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**Speakers' presentations**

# DISABILITY IN EMPLOYMENT AND BEYOND

**SEMINAR FOR LEGAL PRACTITIONERS**

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## **Employment, reasonable accommodation and accessibility under the UNCRPD**

The following presentation focuses on the right to work of persons with disabilities under the Convention on the Rights of Persons with Disabilities, as it has been elucidated by the Committee on the Rights of Persons with Disabilities, mainly through its general comments, which provide general guidance on the interpretation of the provisions of the Convention.

The Committee is the monitoring body of the Convention, which until now has been ratified by 177 parties, including a regional integration organization. The Committee was established in 2009 and since then has examined the implementation of the Convention in more than 70 parties to the Convention, including the implementation in the European Union. The Committee, discharging its mandate under the Optional Protocol to the Convention, has examined more than 20 individual complaints alleging violations of the provisions of the Convention and has carried out two investigations into grave or systematic violations of the Convention. The Committee has drafted general guidelines –also known as general comments- on many provisions of the Convention in areas such as the legal capacity of persons with disabilities, accessibility, the situation of women and girls with disabilities, the right to inclusive education, the right to live independently and being included in the community, and the right to equality and non-discrimination. During its current session, which is ongoing until end of September, the Committee is finalising its general comment on the inclusion of persons with disabilities in the implementation and the monitoring of the Convention.

The examination of the implementation of the Convention in a large number of countries from different regions has allowed the Committee to identify several common persisting challenges related to the work and employment of persons with disabilities<sup>1</sup>. These challenges include inter alia: high rates of persons with disabilities excluded from the meaningful possibility to have access to decent work; segregated working environments for persons with disabilities; salary gaps; poor conditions of work, prevalence of prejudices and stigma against persons with disabilities, particularly against women with disabilities, persons with intellectual disabilities and persons with psychosocial disabilities; lack or poor accessibility to the workplace; challenges in the provision of reasonable accommodation; lack or poor prospects of promotion and career development for persons with disabilities, and insufficient access to vocational training, just to mention only some of the challenges.

Article 27 of the Convention on the Rights of Persons with Disabilities recognizes the right of persons with disabilities to work, on an equal basis with others; which includes the right to the opportunity to gain a living by work freely chosen or accepted in a labour market and work environment that is open, inclusive and accessible to persons with disabilities. The Convention call upon parties to safeguard and promote the realization of this right, by taking appropriate steps, and to ensure, inter alia: the prohibition of discrimination on the basis of disability with regard to all matters concerning all forms of employment, including conditions of recruitment, hiring and employment, continuance

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<sup>1</sup> See, for example, A/70/55, Chapter V, and A/72/55, Chapter V, Biennial reports of the Committee on the Rights of Persons with Disabilities to the General Assembly

of employment, career advancement and safe and healthy working conditions; the right of persons with disabilities to just and favourable conditions of work; their trade union rights on an equal basis with others; their right to have effective access to general technical and vocational training; the promotion of employment opportunities and career advancement for persons with disabilities; the promotion of opportunities for self-employment and entrepreneurship; the employment of persons with disabilities in the public sector; the promotion of their employment in the private sector including through affirmative action programmes; and the provision of reasonable accommodation in the workplace.

The overarching objective of the Convention is the full inclusion of persons with disabilities in all areas of life, including in work and employment. The Committee has highlighted this purpose throughout its jurisprudence<sup>2</sup>, while underlying that measures of implementation should be human rights-based, acknowledge the paradigm shift of the Convention according to which disability is a social phenomenon, which results from the interaction between personal impairments and external barriers; and ensure that persons with disabilities are fully involved and meaningful participate in all decisions affecting them.

Member States of the United Nations agreed in 2015 to implement the 2030 Development Agenda, which includes Sustainable Development Goal No. 8 on the promotion inclusive and sustainable economic growth, employment and decent work for all. Members States of the United Nations commit - by 2030- to achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value.

The Committee has emphasized that in implementing the Convention and, particularly, the provision of article 27 in matters related to the employment of persons with disabilities, parties to the Convention should pay particular attention to the following duties.

- a) The respect of the autonomy, will and preferences of persons with disabilities
- b) The duty to ensure accessibility in the workplace
- c) The prohibition of discrimination on the basis of disability,
- d) The duty to fight stigma and prejudice against persons with disabilities
- e) The prohibition of multiple and intersecting forms of discrimination against persons with disabilities
- f) The duty to provide reasonable accommodation
- g) The duty to support persons with disabilities
- h) The duty to adopt positive measures
- i) The respect of the right of persons with disabilities to be involved fully and to participate meaningfully in all decision-making processes affecting them
- j) The consideration of the inter-relatedness of the right to work or employment of persons with disabilities with other rights recognized in the Convention.

We will address briefly the above-mentioned topics.

**a) The respect of the autonomy, will and preferences of persons with disabilities.**

Article 27 of the Convention underlines the right to have access to work freely chosen by persons with disabilities in an open, inclusive and accessible labour market. In many jurisdictions, however,

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<sup>2</sup> *Ib.id.*

persons with disabilities are denied this possibility through being deprived of the possibility to exercise their legal capacity and/or by being forcibly subjected to institutionalization.

In its general comment No 1 on equal recognition before the law<sup>3</sup>, adopted in 2014, the Committee on the Rights of Persons with Disabilities recommended that parties to the Convention repeal from their legislation and eradicate practices of substituted decision-making regimes that deprive persons with disabilities of their right to exercise their legal capacity. The Committee recommended parties to move forward expeditiously -in legislation and practice- to adopt supported decision making schemes fully respectful of the autonomy, will and preferences of persons with disabilities. The General Comment provide substantive guidance for implementing supported decision-making regimes. I observe that you will discuss this matter in the field of employment later on today.

Similarly, in its general comment No5 on article 19 of the Convention, on the right to live independently and being included in the community, the Committee acknowledges that persons with disabilities have historically been denied their personal and individual choice and control across all areas of their lives, including work and employment<sup>4</sup>.

The Committee underlined that independent living and being included in the community refer to “life settings outside residential institutions of all kinds. It is not “just” about living in a particular building or setting; it is, first and foremost, about not losing personal choice and autonomy as a result of the imposition of certain life and living arrangements. Neither large-scale institutions with more than a hundred residents nor smaller group homes with five to eight individuals, nor even individual homes can be called independent living arrangements if they have other defining elements of institutions or institutionalization”<sup>5</sup>.

Instead of perpetuating institutionalization, parties to the Convention should promote independent living schemes respectful of the autonomy, will and preferences of persons with disabilities. In this regard, the existence of individualized support services, including personal assistance, often is a precondition for effective enjoyment of the right to work and employment (art. 27). Furthermore, persons with disabilities should also retain the choice of becoming employers, managers or trainers in disability-specific support services. Implementing article 19 will thus help to phase out sheltered employment<sup>6</sup>.

#### **b) The duty to ensure accessibility in the workplace.**

In its General Comment No2 on accessibility, adopted in 2014, the Committee has underlined that “accessibility is a precondition for persons with disabilities to live independently and participate fully and equally in society”<sup>7</sup>. Unlike reasonable accommodation, which is related to individuals, accessibility is related to groups. This means that the duty to provide accessibility is an ex ante duty. States parties have the duty to provide accessibility before receiving an individual request to enter or use a place or service. States parties need to set accessibility standards, which must be adopted in consultation with organizations of persons with disabilities<sup>8</sup>.

Persons with disabilities cannot effectively enjoy their work and employment rights, as described in article 27 of the Convention, if the workplace itself is not accessible. Workplaces therefore have to

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<sup>3</sup> CRPD/C/GC/No1, paragraphs 24 to 30

<sup>4</sup> CRPD/C/GC/5, paragraph 1

<sup>5</sup> Ib.id, paragraph 16

<sup>6</sup> Ib.id, paragraph 91

<sup>7</sup> CRPD/C/GC/2, paragraph 1

<sup>8</sup> Ib.id, paragraph 25

be accessible, as is explicitly indicated in article 9, paragraph 1 (a). A refusal to adapt the workplace constitutes a prohibited act of disability-based discrimination. Besides the physical accessibility of the workplace, persons with disabilities need accessible transport and support services to get to their workplaces. All information pertaining to work, advertisements of job offers, selection processes and communication at the workplace that is part of the work process must be accessible through sign language, Braille, accessible electronic formats, alternative script, and augmentative and alternative modes, means and formats of communication. All trade union and labour rights must also be accessible, as must training opportunities and job qualifications<sup>9</sup>.

### **c) The prohibition of discrimination on the basis of disability**

In its general comment No.6 on equality and non-discrimination, adopted in 2018, the Committee highlights that the human rights model of disability recognizes that disability is a social construct and impairments must not be taken as a legitimate ground for the denial or restriction of human rights<sup>10</sup>. According to the Committee, disability laws and policies must take the diversity of persons with disabilities into account in line with the inclusive equality model enshrined by the Convention<sup>11</sup>.

Inclusive equality is a new model of equality developed throughout the Convention. It embraces a substantive model of equality and extends and elaborates on the content of equality in: (a) a fair redistributive dimension to address socioeconomic disadvantages; (b) a recognition dimension to combat stigma, stereotyping, prejudice and violence and to recognize the dignity of human beings and their intersectionality; (c) a participative dimension to reaffirm the social nature of people as members of social groups and the full recognition of humanity through inclusion in society; and (d) an accommodating dimension to make space for difference as a matter of human dignity<sup>12</sup>.

In order to achieve inclusive equality in the field of work and employment, parties to the convention must inter alia<sup>13</sup>:

- (a) Facilitate the transition away from segregated work environments for persons with disabilities and support their engagement in the open labour market, and in the meantime also ensure the immediate applicability of labour rights to those settings;
- (b) Promote the right to supported employment, including to work assistance, job coaching and vocational qualification programmes; protect the rights of workers with disabilities; and ensure the right to freely chosen employment;
- (c) Ensure that persons with disabilities are paid no less than the minimum wage and do not lose the benefit of disability allowances when they start work;
- (d) Expressly recognize the denial of reasonable accommodation as discrimination and prohibit multiple and intersectional discrimination, and harassment;
- (e) Ensure proper transition into and out of employment for persons with disabilities in a non-discriminatory manner. States parties are obliged to ensure equal and effective access to benefits and entitlements, such as retirement or unemployment benefits.

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<sup>9</sup> *Ib.id.*, paragraph 41.

<sup>10</sup> CRPD/C/GC/6, paragraph 8

<sup>11</sup> *Ib.id.*, paragraph 9

<sup>12</sup> *Ib.id.* paragraph 11

<sup>13</sup> *Ib.id.* paragraph 67

(f) Promote work in inclusive and accessible, safe and healthy working environments in the public and private sectors;

(g) Ensure that persons with disabilities enjoy equal opportunities regarding career advancement opportunities through regular assessment meetings with their managers and by defining the objectives to be achieved, as a part of a comprehensive strategy;

(h) Ensure access to training, retraining and education, including vocational training and capacity-building for employees with disabilities, and provide training on the employment of persons with disabilities and reasonable accommodation for employers, representative organizations of employees and employers, unions and competent authorities;

(i) Work towards universally applicable occupational health and safety measures for persons with disabilities, including occupational safety and health regulations that are non-discriminatory and inclusive of persons with disabilities;

#### **d) The duty to fight stigma and prejudice against persons with disabilities**

Article 8 of the Convention imposes parties to the Convention the duty to combat stereotypes, prejudices and harmful practices relating to persons with disabilities, including those based on sex and age, in all areas of life.

In the field of work and employment, the Committee has highlighted that according to article 4 of the Convention, parties to the Convention should take all appropriate measures to eliminate discrimination based on disability by any person, organization or private enterprise, and to adopt measures to fight prejudice and stigma portraying persons with disabilities as being unemployable, a burden to society or lacking skills, or not worthy to be employed in certain jobs. These prejudices, the Committee has noticed, have put persons with intellectual disabilities and persons with psychosocial disabilities at a particular disadvantage in gaining and retaining decent employment<sup>14</sup>.

The Committee has also pointed out to the prevalent of harassment against persons with disabilities in the workplace. In its general comment No.6 on equality and non-discrimination, the Committee has stated that “Harassment” is a form of discrimination when unwanted conduct related to disability or other prohibited grounds takes place with the purpose or effect of violating the dignity of a person and of creating an intimidating, hostile, degrading, humiliating or offensive environment. It can happen through actions or words that have the effect of perpetuating the difference and oppression of persons with disabilities. “Bullying” and its online form, cyberbullying and cyberhate, also constitute particularly violent and harmful forms of hate crimes. Other examples include (disability-based) violence in all its appearances, such as abuse and exploitation, hate-crime and beatings<sup>15</sup>.

#### **e) The prohibition of multiple and intersectional forms of discrimination**

Discrimination can be based on a single characteristic, such as disability or gender, or on multiple and/or intersecting characteristics. States parties must address multiple and intersectional discrimination against persons with disabilities. “Multiple discrimination” according to the Committee is a situation where a person can experience discrimination on two or several grounds, in the sense that discrimination is compounded or aggravated. Intersectional discrimination refers to a

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<sup>14</sup> See footnote 1

<sup>15</sup> CRPD/C/GC/6, paragraph 18 d)

situation where several grounds operate and interact with each other at the same time in such a way that they are inseparable and thereby expose relevant individuals to unique types of disadvantage and discrimination<sup>16</sup>

The Committee has stated that “besides the general barriers that persons with disabilities face when trying to exercise their right to work, women with disabilities also face unique barriers to their equal participation in the workplace, including sexual harassment and unequal pay and the lack of access to seek redress because of discriminatory attitudes dismissing their claims, as well as physical, information and communications barriers”.<sup>17</sup>

#### **f) The duty to provide reasonable accommodation in the workplace**

In its general comment No6 on equality and non-discrimination<sup>18</sup>, the Committee has clarified that reasonable accommodation is an intrinsic part of the immediately applicable duty of non-discrimination in the context of disability. Examples of reasonable accommodations include making existing workplace facilities and information accessible to the individual with a disability; modifying equipment; reorganizing activities; rescheduling work; adjusting recruitment procedures; or enabling access to support personnel without disproportionate or undue burden.

Reasonable accommodation duties are different from accessibility duties. The duty to provide reasonable accommodation is an individualized reactive duty that is applicable from the moment a request for accommodation is received. Reasonable accommodation requires the duty bearer, the entity addressed with a request of reasonable accommodation, to enter into dialogue with the individual with a disability. It is important to note that the duty to provide reasonable accommodation is not limited to situations in which the person with a disability has asked for an accommodation but it comprises situations in which it could be proved that the alleged duty bearer was actually aware that the person in question had a disability.

The duty to provide reasonable accommodation in accordance with articles 2 and 5 of the Convention can be broken down into two constituent parts. The first part imposes a positive legal obligation to provide a reasonable accommodation, which is a modification, or adjustment that is necessary and appropriate where it is required in a particular case to ensure that a person with a disability can enjoy or exercise her or his rights. The second part of this duty ensures that those required accommodations do not impose a disproportionate or undue burden on the duty bearer.

