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Public Transport Prospective of People with Reduced Mobility in Hungary

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***Abstract*—**To comply with the international human right legislation concerning the freedom of movement, transport systems are required to be made accessible in order that all citizens, regardless of their physical condition, have equal possibilities to use them. In Hungary, apparently there is a considerable default in the improvement of accessible public transport. This study is aiming to overview the current Hungarian situation and to reveal the reasons of the deficiency. The result shows that in spite of the relatively favourable juridical background linked to the accessibility needs and to the rights of persons with disabilities there is a strong delay in putting all in practice in the field of public transport. Its main reason is the lack of financial resource and referring to this the lack of creating mandatory regulations. In addition to this the proprietary rights related to public transport are also variable, which also limits the improvement possibilities. Consequently, first of all an accurate and detailed regulatory procedure is expected to change the present unfavourable situation and to create the conditions of the fast realization, which is already behind time.

***Keywords*—**accessibility, legislation, people with reduced mobility, public transport.

I. Introduction

ACCESSIBILITY to public transport services and infrastructure is an important factor in ensuring a high-quality, efficient, sustainable transport system. Accessible public transport has often been characterized as an issue of concern to only a minority of transport system clients; in particular, disabled people whose travel needs have been seen as different from those of the rest of the population.

It is recognized, however, by transport authorities, service providers and operators that improvements to the accessibility of the public transport system as a whole mean a better quality of transport for all users of the system. A higher quality transport system in terms of vehicle design, infrastructure, driver training, information and many other factors, means a more equitable system. In this way accessibility is a key element in ensuring the social sustainability of the public transport sector.

A. European demographic overview

Populations across the European Union are getting older. The proportion of the population over 65 in the EU27 is 17,1 percent and will increase by 40 percent to 28,8 by 2050 and the share of all people over 80 will at least double. It is well-acknowledged that there is a strong correlation between age and disability: two-thirds of disabled people are older, and over half of the population of over 75 has some form of disability. Older people are the fastest growing segment of the population in most developed countries.

The impact of these demographic trends must be considered alongside the already significant number of individuals with disabilities and/or mobility problems. Recent studies suggest that between 20 and 30 percent of people travelling have a mobility difficulty at any given time. In the European Union, upwards of 45 million people of working age (roughly one in six) have a long standing health problem or disability [1].

B. Hungarian demographic overview

The proportion of the population over 65 in Hungary is 16,4 percent and expected to increase to about 30 percent by 2050.

The average health condition of the Hungarian population is poor compared to other European countries. In 2004 55 percent of the age group 65-78 reported health problems causing difficulties in their everyday activities. Additionally 75 percent of the population over 65 is living alone or in a two-person household and therefore are obliged to self-sufficiency [2].

C. People with disabilities in Hungary

According to the census of 2001, the number of people with disabilities is approximately 600 thousand, which gives roughly 6 percent of the population. Their 22,7 percent was reported to live alone. Nearly half of them have physical disabilities.

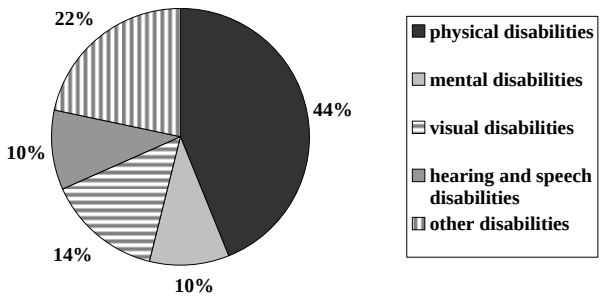


Fig. 1 People with disabilities in Hungary

In Hungary the term accessibility is linked to the needs of this group of the population. The accessible public transport, however facilitates the movement of many other groups as

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well; people with small children and/or a stroller, people with temporary reduced mobility due to an accident and people having difficulties for their advanced age as described above [3].

