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Accessibility requirements for ICT products and services

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Foreword

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This Harmonised European Standard (EN) has been produced by ETSI Technical Committee Human Factors (HF), and the eAccessibility Joint Working Group (JWG) of CEN/CENELEC/ETSI.

EN 301 549 was originally produced under Mandate M 376 [i.3] and specified functional accessibility requirements applicable to ICT products and services, together with a description of the test procedures and evaluation methodology for each accessibility requirement in a form that is suitable for use in procurement. The other deliverables prepared in response to the original Mandate M 376 were: ETSI TR 102 612 [i.9] "Human Factors (HF); European accessibility requirements for public procurement of products and services in the ICT domain (European Commission Mandate M 376, Phase 1)", ETSI TR 101 550 [i.7] "Documents relevant to EN 301 549 "Accessibility requirements suitable for public procurement of ICT products and services in Europe"", ETSI TR 101 551 [i.8] "Guidelines on the use of accessibility award criteria suitable for public procurement of ICT products and services in Europe", and ETSI TR 101 552 [i.30] "Guidance for the application of conformity assessment to accessibility requirements for public procurement of ICT products and services in Europe". These have not been updated to reflect any changes to the content or scope of the present document, made as a part of the M 554 revision effort.

This revision to EN 301 549 has been prepared under the Commission's standardisation request C(2017)2585 final [i.27] to provide, in additions to its other uses, one voluntary means of conforming to the essential requirements of Directive 2016/2102 [i.28] on the accessibility of the websites and mobile applications of public sector bodies. The minimum requirements of the European Web Accessibility Directive (Directive 2016/2102) are explicitly detailed in Annex A.

Once the present document is cited in the Official Journal of the European Union under Directive 2016/2102, conformance with the normative clauses of the present document given in Tables A.1 and A.2 confers, within the limits of the scope of the present document, a presumption of conformity with the corresponding essential requirements of that Directive and associated EFTA regulations.

The present document has been developed from EN 301 549 [i.29] V2.1.2 (08-2018).

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Modal verbs terminology

In the present document "**shall**", "**shall not**", "**should**", "**should not**", "**may**", "**may not**", "**need**", "**need not**", "**will**", "**will not**", "**can**" and "**cannot**" are to be interpreted as described in clause 3.2 of the ETSI Drafting Rules (Verbal forms for the expression of provisions).

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Introduction

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The present document is developed in response to standardisation request M 554 [i.27] from the European Commission to CEN, CENELEC and ETSI. It is a revision of the European Standard (EN) that was initially prepared in response to Phase 2 of Mandate M 376 [i.3].

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The present document covers a wide range of requirements for a variety of ICT solutions. It is relevant for all organizations who buy, develop or manufacture ICT products or services. It consists of fourteen clauses and five annexes:

- Clauses 0 to 3 include background information, the scope of the standard, and links to other standards, definitions and explanations of abbreviations.
- Clause 4 contains functional performance statements that explain the functionality that is needed to enable users with different abilities to locate, identify and operate functions in technology. The user needs underlying the functional performance statements are the basis for the requirements in subsequent clauses.
- Clauses 5 to 13 provide specific testable criteria for accessible ICT, related to technical requirements for different kinds of ICT, starting with generic requirements in clause 5.
- Clause 14 is about conformance. All clauses except those in clause 12, related to documentation and support services, are self-scoping. This means they are introduced with the phrase 'Where ICT <pre-condition>'. Conformance is achieved when the pre-condition is true and the corresponding test (in Annex C) is passed, or when the pre-condition is false and, therefore, the requirement is not applicable.
- Annex A has two tables with requirements related to Directive 2016/2102 on the accessibility of the websites and mobile applications of public sector bodies [i.28]. The first table applies to web pages and documents and the second applies to mobile applications. The minimum requirements are collected from clauses 9, 10 and 11 and some requirements from clauses 5, 6, 7 and 12 that are relevant to fulfill the Directive.
- Annex B contains a table showing which of the requirements set out in clauses 5 to 13 related to different types of ICT support the user needs as expressed in the functional performance statements of clause 4.
- Annex C is a normative annex that sets out the means necessary to determine conformance with the individual requirements. It does not provide a testing methodology.
- Annex D points to additional resources related to improving accessibility for users with limited cognitive, language and learning abilities.

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- Annex E provides an overview and simple explanation of the structure of the present document, including an explanation of how it can be used.

When the present document is used for most purposes, including when used in ICT procurement, all of the requirements in clauses 5 to 13, as well as the functional performance statements in clause 4 should be considered. The potential applicability of any requirement can be determined from the self-scoping phrase at the beginning of each requirement.

