



CiViTAS
Cleaner and better transport in cities



Can I get there easily?.. Yes you can!

Graham Lightfoot CMILT

Mendes Limited



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Presentation

Universal design

Barriers to travel

The journey chain



Universal design

– what is it?

Universal design strives to be a broad spectrum solution that produces buildings, products and environments that are usable and effective for everyone, not just people with disabilities or reduced mobility.

Universal design is a part of everyday living and is all around us. Lifts in multi-storey buildings and of course low-floor buses and trams.



Principles of universal design

Equitable use

Flexibility in use

Simple and intuitive

Perceptible information

Tolerance for error

Low physical effort

Size and space for approach and use



Examples of universal design

- Smooth ground surfaces of entranceways, without stairs, to buildings and vehicles
- Wide interior doors and hallways
- Bright and appropriate lighting, particularly task lighting
- Auditory output redundant with information on visual displays
- Visual output redundant with information in auditory output
- Use of meaningful icons or pictograms as well as text labels
- Clear lines of sight (to reduce dependence on sound)



Barriers to travel

Five categories:

- physical barriers
- barriers created by policies, procedures & systems
- barriers caused by staff practices
- information barriers
- barriers caused by attitudes - staff or customer

But remember...

Barriers in the transport system affect passengers with particular disabilities differently



Barriers to travel (2)

- A flight of stairs is a barrier to a wheelchair user, whereas a person with a vision impairment might have less difficulty, depending on the design of handrails and the appropriate use of tactile warnings and colour contrast.
- Poor signage, especially signage without appropriate pictograms, is a barrier for someone with an intellectual disability or cognitive impairment.