D.Social and economic imperatives

In spite of the improvements to the accessibility of transport infrastructure and services, many people across European countries still find getting from one place to another difficult or even impossible. Barriers to mobility in the transport system and surrounding environment are numerous, and until they are overcome, a substantial and growing portion of the population will continue to be at disadvantage and consequently limited in their ability to participate fully in society

This is not only a significant social issue but also an economic concern. Without independent mobility, people are unable to access education, medical facilities and find employment. They are not able to be self-sufficient in terms of food shopping and other necessary activities. There is a very substantial cost in most societies for providing the care and support that is needed to compensate for these losses.

There is also a correlation between loss of mobility and physical and mental health and well-being. Among older people in particular, loss of even local outdoor mobility can trigger a significant decline in health, leading, again to heavy governmental expenditures as well as heavy social penalty in terms of quality of life disabled and older people and their families.

So the importance of improving accessibility to public transport systems is clear: at any one time, an average of 25 percent of the population may have a degree of reduced mobility due to physical or mental disability, impaired sight or hearing, or through having to carry heavy bags or travel with small children added to the above mentioned elderly population [4].

II. METHODS

The main objective of this study has been to overview and to conclude the current Hungarian situation in terms of accessibility of the present public transport systems and to reveal the reasons of its deficiency in order to propose steps to solve them. This aim stipulates the method used during the elaboration. The data collection was based in particular on national statistical sources and on direct information provision of the transport operators. As a second step the related national, European and international juridical environment have been overlooked. A wide range of related international and national documentation (recommendations, reports, policy messages) has also been examined in order to make the study more comprehensive. The results and the final conclusion are based on this investigation.

III. RESULTS

With the thorough analysis of the data and documentation, the following results have been revealed.

A. Legal background

The Hungarian legislative environment to ensure equal rights of free movement is consistent with the related European and international legislation.

The UN Convention on the Rights of Persons with Disabilities has been a basic part of the Hungarian regulations [5] concluding the rights of disabled people.

In terms of the Hungarian legal environment the most comprehensive regulatory tool is the Act on the Rights of Persons with Disabilities to ensure their Equal Opportunities. According to this, the transport systems, the public transport vehicles and connected passenger facilities, including signalling and information equipments should be made convenient for the entirely safe use of a disabled person by 1st January 2010 [6]. Apparently this deadline could not be met, only a schedule was elaborated by this date. The realization has been postponed to 2013 by specific sector act amendments in the field of rail and bus public passenger transport.

Additionally, the European regulation on Rail Passengers' Rights and Obligations gives the possibility to ask for a derogation three times for five years, which means that all the stations, platforms, vehicles and related facilities are not obliged to be made accessible earlier than by the end of 2024 [7].

In spite of the advanced legal situation in terms of the general rights of the disabled people a delay can be seen in the detailed law making procedure. The slow application the international technical specifications and standards for the accessibility in the public transport [8] also contributes to the present problems.

B. Proprietary situation

The task of ensuring accessibility in public transport is addressed to several parties due to the variable proprietary situation of the involved vehicles, equipments and infrastructure.

In the rail transport MAV-Start Zrt (Hungarian Passenger Rail Company) is the transport operator, however in terms of passenger facility infrastructures the MAV Zrt. (Hungarian Rail Company) is responsible. Several bus operators from the country area reported that they didn't have information on the accessibility of the bus stops because this belonged to the municipality's or the county highway administration's competency.

The most interesting anomalies were reported by the BKV (Budapest Transport Company). In the rail-related transport the platforms are part of the tracks therefore the maintenance is their responsibility. In terms of bus lines, however, the stops are in the competency area of the municipalities. As a third involved party, also FKF Zrt. (Budapest Public Land Maintenance Company) is making certain maintenance works at bus stations or waiting areas.

So it is logic to expect the local authorities to make the bus stops accessible but according to the information it depends on the district involved. Only some of them pay enough attention to the accessibility and finance such investments.

To facilitate the operation BKV Zrt. is obliged to finance

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some accessibility investments regardless of whether it belongs to his competency. For example in case of the modernization of the main tram line in Budapest the expenses of the accessibility even of the pedestrian crossings were paid finally by the transport operator.

