World Class Standards

European Accessibility Requirements for ICT Public Procurement

ETSI DTR 102 612
(STF 333)

M 376 Open Conference, Brussels, June 3-4, 2008

Bruno von Niman
Leader, ETSI STF333
& Team

Agenda

(reporting the work of 6 experts during 8 months and a detailed, 200+ pages report in 85 minutes)

- ❑ **ETSI and TC Human Factors**
- ❑ **Specialist Task Force 333, required tasks and delivery time plan**
- ❑ **Work process and approach**
- ❑ **Presentation of the draft deliverable (chapter-by-chapter basis by the other experts)**
- ❑ **Q&A and work progress discussions to follow later (today and tomorrow)**

ETSI STF 333

Nikos Floratos, Bruno von Niman (STF Leader), Walter Mellors, Sean Hayes, Gunnar Hellström, Richard Hodgkinson

"… creating a 'Section 508' for Europe…"

"…rest assured *whatever* it is, your group eventually puts out will be hit heavy and hard with public critique, and knowing web accessibility a bit like I do, a lot of it will be harsh."

Senior Expert

"European accessibility requirements for public procurement of products and services in the ICT domain, Phase 1"
(EC Standardisation Mandate M/376 to CEN, CENELEC and ETSI)

- **1st phase of M 376, two teams**
- **Open, collaborative, liaison-dense process**
  - **http://portal.etsi.org/stfs/STF_HomePages/STF333/STF333.asp**
- **All-inclusive communications**
  - ➤ Email, voice calls, text telephony and total conversation
- **Four public drafts for comments, allowing**
  - **average of 34 days for commenting the early drafts;**
  - **84 days for commenting the final public draft.**
- **Actively announced to stakeholders (full logs are available):**
  - **200+ directly, 800 through email lists and 300 procurement experts**
- **150 logged comments received:**
  - **Summary published on homepage, with resolutions**
  - **Updates included in next draft version**

Public draft releases

Preliminary public draft release dates	Commenting deadlines	Status and notes
November 20, 2007	January 10, 2008	First public draft
February 12, 2008	March 4, 2008	Second public draft
March 17, 2008 (this version)	April 16, 2008	Third public draft
May 19, 2008	August 11, 2008 (18:00 CET)	Final Public (Open Workshop) draft; Last public comment opportunity!
September 22, 2008	Following ETSI process	Final draft for ETSI and CEN TB approval
NOTE: The above dates are preliminary and subject to change at any time, as required by the progress of the work. An additional (post- Open Workshop) draft version may be announced later.		

Note: This is a draft document that will be updated, replaced or made obsolete by future versions at any time. It is inappropriate to cite this document as other than "work in progress".

Time and reporting plan

- **September 2007:** Start of work, progress reporting to ETSI TC HF
- **October 2007:** Reporting to and coordination with CEN, CENELEC, DATSCG
- **November 2007:** 1st Public draft
- **February 2008:** Progress reporting to ETSI TC HF and 2nd Public draft
- **March 2008:** Interim Progress Report to EC/EFTA and 3rd Public draft
- **May 2008:** 4th Public (Open Conference) draft
- **June 2008:** Open Conference; progress reporting to ETSI TC HF
- **September 2008:** Final draft for cross-approval
- **October 2008:** Progress reporting to ETSI TC HF; cross-approval on October 8 (at joint CEN- CENELEC- ETSI meeting)

M 376 Phase II work will follow.

Coordination and reporting activities (more to follow)

- **Home page published on 24th September, frequently updated**
- **1st progress report to ETSI TC HF, 26th September 2007**
- **Liaisons initiated during October 2007, intensified in February**
- **1st CEN PT coordination/ planning meeting, 1st October 2007**
- **1st CEN/CENELEC coordination, 2nd October 2007**
- **1st Steering Committee meeting, 23 November 2007**
- **2nd progress report to ETSI TC HF, 3 December 2007**
- **2nd CEN/CENELEC and DATSCG coordination, 16-17 January 2008**
- **2nd progress report to TC HF, 6th February, 2008**
- **2nd Steering Committee meeting, March 11, 2008**
- **3rd CEN/CENELEC coordination, April 15, 2008**
- **2nd DATSCG coordination/presentation, April 16, 2008**
- **3rd Steering Committee meeting, June 4, 2008**
- **4th CEN/CENELEC coordination, June 5, 2008**
- **3rd progress report to ETSI TC HF, 18 June 2008**

