

Accessibility for all – eliminating barriers across Europe

Connected Cities

(photo: MVV/München)

Ten years ago the European Union launched a campaign for barrier-free transport to meet the needs and rights of people with disabilities. But we can all benefit from barrier-free transport. The key lies in integrating architectural, planning and transport measures throughout the mobility chain.

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By 2020 there will be twice as many people in Europe over 65 than in the 1960s, and a significant and growing proportion of Europe's ageing population are disabled. In response to this trend, in 1995, the European Union launched a programme for achieving better accessibility of regional, rail, air, and water transportation. This was followed in 2000 by the European Commission communication Towards a Barrier Free Europe for people with disabilities, which covers spatial, environmental, economic, social and cultural aspects of accessibility. It gives four rules for access to transport services:

- 1 Everyone must have an opportunity to live independently: public buildings, the transport system and infrastructure must be barrier free.
- 2 New infrastructure must accommodate the needs of people with disabilities. Transport equipment and infrastructure can have an extremely long lifetime and so it is essential that it meets the needs of disabled people. This will benefit everyone.
- 3 Governments must ensure accessibility.
- 4 Accessibility principles must be followed when planning, designing and building infrastructure and vehicles. These require full accessibility to approved standards or recognised best practices, with approval by experts, minimum accessibility requirements for wheelchairs, features for people with walking difficulties, and facilities to assist the blind, deaf or hearing impaired people.

In 2003 a Group of Experts appointed by the European Commission published the report 2010: A Europe Accessible for All, in which they defined accessibility in a wider perspective. Accessibility is of concern to everyone, not only for a minority with physical disabilities. Accessibility should be dealt with in a global and integrated way. It should not be the domain of building or transport experts alone, but should be achieved by coordination of all the actors involved. They also argue that accessibility policies can only be designed and implemented with the participation of the people and representative NGOs. Moreover, accessibility is a key part of sustainable development because it enhances the quality of life and makes the environment more liveable.

Barrier-free mobility

There are three major types of barriers to access and mobility:
social barriers, psychological barriers and structural barriers.

According to the European Group of Experts these barriers are found in buildings, the space between and around buildings, and in the 'virtual environment'. In this context, freedom from barriers means:

- 1 eliminating obstacles in the built environment and enabling access to public transport,
- 2 eliminating obstacles within vehicles, enabling easy boarding and alighting, and
- 3 making information and communication services suitable for use by all.

Mobility requirements are not limited to the activities for meeting basic needs such as work, education, medical care and so on, but also to a broader range of activities in the spheres of social life and shopping, sports and leisure, education or voluntary work. Unimpeded access is a vital factor in personal development. And because mobility is a basic human need, it should be possible for everyone.

Designing accessibility for all

Accessibility for all is about creating barrier-free mobility chains from door to door and implies more than just customised engineering solutions. It takes a holistic approach that integrates town planning, architectural and transport engineering measures, as well as product and process design. Special design solutions or add-ons for specific user groups only make situations complex and divide social groups; design features should have wider uses and raise the standard for everyone. The disabled people's access to the Rotterdam metro is an example of how not to do it. Disabled access is by lift, but this is not a realistic option because the lift is unsafe and used as a toilet. Moreover, it takes only one wheelchair; bicycles are permitted, but do not fit.

The kind of problems people encounter daily depends on the type of mobility restriction they have. The needs and problems of different users or user groups coincide or clash in many key areas. Understandably, the design criteria also differ. Although objectives seem to conflict, for example ensuring optimal seating capacity while providing sufficient space for wheelchair users and prams, resolving such conflicts can create opportunities, in this case greater flexibility in use and extra standing space, thus increasing capacity. It is important to find solutions which benefit as many people as possible.

Good practices

Essentially, barrier-free public transport boils down to the elimination of barriers in the built environment. A whole range of measures can be taken to eliminate obstacles under the headings 'infrastructure', 'vehicles' and 'information and services':

- Infrastructure measures include creating suitable areas around stops, for example with broad pavements, dropped kerbs, safe pedestrian crossings and signposting, sufficient dimensioning of movement spaces and services, and aids to overcome height differences, such as fixed stairs, ramps, escalators, lifts or moving walkways.
- Vehicles can be altered to improve accessibility. Measures include sufficient dimensioning of the vehicle doors and the interior, placing devices for passenger safety, such as grips, bars and barriers, matching vehicle and platform levels, and providing boarding aids.
- Information, communication and service systems can be made suitable for all by making sure that service points are accessible and within easy reach and their interior dimensions are adequate, and by providing information at stops and in the vehicle, such as information displays and timetables, external and on-board displays, announcements, other information elements and orientation aids. Ticket machines should be reachable and easy to service.

The problem with technical solutions is that they are not holistic. Kneeling buses, wheelchair lifts and ramps are expensive, liable to breakdown and maintenance intensive. There are several examples of good practices that get around such problems. In Paris the sidewalks are not adjusted, but a dip in the road at the stop ensures the bus entrance is level with the pavement. This is likely to be more sustainable because there are no mechanical parts and no ramps for pedestrians. In Heilbronn the S-Bahn runs through the city, where the higher platforms are broad and have long ramps for easy access by mobility-restricted people. In Lyon and Strasbourg the tramway infrastructure and low-floor vehicles were designed to create a recognisable and easily accessible transport system. This can be applied to bus systems as well. The stops of the Zuidtangent, a dedicated bus service between Haarlem and Amsterdam South-East via Schiphol, have level access, with small gaps between the vehicle and the platform – but the legibility of the information and the comfort of the shelter leave much to be desired.

When eliminating barriers and problems associated with using public transport, planners and operators must constantly have the needs of mobility-restricted persons in mind. Expanding the circle of potential customers not only makes good economic sense, but also raises awareness and acceptance of measures designed to improve access for the disabled. Measures of this kind serve to foster and accelerate the social integration of the disabled and can also lead to an improvement in quality for everyone.

Scale

The measures and means at our disposal must be used at the right scale. For example, even if all city buses were technically adapted for wheelchair access, there is no guarantee that the specific needs of these passengers will always be met because specially equipped buses alone will not do. General public transport services are not reliable enough, and it would make more sense to use dedicated transport companies which meet the needs of mobility-restricted persons. On the other hand, investments in low-floor trams, as in Rotterdam, Dresden, Lyon or Strasbourg, can benefit everyone. The level entrance and broader doors give unimpeded access to all. Trams in most other cities are not accessible to wheelchairs at all. Their floors are more than half a meter above the pavement and the small doors are difficult to negotiate for people with buggies or shopping bags and offer no access for mobility-restricted people.

The mobility chain offers new perspectives as well. If it is not possible to offer barrier-free door-to-door chains using public transport, why not use private or semi-private alternatives for the feeder parts of the chain? This could be cheaper, more reliable and more efficient for both the traveller and transport company. EU involvement could promote the exchange of good and bad practices for the trunk and feeder lines.

The difficulty in the Netherlands is that almost every city, every company – or in the case of rail transport, almost every line – has its own, unique vehicles. Rail vehicles in particular cannot usually be used on other lines or in other cities, where the stops are designed and built to match their own vehicles. This is one area where European legislation and best practices could guide future development towards more uniform standards and practices. The mobility chain offers new perspectives as well. If it is not possible to offer barrier-free door-to-door chains using public transport, why not use private or semi-private alternatives for the feeder parts of the chain? This could be cheaper, more reliable and more efficient for both the traveller and transport company. EU involvement could promote the exchange of good and bad practices for the trunk and feeder lines.

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