Towards common European criteria on accessibility of the built environment: Outcomes of Mandate M/420

EN 17210:2021, 1st European standard on accessibility and usability of the built environment – Functional requirements

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Introduction of the Project Team

- **Soren Ginnerup**/Denmark, Civil engineer, formerly Danish Building Research Institute, Aalborg University
- **Delfin Jimenez**/Spain, Ph architect, EQAR SL Access Consultant
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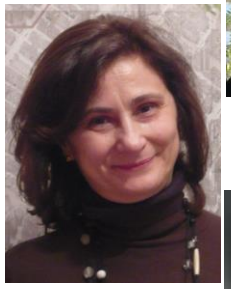
- **Carol Thomas**/United Kingdom, Planner & Access Consultant, Access Design Solutions UK Ltd.
- **Project Team Leader:**
  Monika Klenovec/Austria, Certified Architect & Access Consultant, TU Vienna, designforall/AT



European Commission Mandate M/420

‘Mandate to CEN, CENELEC and ETSI in support of European accessibility requirements for public procurement in the built environment’

- **Drafting:** Project Team of experts (Open call)
- **Consensus:** CEN/CENELEC JTC 11, Accessibility in the built environment
- **Phase I:** Inventory, analysis and feasibility of European and International accessibility standards in the built environment
- **Phase II: 3 deliverables**
  - ✓ EN: Functional requirements
  - ✓ TR 1: Technical performance criteria and specifications
  - ✓ TR 2: Conformity assessment

CEN/CENELEC JTC 11 - 15 active members

- Austria
- Belgium
- Denmark
- France
- Germany
- Greece
- Ireland
- Italy
- Malta
- Norway
- Portugal
- Spain
- Sweden
- Switzerland
- UK

Plus observers, liaison officers ...

European Commission - DG Employment, Social Affairs and Inclusion
AGE-Platform Europe
ANEC - European Voice of Consumers in Standardisation
EDF - European Disability Forum
ENAT - European Network for accessible tourism
SBS - Small Business Standards
ETSA – European Textile Service Association
CEN/TC 10 Lifts, escalators and moving walks

and more

Consensus building and dialogue

- Phase I: 2009 – 2011 (research)
- Phase II: 4 years (2016 – 2020)
- 13 Plenary meetings
- 4 small group meetings
- 1 Open Workshop (2019)

2016: start

2017: 1st and 2nd drafts

2018: 3rd draft

2019: 4th draft

- ENQUIRY VOTE –

2020: 5th draft

- FORMAL VOTE –

Approval by large majority

EN 17210. A new approach

- Functional requirements
- Didactic approach with “Rationale”
- Many Figures (including some inappropriate solutions)
- Basic accessibility requirements and recommendations + additionally specific use buildings and outdoor areas
- + several elements not covered in ISO 21542: urban spaces, pedestrian crossings, shared spaces, emergency evacuation, adaptable housing etc.
- Comprehensive horizontal European standard on accessibility of the built environment

EN 17210: Sources of information (standards, guidance)

- Based mainly on **ISO 21542:2011** *Accessibility and usability of the built environment*; in some areas rev. ISO/DIS 21524:2020
- TSI PRM Standards on *Railway applications in Infrastructure* :
  - EN 16584-1 … Part 1: Contrast,
  - EN 16584-2 … Part 2: Information.
  - EN 16584-3 … Part 3: Optical and friction characters.
  - EN 16587 … Requirements for obstacle free routes for infrastructure.
- Other specific ENs and product related ENs,
- National standards,
- Guidance on specific matters.