- **Activities on the national and international level**
  - **Human Factors in Telecommunications presentation, March 18 2008**
  - **ISO/IEC JTC1-SWG-A in June 2008**
  - **Journals and magazines, ISO/IEC TC 159/SC4/WG3, ICCHP 2008**

- **CEN PT coordination: electronic working and face-to-face meetings**

European Accessibility Requirements in ICT Public Procurement (ETSI DTR 102 612)

8

Dissemination

❑ **UK ISTC "Communicator" & "Ability" journals**

56 International standards

Accessible ICT documentation for Europe?

Richard Hodgkinson reports on new developments
for European ICT

Regular readers of this
my reports on the US G
('Section 508') requirem
accessibility of Informa
Communication Techno
documentation (Autum
software documentatio
(Summer 2007). While th
are not mandatory for th
of ICT products sold in
situation is beginning t

An estimated 90 milli
the European Union (or
population) are elderly
form of disability. With
healthcare we are living
number of elderly peop
Across Europe, public p
has long been recognise
means of improving the
ICT products (hardware

news feature

EU acts on inclusive IT

The power of public procurement could lead to accessible ICT for all

By Richard Hodgkinson
Across Europe it has been calculated that
20% of the working age population have a
degree of disability that may require
accessibility facilities to ensure that they
can work effectively with information and
communications technology (ICT).

There are also children with similar
disabilities and older people for whom the
availability of accessible ICT is necessary

require the European standards bodies to
develop the additional standards,
guidelines and tools identified in phase
one to support the introduction of public
procurement requirements for accessible
ICT products and services throughout the
European Union.

A number of international and
European accessibility standards already
exist and some will be published this year,

Five tasks:

ETSI Technical Report TR 102 612 (to be developed during September 2007 – September 2008) that will provide:

1. **Inventory of ICT products and services usually bought by public procurers**
   - ➢ cover at least the ICT products addressed in Section 508 and the Canadian toolkit.
   - ➢ other ICT products may be added, if identified as bought by public administrations.

2. **List of existing functional accessibility requirements**
   - ➢ in EU and EFTA Member States and internationally
   - ➢ for ICT products and services within each technical area, particularly those currently in use in public procurement
   - ➢ cover the concepts of "Design for All" and "Assistive Technology".

3. **Identify gaps in each technical area where no accessibility requirements exist**
   - ➢ provide suggestions for developing missing or additional requirements.

Five tasks:

4. **List of existing national, European and international standards and technical specifications (in the sense of Directive 98/34) which might comply with those requirements**
   - ➢ Assess whether the requirements can be used as either technical specifications or as criteria for awarding public contracts (in the sense of the Public Procurement Directives).

5. **Make proposal for a standardization work programme for the development of requirements and award criteria**
   - ➢ that still do not exist, or that are not yet standardized, or where the existing requirements are not considered adequate or suitable as either technical specification or award criteria;
   - ➢ Provide indication of the types of standardization deliverables best suited to carry out the work described in phase II of the Mandate (other than for II.1 where an EN is required).

- **Tasks are not discrete (but continuous)**
- **Development in close collaboration with the CEN PT**
- **Cross-approval of deliverables by all three ESOs**

4 – Approach, methodology and context of use

❑ **Two approaches investigated to generate an inventory of ICT products and services, together with a listing of associated functional accessibility requirements:**

1. **Product- centered approach:** listing of products identified by the CPV code and associating the user requirements with each product

   ➢ 100+ ICT product categories, 150+ known user requirements;

   ➢ Mapping would require the checking of 15.000+ requirements…

➢ **User- centered approach:** identifying generic user requirements for each feature of a product, applying these to any product with the relevant feature:

   1. User needs are generic (e.g. applied to display-enabled products);

   2. More efficient, useful and future-proof approach due to the ongoing convergence and fast technology development

   3. Aligned with the ETSI "Design for All" Guide EG 202 116.

What's ICT and how far does procurement go?
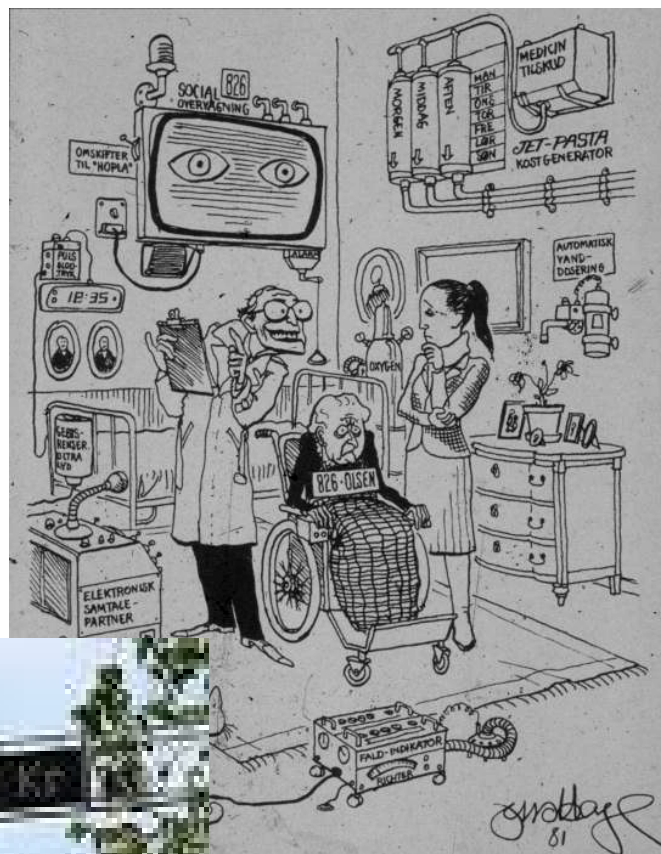
4 – Approach and methodology

❑ **User requirements**

    ➢ **Apply mostly globally**

    ➢ **determined from the UN Convention on the "Rights of Persons with Disabilities" and some key international standards**

❑ **Mapped to the technical requirements for features and facilities of ICT products and services**

    ➢ **demonstrates there is sufficient information to create a single EN**

    ➢ **which addresses the majority of the identified user needs, and**

    ➢ **contains demonstrable and testable requirements.**

    ➢ **No currently existing set of standards fills this role**

❑ **Some additional work is necessary for a few remaining user needs**

    ➢ **Details in clauses 10 and 11**

4 – User abilities and impairments

❑ **Not the main scope of this work but introduced**

➢ **Physiological and psychological variations**

➢ **Multiple and complex disabilities**

➢ **Other factors: e.g. low literacy (in the respective language) or limited language proficiency**

4 – Design for All and access through assistive devices

❑ **Issues applicable to AT in procurement**

❑ **Maintain parity of employment and access to government services**

  ➢ **Access to and use of information, data and communication is timely, accurate, complete and efficient**

4 – Contexts of use and user roles

❑ **Involves users, tasks, equipment and the physical and social environments in which a product is used (ISO/FDIS 9241- 11)**

❑ **Professional use**
- ➢ **Access and efficiency**

❑ **Consumer use**
- ➢ **Increasingly important role in daily life and e-Socitey**

❑ **Combined use**
- ➢ **Capabilities evolve and converge; sometimes difficult to distinguish**

❑ **Some exceptions may show necessary (study):**
- ➢ **National intelligence and security, emergency,field and first response services, military application, personal use**

5 – ICT products and services bought by public procurers

5 – Public procurers

❑ **International level**

  ➢ **United Nations**

   • **UNDP programme**

  ➢ **World Trade Organisation**

   • **Agreement on Government Procurement (GPA)**

❑ **European level**

  ➢ **European Commission**

  ➢ **European Parliament**

  ➢ **European Council**

  ➢ **Other European Institutions**

❑ **National level (in Europe)**

  ➢ **Public Organisations in EU Member States**

  ➢ **Public Organisations in EFTA countries**

5 – ICT products and services procured at international level

❑ **Specific and detailed data not available**

❑ **Information based on Internet research**

❑ **Interesting outcomes**

  ➢ **Frequently procured ICT products & services under UNDP**

   • **Computers**

   • **Telecommunication equipment**

   • **IT related consulting services ($105 million annually)**

   • **Telecommunications consulting services ($75 million annually)**

   • **Not any clear provision on e-Accessibility in their procurement**

  ➢ **WTO Government Procurement Agreement**

   • **Suppliers from EU and EFTA with full public procurement access to other WTO/GPA parties like USA, Japan, Canada, etc**

