

MyAccessible.EU: Using crowdsourcing and OpenStreetMap for supporting wheelchair users in EU cities

1st International Expert Workshop
hosted by the CAP4Access project
Madrid, 23-24 September, 2015

Meeting venue on 23 September, 2015 (Wednesday):

Complejo Duques de Pastrana, in the context of the [5th International Congress on Tourism for All](#).

Address:

Pº de la Habana 208,

Madrid, Spain.



Metro station: **Duque de Pastrana**.

[Note: The station is not wheelchair accessible (see <http://www.planometromadrid.org/mapas-metro/plano-metro-madrid-accesible-2005-04.png>). Using a bus connection is recommended, see <http://www.emtmadrid.es/mapaweb/emt.html>]

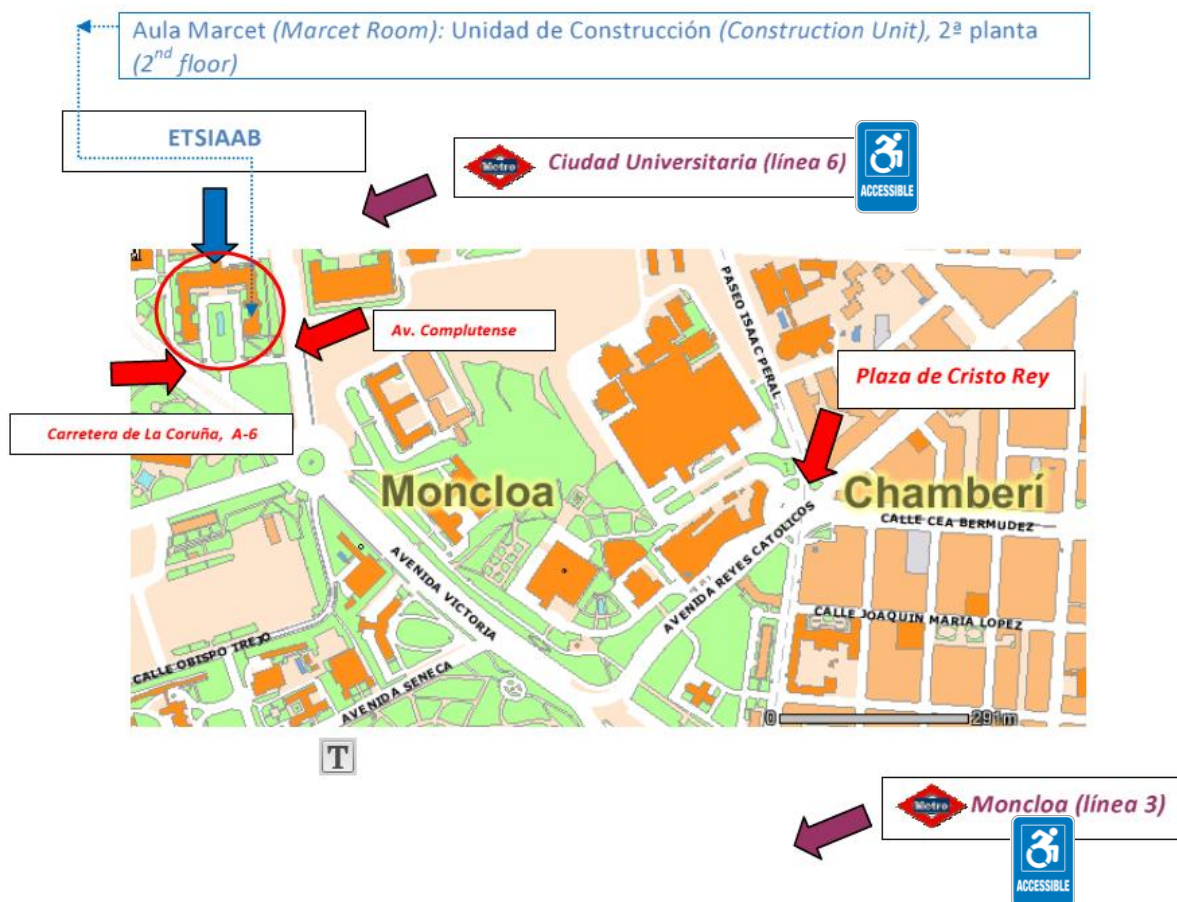
Meeting venue on 24 September, 2015 (Thursday):**School of Agricultural, Food and Biosystems Engineering (ETSIAAB)**

Address:

Aula Marcet (Marcet Room), Unidad de Construcción (Construction Unit), 2ª planta (2nd floor)

Ciudad Universitaria, s/n (Av. Complutense esquina Av. Victoria – Ctra. de la Coruña, A6),

28040 Madrid, Spain

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Organisers of the 5th International Congress on Tourism for All:

ONCE Foundation for cooperation and social inclusion of persons with disabilities, in collaboration with UNWTO and ENAT

Email: turismo@fundaciononce.es

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About the project

Online maps are a very good resource for finding accessible places and routes. With the addition of comments, photos and other relevant data these maps can be an even more valuable source of information for the mobility impaired. These may be wheelchair users, seniors with walking aids, parents with pushchairs or frail patients. Simply put anyone whose walking ability is permanently or temporarily limited.