“Reasonable accommodation” is a single term, and “reasonable” should not be misunderstood as an exception clause; the concept of “reasonableness” should not act as a distinct qualifier or modifier to the duty. It is not a means by which the costs of accommodation or the availability of resources can be assessed — this occurs at a later stage, when the “disproportionate or undue burden” assessment is undertaken. Rather, the reasonableness of an accommodation is a reference to its relevance, appropriateness and effectiveness for the person with a disability. An accommodation is reasonable, therefore, if it achieves the purpose (or purposes) for which it is being made, and is tailored to meet the requirements of the person with a disability;

“Disproportionate or undue burden” should be understood as a single concept that sets the limit of the duty to provide reasonable accommodation. Both terms should be considered synonyms insofar

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<sup>16</sup> *Ib.id.* paragraph 19

<sup>17</sup> CRPD/C/GC/3, paragraph 58

<sup>18</sup> CRPD/C/GC/6, paragraphs 23 to 27



as they refer to the same idea: that the request for reasonable accommodation needs to be bound by a possible excessive or unjustifiable burden on the accommodating party;

Key elements that guide the implementation of the duty to provide reasonable accommodation include:

- (a) Identifying and removing barriers that have an impact on the enjoyment of human rights for persons with disabilities, in dialogue with the person with a disability concerned;
- (b) Assessing whether an accommodation is feasible (legally or in practice) — an accommodation that is legally or materially impossible is unfeasible;
- (c) Assessing whether the accommodation is relevant (i.e., necessary and appropriate) or effective in ensuring the realization of the right in question;
- (d) Assessing whether the modification imposes a disproportionate or undue burden on the duty bearer; the determination of whether a reasonable accommodation is disproportionate or unduly burdensome requires an assessment of the proportional relationship between the means employed and its aim, which is the enjoyment of the right concerned;
- (e) Ensuring that the reasonable accommodation is suitable to achieve the essential objective of the promotion of equality and the elimination of discrimination against persons with disabilities. A case-by-case approach based on consultations with the relevant body charged with reasonable accommodation and the person concerned is therefore required. Potential factors to be considered include financial costs, resources available (including public subsidies), the size of the accommodating party (in its entirety), the effect of the modification on the institution or the enterprise, third-party benefits, negative impacts on other persons and reasonable health and safety requirements. Regarding the State party as a whole and the private sector entities, overall assets rather than just the resources of a unit or department within an organizational structure must be considered;
- (f) Ensuring that the persons with a disability more broadly do not bear the costs;
- (g) Ensuring that the burden of proof rests with the duty bearer who claims that his or her burden would be disproportionate or undue.

**g) The duty to support persons with disabilities.**

The duty to provide support is crosscutting across the provisions of the Convention. According to General Comment No 1, on equal recognition before the law, support is a broad term that encompasses both informal and formal interventions and arrangements, of varying types and intensity<sup>19</sup>. It includes live assistance and intermediaries, mobility aids and assistive devices and technologies. It also includes personal assistance, support in decision-making; and communication support, such as sign language interpretation —. Support can also constitute the development and recognition of diverse, non-conventional methods of communication, especially for those who use non-verbal forms of communication to express their will and preferences.

The type and intensity of support to be provided will vary significantly from one person to another owing to the diversity of persons with disabilities. This is in accordance with article 3 (d) of the

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<sup>19</sup> CRPD/C/GC/1, paragraph 17

Convention, which sets out “respect for difference and acceptance of persons with disabilities as part of human diversity and humanity” as a general principle of the Convention.

In the field of work and employment, the Convention sets up that parties to the Convention should promote employment opportunities and career advancement for persons with disabilities in the labour market, as well as support and assistance in finding, obtaining, maintaining and returning to employment.

**h) The duty to adopt positive measures:**

Article 27 of the Convention sets up a duty to promote the employment of persons with disabilities in the private sector through appropriate policies and measures, which may include affirmative action programmes, incentives and other measures. Under article 5 of the Convention, on equality and non-discrimination, parties to the Convention are called upon to adopt specific measures that are necessary to accelerate or achieve de facto equality of persons with disabilities. The Convention clarifies that such measures shall not be considered discrimination under the terms of the treaty.

In its general comment No6 on equality and non-discrimination, the Committee has clarified that specific measures are not to be regarded as discrimination and that they are positive or affirmative measures that aim to accelerate or achieve de facto equality of persons with disabilities<sup>20</sup>. Such measures are mentioned in other international human rights treaties, such as article 4 of the Convention on the Elimination of All Forms of Discrimination against Women or article 1 (4) of the International Convention on the Elimination of All Forms of Racial Discrimination, and entail adopting or maintaining certain advantages in favour of an underrepresented or marginalized group. They are usually temporary in nature, although in some instances permanent specific measures are required, depending on context and circumstances, including by virtue of a particular impairment or the structural barriers of society. Examples of specific measures include outreach and support programmes, allocation and/or reallocation of resources, targeted recruitment, hiring and promotion, quota systems, advancement and empowerment measures, as well as technological aids.

According to the Committee, specific measures adopted by States parties under article 5 (4) of the Convention must be consistent with all its principles and provisions. In particular, they must not result in perpetuation of isolation, segregation, stereotyping, stigmatization or otherwise discrimination against persons with disabilities. Thus, States parties must consult closely with and actively involve representative organizations of persons with disabilities when they adopt specific measures<sup>21</sup>.

**i) The respect of the right of persons with disabilities to be involved fully and to participate meaningfully in all decision-making processes affecting them**

The Committee has highlighted in several occasions that any policy or measure affecting persons with disabilities should be designed and implemented with the full involvement and meaningful participation of persons with disabilities through their representative organizations<sup>22</sup>. In the Committee’s draft general recommendation on the participation of persons with disabilities in the implementation and monitoring of the Convention the Committee emphasizes that “the adoption of all policies regarding the right of persons with disabilities to work and employment (art. 27) should be taken in consultation with and involvement of organization of persons with disabilities. Policies

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<sup>20</sup> CPRD/C/GC/6, paragraph 28

<sup>21</sup> *Ib.id*, paragraph 29

<sup>22</sup> See, for example, documents referred to in footnote 1

should seek to guarantee access to employment; promote work in open, inclusive, accessible and competitive employment markets and environments; ensure equal opportunities and gender equality, and provide for reasonable accommodation and support for persons with disabilities. This includes establishing coordinated strategies and the effective implementation of binding affirmative action measures to promote the employment of persons with disabilities in both public and private sectors”<sup>23</sup>.

To “closely consult with and actively involve” persons with disabilities through their representative organizations means that their consultation and involvement in the development and implementation of legislation and policies to implement the Convention, and in other decision-making processes, is a full-fledged strong obligation under international human rights law. This includes the right of organizations of persons with disabilities, to be consulted timely, with guarantees of accessibility, including to all relevant information, and reasonable accommodation when required, such as the provision of sign language interpreters and Easy Read text and language, Braille and tactile communication. Their respective views must be given due consideration and weight and they must be duly informed of the outcome of the process, including an explicit explanation, in the findings, considerations or reasoning of decisions, on how their views were considered and why<sup>24</sup>.

**j) The consideration of the inter-relatedness of the right to work or employment of persons with disabilities with other rights recognized in the Convention.**

The Committee has clarified in particular the relationship between the right to work and employment and other rights enshrined in the Convention. In relation to the right to inclusive education, the Committee in its general comment No.4 adopted in 2016 has stressed that “Quality inclusive education must prepare persons with disabilities for work life through the acquisition of the knowledge, skills and confidence necessary for participation in the open labour market and in an open, inclusive and accessible work environment (art. 27)”<sup>25</sup>. On the relationship between the right to work and the right to social security, the Committee has stated, following the Special Rapporteur on the Rights of Persons with Disabilities, that “States parties should find an adequate balance between providing an adequate level of income security for persons with disabilities through social security schemes and supporting their labour inclusion. The two sets of measures should be seen as complementary rather than contradictory. Measures aimed at facilitating the inclusion in the labour market of beneficiaries of social security should include transitional arrangements to ensure income protection while they reach a certain threshold and sustainability in their wages. They should become eligible again without delay if they lose their jobs.”<sup>26</sup>

Final remarks

Implementation of the above-mentioned legal framework and standards requires collective commitment from parties to the Convention, employers, and trade unions, including those representing persons with disabilities. It also requires robust and regular evaluation by duty bearers and monitoring by independent monitoring mechanisms. The collection of disaggregated data is also

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<sup>23</sup> Draft general comment, para.65 available at <https://www.ohchr.org/EN/HRBodies/CRPD/Pages/CRPDIndex.aspx>

<sup>24</sup> *Ib.id.*, para. 21

<sup>25</sup> CRPD/C/GC/4, paragraph 56

<sup>26</sup> CRPD/C/15/4, paragraph 42

critical to ensure that no one is left behind in the implementation of inclusive policies on work and employment. Of utmost importance is the participation of persons with disabilities through their representative organizations.

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# EU legal framework relating to employment of persons with disabilities

Dr. Shivaun Quinlivan



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## Structure of the paper

- Official texts on disability in EU law
  - Treaties
  - International agreements
  - Legislation
- Case law of the EU Court of Justice
  - Focus on definition of disability
  - Impact of UN CRPD will have on reasonable accommodation



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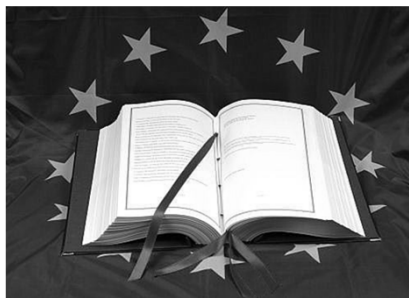
## Treaties

- Article 19 of the TFEU give the EU the power to address discrimination:
  - “Without prejudice to the other provisions of the Treaties and within the limits of the powers conferred by them upon the Union, the Council, acting unanimously in accordance with a special legislative procedure and after obtaining the consent of the European Parliament, may take appropriate action to combat discrimination based on sex, racial or ethnic origin, religion or belief, disability, age or sexual orientation.”

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## TFEU Continued

- Article 10 TFEU:
  - In defining and implementing its policies and activities, the Union shall aim to combat discrimination based on ... disability.



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## **The Charter of Fundamental Rights**

- Art. 21 of the Charter lists disability as one of the grounds on which discrimination must be prohibited.
- Art. 26 addresses the “Integration of persons with disabilities” and provides: “The Union recognises and respects the right of persons with disabilities to benefit from measures designed to ensure their independence, social and occupational integration and participation in the life of the community.”

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## **International agreements:**

- United Nations Convention on the Rights of Persons with Disabilities
  - Council Decision 2010/48/EC 2009 concerning the conclusion by the European Community, of the UN CRPD.
  - Annex II of this decision lists the EU acts on matters governed by the UN CRPD
  - Mixed agreement
  - Code of conduct – (OJ 2010 C340/08)

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## Legal effects of UNCRPD in EU Law



- International agreements concluded by EU are superior to secondary EU law
- Some obligations in international agreements may be invoked directly.
  - However see (Case C-363/12, *Z*)
  - See also (Case C-395/15, *Daouidi*)

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## Impact of the UNCRPD on EU Law

- Directive 2000/78/EC  
Framework Employment  
Directive
- Legal Definition of  
Disability



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## Impact of the UN CRPD

- Medical Model of disability
  - Focus on what is “wrong” with the individual
  - Focus on medical solutions and how to “fix” the person
- Social Model of disability
  - Focus on barriers to participation
    - Physical, attitudinal, societal
  - Focus on a rights based approach to inclusion.



LLM in International and Comparative Disability Law and Policy

## Directive 2000/78/EC Framework Employment Directive

- Directive does not define disability
- Article 1: “The purpose of this Directive is to lay down a general framework for combating discrimination on the grounds of ... disability ... employment and occupation, with a view to putting into effect in the Member States the principle of equal treatment.

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## CJEU – Grand Chamber Decision

- *Chácon Navas v. Eurest Colectividades SA* (C-13/05), [2006] E.C.R. I-06467, [2006] I.R.L.R. 706.
  - persons “with serious functional limitations (disabilities) due to physical, psychological or mental afflictions.” (paragraph 76).
  - In order for the limitation to fall within the concept of 'disability', it must therefore be probable that it will last for a long time. (paragraph 45).
  - Does not cover sickness (paragraph 47)

LLM in International and Comparative Disability Law and Policy

## UN CRPD and the concept of “disability”

- No fixed definition of disability
  - “a soft threshold definition in the form of guidance which is open-ended and inclusive” de Búrca
- Preamble:
  - Disability is an evolving concept and that disability results from the interaction between persons with impairments and attitudinal and environmental barriers that hinders their full and effective participation in society on an equal basis with others.

LLM in International and Comparative Disability Law and Policy

## Article 1 UNCRPD



- Persons with disabilities include those who have **long-term** physical, mental intellectual or sensory **impairments** which in **interaction** with various **barriers** may hinder their full and effective participation in society on an equal basis with others
- Clear endorsement of the social model.
- One limitation – must be long-term.

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## Joined Cases C-335/11 and C-337/11 *Ring and Skouboe Werge (1)*

- FED interpreted in light of CRPD
- International agreements have **primacy over instruments of secondary law**. Those instruments must be interpreted in a manner consistent with those agreements.
- CRPD “an integral part of the EU legal order”

Centre for Disability Law and Policy

Joined Cases C-335/11 and C-337/11 *Ring and Skouboe Werge* (2)

- Concept of “disability” includes an illness if:
  - That illness entails a limitation which results in particular from physical, mental or psychological **impairments** which in **interaction with various barriers may hinder the full and effective participation** of the person concerned in professional life on an equal bas

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**Case C-354/13 *Karsten Kaltoft v Municipality of Billund***

- **Para 53:** Following the ratification by the European Union of the United Nations Convention on the Rights of Persons with Disabilities, ... the Court held that the concept of ‘disability’ must be understood as referring to a limitation which results in particular from long-term physical, mental or psychological impairments which in interaction with various barriers may hinder the full and effective participation of the person concerned in professional life on an equal basis with other workers
- Obesity may be a disability if it meets this test

School of Law

## Case C-363/12 Z (2014)

(72) “The primacy of international agreements ... over instruments of secondary law means that **those instruments must as far as possible be interpreted in a manner that is consistent with those agreements.**”

(73) “The provisions of that Convention are thus, from the time of its entry into force, an integral part of the European Union legal order ...”

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## Case C-363/12 Z (2014) (Cont'd)

(75) “...the UN Convention is capable of being relied on for the purposes of interpreting Directive 2000/78, which must, as far as possible, be interpreted in a manner that is consistent with that Convention”

The CJEU went on to hold that post ratification of the UNCRPD the concept of ‘disability’ within the Directive 2000/78 had to be understood as referring to the definition within the Convention.

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## Case C-363/12 Z (2014)

- CJEU held that the concept of disability:
  - presupposes that the limitation from which the person suffers, in interaction with various barriers, may hinder that person's full and effective participation in professional life on an equal basis with other workers.
- Therefore Z did not have a disability.