C. Financial resources

In 2008 the state budget contained 140 million HUF (roughly 500 thousand EUR) aiming at transport accessibility, which decreased to 98,5 million HUF (approximately 360 thousand EUR) in 2009.

According to the transport operators the above amounts can cover only a minor part of the accessibility investment needs. The involved transport operators have been provided the following information answering the question whether they had had or had state support to finance accessibility investments.

- MAV Start Zrt and DKV (Debrecen Transport Company) have not mentioned getting any state support;
- KT (Kaposvar Transport Company), MVK (Miskolc Transport Company), PK (Pecs Transport Company), SZK (Szeged Transport Company) and BKV haven't had any state support.

The public transport companies have limited possibilities because their public transport services are defined in their public service contract, therefore the state support is aiming to ensure primarily the seamless service. This amount is usually enough to cover not more than the most urgent maintenance costs and some transport-security-related investment expenditures. Consequently they have no financial resource for improvements or accessibility investments.

These companies have difficulties to have additional resources because the EU funds support such investments only in case they are linked to a large infrastructure project.

Another challenge, which can be experienced, is that even if a certain accessibility investment has been successfully realized, there is no further budget to operate it. The elevator at the Western Railway Station in Budapest is an example for this phenomenon. It has been out of order because MAV Zrt. cannot finance its operation.

The public transport companies would welcome national tenders to help them financing certain accessibility improvements.

D. Present situation of accessibility

During the data collection phase of this study, BKV and five country town public transport companies were asked to provide information on the situation of accessibility in terms of their vehicles and infrastructure. Some limited information on the railway service could be obtained from the MAV Zrt. as well.

Budapest

The passengers of the BKV can use buses, trams, metro, trolleybuses and local trains (HEV) with the following distribution.

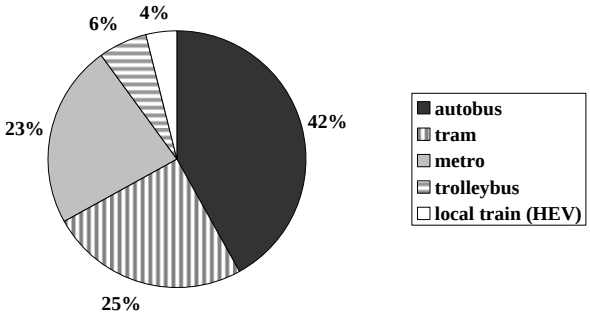


Fig. 2 Apportionment of Budapest public transport passengers

The accessibility of the vehicles is different according to the transport mode but none of them is completely accessible; only one fifth of the buses and trolleybuses can be used by people with disabilities. Not more than the 40 "Combino" trams of the whole fleet are convenient for the use of such passengers. Three amongst the 40 metro stations are equipped with elevator. The rest are not possible to be used by people with wheelchair and are difficult to be used by people with baby buggies without help. The local train (HEV) network is completely inaccessible for people with disabilities. So altogether 17,5 percent of the whole BKV vehicle fleet has low boarding level and is therefore convenient for people with reduced mobility.

Certain part of the stops has been made accessible step by step at different levels parallel to the purchase of accessible vehicles (Combino trams, Volvo buses). Considering the further reconstructions and newly built stops 449 stops of 4 990 can be called accessible so altogether about 9 percent can be used by people with disabilities.

In terms of the passenger information 50 percent of the buses and trolleybuses have been noted to be equipped with a visual and/or audio information facility, whereas this rate is 100 percent for the rail-related transport. One fifth of the metros and half of the trams have a visual information facility.

Due to the regular reconstruction works on the main tram line, - which is normally completely accessible in terms of both stops and trams - for an average one-month period in every two years, there is a substitution bus service transporting passengers on the Grand Boulevard. According to the information given on the website of BKV, depending on the daily period, one third of the buses they operate are low-floor on this line.

The regular midi-bus service for people with disabilities is available as well in Budapest. BKV operates five Renault Master buses, specially adapted to the needs of people with wheelchair. Nevertheless, this service can be used only between 6 am and 9 pm on weekdays, upon preliminary request, the passengers need to validate two tickets and no passes are valid for this service.