Anyone can contribute to crowdsourced online maps by collecting, entering and validating information. Online maps can also be tools for raising awareness and for working together to remove existing barriers. New data sources, such as open data from the public sector, can contribute substantially to unlocking the vast potential of online accessibility mapping. The objective of CAP4Access is to **develop and pilot-test methods and tools for collectively gathering and sharing information about the accessibility of public spaces**. Our tasks are:

- Documentation, annotation and discussion of places and routes with regard to their accessibility.
- Visualising the data in ways which are intuitive and highly attractive for target users.
- Route planning and navigation support facilitated for mobility impaired persons.
- Creating awareness and preparing effective measures for eliminating barriers.

Our four test sites are in **Vienna** (AT), **London** (UK), **Elche** (ES) and **Heidelberg** (DE).

Technological approach

CAP4Access is developing a number of technological applications, with the main focus on:

- Innovative and highly intuitive **user interfaces** for collective tagging of barriers to accessibility, including the option to describe and discuss barriers and to collectively develop means for tackling them;
- Identification of **Public Sector Information (PSI)** and also private information about the built environment for integration into online accessibility maps;
- **Online routing and navigation** for people with limited mobility using the crowdsourcing approach;
- Applications for **participatory sensing** with mobile end devices (i.e. smartphones) to improve data quality about accessibility of the built environment, including road and surface conditions, gradients etc.

Our applications are based on the **OpenStreetMap (OSM)**, the "free wiki world map". We make best use of established practice, in particular **Wheelmap.org**. All newly developed tools will be available for interested parties – such as city administrations – as open software under the GNU Lesser General Public License (LGPL).

MyAccessible.EU – our initiative to engage with target groups

MyAccessible.EU expands the project with a community engagement platform. It is creating awareness for accessibility issues and implement effective measures for eliminating barriers. A [Blog](#), a [Facebook](#) and a [Twitter](#) account under the umbrella of MyAccessible.EU facilitate and document the project's interaction with our target groups. These are: People with mobility impairments; Policy-makers and public administrators; Grassroot and non-profit organisations; Spatial planners and facility managers; Owners of shops, restaurants and hotels; and the general public.

About the workshop

The first international expert workshop – held in the context of the 5th International Congress on Tourism for All, a major event for the accessibility community in Europe and beyond – aims to present key achievements of the project and to discuss them with representatives of stakeholder groups that are of major importance to CAP4Access. The workshop seeks, in particular, to contribute to an exchange and deeper understanding between two major groups of stakeholders, firstly technology developers and providers of data infrastructure (including the OSM community) and secondly end-users of information on accessibility of the built environment, such as wheelchair users and other people with limited mobility.

Project team

The project team consists of the following organisations:

- empirica Gesellschaft für Kommunikations- und Technologieforschung mbH (Bonn, DE)
- Elche City Council (ES)
- Fraunhofer Institute for Intelligent Analysis & Information Systems (Sankt Augustin, DE)
- MappingForChange (London, UK)
- Polibienestar Research Institute, University of Valencia (ES)
- Sozialhelden e.V. (Berlin, DE)
- University College London, Accessibility Research Group (UK)
- University of Heidelberg, GIScience Research Group (DE)
- Zentrum für Soziale Innovation (Vienna, AT)

Advisory Board of Experts

CAP4Access is supported by an international team of experts who provide the project with advice based on their specialisation and experience in the area:

- Dr Ivor Ambrose, European Network for Accessible Tourism (ENAT), BE
- Dr David Banes, MADA Qatar Assistive Technology Center, Qatar
- Michiel Desmet, On Wheels, BE
- Martina Götz, bmb-Projektbüro beim Vbl e.V., City of Heidelberg, DE
- Anita Graser, AIT Austrian Institute of Technology GmbH, AT
- Henk Hoff, OSM Foundation, NL
- Dr Angelika Laburda, IBFT-Infoplattform Barrierefreier Tourismus, AT & European Network for Accessible Tourism (ENAT), BE
- Brigitte Lutz, Cooperation OGD Österreich, City of Vienna, AT
- Antonio Luis Martínez Pujalte, University Miguel Hernández of Elche, ES
- Tatiana Alemán Selva, Confederación PREDIF, ES
- Prof Pedro Sánchez Vera, Research Group Sociology of Welfare & Aging, University of Murcia, ES

Contact

karsten.gareis@empirica.com

www.cap4access.eu

<http://myaccessible.eu>

Draft agenda

Wednesday, 23 September, 2015		
Time	Issue	Presentation by
17:00	Opening of the workshop <ul style="list-style-type: none"> • Introduction: The role of crowdsourcing for supporting wheelchair users and boosting accessibility • The CAP4Access project: Objectives and the way ahead 	Karsten Gareis
17:30	Brief overview of tools & applications under development <ul style="list-style-type: none"> • Collective Tagging • Routing & navigation • Quality Assessment of crowdsourced data & integration of data in OSM • Awareness Raising: MyAccessible.EU 	Silke Georgi Adam Roussell Hans Voss Silke Georgi
17:30		
17:45		
18:00		
18:15		
18:30	Feedback and discussion	
19:00	<i>End of first day workshop</i>	
21:00	<i>Informal dinner</i>	