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## Case C-395/15 Daouidi (2016)

- (49) “The UN Convention does not define ‘long-term’ as regards a physical, mental, intellectual or sensory impairment. Directive 2000/78 does not define ‘disability’, nor does it clarify the concept of a ‘long-term’ limitation of a person’s capacity for the purposes of that concept.”
- **Evidence of ‘long-term’ includes lack of clearly defined prognosis as regards short-term progress, fact it is likely to be a prolonged period of time before recovery**
- National Court must in determining ‘long-term’ base its decision on all of the objective evidence, such as, documents and certificates relating to that person’s condition (based on current medical and scientific knowledge) Case by case analysis.

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## Case C-406/15, *Milkova* (2017)

- Mental Illness does constitute a disability ...
- (48) That interpretation is supported by the UN Convention which, in accordance with settled case-law, may be relied on for the purposes of interpreting Directive 2000/78
- CJEU then referred to UNCRPD Article 27(1) on the right to work and Article 5(1) on equality and went on to state:
- (50) "It follows from the foregoing that the legislation at issue in the main proceedings comes within the scope of Article 7(2) of Directive 2000/78 and, as such, pursues an objective covered by EU law ..."

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# Questions?

Centre for Disability Law and Policy

## Case Study

Using the preliminary reference proceedings to address discrimination against disability in the context of employment.

Dr. Shivaun Quinlivan



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## Reasonable Accommodation

- Failure to provide reasonable accommodation is **discrimination**.
- Individualised duty (both parties)
- Process of dialogue
- Limits to the duty
  - Disproportionate or undue burden
  - Reasonable?

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## UN CRPD and Reasonable Accommodation

- Discrimination includes a denial of reasonable accommodation
- CRPD Committee have stated there is a duty to legislate to ensure that reasonable accommodation provisions are enshrined in law – such laws should ensure that reasonable accommodation is recognized and punishable form of discrimination (Concluding observations on the Initial Report on Germany 13 May 2015.)

Centre for Disability Law and Policy

## Reasonable Accommodation

- Fredman:
- “Instead of requiring disabled people to conform to existing norms, the aim is to develop a concept of equality which requires adaptation and change.”

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## Article 2 UNCRPD

- “Reasonable accommodation” means necessary and appropriate modification and adjustments not imposing a disproportionate or undue burden, **where needed in a particular case**, to ensure to persons with disabilities the enjoyment or exercise on an equal basis with others of all human rights and fundamental freedoms;
- Essentially a two part test.

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## Duty to accommodate – Part 1.

- Triggered or enforceable from the moment a person with a disability requires an accommodation.
- Proposed accommodation must be reasonable – i.e. address the actual barrier to inclusion.
- Process requires dialogue between the duty bearer and the person with a disability

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## Duty to Accommodate – Part 2

- Limited by disproportionate or undue burden – single concept.
- Factors: cost, structural burden, disruption, benefit.
- Not relevant perception of unfairness by others

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## What is reasonable?

- 3 different approaches taken in the EU
- BUT:
- ‘Reasonableness’ is understood as the result of a contextual test that involves an analysis of the relevance of the effectiveness of the accommodation, and the expected goal of countering discrimination. The availability of resources and the financial implications is recognized in assessing disproportionate burden.

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## FED Reasonable Accommodation

- Directive 2000/78/EC Framework Employment Directive: Art.5:
  - ... reasonable accommodation shall be provided. This means that employers shall take appropriate measures, where needed in a particular case, to enable a person with a disability to have access to, participate in, or advance in employment, or to undergo training, unless such measures would impose a disproportionate burden on the employer. This burden shall not be disproportionate when it is sufficiently remedied by measures existing within the framework of the disability policy of the Member State concerned.

LLM in International and Comparative Disability Law and Policy

## Accommodations can include:

Recital 20:

- effective and practical measures to adapt the workplace to the disability, i.e. adapting premises and equipment, patterns of working time, the distribution of tasks etc

*Ring and Skouboe Werge:*

- the concept must be understood as referring to the elimination of the various barriers that hinder the full and effective participation of persons with disabilities in professional life on an equal basis with others.

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## Similarities:

- Not a limitless duty – see recital 21
- No requirement to hire someone not able to undertake the essential functions of the post – see recital 17

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## Concerns

- Reasonable Accommodation not explicitly described as discrimination
- CRPD RA applies to all contexts, education, health, transport, at EU level exclusive to employment – but is that appropriate given the scope of the Race Directive?
- See also concerns re Z case
- What does reasonable mean?

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## The role of judges

“The impact an anti-discrimination law may have on society depends, to a large extent, on the attitude of the judiciary rather than on the text of the legislation itself.”

Theresia Degener,

Legal Expert to the UN High Commissioner for Human Rights  
as co-author of the background study to the UNCRPD

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# Questions?

Centre for Disability Law and Policy

## Case Study 1

### Using the preliminary reference proceedings in EU law to address discrimination against disability in the context of employment:

Mary was hired to work for Banana Inc., a computer manufacturing company. She was recruited by an employment agency and commenced employment with Banana Inc., in August 2009. She was initially employed on a six-month contract. Mary has epilepsy, but her condition is well controlled by medication, and has not had a seizure in over two-years. Equally, prior to the onset of an attack she would experience symptoms up to 24 hours beforehand. At the time of her employment she informed the employment agency of her disability.

She worked for Banana Inc. for 4 months without any difficulty, she worked on the factory line and was not required to operate heavy machinery during this period. In November 2009 her supervisor informed her that her work performance was very satisfactory and that Banana Inc., would like her to apply for a permanent position. At this point Mary completed Banana Inc.'s application form, where she again declared her epilepsy. After submitting her application form she was told that she would not be required to attend for interview but would be required to undergo a medical examination by a Doctor nominated by Banana Inc. Mary attended the medical examination.

Immediately, following the examination, the Doctor spoke with Banana Inc.'s Human Resources Officer by telephone and told her that Mary suffered from epilepsy. As a result of this conversation, Banana Inc.'s Human Resources officer decided not to offer Mary a permanent post and to terminate her temporary contract with immediate effect, on the basis that she was not fit to operate heavy machinery.

Mary comes to you for advice, please advise her having regard to FED, case law and CRPD.

# THE RIGHT TO EQUAL RECOGNITION BEFORE THE LAW

Ann Campbell  
Litigation Director  
Validity Foundation  
Trier, Germany  
17 September 2018



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## INTERNATIONAL NORMS

1. Universal Declaration of Human Rights, Article 6 (1949)
2. International Covenant on Civil and Political Rights, Article 16 (1966)
3. Convention on the Elimination of All Forms of Discrimination against Women, Article 15 (1979)
4. Convention on the Rights of Persons with Disabilities, Article 12 (2006)



## WHAT IS LEGAL CAPACITY?

Power to direct your own life; to make decisions on:

- > Marriage
  - > Healthcare
  - > Property
  - > Employment
  - > Voting and political participation
  - > Sexual and reproductive rights
  - > Parenting
- Etc. etc. etc. etc. etc.

### ▶ ARTICLE 12, CRPD

- > Recognition as a person before the law
- > Right to legal capacity on an equal basis with others
- > State obligation to provide supports
- > State obligation to ensure safeguards
- > Right to control property and financial affairs

## ▶ LEGAL CAPACITY vs MENTAL CAPACITY

Mental capacity: variable capacity to make decisions

Legal capacity: objective legal construct. Includes recognition as a rights-holder and a right to exercise those rights

## ▶ GENERAL COMMENT NO. 1

There are no circumstances in which the right to equal recognition as a person before the law can be denied or limited

The existence of an impairment must never be grounds for denying or restricting legal capacity

Support must respect rights, will and preferences and never amount to substituted decision-making

## ▶ SUPPORT IN DECISION-MAKING

“Best interpretation of will and preference” – not best interests

Can be formal supports or recognition of informal supports

Complementary to but distinct from:

- accessibility (Art.9)
- reasonable accommodations (Art.5)

## ▶ SUPPORT IN DECISION-MAKING (contd.)

1. Available to all
2. Based on will and preferences, not best interests
3. Mode of communication cannot be a barrier to obtaining support
4. Legal recognition of the chosen support person must be available & accessible; States must facilitate creation of support

## ▶ SUPPORT IN DECISION-MAKING (contd.)

5. Lack of financial resources should not be a barrier
6. Use of supports cannot justify limiting other rights
7. Person can refuse, terminate or change support at any time
8. Must include safeguards to ensure will and preferences are respected
9. Provision of support should not depend on mental capacity assessments

## ▶ STATE OBLIGATION

Respect, protect, fulfil – inter alia:

- > Recognise people with disabilities as persons before the law on an equal basis with others
- > Abolish discriminatory denial of legal capacity
- > Abolish substituted decision-making regimes, such as guardianship
- > Develop laws and policies to replace substituted with supported decision-making

## ▶ KEY ECtHR JURISPRUDENCE

### Fair trial:

- > Winterwerp v. Netherlands
- > Shtukurov v. Russia
- > Stanev v. Bulgaria
- > Kedzior v. Poland
- > Sykora v. Czech Republic
- > Lashin v. Russia

### Privacy & family life:

## ▶ KEY ECtHR JURISPRUDENCE

- > X. v. Croatia
- > Lashin v. Russia
- > Shtukurov v. Russia

### Liberty:

- > Shtukurov v. Russia

### Voting:

- > Alajos Kiss v. Hungary

## ▶ LEGISLATIVE REFORM - HUNGARY

- > 2001 - Civil Code amendment introduced restriction "for certain types of cases"
- > July 2007 - Ratification of CRPD
- > DPO / NGO coalition
- > 2009 - Progressive Civil Code draft found unconstitutional
- > 15 March 2014 - Current Civil Code
- > April 2014 - Ombudsperson's constitutional challenge struck down

## ▶ LEGISLATIVE REFORM - HUNGARY

Current Civil Code:

- > Amended "partial restriction" of legal capacity
- > Introduced supports in decision-making
- > Guardianship orders must be reviewed
- > Recognised ability to hold – but not exercise – rights from birth

## ▶ LEGISLATIVE REFORM - HUNGARY

Current Civil Code:

- > Continues to conflate legal and mental capacity
- > Retained plenary guardianship
- > Provisions on supports inadequate & problematic
- > No recognition of will and preferences in text
- > Standing only to challenge the guardianship order
- > Significant short-comings in practice

## ▶ LEGISLATIVE REFORM – CZECH REPUBLIC

- > 2007 – present – on-going DPO / NGO advocacy
- > 2008 – draft Civil Code rejected by Parliament
- > September 2009 - Ratification of CRPD
- > 2014 – Current Civil Code

## ▶ LEGISLATIVE REFORM – CZECH REPUBLIC

Current Civil Code:

- > Abolished plenary guardianship
- > Introduced supports in decision-making
- > Restriction of legal capacity must be the last resort

## ▶ LEGISLATIVE REFORM – CZECH REPUBLIC

Current Civil Code:

- > Provisions on supports include some substituted decision-making measures and are limited
- > Significant short-comings in practice
- > Denial of legal capacity continues in e.g. Health Care Services Act and Election Code



## ▶ LEGISLATIVE REFORM – BULGARIA

- > 1949 - Persons and Families Act
- > January 2012 - Stanev v. Bulgaria
- > March 2012 - Ratification of CRPD
- > DPO / NGO advocacy, including pilot project on supported decision-making
- > July 2014 - Constitutional Court decision
- > November 2014 – draft new law
- > March 2015 – Stankov v. Bulgaria
- > 2016 - Passed all Parliamentary Committee hearings

## ▶ ROLE OF CIVIL SOCIETY

- > National law reform advocacy
- > International advocacy – UN, Council of Europe, EU
- > Strategic litigation
- > Awareness raising
- > Mobilisation of people with disabilities
- > Capacity-building: politicians, law-makers, judges



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# Data Protection and Disability A Practitioner's Toolbox

John Horan  
Barrister

- Subject matter of the talk:
  - Who knows anything about this?
  - Blank incomprehension– experts of Data Protection vrs experts on Disability Rights
  - My expertise: Article 13, Rackham and Galo

- EU General Data Protection Regulations
- Elizabeth Denham
  - UK Information Commissioner

- “We have a digital infrastructure that was unimaginable when the current Data Protection Act was forged 20 years ago.”
- “But the real change for organisation is understanding the new rights for consumers.”

- What about disabled people?
  - Equality and non-discrimination: Article 5(1)
  - Awareness-raising: Article 8(1) a and b,(2)
  - Access to information: Article 21 a and b
  - Respect for privacy: Article 22

# GDPR

## Key concepts:

- GDPR establishes a set of rules that aim to protect individuals' personal information
- Neutral as to what form it is
- Most public and private included



- **Six Data Protection Principles:**
  - Lawful, fairness and transparency
  - Purpose limitation
  - Data minimisation
  - Accuracy
  - Storage limitation
  - Integrity

- Data Controllers and Data Processors
- Self policing – Data Controllers under a duty to notify Information Commissioner and the Data Subjects

- Data of Data Subject:
  - Transparency
  - Information and access to personal data
  - Rectification
  - Erasure
  - Restriction of processing
  - Data Portability
  - Object to processing
  - In relation to automated decision taking

- Disabled people can sue and get compensation

# Disabled People's Claim

- Just other people but:
  - Health and welfare
  - Care
  - Vulnerable in many contexts: employment, education, goods and services
  - The “complaining culture”

- Disabled cross over?
  - Article 5(2)
    - Discrimination
    - Reasonable accommodation
  - Accessibility: Article 9(1)(b)
  - Respect for Privacy

# Suing in theory and in practice

- Anger?
- Misplaced? Article 13
- Disjointing? “Ordinary Rape”
- New Rights

- Education, education, education
- The EU Forum



# Lessons for Article 13

- One case can make a whole lot of difference
- One case can raises question about discrimination in new ways
- International and European law have tools to help in domestic law cases
  - Interpretation
  - Morality and effective

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## The Web Accessibility Directive

Seminar on Disability in  
Employment and Beyond  
Academy of European Law  
17 September 2018, Trier

Peter Kemeny  
DG Connect G3: Accessibility,  
Multilingualism and Safer Internet



## Directive (EU) 2016/2102 of the European Parliament and of the Council of 26 October 2016 on the accessibility of the websites and mobile applications of public sector bodies



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## Aim of the Directive

- **to end the fragmentation** of the internal market (web accessibility) by establishing common accessibility requirements;
- **to increase digital inclusion** by ensuring that the websites and mobile applications of public sector bodies are made more accessible.

3



## Further legislation

- Rules to be laid down in **implementing acts**:
  - technical specifications for the accessibility requirements of mobile applications,
  - a model accessibility statement,
  - methodology for monitoring compliance,
  - arrangements for reporting by Member States;
- rules to be laid down in **delegated acts**:
  - updating the references to the European standard.