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If we accept the 25 percent rate of the passengers with any kind of reduced mobility as an average, taking the yearly 1, 3 billion travels on the vehicles of BKV, we can see that passengers in 325 million cases are interested in some way in the accessibility improvements.

Country towns

Five urban public transport operators have been requested to provide information on their accessibility situation; in the following towns: Debrecen, Kaposvar, Miskolc, Pecs and Szeged.

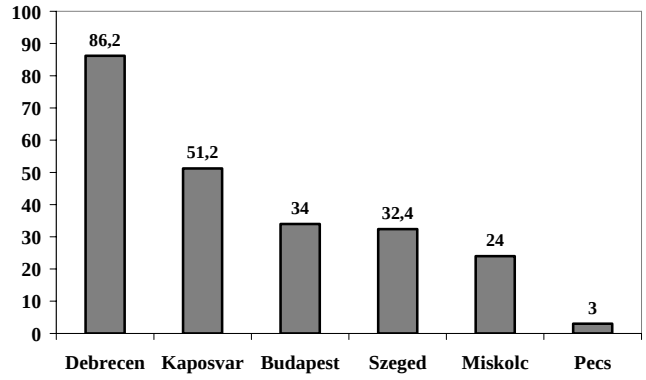


Fig. 3 Accessible vehicle rates in Hungarian towns (percent)

Debrecen has the most favourable situation among the towns. In terms of their whole fleet, 86,2 percent have low floor. All the buses and 68,8 percent of the trolley buses are accessible for people with reduced mobility. None of the trams are accessible, at the same time. In 98 percent of the operation time low-floor vehicles are operated.

In Kaposvar, 51,2 percent of the vehicles meet the accessibility requirements. The company aims to improve its accessibility level.

According to the information given by the Miskolc Transport Company, 28 percent of their buses have low floor. With EU financial support they purchase low-floor trams making the whole fleet accessible for people with disabilities.

In Pecs, only 3 percent of the buses operated by the local transport company have low floor.

Finally, in Szeged 70 percent of the buses and 27,3 percent of the trolleybuses are accessible for people with reduced mobility. They have recently purchased some trams with low floor.

Railway

Additionally, the railway accessibility in Hungary is quite limited. Only 5 percent of the railway carriages are suitable for the transport of wheelchairs. In terms of the stations and stops, 9,7 percent are accessible on a certain level [9].

IV. Discussions

Over the past 10-15 years legislation either to introduce the concept of civil rights for disabled people or to set specific technical standards has been introduced at national level. Despite the considerable delay and deficiency in putting all in practice, with the present legal framework, much progress has been made in improving public transport accessibility in Hungary.

On the other hand, based on the above results we can conclude that the present legal framework does not oblige effectively the involved parties to take their part in the accessibility investments and later, in their operation.

A. Persistent barriers

Despite of the progress in the law making area, barriers persist to implementing good practice.

The present situation reflects that access remains in the margins of transport policy and not yet considered as an integral part of a quality transport system and transport decision-making.

The implementation of the present regulatory and legal frameworks is inadequate, which means that both the incentive and the means for authorities and operators to initiate and sustain progress in improving accessibility is still lacking.

In spite of the policy framework setting out accessibility requirements, there is a lack of or insufficient monitoring of implementation of the legal and regulatory requirements. Evaluation is at an early stage and as a result, there is often inadequate understanding of the impacts of policies on improving accessibility.

The lack of familiarity with international good practice is also a problem and makes the realization of such investments difficult.

B. Government roles in improving accessibility of public transport

National legislation requiring the provision of fully accessible public transport over a period of time provides a framework within that local authorities and transport operators can work together to ensure accessibility.

Although implementation of measures to improve the accessibility of public transport is mainly a matter for local authorities and operators, national government has an important role in setting the legal framework, providing incentives and elaborating guidance on standards of good practice.

This is of high importance in spite of the experience-based reasons given for using mandatory regulations rather that relying on voluntary compliance with guides to good practice [10].

