

CIVITAS INSIGHT

Accessible mobility: enabling independent living for all

Mobility is an integral part of our lives. Every day we are 'mobile': we need to go to school or work, see the doctor, or run errands – but we also want to meet friends; visit a restaurant, a gym or cinema; or simply go on a walk or cycle ride. Accessibility is about getting from A to B without difficulty.



THE CIVITAS INITIATIVE
IS CO-FINANCED BY THE
EUROPEAN UNION



Accessibility is necessary to participate in society

Every day a significant part of the population encounters many barriers in public spaces and on public transport: According to experts' estimations¹ more than one-third of the European population consists of people with reduced mobility (PRM) who face barriers when walking, cycling, or using public transport. This group comprises not only people with disabilities, elderly people (especially those older than 75), and children, but also people with learning difficulties, long-term health conditions, non-average stature, a lack of language skills, problems with orientation, psychological illnesses, colour-blindness, or low literacy. If we also take into account temporary conditions such as carrying heavy bags, recovering from illness or surgery, accompanying small children, or being a tourist, we see that anyone could experience reduced mobility at one time or another.

Because of existing barriers, it is difficult or even impossible for many people to move around independently in public spaces or public transport; instead, they have to depend on cars or specialised mobility services for many of their regular trips. Furthermore, many everyday services such as shops, public services (kindergartens, health facilities, etc.) workplaces, and leisure facilities are often not easily accessible for pedestrians (including those who use mobility aids), cyclists, and public transport passengers.

Thus, by improving accessibility, municipalities, cities, and regions can help their inhabitants and visitors to adopt a more active lifestyle. Investing in accessibility is a cost-effective way of tackling the present and future challenges of demographic, economic and environmental changes. Improving accessibility ensures that:

- All people can use public spaces and public transport without barriers;
- Service quality and facilities for pedestrians, cyclists, and public transport users are adapted to everybody's needs;
- Everyday services are also accessible for non-motorists.

Proper accessibility requires taking into account not only transport issues but also land-use planning, urban planning, construction, maintenance, economic and societal issues. Cooperation across working areas and organisational borders is therefore essential for successful accessibility work.



CIVITAS: planning for better access and inclusion

Within the CIVITAS Initiative measures are implemented to increase the convenience and comfort with which people can use transport vehicles and infrastructure which also specifically address PRM.

CIVITAS II | Toulouse (France): Improving the accessibility of public transport

Prior to the CIVITAS MOBILIS project, Toulouse's public transport authority *Tisséo*, had already improved accessibility for people with impaired mobility living in the towns and villages surrounding Toulouse. Accessibility had also been integrated into the technical requirements of bus fleet renewal and the construction of the second metro line.

The aim of this measure was to assess the overall accessibility of the public transport network, propose a range of measures to improve accessibility in line with the national legislation on accessibility for disabled persons, and to define concrete objectives (in terms of vehicle accessibility, station access, modal change, dedicated services etc.) to ensure high-level accessibility to PRM on the entire public transport network.

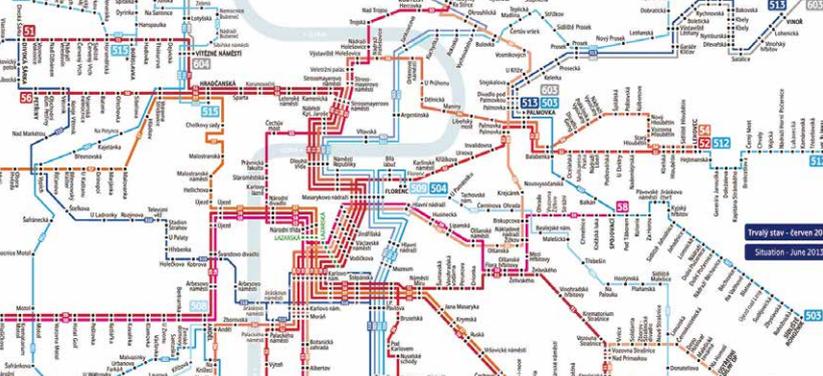
In line with a national law requiring all public transport authorities to ensure a fully accessible network by 2015, *Tisséo*'s political board approved the Accessibility Master Plan in January 2009, giving a framework of activities to achieve full accessibility on its network.