Examples of barriers



Examples of barriers



Examples of barriers



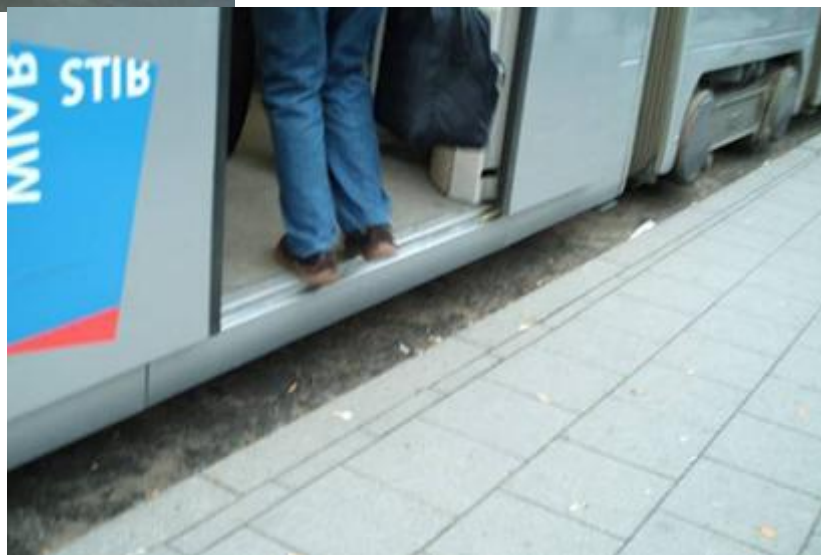
Examples of barriers



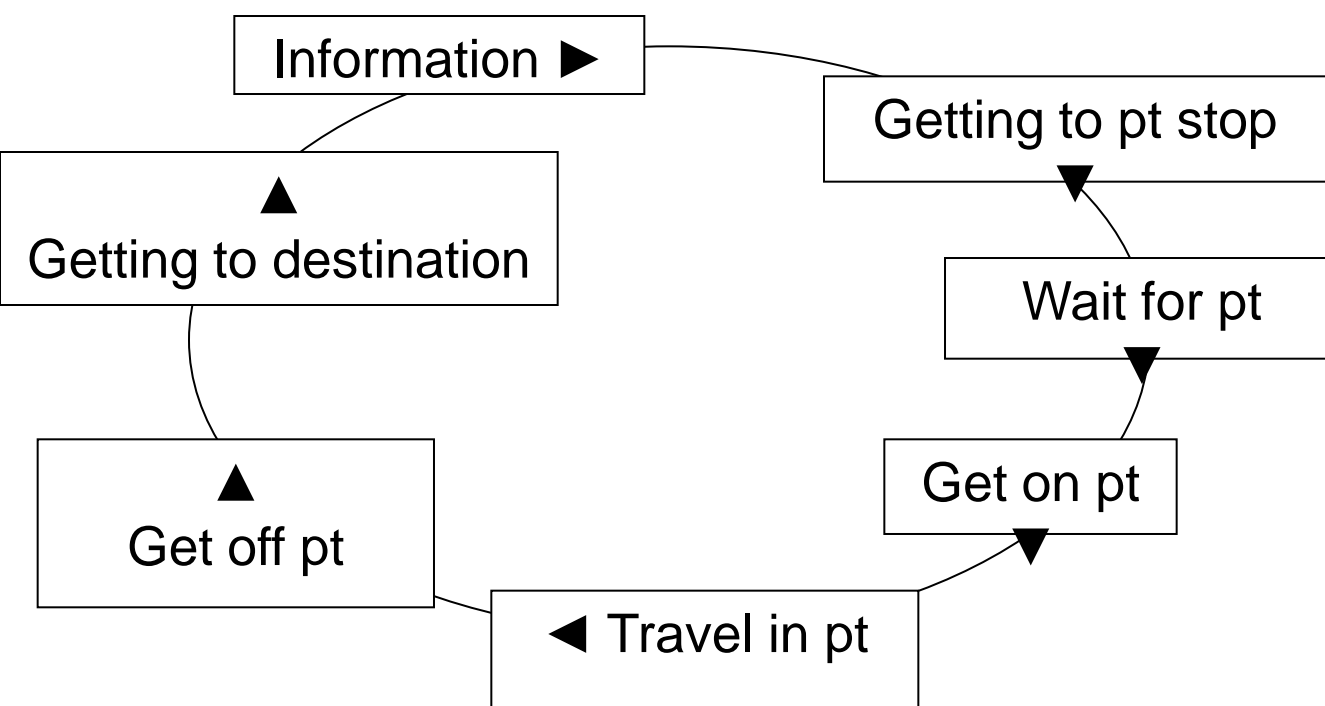
Examples of barriers



Examples of barriers



The journey chain



The journey chain (2)

The whole journey also involves an inter-relationship between:

- » information
- » infrastructure
- » vehicles
- » staff

The need for certainty requires all aspects of the chain to be accessible

This is especially important at interchange points

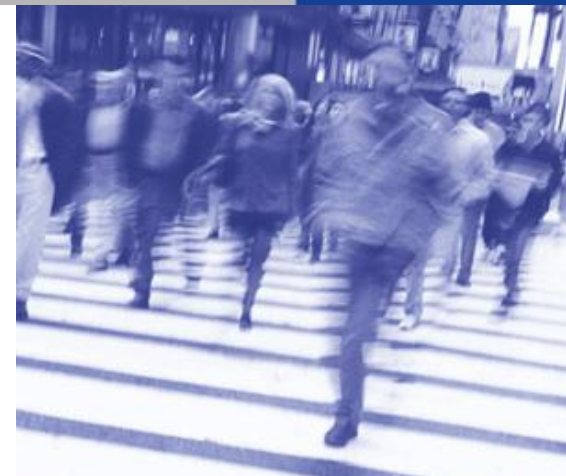
Otherwise the whole journey may be impossible to make



Solutions - information

4 key stages at which passengers need information:

1. Before they set out on their journey
2. When at the train station or the bus or light rail stop (including at interchanges)
3. When on the vehicle
4. When they have completed their journey.



Recommendations

- information

At a minimum timetables, websites, urgent safety and emergency information should be accessible to all.

Specific information on how to get assistance should be provided.

Relevant staff members need to be able to provide accurate and clear information.

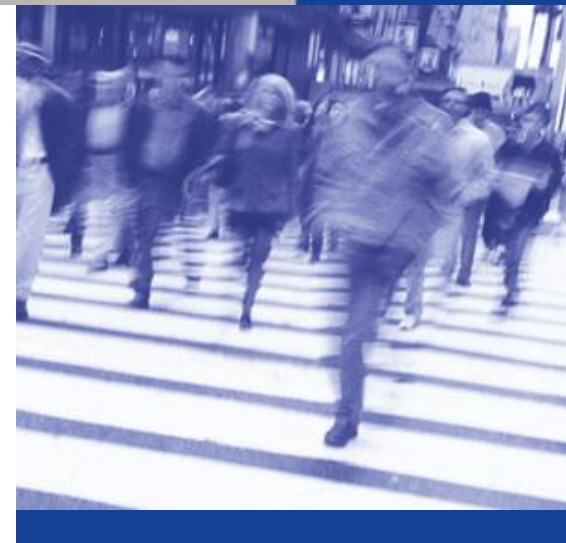
Frequent audits of the accessibility of the information provided should be conducted.



Solutions – infrastructure

Features that need consideration include:

- smooth, level footpaths to and from stops and station entrances and exits with dished pavements at road crossing points
- safe, accessible, road crossings
- good lighting
- clear signage
- safe, convenient drop-off and pick-up facilities for people with disabilities at stations.



Recommendations

- infrastructure

Measures to improve the accessibility of infrastructure and buildings need to be put in place.

Public transport operators need to consult with and, where relevant, work in partnership with other agencies, such as local councils, in improving the overall accessibility of the public transport infrastructure and built environment.