The mandatory regulations are inevitable to ensure the realization of accessibility investments. The public transport operators have introduced accessible vehicles at a different level and similarly to this, only some of the local authorities have converted the bus stops according to the accessibility requirements. The rest is likely to never make their services and infrastructure accessible without mandatory legislation, making impossible to obtain access over a network of services as a whole. There will always be links missing [11].

C. Co-operation between local authorities and public transport operators

A close, continuing and frequent co-operation between local authorities, local transport authorities and transport operators

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is essential. In spite of an existing public service contract in most cases, further consultations and agreements are reasonable to facilitate the accessibility improvements.

Additionally, authorities should stipulate clearly the accessibility level required in agreements that are contractually enforceable between the public transport authority and the operators.

D. Co-operation with disabled people

Collaboration and consultation with disability associations on all aspects of accessible transport is important. This should include vehicles, infrastructure and information. The public transport authority should have a focal point specifically charged with dealing with all disability issues. Special attention should be paid to ensure that consultation covers the whole range of disabilities: physical, sensory and cognitive. [12]

E. Planning for accessibility

Forward planning, with time horizon of approximately ten years, is necessary. More detailed plans should cover a period of five years, and should be updated on an annual basis.

There should be regular monitoring of progress towards achieving forward plan objectives. Monitoring should cover improvements to public transport infrastructure, introduction of fully accessible vehicles (buses, trams, trains) and use made of accessible services by disabled people and other with reduced mobility.

F. Ensuring full accessibility: vehicles, infrastructure and related facilities

In urban areas, gapless and step less boarding should be the standard. This requires action by both local authorities and transport operators. Infrastructure modifications should be undertaken to allow such boarding, either by making existing high platforms accessible or by arranging street-level infrastructure to maximize the benefit of low-floor vehicles. The authorities responsible for the transport infrastructure should conduct accessibility audits of bus and tram stops as well as related infrastructure using consistent standards. The objective should be to match the introduction of accessible vehicles with appropriate infrastructure. If this is not realized, much of the value of accessible vehicles will be lost.

While the development of accessible bus and tram stops is essential, it is also important to ensure that the surrounding pedestrian environment is also accessible. This responsibility rests primary with the local authority.

The effective enforcement of parking restrictions at and around bus stops is absolutely inevitable, otherwise the benefit of low-floor, step-free access is lost. This requires stringent, consistent and enforced policy at the local authority level.

In order to make construction provisions more effective, affordable and easier to design, it is desirable for local authorities, operators and vehicle manufacturers to rely on some degree of standardization in wheelchair dimensions and restraint devices for transport purposes.

G. Training

Ensuring that drivers and other public transport staff have disability awareness training is essential for the effective delivery of accessibility services.

H. Specialized services

Specialized services will continue to be needed by some of the people with the most severe disabilities as well as to provide connecting services for those people otherwise unable to reach public transport. It should not, however, be regarded as an acceptable substitute for accessible public transport but rather as a complement to it and should be made available under the regular conditions and not for an extra fee [12]

V. Conclusion

The above results and discussion lead to the following conclusion.

In Hungary, the accessibility of public transport is insufficient. Despite the advanced legal environment, due to the lack of financial resources, the variable proprietary situation and the obligatory regulations, the realization of the accessibility investments is in delay.

The practice of ignoring the accessibility requirements in a transport investment project is widespread and such improvements are often considered as an optional extra, which can be dropped when there is a pressure on budgets. Later, however, this procedure is likely to lead to the need of costly retrofitting and ex-post investments. On top of these, more costs can come engendered by the need to provide separate specialized transport for disabled or older people unable to access public transport.

With better accessibility, economic benefits for transport companies can be seen as more people are able to use public transport and with reduced boarding times due to accessibility improvements can come lower operating costs. The accessible public transport system can contribute to reducing or postponing the need for domiciliary or residential care for older people who lose their independent mobility, and increasing the opportunity for younger people with disabilities to return to economic activity through better access to employment.

These cross-sector benefits, even though difficult to quantify directly should be taken into account when assessing the economic case for accessibility improvements. Consequently it would be reasonable to continue studying the Hungarian situation from this approach in particular.

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