   • **Existing national e-Accessibility functional requirements in the public procurement are applied**

5 – ICT products & services procured in Europe

❑ **Information collected via two methods, applied in parallel**

➢ **Method 1: Identification of public procurers' contacts and direct individual communication from all EU and EFTA countries (>250)**

➢ **Method 2: Use of Common Procurement Vocabulary (CPV)**

- **Identification of the CPV codes for ICT equipment & services (>800)**
- **Select the CPV codes highly related to ICT equipment & services (~150)**
- **Analyse the TED website and Identify and record the contracts awarded in Europe for each of the selected CPV codes**

5 – Results from both methods

❑ **Method 1: Direct individual communication**

   ➢ **Some feedback received from the following countries**

      • **Cyprus, Spain, Sweden, UK, Estonia, Lithuania**

   ➢ **Detailed information as Annexes in the DTR**

❑ **Method 2: Use of CPV and the TED**

   ➢ **A list of 150 products(CPVs) identified and their no of contracts awarded as annex in the DTR**

   ➢ **Number of contracts recorded and not the quantity of ICT products procured**

   ➢ **TED announces normally awarded contracts above a threshold but not restrictive**

   ➢ **Some awarded contracts use more than one CPV codes**

   ➢ **CPV codes lack description of the items they should include**

   ➢ **CPV codes are considered by the Public Procurers as a legal formality and not as a useful tool for them**

   ➢ **CPV codes are currently under revision**

5 – ICT products & services procured in Europe (1/2)

❑ **This list is an informal as outcome of both methods 1 and 2**

❑ **Computer hardware:**

➢ personal computers & workstations, laptops & portable computers, displays, monitors, keyboards

❑ **Photocopying and printing equipment:**

➢ printers, color photocopiers, copying equipment, scanners

❑ **Telecommunications equipment:**

➢ facsimile equipment, networking equipment, telephone equipment, switchboards, wireless telecommunication systems, mobile phones, multimedia, television and audio-visual equipment, video conferencing

5 – ICT products & services procured in Europe (2/2)

❑ **Software:**
  ➢ upgrades, mainframe software, operating systems, application software (e.g. anti-virus, database, email systems, etc)

❑ **Installation/configuration/Set-up Services**

❑ **Maintenance Services/ Upgrade services/Customization**

❑ **Telecommunication services (e.g. fixed and mobile telephony)**

6 – Existing functional accessibility requirements for public ICT procurement

- ❑ **International requirements**
  - ➢ **United Nations – UN convention on Rights of People with Disabilities**
- ❑ **Intra-European Requirements**
  - ➢ **Nordic Cooperation on Disability (NSH)**
    - • **Nordic Guidelines for Computer Accessibility for public procurement**
  - ➢ **Nordic Forum for Telecommunication and Disability (NFTH)**
  - ➢ **Standards from ESOs ETSI, CEN, CENELEC**
    - • **Mainly functional requirements for eAccessibility**
    - • **No direct address of public procurement**
- ❑ **National Requirements in EU/EFTA countries**
- ❑ **National Requirements in Australia, Japan, USA**

6 – International requirements: UN Convention on Rights of People with Disabilities

❑ **129 countries signed the UN Convention**

❑ **All EU and EFTA countries have signed it**

❑ **27 countries have also ratified the convention**

❑ **Article 6 – Accessibility**

➢ **All people with disabilities shall have access to information and communications, including ICT and systems, and to other facilities and services open or provided to the public**

❑ **Article 21 – includes also Access to Information**

➢ **Public information in accessible formats and technologies appropriate to different kinds of disabilities in a timely manner and without additional cost;**

➢ **Use of SL, Braille, AAAC in official interactions in official interactions;**

