SLOVENSKI STANDARD
oSIST prEN 17478:2020

01-marec-2020

Transportne storitve - Strankine komunikacije pri storitvah potniškega prometa - Pristop s splošno zasnovo

Transport Services - Customer communications for passenger transport services - A Universal Design approach

Dienstleistungen im Transportwesen - Kundenkommunikation für Dienstleistungen im Personenverkehr - Ein Universal Design-Ansatz

Services de transport - Communications destinées aux clients de services de transport collectif - Une approche de conception universelle

Ta slovenski standard je istoveten z: **prEN 17478**

ICS:

03.220.01	Transport na splošno	Transport in general
35.240.60	Uporabniške rešitve IT v prometu	IT applications in transport

oSIST prEN 17478:2020 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

DRAFT
prEN 17478

January 2020

ICS 03.220.01; 35.240.60

English Version

Transport Services - Customer communications for passenger transport services - A Universal Design approach

Services de transport - Communications destinées aux clients de services de transport collectif - Une approche de conception universelle

Dienstleistungen im Transportwesen - Kundenkommunikation für Dienstleistungen im Personenverkehr - Ein Universal Design-Ansatz

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 320.

If this draft becomes a European Standard, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

This draft European Standard was established by CEN in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

Warning : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Contents

Page

European foreword

This document (prEN 17478:2020) has been prepared by Technical Committee CEN/TC 320 “Transport services”, the secretariat of which is held by NEN.

This document is currently submitted to the CEN Enquiry.

Introduction

Transport is fundamental to our economy and society. Mobility is vital for the internal market and for the quality of life of citizens as they enjoy their freedom to travel. One of the critical success factors for mobility is the possibility that information relating to travel can be accessed, understood and used. This relies on the availability of user-friendly, adequate and interoperable multi-modal trip information for planning and making a journey.

Procurement and in particular public procurement can play a key role in ensuring a sustainable and inclusive society.

It is a requirement in the public procurement process to take into account accessibility criteria for persons with disabilities or design for all users in the transport sector[1]. Applying a Universal Design approach can support meeting these requirements. However, it is recognized that it might not always be possible to ensure that Universal Design is a criterion in the procurement process for the provision of transport service products, supporting services and associated communication.

Means of communications of transport service in many situations result in a number of users unable to travel independently. Providing services that are Universally Designed benefits a wide range of users including young persons, persons with disabilities, and older persons. The rationale for Universal Design is that products and services for communications are more accessible and usable by the widest range of users, without the need for additional adaptation or specialized design. It should be possible to use assistive devices when needed.

[1] Directive 2014/25/EU of the European Parliament and of the Council of 26 February 2014 on procurement by entities operating in the water, energy, transport and postal services sectors and repealing Directive 2004/17/EC"

1 Scope

This document specifies requirements and recommendations for the planning, design, development and provision of communication services related to passenger transport so that this information can be accessed, understood and used by the widest range of users, including persons with disabilities and older persons.

These requirements and recommendations enable an organization to extend its range of users by identifying diverse characteristics, capabilities, and preferences.

The requirements set out in this standard are applicable to but not limited to passenger transport service providers including air-, bus, rail-, and waterborne passenger transport services.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 17161:2019, *Design for All - Accessibility following a Design for All approach in products, goods and services - Extending the range of users*

EN 301549:2018, *Accessibility requirements for ICT products and services*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

3.1
accessibility
extent to which products, systems, services, environments and facilities can be used by people from a population with the widest range of user needs, characteristics and capabilities to achieve identified goals in identified contexts of use

Note 1 to entry: Context of use includes direct use or use supported by assistive technologies.

[SOURCE: EN-ISO 9241-112:2017, 3.15]

3.2
assistive technology
equipment, product system, hardware, software or service that is used to increase, maintain or improve capabilities of individuals

Note 1 to entry: Assistive technology is an umbrella term that is broader than assistive products.

Note 2 to entry: Assistive technology can include assistive services, and professional services needed for assessment, recommendation and provision.

[SOURCE: CEN-CENELEC Guide 6:2014, 2.16]

[SOURCE: ISO 9000:2015, 3.2.3], Modified – added examples of 'users' and 'consumers']

3.3
interoperable
ability of two or more systems, or components to exchange information and then to be able to use the information that has been exchanged

[SOURCE: ISO 15784-2:2015, 4.8]

3.4
organization
person or group of people that has its own functions with responsibilities, authorities and relationships to achieve its objectives

Note 1 to entry: The concept of organization includes but is not limited to sole-trader, company, corporation, firm, enterprise, authority, partnership, association, charity or institution, or part or combination thereof, whether incorporated or not, public or private.

[SOURCE: ISO 9000:2015, 3.2.1],

3.5
pictogram
graphical symbol, diagram or figure with a particular meaning which directly represents or conveys its meaning independently of language through a pictorial representation of a physical object, action or character

Note 1 to entry: Refer to ISO 7001:2007, ISO/TR 7239 and ISO 9186 for rules regarding graphical symbols and frames.