EN 17210: Content and overview

This European Standard supports the implementation of accessibility and usablity in the built environment with the „Design for All“ concept:

1. Scope
2. Normative references
3. Terms and definitions
4. Legal and policy background
5. Diversity of users and design considerations

6 -15. Basic functional requirements/recommendations on accessibility in the built environment

16 -20. Specific use buildings and environments

EN 17210 content: basics

6. **Wayfinding**
7. **Access in the outdoor environment** (routes, street furniture, squares and plazas, plantings etc.)
8. **Arrival and departure areas** – Parking areas
9. **Horizontal circulation** (entrances, doors, windows, patios, terraces, surface finishes and materials)
10. **Vertical circulation** (ramps, stairs, handrails, lifts, escalators)
11. **Specific areas, equipment and provisions** (service counters, seating, waiting & storage areas, kitchenettes, facilities for assistance dogs etc.)
12. **Sanitary accommodation**
13. **User interface, controls and switches**
14. **Fire safety for all – Evacuation and emergency exits**
15. **Environmental conditions in buildings** (lighting, acoustics, indoor climate)

EN 17210: specific uses

16. **Accommodation** (hotels, student accommodation, adaptable housing)
17. **Cultural, leisure and sport buildings** (auditoriums, concert halls, libraries, museums, heritage buildings and sites, retail and shopping, sport facilities, restaurants etc., swimming pools, saunas)
18. **Administrative, service and employment buildings** (conference venues, offices, healthcare and educational buildings, laboratories, banks, post offices, industrial buildings, courts, police stations, religious buildings)
19. **Outdoor and urban areas** (playgrounds, garden, parks etc., beaches)
20. **Transport facilities** (taxi, bus and coach, metro/underground, tram/light rail, airport, ports and cable car facilities