In December 2007, in relation to the master plan, *Tisséo* organised a training session allowing employees of the

public transport authority and operator to assess the level of accessibility of different types of infrastructure, services, and premises. Thereafter they installed a new customer service point in the Jean Jaures metro station, integrating all the new accessibility standards, and started to adapt their website in order to make online public transport timetables accessible to blind people.

Quantifiable targets, such as the validation by the political board of *Tisséo* of the Accessibility Master Plan and its associated action plan, the Accessibility Charter for High-Quality Bus Corridors (HQBC) and the training plan for accessibility to customer reception points were fully achieved. However, both the accessibility of the *Tisséo* website and the compliance standards for customer reception centres were only partially achieved. A database for managing complaints was opened in parallel to assess results and agreed actions to make the *Tisséo* network accessible to everyone.

By 2008, 50 percent of bus stops, 55 percent of vehicles and 100 percent of the metro system became accessible to disabled people, and the Accessibility Charter is now a reference document for all new public transport infrastructure projects.²



CIVITAS I | Prague (Czech Republic): Creating a new bus route

The Karlov area of Prague is home to a number of medical centres and to the General Teaching Hospital. Prior to the measure's implementation, the local street network made this area inaccessible by standard public transport buses. Patients, visitors and hospital staff had to walk to their destinations from distant public transport stops. The aim of this measure was therefore to introduce a regular bus line to satisfy basic transport demands, with an emphasis on PRM and patients attending medical appointments.

The initial stage of the project included the investigation of possible routes for the new bus line to facilitate the integration of important interchanges between various transport modes (metro, tram and bus). The new route also had to include appropriately located bus stops giving easy access to the medical centres, while satisfying the technical and operational conditions for the provision of a regular bus service. The various

options were discussed with the municipal authorities and hospital representatives. Conditions in the Karlov area, with its many narrow streets, meant that small 'midi-buses' would need to operate on the new line. Low-floor Karosa-Ikarus E 91 buses were subsequently chosen.

The opening of the new line in April 2003 was preceded by an extensive press campaign. Information leaflets were also published for distribution in vehicles, at stops and at travel information centres.

Before the launch of the new bus line there had been concerns about the poor acceptance of this new public transport link as well as about potential low levels of use. However, such concerns turned out to be misplaced and the introduction of the new bus line was met with a positive response. From the first days of operation, the line has been well used and has become an integral part of Prague's transport system.³

CIVITAS PLUS | Iași (Romania): Accessibility for people with disabilities

In order to meet the EU requirements regarding the accessibility of public transport services for disabled people, the Municipality of Iași, together with the local public transport company, decided to create proper conditions for both visually and physically-impaired people to cross safely at some intersections regulated by traffic lights, and to be able to travel with more public transport vehicles than before the implementation of CIVITAS measures.

After discussing with the Association of Visually Impaired People and after signing a joint protocol, the municipality contracted a specialised company to install 40 audio warning devices at 16 controlled intersections through the CIVITAS ARCHIMEDES project. The municipality also organised meetings with this association to decide which 50 stops were going to be modernised (access ramps and shelters) to grant persons with disabilities easy and safe access to public transport vehicles. The implementation

phase was performed together with the public transport company.

Another task implemented as part of this measure was to equip 10 minibuses with hydraulic lifting ramps. The municipality collaborated with the public transport company and with the contracted company to ensure compliance with all technical requirements.

The results obtained after evaluation allowed the municipality to conclude that this measure contributed to raising the degree of accessibility of public transport services for physically- or visually-impaired people. It has also been noticed that, although the degree of accessibility and usage of public transport has increased, the accessibility to public transport stops in Iași still needs to be addressed (e.g. old buildings have to be adapted to the needs of disabled people with elevators and access ramps).⁴

3 Zdenek Suta, Creating a new bus route, CIVITAS Initiative, accessed July 16, 2015, <http://www.civitas-initiative.eu/content/creating-new-bus-route>

4 Marius George Homocianu, Accessibility for people with disabilities, CIVITAS Initiative, accessed July 16, 2015, <http://www.civitas-initiative.eu/content/accessibility-people-disabilities>



