.com/groups/SIMON-Project-8191101

All partners, stakeholders and interested institutions and public are invited to participate through these channels.