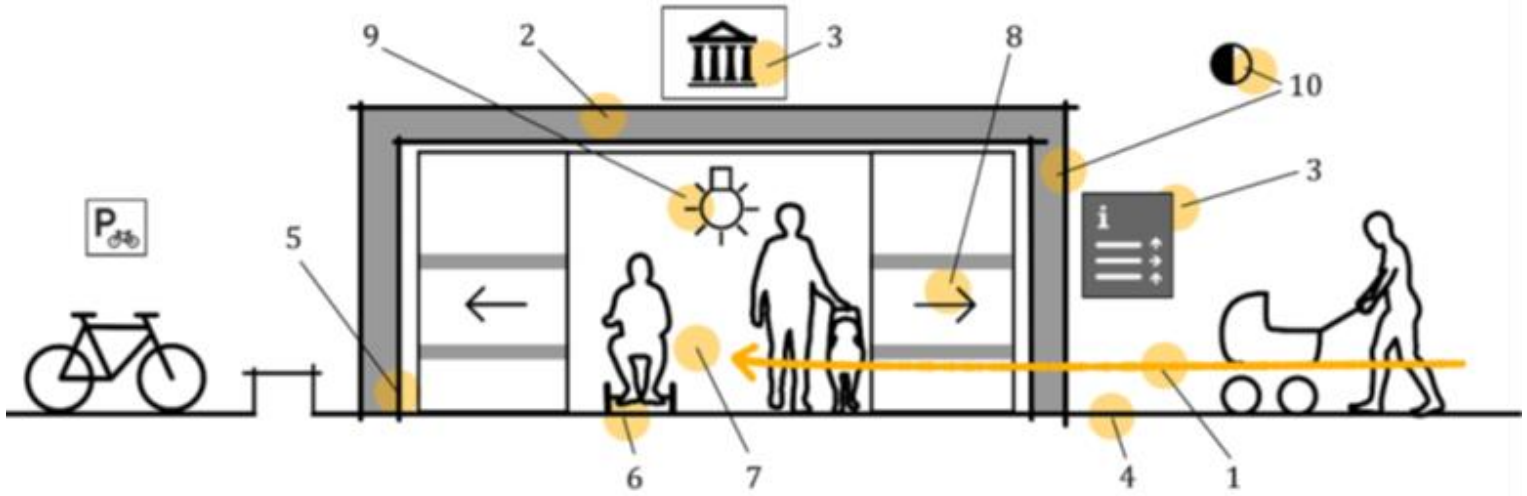
EN 17210: Scope

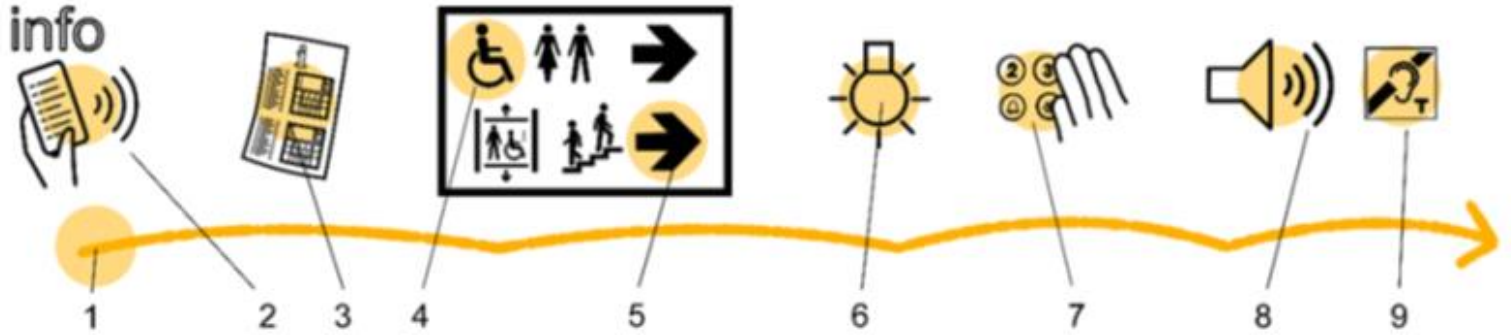
- **minimum functional requirements and recommendations for an accessible and usable built environment**, **following "Design for All"/"Universal Design" principles** **which will facilitate equitable and safe use for a wide range of users, including persons with disabilities**.
- **applicable across the full spectrum of the built environment**.
- **relevant to the design, construction, refurbishment or adaptation**, and maintenance of built environments including outdoor pedestrian and urban areas.