4



## Scope of the Directive (1)

### ▪ Public Sector Bodies

- State, regional or local authorities,
- bodies governed by public law, as defined in point (4) of Article 2(1) of Directive 2014/24/EU,
- associations formed by those above, if those associations are established for the specific purpose of meeting needs in the general interest, not having an industrial or commercial character

5



## Scope of the Directive (2)

### ▪ Excluded Public Sector Bodies

- public service broadcasters
- NGOs that do not provide
  - services essential to the public, or
  - services that specifically address the needs of, or are meant for, persons with disabilities
- opt-out: schools, kindergartens or nurseries, but not for essential online administrative functions

### ▪ Private sector encouraged

6



## Scope of the Directive (3)

### ▪ Content exclusion

- office file formats (23/09/2018, conditional)
- pre-recorded time-based media (23/09/2020)
- live time-based media (full exclusion)
- maps and mapping services (conditional)
- third-party content (with limitations)
- reproductions of heritage collections items (cond.)
- content of extranet and intranet (23/09/2019)
- content of archives (23/09/2019, conditional)

7



## Accessibility Requirements

- **Make websites and mobile applications more accessible** by making them
  - perceivable,
  - operable,
  - understandable,
  - Robust.
- Minimum requirements ("minimum harmonisation")

8



## Disproportionate burden

- justified and proportional derogation;
- based on self-assessment, taking account of relevant circumstances;
- supervised (accessibility statement, enforcement);
- accessible alternatives to be provided, where appropriate.

9



## Conformity

- **Presumption of conformity provided by standards**
  - Harmonised standards
  - European standard EN 301 549 V1.1.2 (2015-04)
  - Technical specifications for mobile applications (if necessary)
- Member States can require higher level of accessibility (minimum harmonisation)

10



## Accessibility statement

- Public sector bodies must publish an accessibility statement reporting on the **compliance** of their websites and mobile applications with the accessibility requirements.
- The statement must also provide other **information useful for the end-users**, such as accessible alternatives (where appropriate), links to feedback mechanism and to the enforcement procedure.

11



## Monitoring

- A **harmonised monitoring methodology**, providing for a description of the way of verifying, on a uniform basis in all Members States, the degree of compliance with the accessibility requirements.
- The methodology should be transparent, transferable, comparable and reproducible\*.
- Flexibility (innovation): Member States should be able to use more advanced monitoring technologies, if it does not it does not hinder the comparability across the EU.

12





## Reporting

- Member States **reporting** on the outcome of the monitoring every three years (first: 5 years after entry into force).
- The report should also cover
  - additional measures taken,
  - details on the use of the enforcement procedure.

13



## Additional measures

- **Feedback mechanism**
  - non compliance
- **"On-demand" provision**
  - content exclusions and disproportionate burden
- **Enforcement mechanism**
  - recourse to an adequate and effective procedure ensuring compliance with this Directive
- **Training, awareness raising, stakeholder consultation**

14



## Timeline



## Transposition

- Member States are responsible for the **timely and correct transposition** of directives
- Member States have to transpose the Directive into their national legislation **by 23 September 2018**
- Member States will have to **notify** the Commission on the legislation relevant for the transposition
- The Commission will carry out the **assessment** of the notified provisions



**Thank you for your attention.**



# The European Accessibility Act

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## ACCESSIBILITY EC European Disability Strategy 2010- 2020

*"The Commission proposes to **use legislative and other instruments as standardisation**, to optimise the **accessibility** of the built environment, transport and ICT [...]. Based on smarter regulations principles, **it will explore the merits of adopting regulatory measures** to ensure accessibility of products and services, including measures to step up the use of **public procurement**[...]. Following further consultations with Member States and stakeholders, the Commission will consider whether to **propose a European Accessibility Act.**"*



## Accessibility in the UN CRPD

- *Accessibility is a general principle of the UN CRPD (Art. 3)*
- *Article 9 Accessibility*

*State parties to undertake appropriate measures **to ensure equal access** for persons with disabilities to:*

- **the physical environment**
- **transportation**
- **information and communications, including information and communications technologies and systems & internet**
- **other facilities and services open or provided to the public, both in urban and in rural areas**



## Concepts

*Rights - > Non-discrimination -> **equal access!!!!***

**Accessibility**

*(following design for all)*

+

**reasonable accommodation**

*(assistive technologies  
assistance)*



## Why an European Accessibility Act? Legal obligations

- The UN Convention on the Rights of Persons with Disabilities (UNCRPD) entered into force for the EU in 2011
- Its obligations increase the risk of divergent accessibility legislations in MS
- The EAA helps to implement the obligations of article 9 on Accessibility
- Opening markets for being ready for global competitiveness

5



## Impact Assessment

- Approved in 2013
- In-depth analysis of the accessibility legislation in nine EU Member States - covering about 80% of the EU GDP and 77% of the EU population
- 5 options discarded as not effective or realistic
- 4 options retained – assessment of detailed impacts

6



## What is covered under the EAA?

- Accessibility requirements for carefully selected products and services
- Same accessibility requirements to be used in other EU law (for example Public Procurement)

7



## Products & services in the scope of the EAA

- Computers and operating systems
- ATMs, ticketing and check-in machines
- Telephones and smartphones
- TV equipment related to digital television services
- Telephony services and related equipment
- Audio-visual media services (AVMS) and related equipment
- Air, bus, rail and waterborne passenger transport services
- Banking services
- E-books
- E-commerce

8



## How does the EAA interact with other EU law?

- **Same accessibility requirements as in existing EU law:**
  - Public procurement
  - Structural and investments funds
  - Tenders for public passenger transport services
  - Transport infrastructure

9



## What does the European Accessibility Act propose?

- **Functional accessibility requirements**
- **Free movement of products and services** meeting the accessibility requirements
- **Self-declaration of conformity** (lightest option)
- **Market surveillance**
- **Defines accessibility** under already existing obligations in other EU law

10





## What the EAA does NOT do?

- **does not prescribe** to the level of technical details how to render a product or service accessible.
- **does not set obligations** for **all** manufacturers and service providers
- **does not impose burdensome requirements**
- **does not amend** existing EU sectorial legislation on accessibility

11



## What is the timeline for implementation?

- Transposition period -> Two years after entry into force
- Enter into application -> Six years after entry into force
- Implementation report -> Five years after application

12



## Accessibility related standardization work at EU level

**Mandate 376:** *Accessibility requirements for public procurement of products and services in the ICT domain*  
EN 301 549

**Mandate 420:** *Accessibility requirements for public procurement in the **Built Environment** (including **transport infrastructures**)*

**Mandate 473 to:**

- include Accessibility following Design For All in relevant standardization activities
- Develop standards addressing accessibility following Design for all in the manufacturing and service delivery processes.

*Cooperation with the US*

Justice



## What is the EAA linked with art 19 Directive?

- Complementary instruments with different objectives and different legal basis
  - ✓ **Protection from discrimination**
  - ✓ **Internal market harmonization**
- Accessibility definitions of the EAA can be used in the art. 19 Directive

14

Justice



## How is the EAA linked with the Web Accessibility Directive?

- Complementary personal scope focusing on Public sector websites
- Same functional accessibility requirements for the web
- Use of harmonized standards

15

Justice



## Useful weblinks

European Disability Strategy 2010-2020: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:0636:FIN:EN:PDF>

Initial plan to implement the Strategy: List of Actions 2010-2015: <http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52010SC1324:EN:NOT>

United Nations Convention on the Rights of Persons with Disabilities: <http://www.un.org/disabilities/>



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# Disability in Employment and beyond

Trier, 17 September 2018 – 18 September 2018

## Public Procurement

Leveraging the “power of the purse to achieve accessibility”

## Universal Design

An innovative concept beyond minimum compliance

### **Dónal Rice**

NUI Galway  
Centre for Excellence in Universal Design, NDA  
Expert, International Telecommunications Union



## Agenda

- Aim: to provide a practical overview of ICT accessibility, law, standards, regulation and public procurement from a legal scholar and legal practitioner perspective
- Content
  - Accessibility
  - Universal Design
  - Accessibility in public procurement

## What is accessibility?

- A definition of accessibility
- Focus on ICT accessibility
  - Assistive Technology
  - Accessibility features in mainstream technologies
  - Some benefits of accessibility

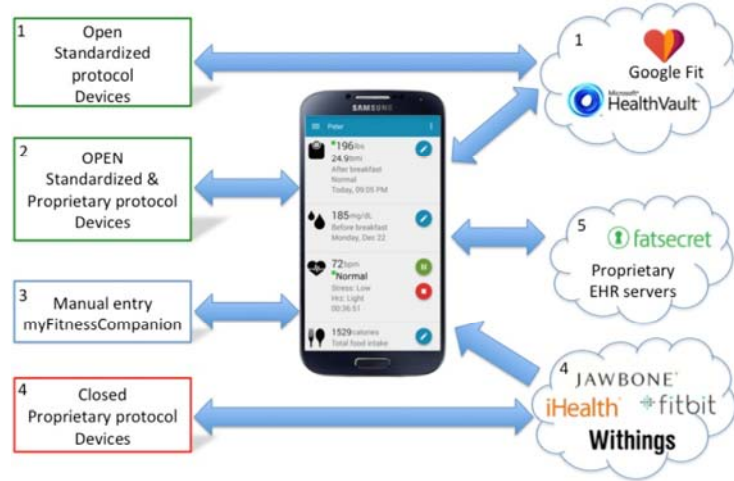


## Definition of accessibility

- Extend to which product, 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
  - EN ISO 9241-11: 2018
- Key concepts

## Key concepts

- Interoperability



## Key concepts

- User needs



## Key concepts

“Disability need not be an obstacle to success.”



Nothing about us without us



What features, functions and performance capabilities must ICT have to be accessible?

## Disability and accessibility

- We may be familiar with many of the adaptive devices and technologies that persons with disabilities use. Here are just a few:

White cane – used by blind people to navigate their environment

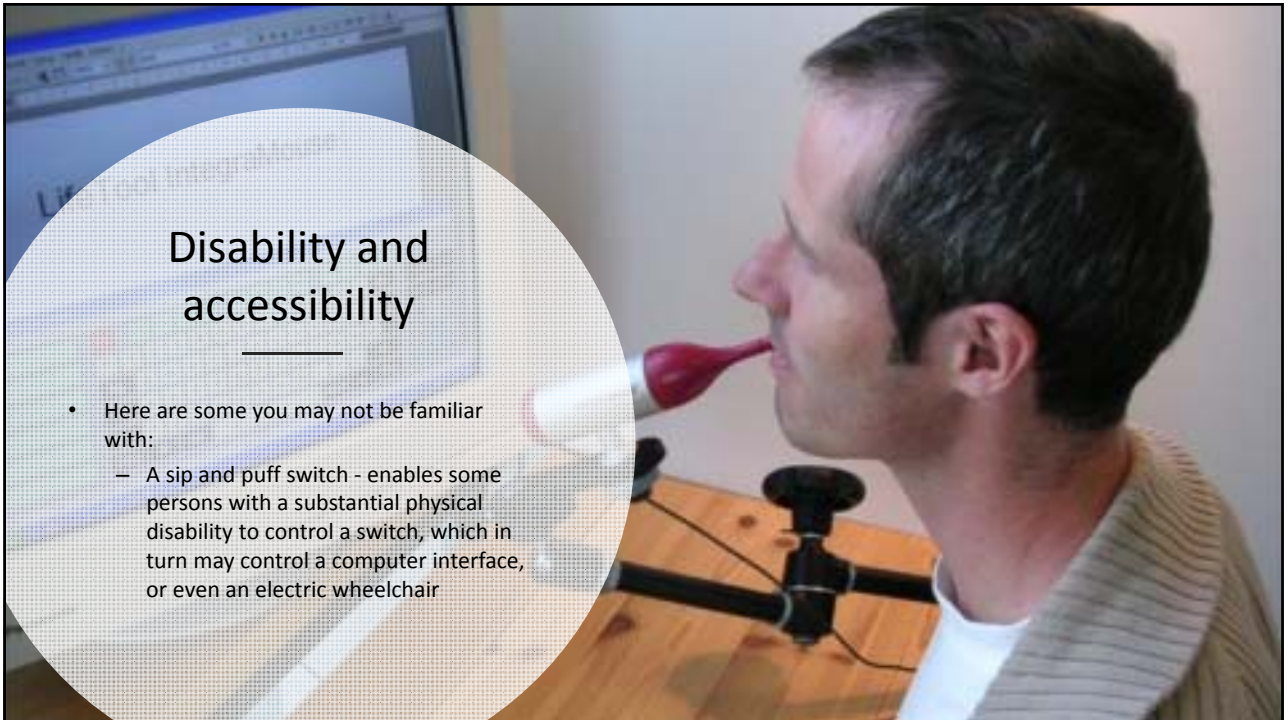
Hearing aid – use by people with hearing loss to improve their hearing

Wheelchairs – used by people with mobility difficulties to move around



## Disability and accessibility

- Here are some you may not be familiar with:
  - A sip and puff switch - enables some persons with a substantial physical disability to control a switch, which in turn may control a computer interface, or even an electric wheelchair





## Disability and accessibility

- A head wand enables some people with restricted gross motor skills to, for example, use a touch screen
- An Augmentative and Alternative Communication Device enables some people with severe speech impairment to use text, symbols or gestures to generate speech



## Assistive Technology

- Most of the above are examples of Assistive Technology.
- Categories of assistive technologies (ATs) include stand alone devices that aid mobility (e.g. wheelchairs) and communication (e.g. hearing aids). They also include hardware and software that enable access to a computer (e.g. a headwand or sip and puff switch).
- In order for persons with disabilities to be able to access and use their environments such as buildings or computer equipment, the environments themselves must be designed to be usable by persons with disabilities and to work with these Assistive Technologies.

## Disability and accessibility

- Persons with disabilities can be accommodated by features in the design of the built environment, transportation, everyday products and technology.
- Here are some examples:
  - Built environment:
    - Curb Cuts
      - Enable wheelchair users to use footpaths
    - Low counters at reception desks
      - Enable wheelchair users to speak with a receptionist in a comfortable position
    - Visual and auditory fire alarms
      - Warn people with a hearing impairment that a fire alarm has been activated



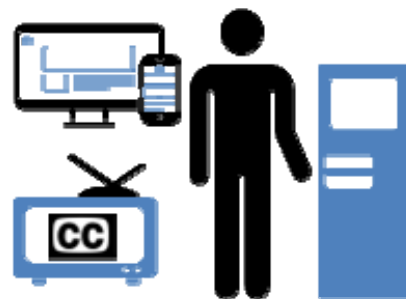
## Disability and accessibility

- Transportation
  - Low floor buses
    - Enable wheelchair users to get on and off a bus
- Products
  - Kitchen cabinets at various heights
  - Kitchen utensils with larger grips
    - Enable use people with low dexterity or conditions such as arthritis
- Technology
  - Captions on TV programming
    - Enable people with a hearing impairment to follow on screen dialogue
  - Elevated dot on the \*5 key on a mobile phone keypad
    - Enables people with a vision impairment to orient their fingers to find the correct keys on a mobile phone

Can you think of other examples of accessibility in technology or the built environment?

## Accessibility features – the benefits

- All of the accessibility features above enable persons with disabilities to do everyday things and go about their day in an independent way.
- But what about benefits for the wider population?
- Each of the accessibility features above potentially benefits a wider range of users. Consider the following...