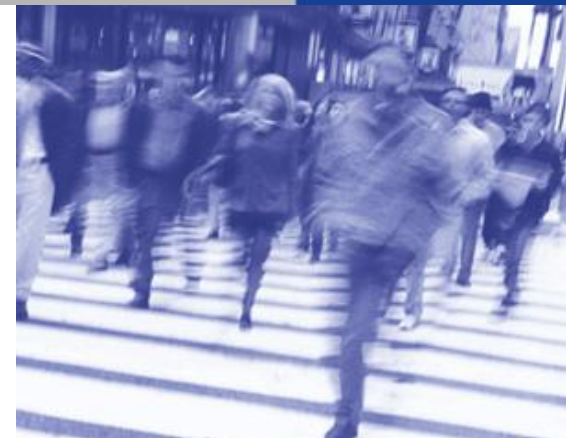
When buildings, stops or stations are being developed or refurbished, they should be fully accessible to all.

Frequent and regular accessibility audits of the infrastructure and built environment should be conducted by trained and experienced auditors.



Solutions – vehicles & rolling stock

The key aspects are ease of getting on & off and movement within the bus/tram/train



Recommendations – vehicles & rolling stock

Operators need to continue to purchase vehicles that are in full compliance with relevant international accessibility norms and regulations and treat them as an integral part of the vehicle specification.

Operators should closely monitor and – where relevant – respond appropriately to any new developments aimed at improving the accessibility of the transport fleet.

Equipment that is used to improve the accessibility of the fleet should be regularly checked and properly maintained.

Operators should introduce accessible vehicles on a route by route basis and clearly display the accessible routes and services on timetables and other relevant information.

Operators should conduct frequent audits of their fleet.



Solutions – training of staff

The business case - including financial and marketing issues

The law - employment & customer service

Challenging stereotypes and assumptions

Relating to people with disabilities - language, etiquette

Working with people with disabilities - practical skills and use of equipment

Inclusive working - removing barriers in practices, policies and procedures

Inclusive design - removing barriers in the physical environment

Inclusive information - removing barriers in communication and information provision.



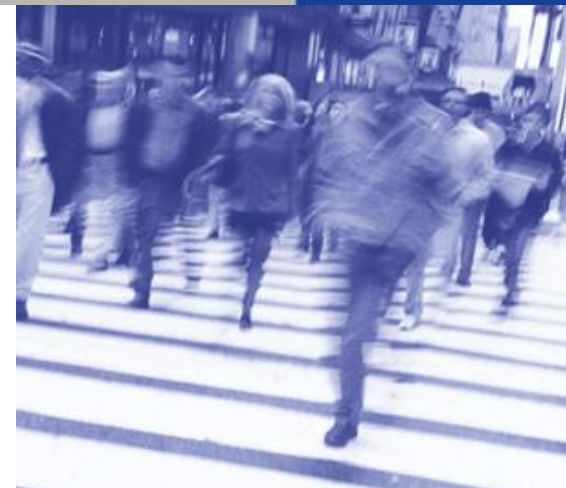
Recommendations

- training

Public transport operators should provide staff members with relevant training to ensure that staff understand the needs of passengers with disabilities and are able to respond to them effectively in relation to their own jobs.

Public transport operators should implement disability awareness training at a reasonable pace, as part of an integrated training programme and delivered by experienced trainers who have a good track record in disability awareness training.

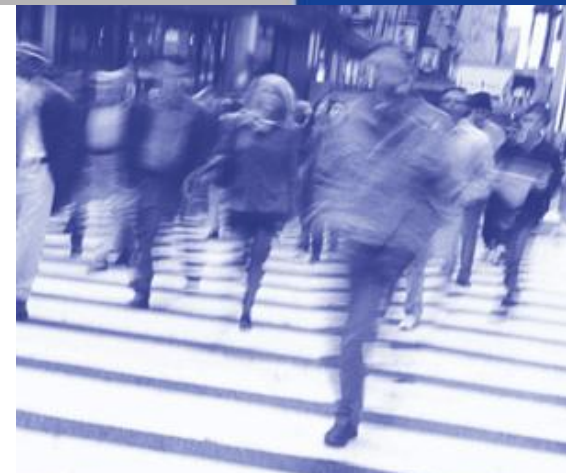
Public transport operators should regularly monitor the effectiveness of the training.



In conclusion

Initiatives creating an access friendly interchange and local urban fabric include:

- well signposted disabled parking and set down spaces
- pedestrian and wheelchair friendly public domain space
- easy links to the interchange via widened, well located kerb laybacks
- ground level street frontage that provides sufficient space for wheelchair passage and ramped entries
- access paths that link the interchange to key destinations
- at grade movements
- accessible paths to provide access and egress to and from transport services
- accessible information to enable people to plan, choose and utilise the transport service they require



Dziękuję

Dziynki

Go raibh maith agaibh

Thank you

Graham Lightfoot

grahamlightfoot@mendes.ie

www.mendes.ie



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