Strategies and initiatives to remove barriers

Although PRM includes not only people with disabilities, around 80 million Europeans have a disability that ranges from mild to severe, representing one out of six people in the EU. They have the right to participate fully and equally in all aspects of life, both in the economy and in society as a whole, but in practice continue to face barriers in everyday activities, both physical and social. In Europe, people with disabilities are on average poorer than other Europeans, are less likely to have a job, and face more limited access to goods and services such as education, healthcare, transport, housing and technology. The European Commission is committed to removing these barriers. The European Disability Strategy sets out the Commission's actions in eight key areas over the next decade. The overall aim is to empower people with disabilities so that they can enjoy their rights and participate fully in society. The strategy identifies actions at EU level to supplement national measures. It also identifies the support needed for funding, research, awareness-raising, statistics, and data collection.⁵

The strategy focuses on eliminating barriers across eight main areas: accessibility, participation, equality, employment, education and training, social protection, health, and external action. For each area, key actions are identified and a timeline is included. These areas were selected on the basis of the overall objectives of the EU Disability Strategy, the United Nations Convention on the Rights of People with Disabilities (UNCRPD)⁶, the related policy documents from EU institutions and the Council of Europe, as well as the results of the EU Disability Action Plan 2003-2010, and a consultation of the Member States, stakeholders and the general public.

Article 9 of the UNCRPD states that “[...] States Parties shall take appropriate measures to ensure to persons with disabilities access, on an equal basis with others, to the physical environment, to transportation, to information and communications, including information and communications technologies and systems, and to other facilities and services open or provided to the

public, both in urban and in rural areas. These measures, which shall include the identification and elimination of obstacles and barriers to accessibility, shall apply to, inter alia: Buildings, roads, transportation and other indoor and outdoor facilities, including schools, housing, medical facilities and workplaces; [...]”.

This convention also prepares the ground for ongoing European projects and initiatives such as:

- My Accessible.EU is an initiative of the collective awareness platform CAP4Access⁷, a project co-funded by the 7th Framework Programme of the European Union. The CAP4Access project develops and pilot-tests instruments for collectively gathering and sharing geographic information in order to improve the accessibility of European cities. Using the power of online maps and mobile devices, the aim is to empower people with mobility impairments, raise awareness for the barriers they encounter and show possibilities for eliminating those barriers. The project targets a wide range of European citizens, including people with mobility impairments, grassroots initiatives, policy makers and public administrators, local businesses, city planners and, last but not least, the general public.⁸

- SIMON is a demonstration-oriented project, co-funded by the European Union, with three large-scale pilots in Madrid, Lisbon, and Parma, aiming at promoting the independent living and societal participation of mobility impaired people in the context of public parking areas and multiple transport modes, through the adoption of specific navigation information and access-rights management solutions. SIMON is preparing a mobile application so individuals will be able to plan their trips using seamlessly public and private transport modes. They will get real-time information about public transport and parking areas. Once on the move, they will be informed about any incident affecting their chosen trip.⁹

⁵ COM(2010) 636 final, November 2011, European Disability Strategy 2010-2020: A Renewed Commitment to a Barrier-Free Europe, accessed September 28, 2015, <http://eur-lex.europa.eu/LexUriServ.do?uri=COM:2010:0636:FIN:en:PDF>

⁶ Convention on the Rights of Persons with Disabilities, Annex 1, Final report of the Ad Hoc Committee on a Comprehensive and Integral International Convention on the Protection and Promotion of the Rights and Dignity of Persons with Disabilities [A/61/611]

⁷ CAP4Access, accessed July 21, 2015, <http://www.cap4access.eu/intro>

⁸ My Accessible.EU, accessed July 21, 2015, <http://myaccessible.eu>

⁹ SIMON – assisted mobility for older and impaired users, accessed July 21, 2015, <http://simon-project.eu/>



■ In 2012 Transport for London issued new guidance to bus drivers to help improve journeys for wheelchair and mobility scooter users and other bus passengers with accessibility needs. The guidance is contained in the latest version of the Big Red Book, an award-winning practical guide to every facet of being a bus driver, which is issued to all 24,000 drivers in London. The new guidance includes a reminder to bus drivers that the wheelchair bay on a bus is primarily for the use of disabled passengers. All London buses have clear notices displayed prominently on board advising passengers of this. If a pram is stored in the wheelchair bay when a disabled passenger attempts to board, the driver should ask for it to be moved or folded. In these circumstances drivers should make an automated announcement and use the PA system if necessary to request that passengers make way for a wheelchair user. A clear and illustrated guide on the types of wheelchair and mobility scooters that can safely board and alight from buses is also included. This supplements the Mobility Card scheme that allows drivers to quickly establish which type of mobility aids are safe for use on the bus network. The guidance also requires drivers to make sure they get as close to the kerb as possible and lower their bus where necessary, to help people board easily.¹⁰