When the present document is used as the basis to determine conformity with the essential requirements of Directive 2016/2102 on the accessibility of the websites and mobile applications of public sector bodies [i.28], Tables A.1 and A.2 in Annex A identify all the applicable requirements.

NOTE 1: The present document reflects the content of the W3C WCAG 2.1 Recommendation [5].

NOTE 2: Annex E provides an overview and simple explanation of the structure of the present document, including an explanation of how it can be used. Readers who are unfamiliar with the present document are recommended to read Annex E first to give them a better understanding of the present document and how to use it.

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1 Scope

The present document specifies the functional accessibility requirements applicable to ICT products and services, together with a description of the test procedures and evaluation methodology for each accessibility requirement in a form that is suitable for use in public procurement within Europe. The present document is intended to be used with Web based technologies, non-web technologies and hybrids that use both. It covers both software and hardware as well as services. It is intended for use by both providers and procurers, but it is expected that it will also be of use to many others as well.

The relationship between the present document and the essential requirements of Directive 2016/2102 on the accessibility of the websites and mobile applications of public sector bodies [i.28] is given in Annex A.

The present document contains the necessary functional requirements and provides a reference document such that if procedures are followed by different actors, the results of testing are similar and the interpretation of those results is clear. The test descriptions and evaluation methodology included in the present document are elaborated to a level of detail compliant with ISO/IEC 17007:2009 [i.14], so that conformance testing can give conclusive results.

2 References

2.1 Normative references

References are specific, identified by date of publication and/or edition number or version number. Only the cited version applies.

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NOTE: While any hyperlinks included in this clause were valid at the time of publication, ETSI cannot guarantee their long term validity.

The following referenced documents are necessary for the application of the present document.

[1] ETSI ETS 300 381 (Edition 1) (December 1994): "Telephony for hearing impaired people; Inductive coupling of telephone earphones to hearing aids".

[2] ETSI ES 200 381-1 (V1.2.1) (October 2012): "Telephony for hearing impaired people; Inductive coupling of telephone earphones to hearing aids; Part 1: Fixed-line speech terminals".

[3] ETSI ES 200 381-2 (V1.1.1) (October 2012): "Telephony for hearing impaired people; Inductive coupling of telephone earphones to hearing aids; Part 2: Cellular speech terminals".

[4] W3C Recommendation (December 2008) /ISO/IEC 40500:2012: "Web Content Accessibility Guidelines (WCAG) 2.0".

NOTE: Available at WCAG 2.0.

[5] W3C Recommendation (June 2018): "Web Content Accessibility Guidelines (WCAG) 2.1".

NOTE: Available at WCAG 2.1.

2.2 Informative references

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The following referenced documents are not necessary for the application of the present document but they assist the user with regard to a particular subject area.

[i.1] ANSI/IEEE C63.19 (2011): "American National Standard Method of Measurement of Compatibility between Wireless Communication Devices and Hearing Aids".

[i.2] ANSI/TIA-4965: "Receive volume control requirements for digital and analogue wireline terminals".

[i.3] European Commission M 376-EN: "Standardization Mandate to CEN, CENELEC and ETSI in support of European accessibility requirements for public procurement of products and services in the ICT domain".

[i.4] ETSI EG 201 013: "Human Factors (HF); Definitions, abbreviations and symbols".

[i.5] ETSI ES 202 975: "Human Factors (HF); Requirements for relay services".

[i.6] ETSI ETS 300 767: "Human Factors (HF); Telephone Prepayment Cards; Tactile Identifier".

[i.7] CEN/CENELEC/ETSI TR 101 550: "Documents relevant to EN 301 549 "Accessibility requirements suitable for public procurement of ICT products and services in Europe"".

[i.8] CEN/CENELEC/ETSI TR 101 551: "Guidelines on the use of accessibility award criteria suitable for public procurement of ICT products and services in Europe".

[i.9] ETSI TR 102 612: "Human Factors (HF); European accessibility requirements for public procurement of products and services in the ICT domain (European Commission Mandate M 376, Phase 1)".

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[i.10] ETSI TS 126 114: "Universal Mobile Telecommunications System (UMTS); LTE; IP Multimedia Subsystem (IMS); Multimedia telephony; Media handling and interaction (3GPP TS 26.114)".

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[i.24] TIA-1083-A (2010): "Telecommunications; Telephone Terminal equipment; Handset magnetic measurement procedures and performance requirements".

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[i.38] W3C WebSchemas/Accessibility 2.0.

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