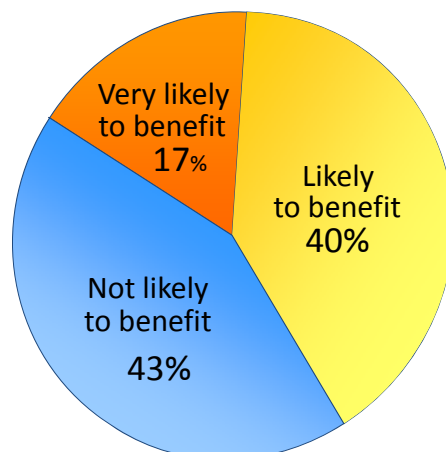


## Benefits for all

- Curb cuts
  - Parents with buggies, deliveries
- Low counters at reception desks
  - Children, people of lower stature
- Visual and auditory fire alarms
  - People listening to music
- Low floor buses
  - Parents with buggies, older people
- Kitchen cabinets at various heights
  - Children, people of lower stature
- Kitchen utensils with larger grips
  - More comfortable for everyone, especially with repeated use
- Captions on TV programming
  - People whose first language is not the language of the programming content, people in noisy environments e.g airports
- Elevated dot on the \*5 key on a mobile phone keypad
  - Everyone who uses the keypad!



## 57% of Microsoft Windows Customers Likely to Benefit from its Accessibility Features



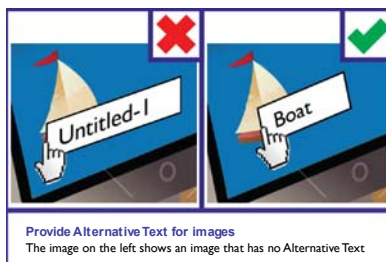
Study commissioned by Microsoft,  
Conducted by Forrester Research  
in 2003

- ❑ **57% of adult computer users (age 18-64 in the US) are likely or very likely to benefit from accessibility features**
- ❑ **1 in 4 users experiences a visual difficulty.**
- ❑ **1 in 4 experience pain in wrists or hands.**
- ❑ **1 in 5 has a hearing difficulty.**

## Accessibility features in ICTs

- Lets now consider some more accessibility features in everyday information and communication technologies such as:
  1. Websites
  2. Automated teller machines
  3. PCs and laptops
  4. Tablet computers
  5. Mobile phones
  6. Television and TV programming
  7. Software

## Web content



- An accessible website is designed and developed to accommodate people with a wide variety of accessibility requirements, using a wide variety of technologies.
- An example of key feature of an accessible website is that it uses text descriptions of any information contained in images
- This is called alternative text – and it is necessary for blind people who use a screen reader to access the webpage to understand the information contained in the image.
- Providing alternative text for images enables **usage without vision**.

## Web content

- Items that change or move on a web page can cause distractions and often annoyance for most people.
- For some people, the distraction of animation can completely prevent them from concentrating on the important information.
- Strobing, blinking, flashing and flickering can cause seizures in sensitive people (e.g. People with photosensitive epilepsy).
- Click here to view in your browser [safe, recommended frequency for flashing images](#)
- Avoiding the use of images that flash on screen **minimizes the potential for triggering photosensitive seizures.**



## PCs and laptops

- Most modern computer operating systems contain a range of settings that enable users to, for example, set the font to a comfortable viewing size, set the color contrast between the text and its background and magnify text and images on screen.
- This enables usage by people with **low vision**

## PCs and laptops



- Modern computers and laptops are also compatible with Assistive Technologies such as a sip and puff switch or head wand control the keyboard or mouse.
- This enables usage by people **with limited manipulation or strength**.



## Self-service terminals



- Self-service terminals such as Automated Teller Machines and ticket machines should be located so that they can be accessed and operated by wheelchair users or people of lower stature.
  - This enables usage by people with **limited reach**.

## Self-service terminals



- An accessible ATM should **read out the text** on the screen to a blind user, and provide a **headset jack** so that they can have privacy when listening to the information being read out.
  - This enables usage that protects people's **privacy**.

## Tablet computers

- **Predictive texting** on mobile devices helps a wider range of people including people with low literacy skills or learning difficulties to write email and text messages.
- The graphical, **icon-based displays** used on modern tablet and smart phone devices assist many people with low digital literacy skills or low cognition to use technology.
- Both of these features enable **usage with limited cognition**





## Mobile phones

- **Visual or vibrating alerts.** Mobile phones can be set to vibrate or give visual alerts to inform the user about incoming calls, emails, messages, calendar appointments, and wake up alarms, etc.
- **Adjustable volume control** Especially useful for those who are hearing impaired as well as for enhancing functionality of hearing aids.



## Mobile phones



- **Video conferencing.** This is yet another feature increasingly available on smart phones that has significantly enhanced the means of communicating for the deaf and hard of hearing.
- Face-to-face calling (video calling) is simpler to use over 3G and WiFi networks. Deaf persons can now communicate instantly and more effectively using video chat via sign language instead of relying on texting.
- This feature enables usage without **vocal capability**

## Audio visual media

- Closed captioning for online and television audio visual media content such as videos and television programmes provides a text version of what is being spoken on screen.
- This feature enables usage by people with **low or no hearing**



## Summary of accessibility features

- We have just seen examples of different types of accessibility features contained in everyday, mainstream technologies.
- There are many other examples of features that could be provided. However taken together these examples illustrate the **functional performance** of ICT that enable people to locate, identify, and operate ICT functions, and to access the information provided, regardless of their physical, cognitive or sensory abilities.

## Summary of accessibility features

- These 'user accessibility needs' can be summarised as a series of statements, called **Functional Performance Statements** as follows:
  - Usage without vision
  - Usage with limited vision
  - Usage without perception of colour
  - Usage without hearing
  - Usage with limited hearing
  - Usage without vocal capability
  - Usage with limited manipulation or strength
  - Usage with limited reach
  - Minimize photosensitive seizure triggers
  - Usage with limited cognition
  - Privacy

## Functional performance statements

- Functional performance statements are used in ICT accessibility standards to describe at a high level the capabilities the technology must have so that it can be used by persons with disabilities.
- We will learn more about accessibility standards, and their use in public procurement later in this seminar

## International legislation



### Convention on the Rights of Persons with Disabilities and Optional Protocol



## UN Convention on the Rights of Persons with Disabilities (CRPD)

- The UN CRPD was passed by the UN General Assembly on 13th December 2006 and came into force on 3rd May 2008.
- It enshrines the principle that persons with disabilities must be able to enjoy human rights and fundamental freedoms on an equal basis with others.
- It is the first international human rights treaty requiring that information and communications technologies (ICT) and systems be accessible as a necessary condition for persons with disabilities to live independently and with dignity on an equal basis with others.

## UN CRPD

- The vast majority of ITU Member States have ratified the Convention. See the [UN's CRPD website](#) for updates on signatories to and ratifications of the Convention.

Convention on  
the Rights of Persons  
with Disabilities and  
Optional Protocol



## Overarching Definitions and Principles of the Convention related to ICT

- The Preamble of the Convention recognizes
  - “the importance of accessibility to the physical, social, economic and cultural environment, to health and education and to information and communication, in enabling persons with disabilities to fully enjoy all human rights and fundamental freedoms”.
- Accessibility is identified in Article 3(f) of the Convention as one of its **eight general principles**. Access to ICT is established as a necessary condition to enabling persons with disabilities to exercise their fundamental freedoms and human rights.

## Article 9 – “Accessibility”

- The Convention recognizes the accessibility of information communication technologies (ICTs) as a human right (Article 9).
- Article 9 of the Convention puts access to ICT on a par with that of the built environment and transport.
- Article 9 of the Convention sets out general obligations for States Parties to ensure that persons with disabilities have access to information and communication technologies and systems.
  - This is to “include the identification and elimination of obstacles and barriers to accessibility, and shall apply to ... Information, communications and other services, including electronic services and emergency services”

## Article 9 – “Accessibility”

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- States Parties are also obliged to take appropriate measures to:
  - Promote other appropriate forms of assistance and support to persons with disabilities to ensure their access to information; (2.f)
  - Promote access for persons with disabilities to new information and communications technologies and systems, including the Internet (2.g)
  - Promote the design, development, production and distribution of accessible information and communications technologies and systems at an early stage, so that these technologies and systems become accessible at minimum cost.”

## Accessibility as a human right

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- Article 9 on accessibility contains many overarching obligations that relate to other Articles. For example the actualizing of the human rights protected under Article 13 on “Access to Justice”, Article 19 on “Living Independently” and Article 24 on “Education” require that persons with disabilities have equitable access to ICTs such as:
  - Electronic voting machines
  - Computers used in schools
  - Electronic educational materials such as Virtual Learning Environments (VLEs)

## Accessibility as a human right

- Articles 21, 29 and 30 expand on this and refer to media, communications and ICTs serving as platforms for furthering the rights of persons with disabilities to freedom of expression and opinion, access to information, participation in political and public life and participation in cultural life, recreation, leisure and sport. These Articles collectively call for all content, communication, information, hardware, software and interfaces to be accessible.
- They further call upon States Parties to encourage the private sector to deliver accessible products and services.

## UN CRPD and Public Procurement

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- Though not explicitly mentioned in the text of the Convention, the Article 4(d) requires State Parties to  
*“refrain from engaging in any act or practice that is inconsistent with the present Convention and to ensure that public authorities and institutions act in conformity with the present Convention”*
- This, coupled with the multi various obligations under Article 9 and other articles to ensure that persons with disabilities have equitable access to ICT product, services and information, places significant obligations on public authorities not to discriminate against persons with disabilities, be they employees or members of the public, by procuring ICTs that are not accessible.

## UN CRPD and Public Procurement

- The Committee on the Rights of Persons with Disabilities is the body of independent experts which monitors implementation of the Convention by the States Parties.
- All States parties are obliged to submit regular reports to the Committee on how the rights are being implemented. States must report initially within two years of accepting the Convention and thereafter every four years. The Committee examines each report and shall make such suggestions and general recommendations on the report as it may consider appropriate and shall forward these to the State Party concerned.
- The UN Committee on the Rights of with Disabilities has clarified the importance of public procurement.





## UN CRPD and Public Procurement

- The UN Committee on the Rights of with Disabilities has clarified the importance of public procurement.
- The Eleventh Session of the Committee on the Rights of Persons with Disabilities noted that disability laws 'often fail to include ICT in their definition of accessibility'.



## Committee on the Rights of Persons with Disabilities

- Although public procurement is not explicitly mentioned in the text of the Convention, the Committee in its General Comment N° 2 on Article 9 clarifies that State parties must ensure 'their public procurement procedures incorporate accessibility requirements.' It states:
  - *As part of their review of accessibility legislation, States parties must also consider their laws on public procurement to ensure that their public procurement procedures incorporate accessibility requirements. It is unacceptable to use public funds to create or perpetuate the inequality that inevitably results from inaccessible services and facilities. Public procurements should be used to implement affirmative action in line with the provisions of article 5, paragraph 4, of the Convention in order to ensure accessibility and de facto equality for persons with disabilities.*  
(paragraph 32)

## *Nyusti and Takács v. Hungary*

- The nexus between Article 9 on accessibility and the rights contained in other articles was considered by the Committee of the Rights of Persons with Disabilities in the case of *Nyusti and Takács v. Hungary*
- In this case two people with severe visual impairments took a complaint under the optional protocol of the Convention against the State party Hungary for failure to 'eliminate discrimination on the ground of disability by a private credit institution and to ensure that persons with visual impairments have an unimpeded access to the services provided by ATMs on an equal basis with other clients'.



## *Nyusti and Takács v. Hungary*

- The Committee found that the measures taken by the State party to ensure the accessibility of the ATMs provided by the bank was a violation of Articles 5 and 9.
- The Committee recommended inter alia, the State party put in place 'minimum standards for the accessibility of banking services provided by private financial institutions for persons with visual and other types of impairments' and to 'ensure that all newly procured ATMs and other banking services are fully accessible for persons with disabilities'. (paragraph 10.1(a)).

# Europe

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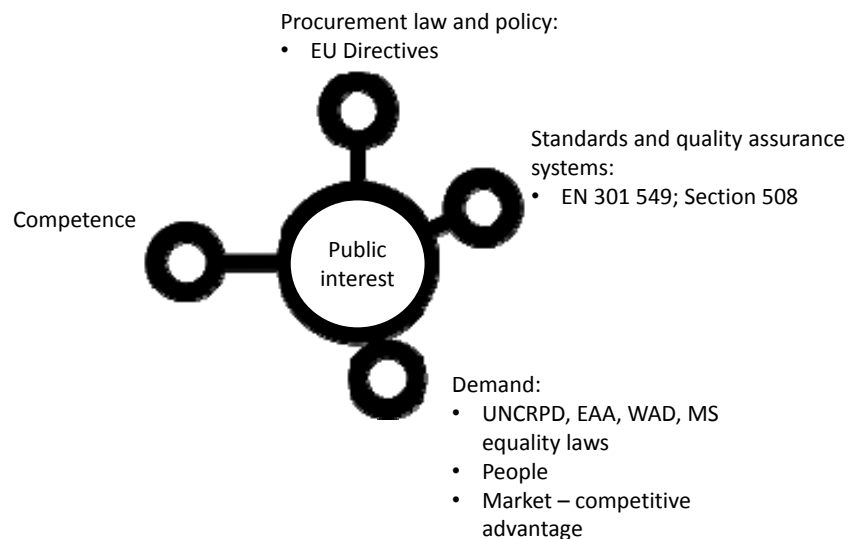
## EU legislation

- Treaties - Treaty on the Functioning of the European Union (TFEU)
- Directives
  - Audio Media Visual Services Directive
    - Equivalence of access and choice – telecoms and broadcasting
  - Public Procurement Directives
  - Web Accessibility Directive
  - European Accessibility Act

## Non-legislative elements

- Research and Innovation – FP7, Horizon 2020
- Standards – ETSI, CEN, CENELEC
  - Mandate 376, 472, 420
  - EN 301 549

## An accessible ICT procurement ecosystem



# Public Procurement

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## Importance of public procurement

- The World Trade Organization estimates that on average public procurement accounts for 10-15% of a country's Gross Domestic Product (GDP)
- In the European Union the figure is as high as 16-17% of GDP.
- Public procurement is one of the most flexible and far-reaching legislative instruments available to the Government  
(Gelderman, 2010)



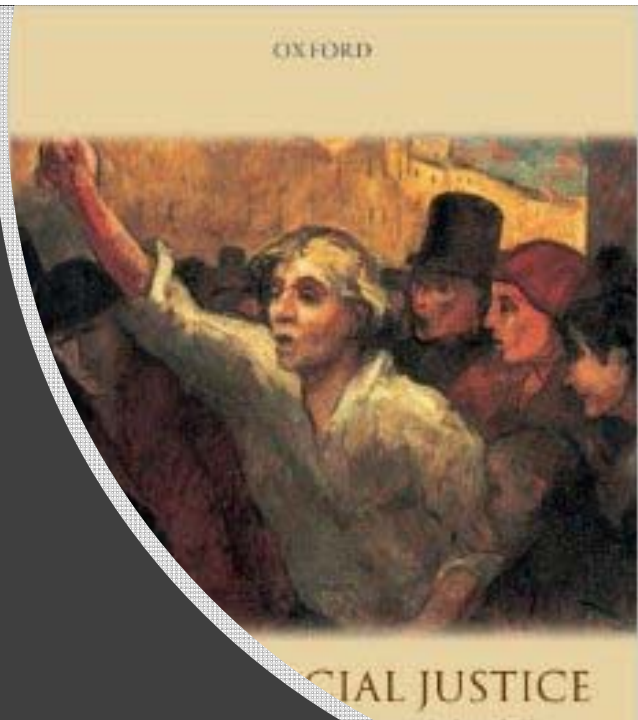
## Public procurement as a means to achieving social gains



- "Socially responsible public procurement (SRPP)" has become a driving factor in the reform of public procurement policies and regulations globally. According to the European Commission, socially responsible public procurement means
  - *procurement operations that take into account one or more of the following social considerations: employment opportunities, decent work, compliance with social and labour rights, social inclusion (including persons with disabilities), equal opportunities, accessibility..., taking account of sustainability criteria, including ethical trade issues and wider voluntary compliance with corporate social responsibility (CSR)"*
- European Commission, Buying social, Brussels, 19.10.2010, SEC [2010] 1258 final, p. 5

## Buying social justice

- In fact, governments have been using the 'power of the purse' for hundreds of years.
- Legal scholars such as Christopher McCrudden have shown that governments are actively involved in the redistribution of wealth through activities such as taxation schemes, the giving of grant aid to developing regions or the giving of grants to private parties to support activities considered to be in the public good.



