
Oblikovanje za vse - Dostopnost, ki sledi pristopu "oblikovanje za vse" v proizvodih, dobrinah in storitvah - Razširitev kroga uporabnikov

Design for All - Accessibility following a Design for All approach in products, goods and services - Extending the range of users

Barrierefreiheit von Produkten, Waren und Dienstleistungen nach einem „Design für alle“-Ansatz - Erweiterung des Nutzerkreises

Conception pour tous - Accessibilité selon une approche Conception pour tous des produits, des biens et des services - Élargissement de l'éventail d'utilisateurs

Ta slovenski standard je istoveten z: prEN 17161

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ICS:

01.120	Standardizacija. Splošna pravila	Standardization. General rules
03.080.01	Storitve na splošno	Services in general
03.120.01	Kakovost na splošno	Quality in general

oSIST prEN 17161:2017**en,fr,de**

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
prEN 17161

August 2017

ICS 01.120; 11.180.01; 13.180

English version

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

Conception pour tous - Accessibilité selon une
approche Conception pour tous des produits, des biens
et des services - Élargissement de l'éventail
d'utilisateurs

Barrierefreiheit von Produkten, Waren und
Dienstleistungen nach einem "Design für alle"-Ansatz -
Erweiterung des Nutzerkreises

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/CLC/TC 12.

If this draft becomes a European Standard, CEN and CENELEC 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.

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Contents	Page
European foreword.....	4
Introduction	5
1 Scope	8
2 Normative references	8
3 Terms and definitions	8
4 Context of the organization – Design for All approach	10
4.1 Accessibility following a Design for All approach	10
4.2 Understanding the organization and its context	10
4.3 Understanding the needs and expectations of interested parties	12
4.4 Determining the scope of the Design for All approach within the organization.....	12
4.5 Integration with established process systems	12
5 Leadership	13
5.1 Leadership and commitment.....	13
5.2 Policy	14
5.3 Organizational roles, responsibilities and authorities	15
6 Planning.....	15
6.1 Actions to address risks and opportunities.....	15
6.2 Design for All approach objectives and planning to achieve them	15
6.3 Planning of changes.....	16
7 Support	16
7.1 Resources	16
7.2 Competence	17
7.3 Awareness.....	17
7.4 Communication.....	17
7.5 Documented information.....	18
8 Operation	18
8.1 Operational planning and control.....	18
8.2 Design and development of products, goods and services.....	18
8.3 User involvement	21
8.4 End-to-end chain in relation to accessibility.....	21
8.5 Control of and communication to external suppliers	22
9 Performance evaluation	22
9.1 Monitoring, measurement, analysis and evaluation	22
9.2 Internal audit.....	23
9.3 Management review.....	24
10 Improvement	25
Annex A (informative) Design for All approach and related concepts	26
A.1 Introduction	26
A.2 The core mind-set of the Design for All approach.....	26
A.3 Human rights and Design for All approach.....	26

A.4	Sustainable development with a Design for All Approach.....	27
A.5	Access, understand and use	27
A.6	Examples of Design for All approaches.....	27
Annex B (informative)	User involvement	29
B.1	Introduction.....	29
B.2	Benefits of involving users	29
B.3	Identifying and understanding current and potential users	29
B.4	Planning and performing user involvement.....	30
Annex C (informative)	Design activities within projects.....	33
C.1	Introduction.....	33
C.2	Activities and their inputs	33
C.3	User input to activities.....	35
C.4	Understand and identify the users and the context of use	35
C.5	Requirements specification	36
C.6	Produce solutions to meet the user requirements.....	36
C.7	Evaluation.....	38
Bibliography	39

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prEN 17161:2017 (E)**European foreword**

This document (prEN 17161:2017) has been prepared by Technical Committee CEN/CLC/TC 12 'Design for All', the secretariat of which is held by NEN.

This document is currently submitted to the CEN Enquiry.

This document has been prepared in response to Mandate M/473 'Standardization Mandate to CEN, CENELEC and ETSI to Include "Design for All" in relevant standardization initiatives' [14] that was formally issued by the Directorate-General for Employment, Social Affairs and Equal Opportunities of the European Commission in September 2010.

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Introduction

Every organization can benefit from integrating a Design for All approach in their policies and at all levels. Extending the range of users can increase markets and the proportion of the population who can participate more fully in society and to sustain independence in everyday life.