6 – Intra-European requirements

❑ **Nordic Forum for Telecommunications and Disability (NFTH)**

➢ **Nordic Countries: Finland, Denmark, Iceland, Norway, Sweden**

➢ **to support efforts in the Nordic countries to integrate disabled people into information society via recommendations and guidelines**

➢ **Video phones, video relay services**

➢ **Provisions are of no legal obligation**

❑ **Nordic Cooperation on Disability**

➢ **Nordic Guidelines For Computer Accessibility to facilitate e-Accessibility in public procurement**

6 – National requirements - EU/EFTA countries (1/5)

❑ **Three methods applied in parallel**

  ➢ **Direct and individual communication with public procurers**

  ➢ **Use of the knowledge of the STF 333 team**

  ➢ **Analysis of external information sources (European - national reports & studies, Internet sites and publications)**

❑ **Detailed information as annex in the DTR**

❑ **11 countries with legal requirements on web accessibility of public websites**

  ➢ **Austria, Denmark, France, Germany, Ireland, Italy, Lithuania, Netherlands, Portugal, Spain, UK**

❑ **14 countries that encourage the web accessibility of public websites (with no law)**

  ➢ **Belgium, Cyprus, Estonia, Finland, Greece, Hungary, Iceland, Luxemburg, Malta, Norway, Poland, Slovenia, Sweden, Switzerland**

6 – National requirements - EU/EFTA countries (2/5)

❑ **5 countries with limited or low activity on web accessibility of public websites**

➤ **Latvia, Lichtenstein, Slovakia, Romania, Bulgaria**

❑ **2 countries with legal requirements on e-Accessibility in Public Procurement**

➤ **Spain with Royal Decree 1494/2007 that references**

- • **UNE 139803:2004 (web content)**
- • **UNE 139801:2003 (hardware)**
- • **UNE 139802:2003 (software)**

➤ **Italy with Stanca Law that is based on**

- • **W3C/WCAG guidelines**
- • **Section 508 of USA**

6 – National requirements - EU/EFTA countries (3/5)

❑ **Two countries with public procurement toolkits: Denmark & Ireland**

- ➢ **To facilitate procurers to include e-accessibility provisions in the public procurement processes**
- ➢ **With no legal status but with a voluntary use**
- ➢ **Available online**
- ➢ **Based on standards and provisions addressed in DTR**

6 – National requirements - EU/EFTA countries (4/5)

❏ **Danish Toolkit**

➤ **ICT hardware based on**
- **Section 508, EU ACCENT project, ITU-T E161 recommendation**

➤ **Software based on**
- **Section 508, WCAG 1.0, ATAG 1.0, guidelines from Microsoft and IBM, Irish NDA IT Accessibility Guidelines**

➤ **Web content**
- **Section 508, WCAG 1.0, guidelines from Microsoft, Adobe, Danish government Guidelines for Websites**

6 – National requirements - EU/EFTA countries (5/5)

❑ **Irish Toolkit**

➢ **Web accessibility**
  - **Guidelines based mainly on WCAG 1.0**

➢ **Accessibility of public terminals**
  - **ATMs, Information kiosks, Ticket Vending Machines, etc**

➢ **Accessibility of smart cards**

➢ **Accessibility of applications software**
  - **Software**
  - **Independent to OS or runtime environment**

➢ **Accessibility of telecommunications**
  - **Mobile telecommunication devices**
  - **Telephones, video phones, voice mail and IVR systems**

➢ **No guidelines for Personal Computers (hardware)**

6 – National requirements in Australia, Japan& USA

- ❑ **Detailed information as Annex in DTR**
- ❑ **Australia recommends the use of WCAG**
  - ➢ **No clear legal requirements**
- ❑ **Japan and USA more advanced**
  - ➢ **Legal requirements for Web Accessibility**
  - ➢ **Legal Requirements for procuring accessible ICT**
  - ➢ **Toolkits for web accessibility of public websites**
- ❑ **USA clear provisions to ensure e-Accessibility in public procurement**
  - ➢ **Code of Federal Regulations (in CFR 36, Part 1194).**
  - ➢ **These provisions are currently reviewed and updated under the "Section 508 Refresh"**
  - ➢ **Toolkit for e-Accessibility in public procurement**

7 – Relevant European & International standards

❑ **Task 7 – "List compliant specifications"**

➢ **"Prepare a list of existing national, European and international standards and technical specifications (in the sense of Directive 98/34) which could comply with those requirements."**

❑ **Definitions (Directive 98/34):**

➢ **A national standard is "a standard adopted by a national standardization body and made available to the public".**

➢ **Similar definitions for European and International standards.**

➢ **A Technical Specification is "a specification contained in a document which lays down the characteristics required of a product such as levels of quality, performance, safety or dimensions, etc..."**

NOTE: Variations exist among standards organizations regarding "standards", "guidelines", "technical specifications" and "technical reports".