## Examples of of Public Procurement to achieve social goals

- Many countries use public monies to influence how energy markets produce electricity in order to boost research into and development of renewable energy technologies.
- Similarly some countries specify the use of labels such as “Fairtrade” when procuring goods such as coffee.
- While the basic tenet remains that ‘quality criteria’ must be linked to the subject matter of the contract, many countries and regions now allow the use of environmental and social considerations as criteria in the public procurement of goods and services



### Public procurement

- Governments fund and buy a huge array of ICT goods and services.
- Many countries have developed accessible ICT procurement policies and systems. These policies require that public authorities should procure ICTs that contain accessibility features.

## Public procurement

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- One of the most important aspects of a procurement exercise is using clear, unambiguous descriptions of what the required product or service must be able to do. These mandatory requirements are best specified in terms that are unambiguous and have the same meaning to both the buyer and the supplier.
- For ICT, mandatory requirements are often best expressed in terms of standards. We will consider shortly how standards are developed, and the main international standards for accessible ICT.

## What is public procurement?

- "Procure" means to "obtain, especially by care or effort".
- Public procurement is the process whereby public monies are used to acquire goods, services and works from third parties.
- Public procurement ranges from routine items (e.g. stationery, temporary office staff, furniture or printers), to complex spend areas (e.g. construction, aircraft carriers or support to major change initiatives).
- The World Trade Organization estimates that on average public procurement accounts for 10-15% of a country's Gross Domestic Product (GDP)
- In the European Union the figure is as high as 16-17% of GDP.



## Why public procurement is important

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- Effective public procurement is essential for good public services and good government.
- In all countries public bodies are required to apply the highest professional standards when they spend this money on behalf of taxpayers, to ensure they get a good deal and to provide appropriate and necessary goods and services to the quality required to meet user needs.

## Why public procurement is important

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- Accessibility is an example of a key social consideration that is beginning to receive prominent treatment in public procurement policy and regulation in some regions around the world.

## Public procurement policy and legislation in the USA



## Public procurement policy and legislation in the USA – the impact

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The use by Federal bodies of Section 508 guidelines when procuring ICT products and services has had a significant influence on the availability on the market place for ICTs.

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Large ICT manufacturers such as IBM, Adobe and Microsoft include accessibility in their mainstream software and products that are compliant with Section 508 guidelines. These products, such as Adobe Acrobat and Microsoft Office are available on the market globally.

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The experience from the United States demonstrates that clearly defined and commonly accepted accessibility standards, that are backed up by policy and legislation that requires their use in public procurement, can greatly influence how manufacturers design and develop their ICT goods and services.

## Approach in Europe

- The Public Procurement Directives were updated in 2014 and was transposed by all EU Member States by early 2016.
  - *Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on Public Procurement and Repealing Directive 2004/18/EC*
- The new Directives contain a significantly stronger focus on the use of public procurement to achieve social gains. Accessibility is arguably the strongest social considerations within the text of the new Directive.
- Accessibility features in ICT benefit more than persons with disabilities. Therefore public procurers may justify the inclusion of accessibility requirements on the grounds that it improves the quality of a product or service.

## European Public Procurement Directive - summary

- The new Public Procurement Directive allows for social considerations to be considered as part of the contract performance.
- This means that a public authority may require certain conditions to be fulfilled in *how* the product or service to be procured is designed, developed or produced.

## European Public Procurement Directive - summary

- Article 42 of the new Public Procurement Directive on Technical Specifications significantly strengthens the obligations of public bodies, except in 'duly justified cases' to 'take into account accessibility criteria for persons with disabilities or design for all users.'
- This is perhaps the most significant development in the new Public Procurement Directive as it requires all public bodies to include accessibility as a mandatory requirement in the public procurement of *all* goods and services for use by people, be they members of the public or employees of the government.

## European Public Procurement Directive - summary

- Article 42 of the new Public Procurement Directive requires all public bodies in EU Member States to include accessibility as a **mandatory requirement** in the public procurement of goods and services for use by people, be they members of the public or employees of the government.
- To support Member States to procure accessible ICTs, the European Commission requested the European Standards Organisation to develop a standards that is suitable for use in the public procurement of ICTs. In 2014 the ESO finalised and published the standard EN 301 549.

## Public procurement

- Other countries continue to adopt the approach of passing laws or creating policy that requires public bodies to include accessibility as a mandatory requirement in the procurement of ICT goods or services to be used by employees or the public. In 2016 the Australian government adopted EN 301 549 for use by public bodies in Australia.

## Public procurement

- For other examples of good practice in public procurement policy in Europe, Canada, Japan and elsewhere, see:
- **“Accessible Communications: Tapping the potential in public ICT procurement policy”** (Gunella, A., Tibben, Wi., 2012) provides in-depth analysis of accessibility of different public procurement regimes around the world including the United States of America, Japan, European Union, Canada, Ireland and the United Kingdom



Accessible Communications  
Tapping the potential in public ICT procurement policy



# Universal Design



## What is Universal Design?

- Universal Design is the design and composition of an environment so that it can be accessed, understood and used to the greatest extent possible by all people regardless of their age, size, ability or disability

- Universal Design is not a euphemism for accessibility, as access features such as ramps & lifts are 'potent symbols of separateness' (Welch 1995)



Universal Design

- Universal Design is not a euphemism for accessibility, as access features such as ramps & lifts are 'potent symbols of separateness' (Welch 1995)







## A Paradigm Shift

- **Accessibility:**
  - Provides basic access and usability of facilities, products and services for people with disabilities
- **Universal design:**
  - Enables independence and social participation **for all** through continual improvement.
- (World Disability Report 2011)



## Universal Design defined in Irish Legislation

- Universal Design is the design and composition of an environment so that it can be accessed, understood and used to the greatest extent possible by all people regardless of their age, size, ability or disability.
- (Synopsis from the Irish Disability Act 2005)

# Disability



# Age



# Size

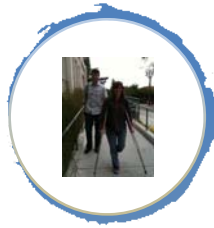


# Ability



# Universal Design Assumes

Every person experiences barriers, reduced functioning, some form of disability – temporary or permanent – at some stage in life



Ireland's National Disability Strategy launched in September 2004

Disability Act 2005

Formation of;  
**Centre for Excellence in Universal Design (CEUD)** January 2007



**Built environment  
Products & Services  
ICT**

# 3

# 7

The 7 Principles of Universal Design were developed in 1997 by a working group of architects, product designers, engineers and environmental design researchers, led by the late Ronald Mace (Internationally recognized Architect & design pioneer) in North Carolina State University

## Overview

- Legislative and policy framework
- What we do
- How we do it
  - Standard
  - Education
  - Awareness

## Centre For Excellence in Universal Design (CEUD)

**Standards**

**Education and  
Professional  
Development**

**Awareness**

<http://universaldesign.ie>



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# Disability in Employment and beyond

- ICT Accessibility Standards Case Study

Trier, 17 September 2018 – 18 September 2018

## **Dónal Rice**

NUI Galway

Centre for Excellence in Universal Design, NDA

Expert, International Telecommunications Union



# Introduction to standards



- Standards are documents that specify how something (a product, service or process) shall be made, what materials can and cannot be used to make them, and how a product shall be tested or evaluated.
- Standards are developed through a consensus process by stakeholders such as industry, government, consumer groups. This process is managed by standards bodies that operate at a national, regional and international level.



# Introduction to standards



- We all use standards, or a least product or services that have designed based on standards, everyday.
- For example: the design, shape, color and location of road signs is governed by standards. It is critically important that people all over the world have agreed on and recognize the shape and meaning of a “Stop” sign, no matter what language it is written in!



# The aim of standardization

- The aim of standardization is to facilitate the exchange of goods and services through the elimination of technical barriers to trade and to provide benefits to consumers, users, manufacturers and distributors.
- For consumers and users standards protect the health & safety of product users and facilitate interoperability of products.
- For manufacturers and distributors standards support free trade by opening markets to manufacturers and distributors.

# The aim of standardization

- The ITU is an international standards body. Another international standards bodies is the ISO.
- Examples of regional standards bodies are the European Standards Organisations. The ESOs are:
  - CEN (European Committee for Standardisation)
  - CENELEC (European Committee for Electrotechnical Standardisation)
  - ETSI (European Telecommunications Standards Institute)



# ICT accessibility standards



- The main accessible ICT standard to be considered is the European standard EN 301 549 “*Accessibility requirements suitable for public procurement of ICT products and services in Europe*”.
- This standard is very similar in structure and content to America standard Section 508 “*Information and Communication Technology (ICT) Standards and Guidelines*”. Section 508 will be considered in less detail.

# Section 508 guidelines from the USA

- Section 508 of the Rehabilitation Act 1973 requires American federal and federally funded agencies to ensure persons with disabilities can assess and use information and services provided through ICT.
- It has direct applicability to US Federal departments for the technologies they procure and use. Beyond the Federal government, many US State, city and local governments have also adopted the provisions of Section 508.
- Section 508 is a set of accessibility guidelines for ICT that is *developed by or purchased by* Federal Agencies to be accessible by people with disabilities.



EN 301 549 V2.1.2 (2018-08)



Accessibility requirements for ICT products and services



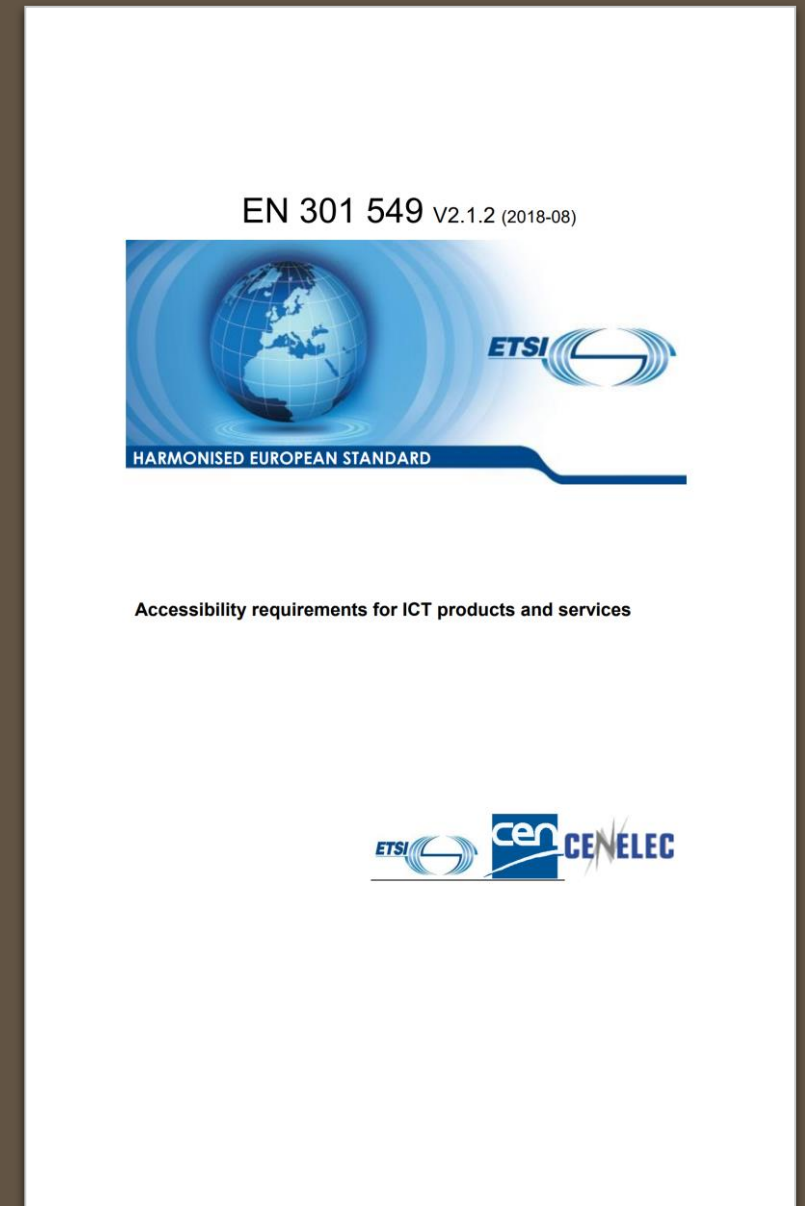
# ICT accessibility standards

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- Both the EN 301 549 and Section 508 standards have a similar structure, although some elements are named differently. Most importantly, both of these standards are “harmonised”. This means that an ICT product or service conforming with one standard, will also conform with the other.
- As covered earlier, this is important for the ICT industry. It means developers and suppliers do not need to produce different ICT solutions that conform with two different standards.