5.3 Key areas for an accessible built environnment

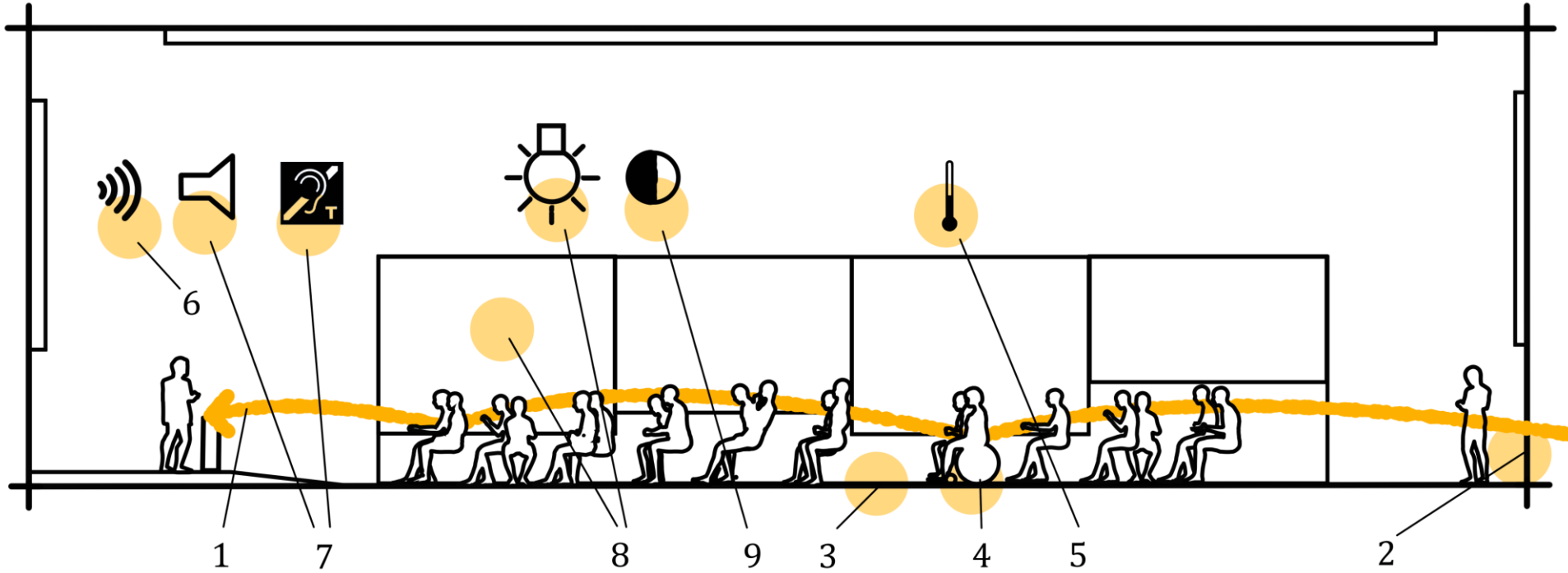
Accessible and usable …

- Pedestrian areas
- Approach to the building
- **Entrances**
- Routes in horizontal circulation
- Routes in vertical circulation
- Rooms
- Equipment and facilities
- Toilets and sanitary facilities
- Exit and evacuation routes
- **Information via multiple senses**