[SOURCE: EN 16584-2:2017, 3.16],

3.6
tactile
information that is understood through the physical sense of touch

Note 1 to entry: Tactile signs, controls, symbols, pictograms, guide path and braille or raised characters are a physical means by which tactile information is provided.

[SOURCE: EN 16584-2:2017, 3.25]

3.7
Universal Design
design of products, environments, programmes and services to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design

Note 1 to entry: Universal Design does not exclude assistive devices for particular groups or persons with disabilities where this is needed.

Note 2 to entry: Terms such as “Universal Design”, “accessible design”, “Design for All”, “barrier-free design”, “inclusive design” and “transgenerational design” are often used interchangeably with the same meaning.

[SOURCE: United Nations Convention on the Rights of Persons with Disabilities, Art. 2, modified — Note 2 to entry has been added]

[SOURCE: CEN-CENELEC Guide 6:2014, 2.18]

3.8
usability
extent to which a system, product or service can be used by specified users to achieve specified goals with effectiveness, efficiency and satisfaction in a specified context of use

[SOURCE: EN ISO 9241-11:2018, 3.1.1: modified – notes deleted]

3.9
user
person who interacts with a system, product or service

Note 1 to entry: The person who uses a service provided by a system, such as a customer in a shop or passenger on a train, can be considered a user.

[SOURCE: ISO 27500:2016, 2.12]

3.10
written communication
communication in which messages or information is exchanged or communicated through written words, letters, numerals, pictograms and markings

4 Achieving Universal Design

4.1 General

A Universal Design approach shall be applied as set out in EN 17161 to the planning design, development and provision of products and services so that they can be accessed, understood and used by all users to the greatest extent possible, without the need for adaptation or specialized design.

A Universal Design approach is a process that incorporates implementation of the Universal Design Principles and Guidelines. It focusses on accessibility and usability from the earliest possible time and throughout all stages in the life of products and services, and their interoperability with assistive technologies.

NOTE ‘Accessed, understood and used’ is about how people generally interact with a product or service: first, they access it (approach and perceive); secondly, they understand it (comprehend and decide); and thirdly, they use it (act or react). It is similar or aligns to three of the four principles of accessibility used in EN 301549: perceivable, operable, understandable, and robust.

In applying a Universal Design approach:

— it shall be ensured that the goal of Universal Design is understood;

— a commitment to a Universal Design approach shall be made and realized;

— the relevant Universal Design Principles and Guidelines shall be used in the planning, design, development and provision of products and services for transport services user communications;

— the user's characteristics and capabilities shall be known and considered during the planning, design, development and provision of the product and service;

— the application of a Universal Design approach to the user communications shall be evaluated.

4.2 Understanding the goal of Universal Design

The goal of Universal Design is to ensure a product or, service can be accessed, understood and used by all users to the greatest extent possible regardless of their age, size, ability or disability.

This can be achieved by:

— designing products and services that are easily accessed, understood and used without any modification;

— making product and service designs adaptable to different users;

— having standardized interfaces that are compatible with assistive technologies.

4.3 Realizing an organisational commitment to a Universal Design approach

Top management shall demonstrate leadership and commitment with respect to a Universal Design approach.

To demonstrate that leadership and commitment, top management, in relation to a Universal Design approach, shall:

— allocate resources;

— assign responsibilities, tasks and accountabilities;

— support and monitor internal planning, design, development and provision;

— identify recruitment and training needs;

— put in place an ongoing training programme to ensure that staff are competent to meet the requirements set out in Clause 6;

— define measurement and performance indicators;

— evaluate the effectiveness of the planning, design, development and provision activities;

— ensure that their contractors apply a Universal Design approach to the products and services supplied to meet the requirements set out in Clause 6.

NOTE 1 Information on the advantages of applying a Universal Design approach is provided in Annex A (Universal Design makes good business sense).

NOTE 2 Information on incorporating Universal Design in procurement is provided in Annex B (Procurement policy and practice).

4.4 Using the Universal Design Principle and Guidelines

Organisations shall identify the Universal Design Principles and Guidelines relevant to a design and use them as criteria in the design activities.

NOTE 1 Annex C lists the 7 Principles and 29 Guidelines of Universal Design.

All of the Universal Design Principles and guidelines can be applicable; Universal design principles 2, 3, 4, and 5 are most relevant to designs for customer communications.

NOTE 2 Annex E contains tables that show examples of mapping of the alignment of the design guidance in Annexes F, G and H to Universal Design Principles 2–5 and their associated Guidelines.

NOTE 3 Annex F through to Annex H provide detailed information and design guidance on Universal Design of communications."

5 User characteristics, capabilities and preferences

In the planning, design, development and provision of communications.