7 – Relevant European & International standards

❑ **International Standards sources:**

➢ **International Telecommunication Union (ITU-T),**
➢ **International Organisation for Standardisation (ISO),**
➢ **International Electrotechnical Commission (IEC),**
➢ **W3C:**
  - **Authoring Tool Accessibility Guidelines (ATAG),**
  - **User Agent Accessibility Guidelines (UAAG),**
  - **Web Content Accessibility Guidelines (WCAG).**

❑ **European Standards sources:**

➢ **European Telecommunications Standards Institute (ETSI),**
➢ **CEN/CENELEC…CWA 14835:2003 (Web signing) and CWA 15778:2008 (DPA) to be listed in 7.3.1.**

7 – Relevant European & International standards

❑ **National Standards sources:**

  ➢ **Spain: Hardware, Software, Web interfaces and Signing**

  ➢ **UK: Managing inclusive design, commissioning accessible Web sites**

  ➢ **Australia: Web requirements rather than formally numbered standards**

  ➢ **Japan…large number of standards, many of which are being "exported" into the international (ISO) arena, e.g. JIS 8341 series.**

❑ **ICT Accessibility Standards:**

  ➢ **Small quantity of published standards (excepting Japan)**

  ➢ **Many standards currently in development with imminent publication, or publication within two years**

  ➢ **"Standards" contain both requirements and recommendations.**

7 – Relevant European & International standards: Summary and conclusions

❑ **Many standards would be required,**

❑ **Common practice to reference other standards,**

❑ **Purchasing, maintenance and usage issues,**

❑ **ICT continually evolving and developing:**

  ➢ **New technologies = New requirements + New solutions,**

❑ **Standards "list" would need to be dynamic and carefully maintained,**

❑ **Toolkit for procurers (plus developers & assessors) is one possible solution, e.g. Irish NDA web site.**

8 – User requirements and ICT

❑ **Task: A list of existing functional accessibility requirements in Member States and internationally for those ICT products and services within each technical area.**

❑ **Requirements are best classified per interaction mode between user and ICT, or between distant users through ICT. The result is a clean structure of requirements.**

❑ **User requirements bases found and used:**

1. **IT: ISO/IEC JTC 1 SWG-A: ISO/IEC PDTR 29138 – Accessibility Considerations for People with Disabilities – Part 1: User Needs Summary (with kind permission)**

2. **Communication and Information: UN Convention on the Rights of people with disabilities**

3. **Real-time communication: ETSI EG 202 320, Chapter 6.1 User requirements for real-time communication**

8 – User requirements and ICT

❑ **Aim: Classify user requirements so that they can be referred to in Technical requirements.**

❑ **Use already formulated user requirements.**

❑ **Motivations for this chapter going back to the users**

  ➢ **A natural way to structure the search and presentation of specifications.**

  ➢ **A natural way to structure the search and presentation of gaps.**

  ➢ **A good order for collecting material for Phase II and possibly, the future.**

8 – User requirements from ISO-JTC1 SWG-A

- ❑ **Perception of information**
- ❑ **Performing actions**
- ❑ **Time**
- ❑ **Intentional activation**
- ❑ **Recovery from errors**
- ❑ **Security and privacy**
- ❑ **Safety**
- ❑ **Efficient operation**
- ❑ **Understanding output and how to use**
- ❑ **Using assistive technology:**
  - ➢ **Listing detailed requirements for each heading**
  - ➢ **Mapping to technical requirements chapter 9.**

8 – User requirements examples

❑ **Clause 8.1 subclause focus on one user interaction aspect, and provide details listed applicable to that aspect:**