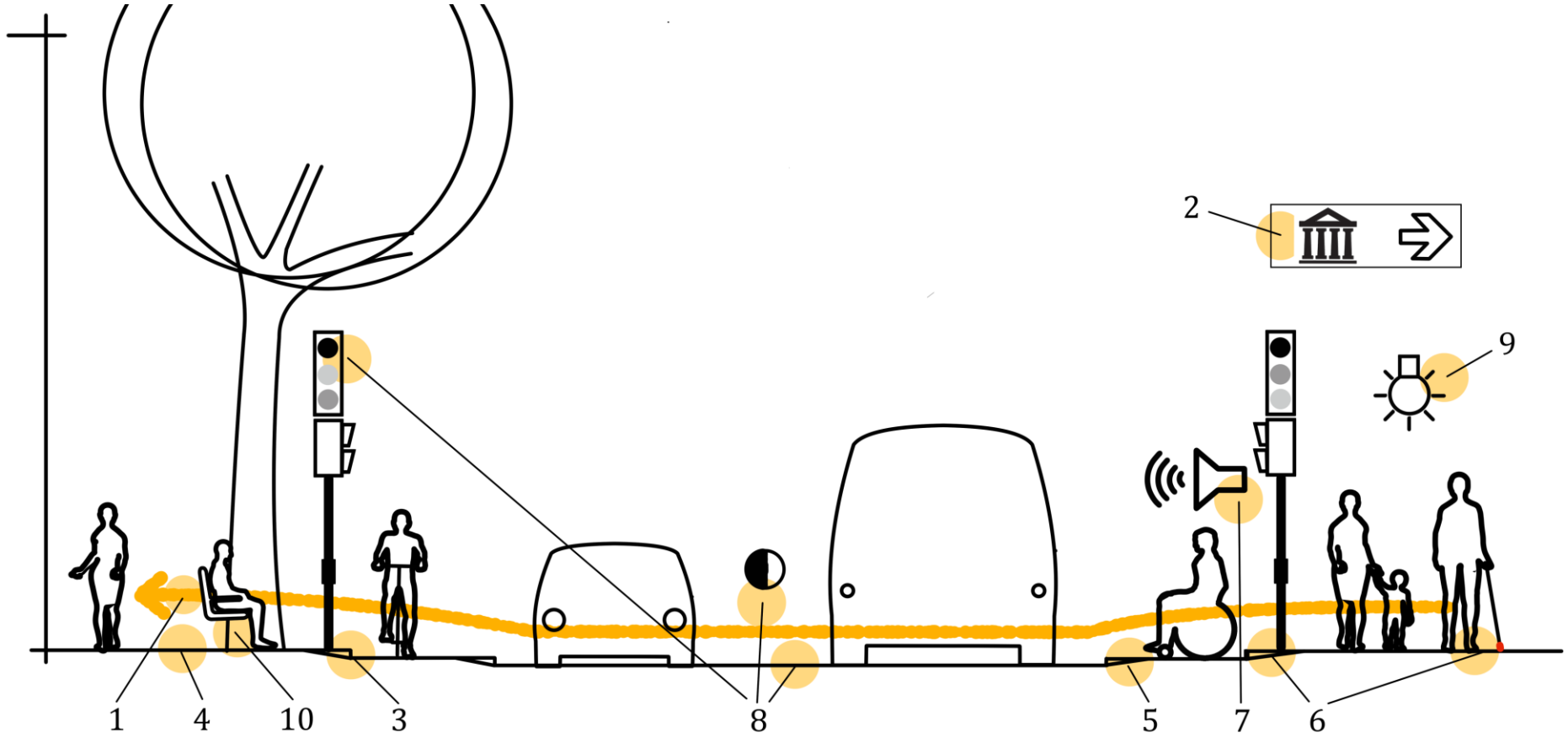
EN 17210 Example main issues



Accessible and usable rooms

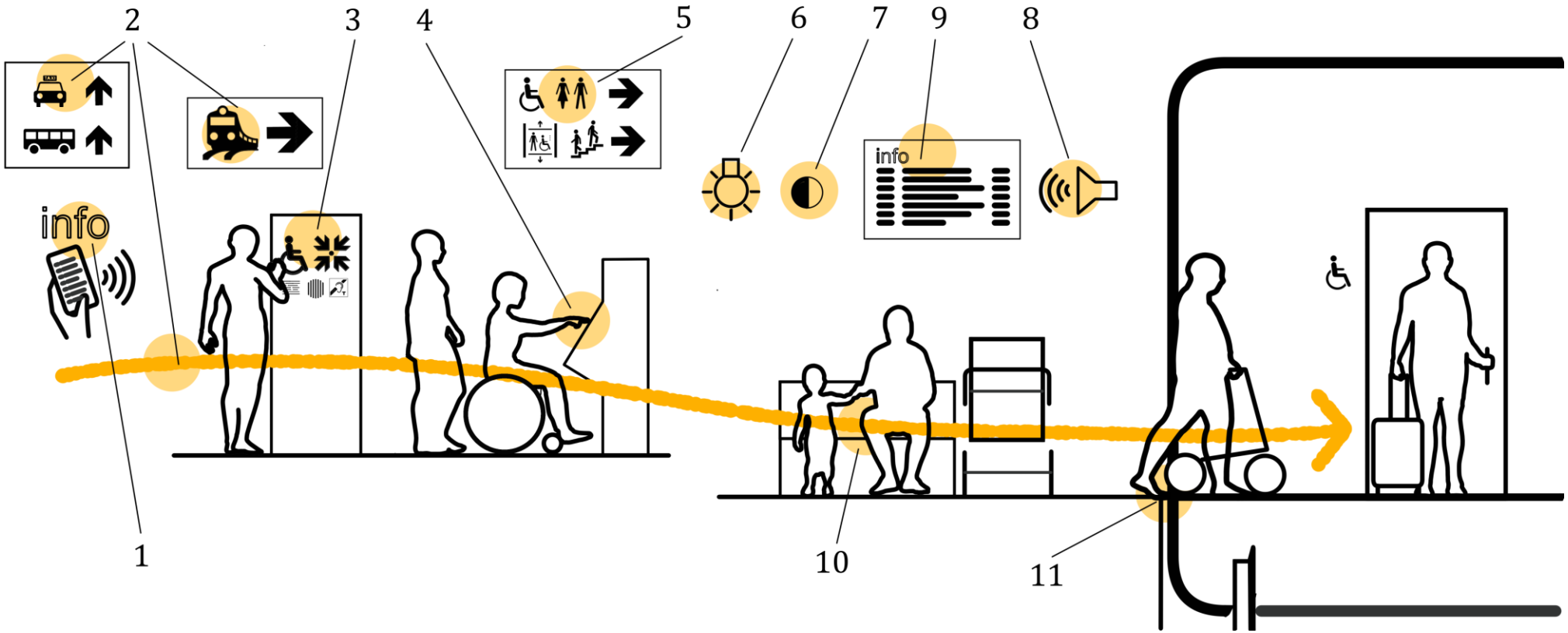
1 accessible route in rooms
2 adequate door widths
3 adequate circulation space
4 different seating options
5 good indoor climate
6 good acoustics
7 good sound and hearing enhancement systems
8 good lighting
9 good visual contrast