A Design for All approach takes account of human diversity to extend the range of users. This approach inspires innovation in organizations where the management values a mindset and supports a culture which prioritises people. The Design for All approach and innovation ensure optimal practices and activities, so that operations have the best tools and resources to achieve success.

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

All individual users have their own profile of needs, characteristics, capabilities, and preferences, and this fact needs to be recognized when developing mainstream products, goods and services. For most people the profile of abilities changes substantially throughout the course of their life, as they advance from childhood to adulthood and then into old age. In addition, changing circumstances, accidents, disease and other events frequently have a significant impact on needs, characteristics, capabilities, and preferences. Furthermore, the context of use of products, goods and services can influence users’ needs, characteristics, capabilities, and preferences.

The requirements and recommendations in this document can complement existing organizational management and operational processes. The product design and development process is usually part of a management system, such as ISO 9001, into which accessibility following a Design for All approach can be integrated.

This document promotes the adoption of a process approach in relation to all aspects of design, development, and manufacturing to enhance customer satisfaction by meeting customer requirements.

Management of the processes and the system as a whole can be achieved using a “Plan-Do-Check-Act” (PDCA) methodology. The clauses of this document broadly follow the PDCA cycle.

Figure 1 ‘Framework for the processes, procedures and activities involved in a Design for All approach to achieve accessibility’ illustrates the process linkages between Clauses 4 to 10 of this document and illustrates the relationships between them. It shows the processes, procedures and activities that are specified as the basis for an organization to extend the range of users by following a Design for All approach. The figure shows the feedback loops and the high degree of interdependence between the different aspects that underpin the Design for All approach.

Figure 1 shows that users and interested parties, and their needs and expectations play a significant role in defining the input requirements that the organization should meet at all stages of its processes. The right box containing ‘Design for All approach’ identifies the sources of user diversity that need to be addressed and context of use. The left box containing ‘Accessibility outcomes’ identifies what is to be achieved with respect to products, goods and services. The elements within the circle are the means by which the needs to extend the range of users are implemented in designs to achieve accessibility. They involve establishing leadership, planning, operating Design for All practice and monitoring of outcomes. Monitoring of customer satisfaction requires the evaluation of information relating to customer perceptions as to whether the organization has met these requirements. They all require support processes and resources as input, and overall, sit within a commitment to continuous improvement.

prEN 17161:2017 (E)

This document defines the requirements in an order that is consistent with organizational planning and process management, i.e.:

- Understanding the context of the organization, the application of Design for All approach, systems and processes (4);
- Leadership, policy and responsibilities (5);
- Processes for planning for a Design for All approach (6);
- Processes for support, including resources, people and information (7);
- Operational processes related to customers and products, goods and services for the implementation of the Design for All approach (8);
- Processes for performance evaluation (9);
- Processes for improvement (10).