# ICT accessibility standards

- The European standard EN 301 549 was originally developed to assist with the public procurement of ICT products and services in Europe (Mandate 376)
- EN 301 549 is structured into chapters, called “Clauses” as follows:
  - Clause 1 - Scope
  - Clause 2 - References
  - Clause 3 - Definitions
  - Clause 4 - Functional performance statements (FPS)
  - Clause 5 – 13 “Generic Requirements” Technical accessibility requirements (TAR)
    - Annex A - WCAG 2.0
    - Annex B – Relationship between FPSs and TARs
    - Annex C – Tests
- Note: It is available from the ETSI website at [http://www.etsi.org/deliver/etsi\\_en/301500\\_301599/301549/01.01.02\\_60/en\\_301549v010102p.pdf](http://www.etsi.org/deliver/etsi_en/301500_301599/301549/01.01.02_60/en_301549v010102p.pdf)



# EN 301 549 – closer view

- Clause 4 contains a list of 11 high-level “Functional Performance Statements”.
- Clauses 5-13 contains detailed “Technical Accessibility Requirements” (TAR)
- Annex B contains a mapping between each of the details TARs and the higher level Functional Performance Statements
- Annex C contains test for each of the TARs in Clauses 5 to 13 designed to give conclusive results.
- Recall from earlier the accessibility features of mainstream ICTs, that the “Functional Performance Statements” describe the set of user needs that an ICT product or service must meet in order to be accessible for persons with disabilities. Here they are again:

EN 301 549 V2.1.2 (2018-08)



Accessibility requirements for ICT products and services





# Functional Performance Statements



- Usage without vision
- Usage with limited vision
- Usage without perception of colour
- Usage without hearing
- Usage with limited hearing
- Usage without vocal capability
- Usage with limited manipulation or strength
- Usage with limited reach
- Minimize photosensitive seizure triggers
- Usage with limited cognition
- Privacy

# Functional Performance Statements



- For example, the first Functional Performance Statement, Clause 4.2.1 states:

***“Usage without vision***

*Where ICT provides visual modes of operation, some users need ICT to provide at least one mode of operation that does not require vision.”*

# Technical Accessibility Requirements



- In contrast to the Functional Performance Statements, the Technical Accessibility Requirements contained in Clauses 5 to 13 are very detailed. Clauses 5 to 13 cover the following aspects and types of ICTs:

5. Generic requirements
6. ICT with two way voice communication
7. ICT with video capabilities
8. Hardware
9. Web
10. Non-web documents
11. Software
12. Documentation and support services
13. ICT providing relay or emergency service access

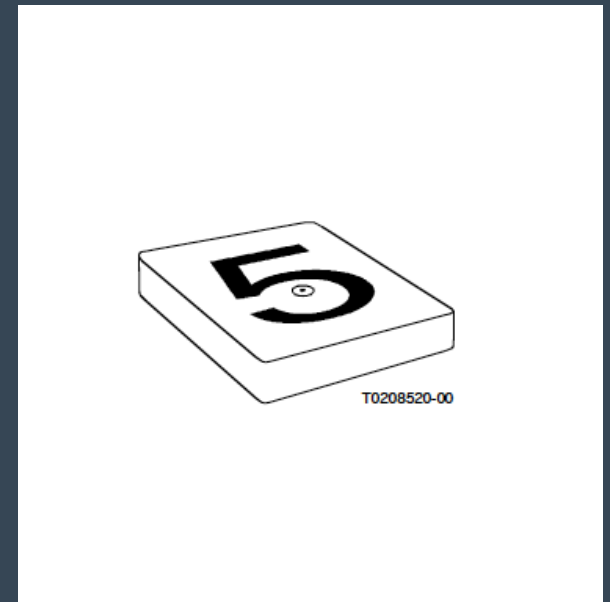
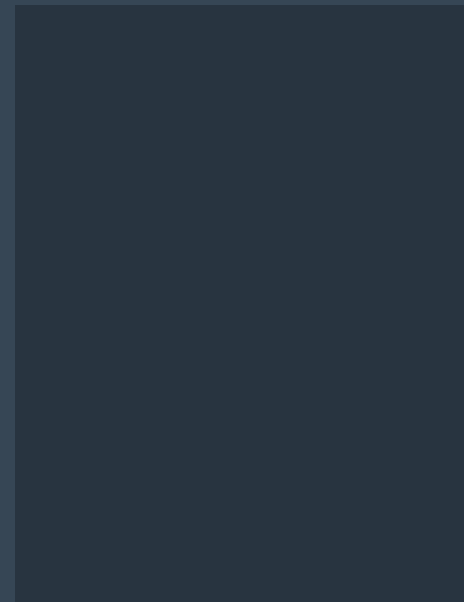
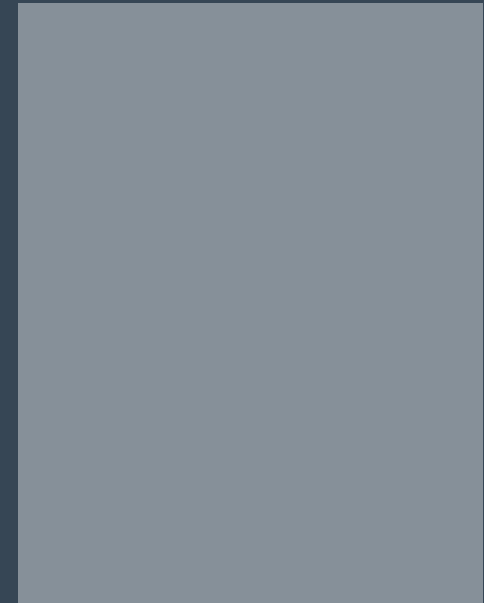
# Example of a Technical Accessibility Requirement

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- The first sub-clause of Clause 8.4 states:

## ***8.4.1 Numeric keys***

*Where provided, physical numeric keys arranged in a rectangular keypad layout shall have the number five key tactilely distinct from the other keys of the keypad.*





## Annex B – linking the Requirements and the Functional Performance Statements

- Each of the 11 Functional Performance Statement has a corresponding set of Technical Accessibility Requirements that describe in detail the features and functions an ICT product or service must have.
- A series of tables in Annex B of EN 301 549 'map' each of the Technical Accessibility Requirements (Clauses 5-13) to the high-level Functional Performance Statements contained in Clause 4.2.



## Annex C – the tests

- Annex C contains the detailed tests for each Technical Accessibility Requirement that must be passed in order for it to be deemed to be met.
- It is not envisaged that procurers would actually conduct these tests.
- Instead manufacturers and suppliers are requested to provide a statement that their products/services conform to the standards.

# Summary of relationship between the FPSs and the TARs

The Functional Performance Statements are an extremely succinct and reasonably understandable way to describe the user needs that a piece of technology must have in order to be used by persons with disabilities.



While they allow a procuring authority to describe accessibility at a high level, these Functional Performance Statements are not in themselves testable in any way that would give objective, conclusive and repeatable results.



Clauses 5 to 13 of the standard contain detailed and specific lists of “Technical Accessibility Requirements”, which provide a means for suppliers to claim conformance with the Functional Performance Statements. ICT products and services meeting the applicable requirements of Clauses 5 to 13 can be deemed to meet a level of accessibility consistent with the user accessibility needs identified in the Functional Performance Statements.



# Using EN 301 549 in a procurement exercise



# Introduction to writing a “Call for Tender”

- It is important for procuring authorities to precisely define what they mean by accessibility in the Call for Tender. Experience has shown that not doing so results in confusion between suppliers and procurers and poor levels of accessibility in the ICT deliverables.

# Technical Specifications

Most "Call for Tender" documents contain a section on "Technical Specifications".

Technical Specifications are the mandatory requirements that any proposed solution **must have**. Therefore, all responses to the "Call for Tender" must at a minimum meet whatever is set out in the Technical Specifications section of the "Call for Tender".

# Defining and using Technical Specifications

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Using accessibility requirements as part of the Technical Specification is an extremely powerful way to ensure that suppliers consider, demonstrate and provide accessibility in their solutions.

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It is now a legal requirement in many regions that accessibility be included within the Technical Specification of a public procurement.

# Defining and using Technical Specifications

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Accessibility requirements should always refer to relevant standards such as EN 301 549 or Section 508.

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A procuring authority that ‘invents’ its own accessibility requirement in their “Call for Tender” runs the risk of receiving fewer responses or having responses with a higher price.

# Defining accessibility in the Technical Specification

- Recall that EN 301 549 contains:
  - a list of high-level **Functional Performance Statements** that describe the needs of the widest range of users when using ICT products, services or documentation,
  - a comprehensive set of testable **Technical Accessibility Requirements**, which related to the Functional Performance Statements.
- The high-level Functional Performance Statements and the detailed Technical Accessibility Requirements may be referenced in two different ways in a “Call for Tender”, depending to the type of ICT being procured.



# Accessible ICT Procurement Toolkit

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This Toolkit was produced to help public procurement officials get started in using and implementing the European Standard.

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This Toolkit provides templates, samples, guidance, and other resources. The Toolkit was developed jointly by the agencies that produced the European Standard, namely the European Committee for Standardization (CEN), the European Committee for Electrotechnical Standardization (CENELEC), and the European Telecommunications Standards Institute (ETSI).

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The toolkit's resources are divided up into the main stages of procurement: writing a call for tenders, evaluating tenders, evaluating deliverables, and managing contracts.

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For each stage, the toolkit provides information about how accessibility fits in to the process, and how the European Standard can and should be referenced.

## Managing accessibility in the public procurement of ICT

Follow the [stages of procurement](#):



Use the [Accessibility Requirements Generator](#) to define accessibility requirements for:

1. Examples of commonly procured Information and Communication Technologies (ICTs):

Cloud computing

Next

2. [Other ICT products or services.](#)

### Accessibility Requirements

Read the standard EN 301 549 "Accessibility requirements suitable for public procurement of ICT products and services in Europe":

- Download the [full standard in PDF](#) and its [WCAG2 attachment](#).
- Browse the entire [EN online](#).

OR jump to:

### Overviews

Apart from procurers, the toolkit can be useful for...

- [Suppliers](#)
- [Accessibility experts](#)
- [Policy makers](#)
- [Accessibility advocates](#)

### Accessible procurement

#### [Accessibility in ICT](#)

- [What is ICT accessibility?](#)
- [Who benefits from ICT accessibility?](#)
- [Motivators, social, legal, economical](#)

#### [Planning for procurement](#)

<http://mandate376.standards.eu/>

Practical exercise – using the  
standard in a procurement

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# Simple procurements

- The first type of ICTs to consider are products such as desktop and portable computers, tablet computers and self-service terminals.
- These are called “commercial off the shelf” products, or COTS. They are products that can, as the name suggests, be bought off the shelf, and usually require a minimum of set-up and customization.
- When procuring COTS, it is possible to precisely specify in the Call for Tender the precise sub-set of Technical Accessibility Requirements that the ICT product must meet.

## Complex procurements

- The second type of ICTs to consider are “bespoke” ICT solutions that address a specific business need of the organisation. A typical example could be a Customer Relationship Management System (CRM). There are many types of CRM solutions available, and these use different types of technology e.g. installed software versus a cloud based solution.
- Other example of these type of complex IT systems could be:
  - a document management system,
  - a printing service that incorporates elements of hardware, software integration and customer service, and
  - security facilities such as automated passport control systems at airports.

## Defining accessibility for complex procurements

- How to specify accessibility in the Technical Specifications for a “Call for Tender” for an ICT solution such as a Customer Relationship Management System (CRM).
- In this situation, if a procuring authority conducts market research as part of the preparatory stage of the procurement exercise, it may identify that different potential suppliers may respond with CRM solutions.

How can the standard be used differently for both?

- Group A: Develop the Technical Specifications for a call for Tender for 1000 PCs for use in a school
- Group B: Develop the Technical Specifications for a Call for Tender for a Customer Relationship Management system for the office of the Prime Minister
- Task 1: Identify how you would go about using EN 301 549 for your procurement
- Task 2: Find text to cut and paste into your Call for Tender using the Toolkit

## Defining accessibility in simple procurements

- For commonly procured COTs like PCs, the procuring authority should use the relevant Technical Accessibility Requirements from a standard such as EN 301 549 to precisely specify the accessibility features and functions required in the PCs.
- However it is a difficult task to pick and choose all the relevant Technical Accessibility Requirements as listed in standards such as EN 301 549

## Defining accessibility in simple procurements

- Fortunately, the Accessible ICT Procurement Toolkit for EN 301 549 contains a facility to download a pre-packaged set of the Technical Accessibility Requirements for many times of commonly procured ICTs.
- Lets look now at how to do this for the standard EN 301 549 using the "Accessible ICT Procurement Toolkit"

# Defining accessibility in simple procurements for COTS

- Open the “Accessible ICT Procurement Toolkit” is a separate tab of your browser, and follow along with the steps outlined next.
- The homepage of the “Accessible ICT Procurement Toolkit” contains a feature called the “Accessibility Requirements Generator”.
- It contains a drop-down list of commonly procured ICTs including one for “Desktop and portable computers”.
- Choose “Desktop and portable computers” and click on the “Next” button.

Use the [Accessibility Requirements Generator](#) to define accessibility requirements for:

1. Examples of commonly procured Information and Communication Technologies (ICTs):  
 [Next](#)
2. [Other ICT products or services.](#)

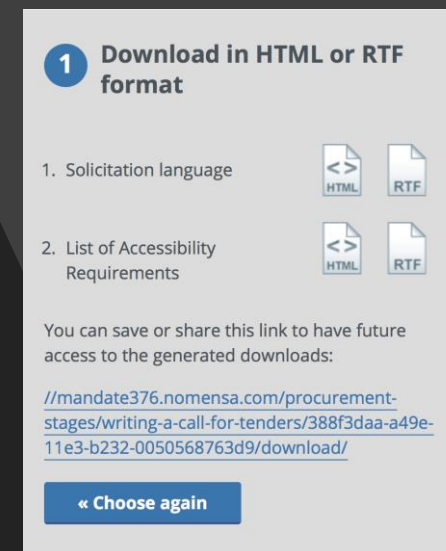


# Downloading the “Solicitation language”

- The “Accessible ICT Procurement Toolkit” provides two downloads specifically related to the accessibility of PCs. These are:
  1. Solicitation language
  2. List of Accessibility Requirements
- The download “Solicitation Language” contains, among other things, a list of every relevant clause and sub clause from Clause 5 to 13 from EN 301 549 related to PCs.

This is in the following format and it suitable to be cut and pasted into the Technical Specification section of a “Call for Tender”:

”The offered solution shall meet Clauses:  
5.2, 5.3, 5.4, 5.5.1, 5.5.2, 6.2.1.1, 6.2.1.2, 6.2.2.1, .....  
from EN 301 549”





# Sample solicitation language for use in the Call for Tender

- As you can see, the Toolkit provides a simple way to choose and cut and paste the necessary Technical Accessibility Requirements in a Call for Tender for commercial off-the-shelf products such as PCs
- The “Accessible ICT Procurement Toolkit” provides similar solicitation language for other commonly procured ICTs such as:
  - Cloud computing
  - Desktop and portable computers
  - e-Book reading devices
  - ICT for a library
  - ICT training services
  - Self-service terminals
  - Smartphones
  - Software development and maintenance services
  - Web-based internet and intranet system
  - Web sites and applications



## Defining accessibility for complex procurements

- Each of the different types of CRM solutions may have types of accessibility requirements. For example, in cloud based services it is necessary that the interface conforms with accessibility guidelines for the web: for installed software it is necessary that the interface conforms with software accessibility guidelines.
- Therefore it is not practical for the procuring authority to neatly package and specify in the “Call for Tender” all possible accessibility requirements from the standards EN 301 549 or Section 508 that may need to be met by all possible solutions offered by suppliers.