➢ **Example from 8.1.2 "Perception of audio information":**

- **2-1: Auditory information also available in visual form**
- **2-2: Auditory information also available in tactile form**

➢ **Example from 8.1.6 "Performing actions":**

- **6-2: To access all functionality without having to use touch or very light touch activated controls**
- **6-5: An alternative method to operate any speech controlled functions**

8 – User requirements from UN Convention

❑ **The UN Convention on Rights for People With Disabilities is a document with strong status**

❑ **Some articles complement well the User Requirements collection**

➤ **Article 9: Accessibility**

➤ **Article 11: Risk and emergency**

➤ **Article 21: Freedom of expression.**

• **Example Article 21.1 (b)**

• **Use of sign languages, Braille, augmentative and alternative communication, and all other accessible means, modes and formats of communication in official interactions**

8 – User requirements for Real time communication from ETSI

❑ **The requirements for communication between humans are not well covered in the SWGA User requirements, but a basic requirement according to the UN Convention.**

❑ **Therefore user requirements for real-time communication from ETSI EG 202 320, are included in the user requirements chapter.**

❑ **Examples:**

➢ **6.1.9 "Service Accessibility": All services (including emergency) operate with text in addition to other media.**

➢ **6.1.10 "Call Progress": Alternative modes of communication available for call progress information.**

➢ **6.1.15 "Relay service": Enables communication between users of terminals that do not share common modes of communication**

8 – User requirements mapping

❑ **For all 175 detailed user requirements, there are mappings to what technical requirements in Chapter 9 that meet them.**

❑ **For all technical requirements in Chapter 9, there are mappings to what user requirements in chapter 8 they aim at fulfilling.**

❑ **This two-way mapping helps in gap analysis and preparations for Phase II and future design tools.**

❑ **Thereby the user requirements chapter forms an intrinsic part of the report and the base for future work.**

9 – Technical requirements

❑ **Mapping of technical requirements to functional requirements/recommendations in existing standards.**

❑ **Relevant standards sourced from:**

  ➢ **ETSI SR 001 996: 2007 - An annotated bibliography of documents dealing with Human Factors and disability,**

  ➢ **ISO/IEC PDTR 29138-2 – Accessibility Considerations for people with Disabilities – Part 2: Standards Inventory (ISO/IEC JTC 1 SWG-A),**

  ➢ **Tiresias web site - List of accessibility standards in development (www.tiresias.org),**

  ➢ **International Telecommunication Union – Telecommunications,**

  ➢ **TEITAC – US Telecommunications and Electronic and Information Technology Advisory Committee (Access Board "Section 508 Refresh").**

9 – Technical requirements

❑ **User requirements in clause 8 mapped to standards listed in clause 7 to identify potential provisions for a European standard.**

❑ **Some standards not reviewed due to expense, availability, non-English only (e.g. Japan)**
  ➢ **Help provided with Spanish language standards.**

Note: Standards Committees and Working Groups very helpful in releasing working drafts not in the public domain (yet).

9 – Technical requirements: Comments

❑ **Many of the standards reviewed contain potentially useful requirements and recommendations,**

❑ **Many requirements/recommendations are repeated across standards….need to identify the original source,**

❑ **Many of the requirements/recommendations may need re-validating,**

❑ **Few exact matches...many partial matches.**

9 – Technical requirements: Results

Provision met by existing standard	**68**
Provision not addressed by existing standard	**4**
Provision requires additional standards work to address further	**5**

10 – Gaps in accessibility requirements

❑ **Task: "Identify gaps"**

    ➢ **"In each technical area gaps will be identified where no accessibility requirements exist and recommendations provided for developing missing or additional requirements."**

❑ **Process:**

    ➢ **Analysis of ISO/IEC PDTR 29138-1,**

    ➢ **Review of European and International standards,**

    ➢ **Existing functional accessibility requirements.**

10 – Gaps in accessibility requirements: Results

❑ **Potential 48 new requirements identified,**

❑ **Few addressed by existing standards.**

10 – Gaps in accessibility requirements: Summary and conclusions

❑ **Additional standardisation activities may be required**

❑ **Especially in the areas of:**

➢ **Cognitive language and learning issues,**

➢ **Efficiency of accessible interfaces,**

➢ **Safety issues for people with disabilities.**

❑ **Technical standards:**

➢ **Some gaps identified,**

➢ **Especially for audio modes.**

11 – General conclusions and considerations

❑ **The work of Phase I has identified (in Clause 8) the user requirements necessary to ensure accessibility**