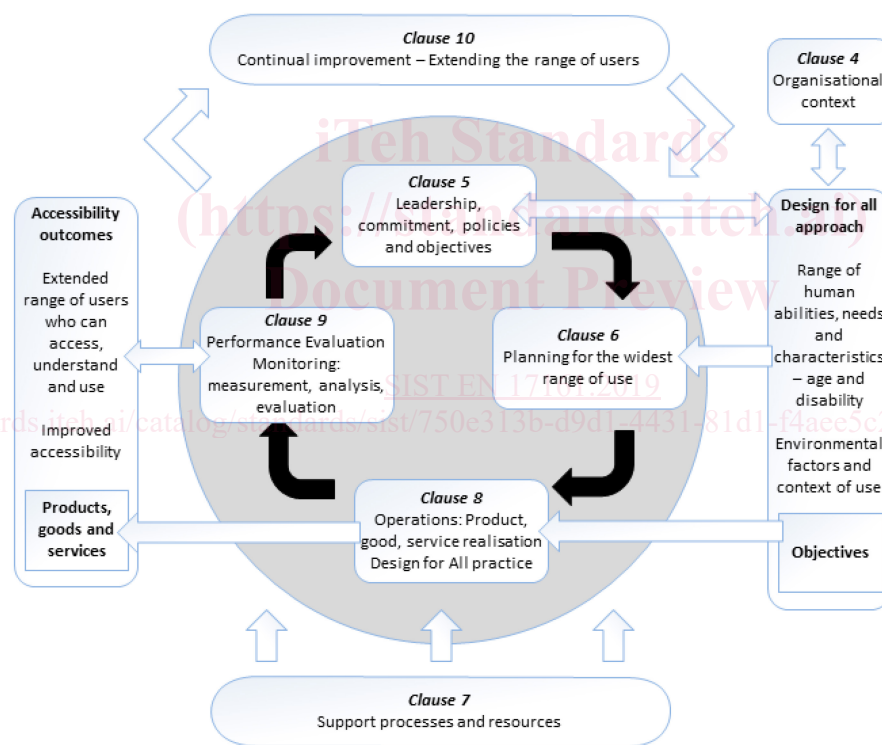


Figure 1 — Framework for the processes, procedures and activities involved in a Design for All approach to achieve accessibility

The intended users of this document include project managers, executive managers, governance boards, designers, developers, engineers, ergonomists, operators, workers, procurers and any other stakeholder involved in the planning, design, development, production, operation, evaluation, provision or delivery and maintenance of products, goods and services.

The Design for All approach described in this document does not imply uniformity of the design of products, goods, and services.

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1 Scope

This document specifies requirements that enable an organization to design, develop and provide products, goods or services so that they can be accessed, understood and used by the widest range of users.

This document specifies requirements and recommendations that enables an organization to extend their range of users by identifying diverse needs, characteristics, capabilities, and preferences, by directly or indirectly involving users, and by using knowledge about accessibility in its procedures and processes.

This document specifies requirements that can enable an organization to meet applicable statutory and regulatory requirements as related to accessibility of its products, goods or services.

The requirements set out in this document are generic and are intended to be applicable to all relevant parts of all organizations, regardless of type, size or products, goods or services provided.

This document promotes accessibility following a Design for All approach in mainstream products, goods and services and interoperability of these with assistive technologies.

This document does not provide technical design specifications and does not imply uniformity in design or functionality of products, goods and services.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

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

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[5]]

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 [13]]

3.3**interested party/stakeholder**

person or organization that can affect, be affected by, or perceive itself to be affected by a decision or activity

EXAMPLE Users, consumers, customers, owners, people in an organization, providers, bankers, regulators, unions, partners or society that can include competitors or opposing pressure groups.

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

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.

3.5**requirement**

need or expectation that is stated, generally implied or obligatory

[SOURCE: ISO 9000:2015, 3.6.4 (option 2) [1]]

3.6**strategy**

planned activities to achieve an objective

[SOURCE: ISO 9000:2015, 3.5.12 [1]]

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 shall 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 [17], modified — Note 2 to entry has been added]

3.8**usability**

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

[SOURCE: ISO 9241-11:1998, 3.1 [3]]

prEN 17161:2017 (E)**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 [12]]

4 Context of the organization – Design for All approach**4.1 Accessibility following a Design for All approach**

The organization shall apply a Design for All approach throughout the organization in order to achieve accessibility outcomes.

The organization shall seek to extend the range of users of its products, goods or services, taking account of human diversity.

A Design for All approach focuses on accessibility and usability from the earliest possible time and throughout all stages in the life of products, goods or services including interoperability across the end-to-end chain of use.

Focusing on the combination of accessibility and usability involves both access and ease of use considering a wide variety of needs, characteristics and capabilities. It can affect task effectiveness, efficiency, and user satisfaction. Taking account of greater diversity often improves accessibility and usability. It results in products, goods and services that can be accessed, understood and used by the widest range of people.

Accessibility following a Design for All approach and Universal Design are similar concepts. The relation between these and other concepts is provided in Annex A.

NOTE Standards for sustainable development, and human rights law use Universal Design as a corresponding term for Design for All approach, accessibility and usability.

4.2 Understanding the organization and its context

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The organization shall ensure that all relevant organizational policies, processes and activities follow a Design for All approach.

The organization shall determine at the earliest opportunity how to make a product, good or service accessible and usable by the widest range of users to the greatest extent possible, without the need for adaptation or specialized design.

The organization shall determine internal and external factors that are relevant to its purpose and to its strategic direction and that affect its ability to achieve the intended outcomes of its Design for All approach, such as:

- a) user needs, characteristics, capabilities and preferences;
- b) feedback on existing products, goods, or services, in particular on their accessibility and usability aspects and on the range of users they reach;
- c) reputation of the organization;
- d) legal and regulatory obligations;
- e) competitor's activities;