EN 17210 Example main issues



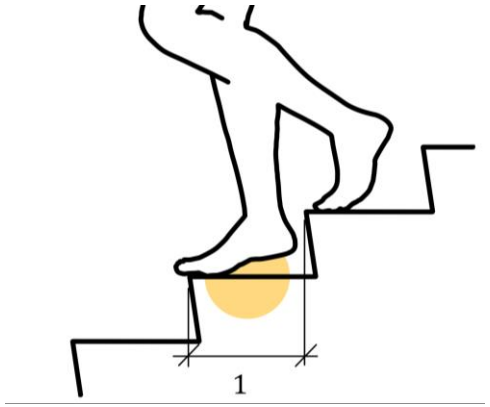
Accessible and usable pedestrian areas

EN 17210 Example main issues

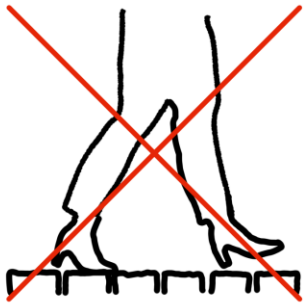


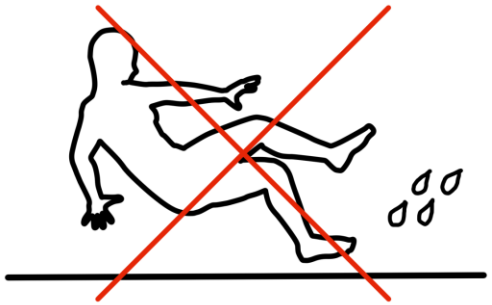
Accessible routes in railway stations

EN 17210 Example detailed issues

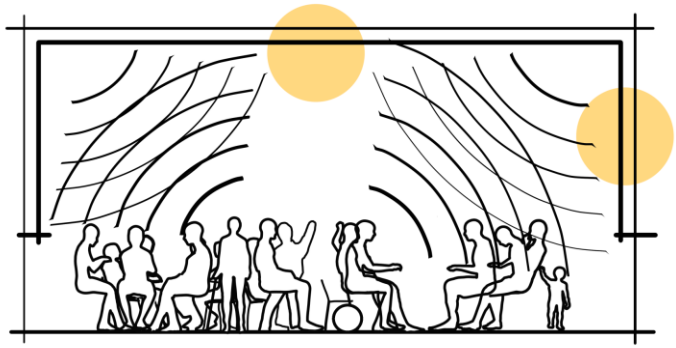


Example of adequate foot support on stairs



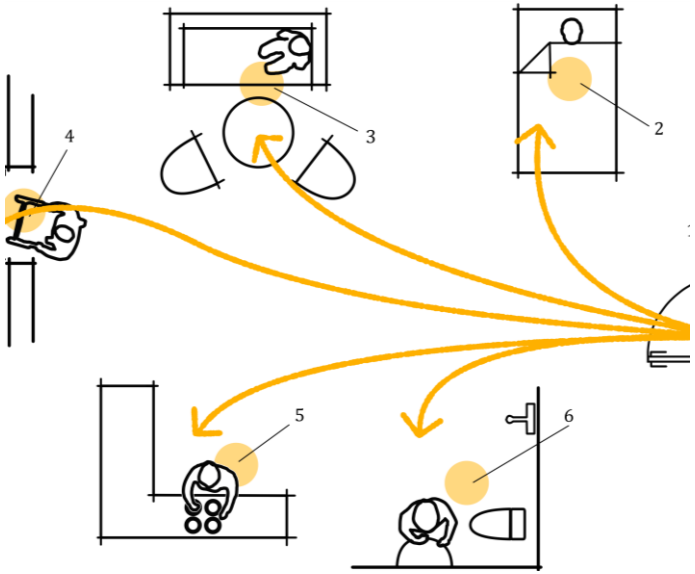


Examples of incorrect surfaces of routes

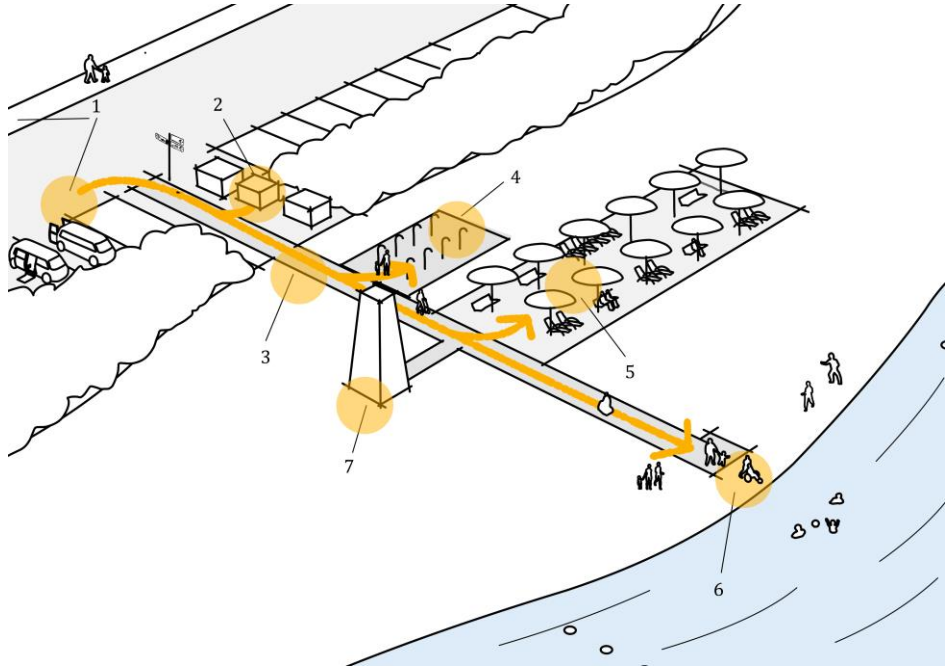


Examples of adequate and inadequate absorption of noise in rooms

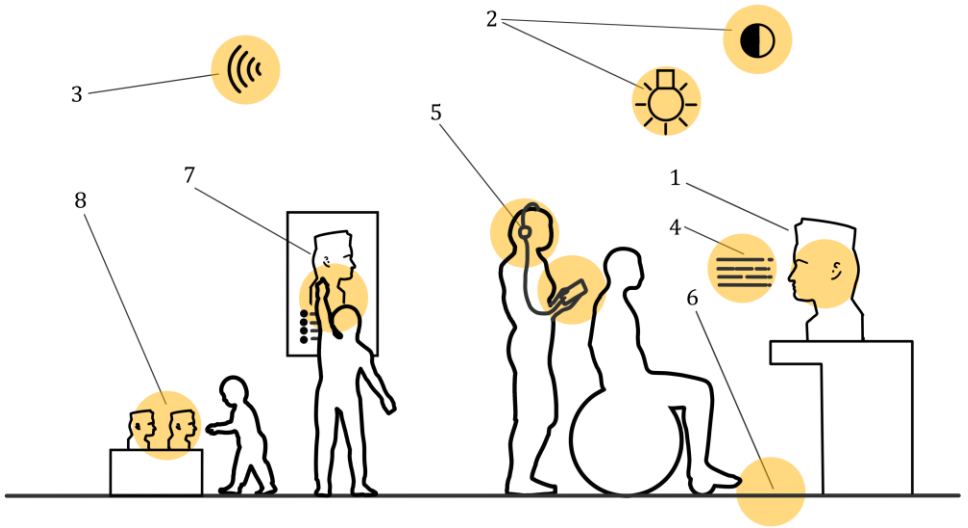
EN 17210 examples (continued)



Example main functionalities in adaptable housing/dwellings