Thursday, 24 September, 2015		
Time	Issue	Presentation by
08:45	Welcome	
09:00	CAP4Access tools & applications vs. user requirements Introduction: User stories, participative development, piloting	Karsten Gareis
09:15	Collective Tagging <ul style="list-style-type: none"> • Wheelmap • Viz Dashboard • Feedback 	Silke Georgi Hans Voss, Aadesh Misra
10:00	Routing & navigation <ul style="list-style-type: none"> • OpenRouteService • Mobile navigation app • Feedback 	Adam Roussell
10:45	Participatory Sensing <ul style="list-style-type: none"> • App under development • Feedback 	Karsten Gareis
11:00	Quality Assessment of crowdsourced data & integration of data into OSM <ul style="list-style-type: none"> • OSMatrix • Quality Assurance Editor • Kerb data integrator • Feedback 	Adam Roussell Hans Voss
11:30	Awareness Raising <ul style="list-style-type: none"> • MyAccessible.EU • Pilot site activities in Elche, Heidelberg, London and Vienna • Feedback 	Silke Georgi
12:15	Discussion	Hans Voss
12:45	Outlook and role of Advisory Board during the remaining project	Karsten Gareis
13:00	<i>Workshop end & Lunch at nearby cafeteria</i>	

Expected attendees from the consortium

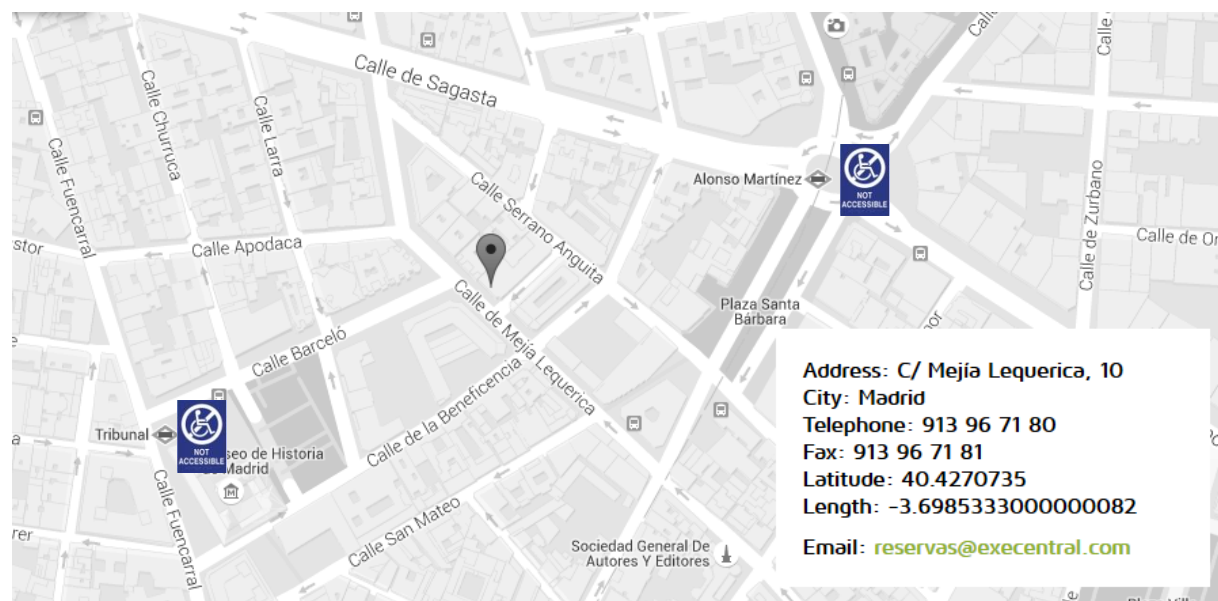
Organisation	Attendees
Ayuntamiento de Elche	Fini García
Fraunhofer IAIS	Aadesh Misra Robert Spindler Dr Hans Voss
MappingForChange	Rebecca Payne
Sozialhelden	Silke Georgi
University Heidelberg	Dr Adam Rousell
UVEG-Polibienestar	Dr Mireia Ferri
empirica	Karsten Gareis Marius Korte

Expected members of the Advisory Board

Organisation	Attendees
bmb-Projektbüro beim Vbl, City of Heidelberg	Martina Götz
Confederación PREDIF	Tatiana Alemán Selva
European Network for Accessible Tourism (ENAT)	Dr Ivor Ambrose
IBFT-Infoplattform Barrierefreier Tourismus, Austria	Dr Angelika Laburda
MADA Qatar Assistive Technology Center	Dr David Banes
On Wheels, Flanders	Michiel Desmet Karl Thiry
OSM Foundation	Henk Hoff
Research Group Sociology of Welfare and Aging at the University of Murcia	Prof Pedro Sánchez

Hotel information:

Most invitees have been booked into: Hotel Exe Central**** (www.execentral.com)



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