■ NICHES+ was a project co-funded by the 7th Framework Programme of the European Union, and promoted innovative concepts to make urban transport more efficient and sustainable, and to move them from their current “niche” position into mainstream urban transport application. One of the concepts focused on neighbourhood accessibility planning to improve local conditions for walking and cycling, and to facilitate safe access to local facilities (e.g., schools and shops) and to public transport services. Guidelines have been published for assessing the transferability potential of this innovative transport measure.¹¹

■ ACCESS2ALL was a project co-funded by the 7th Framework Programme of the European Union, and defined mobility schemes, guidelines and policy recommendations to ensure access to public transport for all users. Coordinated action was proposed to encourage public transport operators to adopt innovative technological concepts. Based on the problems and needs analysis of user groups requiring special attention in public transport, recommendations were made to remove barriers in travel chains and included improved vehicles, infrastructure, and information and service provision. Cooperation measures and standardisation issues were considered, such as training methodology on access for all passengers.¹²

■ A study on the compensation thresholds for damaged or lost equipment and devices belonging to air passengers with reduced mobility (European Commission, DG MOVE, 2007) assessed the options to enhance passenger rights under EU, national and international law for loss or damage to wheelchairs and other mobility equipment during airport handling and transport on-board aircraft. The study found that compensation varied between air carriers. Most of the airports surveyed in the EU do not have specific procedures for handling wheelchairs and other mobility equipment and do not have specific policy regarding claims and compensation for these items. The study concluded that regulatory and non-regulatory measures are needed to improve the situation of air passengers with reduced mobility.¹³

¹⁰ Michael Carreno, New guidance for bus drivers concerning mobility-impaired passengers (UK), Eltis, accessed July 21, 2015, <http://www.eltis.org/discover/news/new-guidance-bus-drivers-concerning-mobility-impaired-passengers-uk>

¹¹ NICHES+ on the Transport Research & Innovation Portal, accessed July 21, 2015, http://www.transport-research.info/web/projects/project_details.cfm?id=37589

¹² ACCESS2ALL on the Transport Research & Innovation Portal, accessed July 21, 2015, http://www.transport-research.info/web/projects/project_details.cfm?id=37449

¹³ Accessed July 21, 2015, http://ec.europa.eu/transport/themes/passengers/studies/doc/2007_06_30_compensation_thresholds.pdf



An accessible transport system is essential for the future mobility of EU citizens

Accessible and affordable public transport services facilitate social inclusion, and in the last decade, public transport accessibility has increased substantially in the EU. However, there are great differences between the Member States and also within regions of individual countries. The progress has largely been made in major cities, whereas there are still barriers to public transport in rural areas. Under FP6 and FP7, and now under Horizon2020, the EU co-funded various research projects and studies on accessibility, social and equity impacts of transport.

Research results demonstrate that an important way to improving transport accessibility is to remove physical barriers, for instance by widening doors of vehicles, using low-floor buses, and creating storage space for prams. To meet the requirements of elderly travellers and passengers with reduced mobility, most fleets of buses and coaches need to be redesigned. Regarding the transport network, local transport operators could connect isolated areas by shared taxis or innovative on-demand services to provide a wider range and more accessible forms of transport.

Another good method is clear and reliable information on public transport services. Research results indicate that provision of reliable information before a trip enables people with disabilities to plan feasible journeys. Research needs to further develop technologies and measures for a broad provision of service information on public transport. To assist passengers, audio-visual information systems in buses, trains and trams, and various smartphone applications have been developed. Future research could contribute to wider deployment of such technologies.

Training and awareness-raising is also a key aspect. Training of personnel in rail, bus, and coach transport could improve skills to support PRM. Moreover, awareness-raising campaigns could influence attitudes and encourage people to give more support to fellow travelers who need it.