Example of an accessible beach service point



Example of an accessible museum display

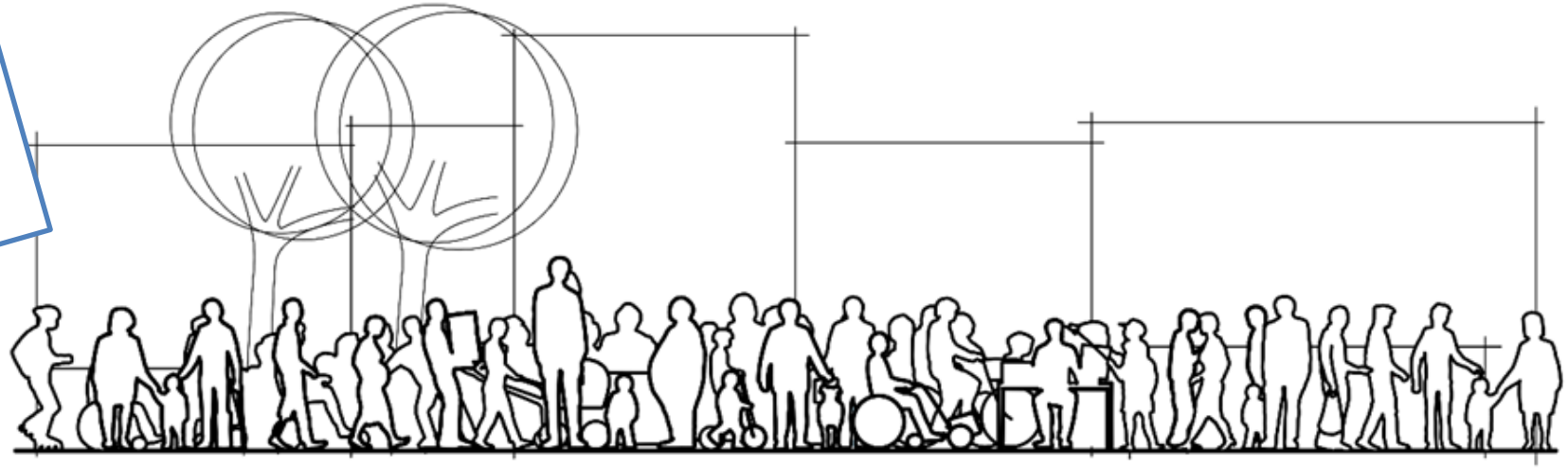
Standardization documents are not enough!

Further implementation of accessibility & design for all criteria in the built environment by public procurement, architects, facility managers and building legislation is needed – based on prEN 17210

Thanks for your attention! Questions?

Contact: CEN/CENELEC JTC 11 Secretariat via Fernando Machicado Martin <fmachicado@une.org>

Let's make a society of all ages and diversities a reality in an accessible and usable built environment!



Abilities of people change from childhood to old age and vary substantially among individuals.