



PRAGUE, CZECH REPUBLIC

Dynamic Passenger Information for the Vision Impaired

Background/context

In 1997, the public transport operator in Prague renewed its passenger information systems for its tram and bus networks with on-board and stop-based equipment (bus and tram). The main objective was to improve access to and quality of public transport. It took address vision-impaired travellers in particular.

Case description

The basic passenger information system was fitted with a specific subsystem composed of vehicle-command equipment, a radio-wave transmitter and remote-control equipment. The visual information (identification of line and destination and waiting time before approach) displayed on LED screens is also delivered by voice message for the vision impaired, who have a remote-control unit with which they can get the information on demand. The control may be integrated into a long cane (of the type used by blind persons). The driver is informed about their possible intention to get on.

The system was first introduced on buses and trams. Then, to address the users' needs, it was augmented to allow travellers order the opening of doors of metro coaches, which are not automatic in Prague. The system has been imple-

mented in large stations and interchanges, together with guiding tactile tiles, to help travellers find their way (beacons are fixed at strategic points).

Legislation and Policy issues

- The project was initiated before the adoption of anti-discrimination policies and public transport accessibility policies.
- The public transport operator identified needs expressed by representatives of the vision impaired in Prague, and acknowledged the right to equal treatment.

Cost and Financing

The Prague city authority agreed that the system enhanced the autonomy of vision-impaired people in their use public transport. The city funded the implementation of the system for public transport (3,726 examples) and at city traffic lights. Three hundred remote-control sets have been distributed to vision-impaired customers.

In Dresden, where similar equipment was used, the cost for development and implementation of the Tyfloset system on 200 public transport vehicles was funded by the city

authority at EUR 600,000. Re-fitting would be EUR 1,200 per vehicle. The remote control system costs EUR 80 per person. At present, 200 have a set of the 300 people registered.

Results

The extent of dissemination of the system in the Czech Republic, followed by Germany, clearly demonstrates the usefulness and affordability of the equipment as a complement to dynamic-passenger information systems. It cannot be disputed that the Tyflost system enables a greater degree of autonomy and better quality of life for vision-impaired persons, who can use it at low or no cost. One significant impact is a decrease in demand for special transport for disabled people, the operation of which costs 5 to 10 times that of regular public transport.

Problems

There is no major technical difficulty in implementation. Compatibility with safety systems in the underground must be checked, as the radiowave system may interfere. Otherwise the equipment is simple and easy to maintain.

Transferability and success factors

- The system can be easily disseminated at low cost when it is integrated during the first stage of a dynamic passenger information project.
- There is a strong demand among the vision impaired for harmonisation of systems that activate information on public services (CEN or ISO standardisation). It is important that one remote-control device can activate a variety of systems, not only in one city but in various cities throughout the country and even throughout Europe.

Lessons learnt

Implementation of dynamic passenger information systems is part of the modernisation of public transport in order to maintain and increase patronage. There is also greater demand for non-discriminatory services for disabled persons, including equal access to public transport. The European Commission is working on directives to guarantee more autonomy in the use of public transport.

In Prague as well as in Dresden, associations of blind and vision-impaired persons have raised the issue and have been involved in consultations about meeting their needs.

Conclusions

Following the development of dynamic real-time information systems, standardisation of communication processes (remote control) and low-cost technology would be useful to broaden the market.

References and contacts

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