❑ **The technical requirements to satisfy these needs are given in Clause 9**

❑ **Some gaps have been identified (listed in Clause 10)**

❑ **Some reference to other standards will be necessary to achieve standard test methods**

❑ **Some further work will be required to agree the details of the gap filling**

❑ **Some major work will be required in International fora if it is required to replace two American standards**

11 – General conclusions and considerations

❑ **The technical requirement identified against the user needs are rarely full, one-to-one matches to a single user need. Significant work will be required to review all the identified clauses, in conjunction with the user needs, to determine the necessary testable requirement or recommendation.**

❑ **Mapping of user needs to the technical requirements for features and facilities of ICT products and services**

➢ **demonstrates there is sufficient information to create a single EN**

➢ **which addresses the majority of the identified user needs, and**

➢ **contains demonstrable and testable requirements.**

➢ **No currently existing set of standards fills this role.**

11 – Two main possible approaches

1. **"Shopping list": an exhaustive listing and reference to existing external standards, adding only minimal new content (not recommended):**
   - ❑ **10.000 pages?, 2- 5.000 €?, own structures and vocabularies, limited accessibility**
   - ❑ **would require all stakeholders to purchase, or otherwise obtain all necessary, referenced standards.**

2. **"One-stop-shop": a self-contained standard which, while supported by previous work, stands alone and provides the basis for procurement:**
   1. **More accessible for the intended users, easier to maintain**
   2. **Would enable a more useful toolkit – with login profiles and contextual applicability**

11 – Additional considerations and recommendations

❑ **Regardless the approach chosen, a "refresh" policy should be defined (3-5 year "refresh" cycle).**

❑ **Close collaboration with the US Access Board is strongly recommended**

❑ **Harmonisation possible and strongly recommended**

Five Phase II tasks

1. **A European Standard (ES/EN)**
   - ➢ **specifying the requirements for accessibility for all ICT products and services within each of the technical areas (to be used in terms of technical specifications in the sense mentioned in the public procurement Directives).**

2. **A Report on the standards and specifications (building on the ETSI TR)**

3. **Guidelines on accessibility award criteria that are relevant to each technical area, to be used in the procurement,**

Five Phase II tasks

4. **Guidance and support material for public procurements, which should address at least the following areas:**

   - Information Technology planning guidelines,
   - Broad circulation of materials on accessible information technology,
   - Technical advice on new ICT hardware or software,
   - Training of IT staff on the use of the developed material,
   - Inventory of existing accessibility support services and of accessibility support needs,
   - Inclusion of accessibility in ICT call for proposals,
   - Verification of supplier claims of accessibility,
   - Tracking of non-compliance of products and services with accessibility requirements in tenders,
   - Information on the testing and conformity aspects.

5. **An on-line, accessible toolkit providing structured access to the full content of the EN, the report, the guidelines and the guidance material. It shall provide, in particular, thorough guidance and ready text to public procurers who will access it.**

Phase II

- ❑ **Enough information has been found in Phase I to permit a single EN to be written in Phase II which contains all of the functional requirements**
  - ➢ **will need to refer to other International and/or European standards, particularly for test methods (which need to be based on harmonized International requirements).**
- ❑ **For each requirement identified references will be noted**
  - ➢ **The first work is to merge them into consensual statements**
  - ➢ **Conformance statements need to be associated with each requirement**
- ❑ **Gaps will need to be filled**
  - ➢ **Need to agree gaps are genuine**
  - ➢ **Requirements need to be written**
- ❑ **International standard bodies must be approached to write a couple of new standards**

Phase II continued

❑ **A Report will list all standards referenced out from the EN**

  ➢ **update of status of standards currently under development**

❑ **Guidance may be needed on applying the various requirements to actual products**

❑ **The work can provide all necessary information to support preparation of an on-line toolkit for public procurers.**

  ➢ **It is believed that the toolkit should also be able to assist suppliers and designers**

  ➢ **The toolkit should be so structured as to permit a number of approaches to the information that it contains**