— the characteristics, capabilities and preferences of the widest possible range of users shall be determined and considered in design and development activities and included as criteria in the procurement process;

— users shall be involved early and throughout the design and development process;

— relevant resources and expertise on user characteristics, capabilities and preferences shall be used to inform design activities;

— feedback from current and potential users, including information about assistive technologies relevant to its communications shall be used.

Users with the more diverse capabilities and characteristics should be considered when defining design requirements.

NOTE 1 Guidance and resources on user capabilities and preferences are provided in Annex D (User capabilities and preferences).

NOTE 2 EN 17161:2019, Annex C provides information on design activities within projects

NOTE 3 EN ISO 9241-210:2010 "Ergonomics of human-system design interaction – Part 210- Human centred design for interactive systems" provides further information related to user characteristics and preferences

It is best practice, in order to achieve a Universal Design approach, that, in addition to users, organisations involve user representatives and relevant experts throughout the design and development process, such as during concept stage, prototype evaluation, and current product or service testing

Users, user representatives and relevant experts should be involved throughout the design and development processes, such as during concept stage, prototype evaluation, and current product or service testing.

All users, user representatives and relevant experts that are consulted during the design and development processes should be treated as having an equal status and be fully accommodated to enable their effective participation.

6 Universal Design requirements for communication

6.1 General

Transport services user communications shall be designed so that they can be accessed, understood and used by the widest range of users including persons with disabilities and older persons.

Persons who interact with users including persons with disabilities and older persons shall be aware of their human diversity and understand the wide range of needs in the population.

The primary means of receipt of communication are visual, auditory, tactile or combinations thereof. Transport services user communications shall be provided so that they can be perceived, are operable, and understandable by each of these three means by users of these services

All communications shall be:

— in simple and clear language;

— relevant and provided in an appropriate sequence;

— presented such that information provided can be accessed, understood and used by the users;

— be provided to allow multiple means of information presentation and user interaction.

The design requirements are in the general categories of written, verbal/ and digital communication to include requirements for ticketing, signage, symbols, pictograms and architectural wayfinding, visual displays and real-time passenger information (RTPI), routes and timetables and maps.

The environmental aspects where users are accessing information shall be taken into consideration such as lighting, darkness, positioning, ambient noise, auditory levels.

NOTE 1 Each category of communication is supported by an annex that provides guidance to support the requirements

NOTE 2 In the context of this document, the term ‘digital communication’ refers to all electronic communication.

6.2 Written Communication

A Universal Design approach shall be applied to written communication for users.

Written communication encompasses written text, document design, form design and signage.

Written communication shall:

— be presented and or printed in a legible font using a suitable contrast with a clear layout ;

— be provided for example text to describe maps, figures and images; .

— include a means to get further information or clarification.

NOTE Further design guidance and resources on the Universal Design of written communication can be found in Annex F.

6.3 Verbal communication

In the context of this document, verbal communication encompasses telephone-, loudspeaker-, face-to-face-, text relay-and video-communication, sign language and the ways in which the body communicates non-verbally.

A Universal Design approach shall be applied to verbal communication for users.

When providing verbal and non-verbal communication:

— it shall be confirmed that users have understood the information given;

— the ways in which the body communicates non-verbally for example through body movement, gesture, posture, appearance, eye and physical contact, facial expression, proximity and orientation shall be understood;

— be aware of communication needs of Deaf users and users that are hard of hearing;

— if a text relay service is available and its use is requested it shall be facilitated.

NOTE 1 A text relay service is a third-party system designed for use by people who are hard of hearing or deaf as a means of communication through telephone.

NOTE 2 Further design guidance and resources on the Universal Design of verbal communication can be found in Annex G.

6.4 Digital communication

6.4.1 General

A Universal Design approach shall be applied to digital communication with users, incorporating the applicable requirements from 6.2 and 6.3.

Digital communication includes communication through websites, mobile apps, emails, newsletters, telephone-based systems, instant messaging and social media.

All digital user communications shall comply with EN 301549:2018.

NOTE Further design guidance and resources on the Universal Design of digital communication can be found in Annex H.

6.4.2 Web-based communication

Organisations' web content shall be designed to conform to the requirements in EN 301549:2018, Clause 9.

NOTE 1 Web content' refers to any part of a website, including text, images, forms and multimedia, as well as any markup code, scripts and applications. It includes web applications and mobile web applications.

NOTE 2 Conformance with Clauses 9.1 to 9.4 and the conformance requirements of EN 301549:2018, Clause 9.5 (which together comprise all of Clause 9) is equivalent to conformance with WCAG 2.1 Level AA.

NOTE 3 EN 301549 V2.1.2 is available, free of charge, at: https://www.etsi.org/deliver/etsi_en/301500_301599/301549/02.01.02_60/en_301549v020102p.pdf.

6.4.3 Non-web electronic documents

Non-web electronic documents shall conform to the requirements in EN 301549:2018, Clause 10.

NOTE Some examples of non-web electronic documents are emails and movies that have an associated user agent such as a document reader, editor or media player.