An inclusive environment for all EU citizens offers opportunities for an active life and is essential for independent participation in social and business activities. An accessible and affordable transport system contributes to generating such an environment, especially for people who are economically or socially disadvantaged. However, further research is needed to demonstrate the impact of poor transport facilities on social exclusion, particularly on unemployment, low levels of health and education, and quality of life. New research approaches are also needed to better quantify the extent or severity of social exclusion. The internalisation of external costs of transport and efficient charging for infrastructure use may result in social imbalances. Research may further analyse possibilities to derive internalisation and pricing schemes without negative social and equity impacts.¹⁴

For successful improvement of the accessibility of public spaces and public transport, it is extremely important not just that the needs of a specific group of users are taken into account, but that the principles of Universal Design are applied, so that public spaces and public transport can be used by all people, to the greatest extent possible, without the need for adaptation or specialised design. In order to reach this aim the following seven principles of Universal Design¹⁵ should be taken into account:

- The design must be useful to people with diverse abilities.
- The design must accommodate a wide range of individual preferences and abilities.
- The use of the design must be easy to understand, regardless of the user's experience, knowledge, language skills, or current concentration level.
- The design must communicate necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities.

¹⁴ Thematic Research Summary, Accessibility, social and equity impacts, European Union, 2014

¹⁵ The 7 Principles of Universal Design were developed in 1997 by a working group of architects, product designers, engineers and environmental design researchers, led by the late Ronald Mace in the North Carolina State University. The purpose of the Principles is to guide the design of environments, products and communications. See also <http://universaldesign.ie/What-is-Universal-Design/The-7-Principles/>



- The design must minimise hazards and the adverse consequences of accidental or unintended actions.
- The design can be used efficiently and comfortably and with minimum fatigue.
- Appropriate size and space is provided for approach, reach, manipulation, and use regardless of the user's body size, posture, or mobility.

One of the main arguments against accessibility is usually that it costs too much to implement. It is true that many measures to improve accessibility are not cheap, and measures that involve the reconstruction of infrastructure may be especially expensive, but there are a number of ways to increase impact and reduce costs. Here are five tips for the cost-conscious:¹⁶

- A large number or even the majority of barriers in public space and public transport results from a lack of awareness and knowledge regarding the needs of PRM. Barriers arise from thoughtlessness and well-meant but uninformed actions from both the general public as well as the people working in planning, construction, and maintenance of public spaces and public transport.
- Involving users (including all groups of PRM) in the development of the accessibility strategy and accessibility programme helps to identify the 'real' problems, to set the right priorities, and to develop a strategy that brings about sustainable improvements of accessibility, supported by the public.
- Involvement of representatives of all user groups in planning, implementing, and evaluation is an effective strategy to avoid mistakes and expensive corrective measures.

■ Applying the principles of Universal Design results in much better and much more cost efficient solutions than developing special solutions that only take into account the needs of a limited number of people. Training in Universal Design is recommended for designers, architects, planners, construction staff, and maintenance crews.

■ If accessibility issues are taken into account from the beginning a lot of money can be saved. In many cases accessibility does not imply any extra cost at all, when integrated from the planning stage. It is more costly to overcome barriers and improve accessibility later in the process.

Investments in accessibility are an effective contribution to a sustainable economy and society, and a clear-sighted measure to tackle present and future challenges resulting from demographic changes such as immigration or an ageing population.¹⁷ Such investments pay off in terms of:

- Environmental costs - since accessibility enables all people (including PRM) to use sustainable transport modes, and thus to reduce costs, energy consumption, and emissions.
- Social costs - since accessibility enables all people (including PRM) to access day-to-day services independently, and independent mobility is an essential precondition for taking part in everyday life.
- Healthcare costs - since accessibility enables all people (including PRM) to make their daily trips with active transport modes like walking and cycling and thus to stay fit and agile.

¹⁶ Accessibility – why we need it, 2011. ISEMOA – Improving seamless energy-efficient mobility chains for all
¹⁷ Ibid.



www.civitas.eu

CIVITAS Insight N°2, October 2015

Author:

Fred Dotter (Mobiel 21)

Edited by

Lewis Macdonald (ICLEI)

Design by

Nadine Maes (Mobiel 21)

The CIVITAS Insights are produced by the CIVITAS CAPITAL team. Any query about the content or frequency of the Insights can be directed to jan.christiaens@mobiel21.be

Do you have ideas for future Insights or want to share you expertise? Please contact us!

The content of this publication does not reflect the official opinion of the European Union. Responsibility for the information and views expressed in the publication lies entirely with the author(s).



THE CIVITAS INITIATIVE
IS CO-FINANCED BY THE
EUROPEAN UNION