# Using the Functional Performance Statements

- For complex procurements, it is more practical to use the Functional Performance Statements as a way to specify accessibility in the Technical Specification.
- This allows potential suppliers to identify and list in their tender all the Technical Accessibility Requirements relevant to their proposed solution. and declare that their solution meets.
- The procuring authority can achieve this by:
  - specifying under the Technical Specification portion of the Call for Tender that all proposed solutions must meet the Functional Performance Statements (e.g. Clause 4 from EN 301 549)
  - Requiring that all potential suppliers to declare, or otherwise prove, that their particular solution meets all the Technical Accessibility Requirements (e.g. from Clause 5-13 from EN 301 549) relevant for their solution.
- This approach allows the procuring authority to still specify accessibility in the call for Tenders, but leaves it to potential suppliers to specify which accessibility clauses relate to their specific solution.

# Using the Functional Performance Statements

- Consider now an example of Solicitation Language that could be used by the procuring authority in a “Call for Tender” for a CRM system.
- Open the “Accessible ICT Procurement Toolkit” in your browser, and follow along.

Use the [Accessibility Requirements Generator](#) to define accessibility requirements for:

1. Examples of commonly procured Information and Communication Technologies (ICTs):

Cloud computing

Next

2. [Other ICT products or services.](#)

- Go to the “Accessible ICT Procurement Toolkit”:  
<http://mandate376.standards.eu>
- 2. Under the “Accessibility Requirements Generator” choose the link “Other ICT products or services”:

### 3. Follow the link "[selecting Functional Performance Statements](#)"

#### Accessibility Requirements Generator

For a custom set of requirements you can select the applicable ones below. Simply name your set and tick the boxes.

You can also choose the requirements by [selecting Functional Performance Statements](#).

- 1 Name the product or service you wish to procure
- 2 Browse and choose the relevant accessibility requirements
- 3 Download the customised "List of Accessibility Requirements" and "Solicitation Language"
- 4 Using the "List of Accessibility Requirements"



**Accessible ICT Procurement Toolkit**

4. In the text box called “Provide a name for the product or service being procured” enter “Customer Relationship Management”, or some other descriptive title.

5. At the bottom of the page click on the “Next” button.

**1** Provide a name for the product or service being procured

Customer Relationship Management

*This will be used to save your set of requirements.*



**Accessible ICT Procurement Toolkit**

- Click on either of the links to the “**Solicitation Language**” documents provided:

**1** Download in HTML or RTF format

1. Solicitation language



**Accessible ICT Procurement Toolkit**



# Sample solicitation language for use in the Call for Tender

- This provides text that can be cut and pasted into Technical Specifications section of the “Toolkit.”

- This text looks like:

**“Text for Solicitation Language -  
Functional Performance Statements**

The offered solution shall meet Clauses 4.2.1, 4.2.2, 4.2.3, 4.2.4, 4.2.5, 4.2.6, 4.2.7, 4.2.8, 4.2.9, 4.2.10, 4.2.11 from EN 301 549.”



**Accessible ICT Procurement Toolkit**



# New course on Accessible ICTs, Digital Inclusion, and Public Procurement



# Aims to provide learners with:



- The accessibility features of mainstream ICTs so that they can be used by a wide range of people, including persons with disabilities;
- How accessible ICTs can enable the Digital Inclusion of persons with disabilities, and others;
- The global framework, laws and policies for ICT accessibility;
- Global developments on standards for accessible ICTs;
- The process of including accessibility as a criterion in the public procurement of ICTs.

# Description of the course

- The course comprises of three, two hour self-paced e-learning modules
  - “Enabling communication for all through ICT Accessibility”
  - “ICT accessibility policy, regulation and standards”
  - “Introduction to public procurement of accessible ICT”



## CONVENTION on the RIGHTS of PERSONS with DISABILITIES





## Course features:

- All three courses:
  - Are developed using state-of-the-art self-paced learning software and web technologies
  - are developed in HTML 5 to be fully accessible to persons with disabilities
  - quizzes assist learners to check their knowledge

Join the  
learning!

<b>Module 1</b>	<b>Available</b>
1. “Enabling communication for all through ICT Accessibility”	Beginning August 2018
2. “ICT accessibility policy, regulation and standards”	Mid-September
3. “Introduction to public procurement of accessible ICT”	Mid-September

Register now at: <http://academy.itu.int>

# Functional Accessibility Requirements for Customer Relationship Management system

Advisory notes - not to be included in a Call for Tenders.

1. The procuring authority should check that the Functionality Accessibility Requirements listed below relate to the functionality required for its specific procurement. Use the "Accessibility Requirements Generator" to change this list.
2. The list of requirements is suitable for use as Technical Specifications and/or Award Criteria.
  - 2.1. The Column "Clauses met:" should only be used/included for Award Criteria.
  - 2.2. Where the Functional Accessibility Requirements are used for the Technical Specification, it is presumed that all requirements are met, and therefore this column is not necessary.

Scope:

Explanation of the table columns:

- **"EN 301 549 Clauses"** includes all Clauses of EN 301 549 "Accessibility requirements suitable for public procurement of ICT products and services in Europe" that may apply to the ICT product or service.
- **"Notes"** is for brief notes by the procuring authority about the Clauses of EN 301 549 or additional requirements that may wish to add.
- **"Clauses met:"** should be included ONLY where the procurer wishes to use Functional Accessibility Requirements as Award Criteria; the criteria should be based on the number of listed requirements which are fully met. It is to be filled in by the supplier.
- **"Not Applicable"** may be used by the supplier to note if this Functional Accessibility Requirement does not apply to (as opposed to is not met by) the offered solution.
- **"Explanations"** is where the supplier can note explanations for any of the preceding columns.

## Part A - Functional Performance Statements

These are the core aspects that the offered product / service must meet, either by meeting the relevant Functional Accessibility Requirements listed below, or outlining how the product / service would fulfil these Statements.

**Usage without vision:** Where ICT provides visual modes of operation, some users need ICT to provide at least one mode of operation that does not require vision.

**Usage with limited vision:** Where ICT provides visual modes of operation, some users will need the ICT to provide features that enable users to make better use of their limited vision.

**Usage without perception of colour:** Where ICT provides visual modes of operation, some users will need the ICT to provide a visual mode of operation that does not require user perception of

colour.

**Usage without hearing:** Where ICT provides auditory modes of operation, some users need ICT to provide at least one mode of operation that does not require hearing.

**Usage with limited hearing:** Where ICT provides auditory modes of operation, some users will need the ICT to provide enhanced audio features.

**Usage without vocal capability:** Where ICT requires vocal input from users, some users will need the ICT to provide at least one mode of operation that does not require them to generate vocal output.

**Usage with limited manipulation or strength:** Where ICT requires manual actions, some users will need the ICT to provide features that enable users to make use of the ICT through alternative actions not requiring manipulation or hand strength.

**Usage with limited reach:** Where ICT products are free-standing or installed, the operational elements will need to be within reach of all users.

**Minimize photosensitive seizure triggers:** Where ICT provides visual modes of operation, some users need ICT to provide at least one mode of operation that minimizes the potential for triggering photosensitive seizures.

**Usage with limited cognition:** Some users will need the ICT to provide features that make it simpler and easier to use.

**Privacy:** Where ICT provides features that are provided for accessibility, some users will need their privacy to be maintained when using those ICT features that are provided for accessibility.

## Part B - Technical Accessibility Requirements

The following Functional Accessibility Requirements are applicable to the Functional Performance Statements above. If a solution meets all of these it is considered to have met the Functional Performance Statements and is therefore deemed to conform with EN 301 549.

**NOTE:** "Web pages that conform to WCAG 2.0 Level AA are deemed to have met the web content requirements of clause 9.2 and the conformance requirements of clause 9.3.".

EN 301 549 Clauses	Notes	Clause met (Y/N)	Not Applicable	Explanation
<b>5.1.2.2 Assistive technology</b> Where ICT has closed functionality, that closed functionality shall be operable without requiring the user to attach, connect or				



<p>install assistive technology and shall conform to the generic requirements of clauses 5.1.3 to 5.1.7 as applicable. Personal headsets and induction loops shall not be classed as assistive technology for the purpose of this clause.</p>				
<p><b>5.1.3.1 General</b></p> <p>Where visual information is needed to enable the use of those functions of ICT that are closed to assistive technologies for screen reading, ICT shall provide at least one mode of operation using non-visual access to enable the use of those functions.</p>				
<p><b>5.1.3.2 Auditory output delivery including speech</b></p> <p>Where auditory output is provided as non-visual access to closed functionality, the auditory output shall be delivered:</p> <ul style="list-style-type: none"> <li>a) either directly by a mechanism included in or provided with the ICT;</li> <li>b) or by a personal headset that can be connected through a 3,5 mm audio jack, or an industry standard connection, without requiring the use of vision.</li> </ul>				
<p><b>5.1.3.3 Auditory output</b></p>				

<p><b>correlation</b></p> <p>Where auditory output is provided as non-visual access to closed functionality, and where information is displayed on the screen, the ICT should provide auditory information that allows the user to correlate the audio with the information displayed on the screen.</p>				
<p><b>5.1.3.4 Speech output user control</b></p> <p>Where speech output is provided as non-visual access to closed functionality, the speech output shall be capable of being interrupted and repeated when requested by the user, where permitted by security requirements.</p>				
<p><b>5.1.3.5 Speech output automatic interruption</b></p> <p>Where speech output is provided as non-visual access to closed functionality, the ICT shall interrupt current speech output when a user action occurs and when new speech output begins.</p>				
<p><b>5.1.3.6 Speech output for non-text content</b></p> <p>Where ICT presents non-text content, the alternative for non-text content shall be presented to users via speech output unless the non-text content is pure decoration or</p>				

<p>is used only for visual formatting. The speech output for non-text content shall follow the guidance for "text alternative" described in WCAG 2.0 [4] Success Criterion 1.1.1.</p>				
<p><b>5.1.3.7 Speech output for video information</b></p> <p>Where pre-recorded video content is needed to enable the use of closed functions of ICT and where speech output is provided as non-visual access to closed functionality, the speech output shall present equivalent information for the pre-recorded video content.</p>				
<p><b>5.1.3.8 Masked entry</b></p> <p>Where auditory output is provided as non-visual access to closed functionality, and the characters displayed are masking characters, the auditory output shall not be a spoken version of the characters entered unless the auditory output is known to be delivered only to a mechanism for private listening, or the user explicitly chooses to allow non-private auditory output.</p> <p>Etc etc etc</p>				

# Functional Accessibility Requirements for Desktop and portable computers

Advisory notes - not to be included in a Call for Tenders.

1. The procuring authority should check that the Functionality Accessibility Requirements listed below relate to the functionality required for its specific procurement. Use the "Accessibility Requirements Generator" to change this list.
2. The list of requirements is suitable for use as Technical Specifications and/or Award Criteria.
  - 2.1. The Column "Clauses met:" should only be used/included for Award Criteria.
  - 2.2. Where the Functional Accessibility Requirements are used for the Technical Specification, it is presumed that all requirements are met, and therefore this column is not necessary.

## Scope:

This example consists of the procurement of traditional personal computers (either desktop or portable). These computers are delivered with a desktop operating system (that typically include some basic assistive technology) and some bundled software applications (that may include two-way voice and video communication software, media players and some basic authoring tools). Portable computers also include input and output hardware peripherals (keyboard, touchpads, touch screen&hellip;).

The following aspects are covered in the list of accessibility requirements:

- the computer hardware (central processing unit)
- keyboards, keypads, displays, docking stations, touch screens and contact-sensitive controls typically included as a feature in portable computers;
- operating system and software applications that typically accompany desktop or personal computer, including two-way voice and video communication software, media players and basic authoring tools;
- basic software-based assistive technology provided with the operating system (screen reader, screen magnifier&hellip;);
- product documentation and customer support services;

The following aspects are not covered in the list of accessibility requirements:

- self-contained, closed products;
- monitors, keyboards and other input devices bundled with a desktop computer;
- web-based Internet information and applications;
- non-web documents;

- relay service provision.

## Explanation of the table columns:

- **"EN 301 549 Clauses"** includes all Clauses of EN 301 549 "Accessibility requirements suitable for public procurement of ICT products and services in Europe" that may apply to the ICT product or service.
- **"Notes"** is for brief notes by the procuring authority about the Clauses of EN 301 549 or additional requirements that may wish to add.
- **"Clauses met:"** should be included ONLY where the procurer wishes to use Functional Accessibility Requirements as Award Criteria; the criteria should be based on the number of listed requirements which are fully met. It is to be filled in by the supplier.
- **"Not Applicable"** may be used by the supplier to note if this Functional Accessibility Requirement does not apply to (as opposed to is not met by) the offered solution.
- **"Explanations"** is where the supplier can note explanations for any of the preceding columns.

## Part A - Functional Performance Statements

These are the core aspects that the offered product / service must meet, either by meeting the relevant Functional Accessibility Requirements listed below, or outlining how the product / service would fulfil these Statements.

**4.2.1. Usage without vision:** Where ICT provides visual modes of operation, some users need ICT to provide at least one mode of operation that does not require vision.

**4.2.2. Usage with limited vision:** Where ICT provides visual modes of operation, some users will need the ICT to provide features that enable users to make better use of their limited vision.

**4.2.3. Usage without perception of colour:** Where ICT provides visual modes of operation, some users will need the ICT to provide a visual mode of operation that does not require user perception of colour.

**4.2.4. Usage without hearing:** Where ICT provides auditory modes of operation, some users need ICT to provide at least one mode of operation that does not require hearing.

**4.2.5. Usage with limited hearing:** Where ICT provides auditory modes of operation, some users will need the ICT to provide enhanced audio features.

**4.2.6. Usage without vocal capability:** Where ICT requires vocal input from users, some users will need the ICT to provide at least one mode of operation that does not require them to generate vocal output.

**4.2.7. Usage with limited manipulation or strength:** Where ICT requires manual actions, some users will need the ICT to provide features that enable users to make use of the ICT through alternative actions not requiring manipulation or hand strength.

**4.2.8. Usage with limited reach:** Where ICT products are free-standing or installed, the

operational elements will need to be within reach of all users.

**4.2.9. Minimize photosensitive seizure triggers:** Where ICT provides visual modes of operation, some users need ICT to provide at least one mode of operation that minimizes the potential for triggering photosensitive seizures.

**4.2.10. Usage with limited cognition:** Some users will need the ICT to provide features that make it simpler and easier to use.

**4.2.11. Privacy:** Where ICT provides features that are provided for accessibility, some users will need their privacy to be maintained when using those ICT features that are provided for accessibility.

## Part B - Functional Accessibility Requirements

The following Functional Accessibility Requirements are applicable to the Functional Performance Statements above. If a solution meets all of these it is considered to have met the Functional Performance Statements and is therefore deemed to conform with EN 301 549.

EN 301 549 Clauses	Notes	Clause met (Y/N)	Not Applicable	Explanation
<p><b>5.2 Activation of accessibility features</b> Where ICT has documented accessibility features, it shall be possible to activate those documented accessibility features that are required to meet a specific need without relying on a method that does not support that need.</p>				
<p><b>5.3 Biometrics</b> Where ICT uses biological characteristics, it shall not rely on the use of a particular biological characteristic as the only means of user identification or for control of ICT.</p>				
<p><b>5.4 Preservation of accessibility information during conversion</b> Where ICT converts information or communication it shall preserve all documented non-proprietary information that is provided for accessibility, to the extent that such information can be contained in or supported by the destination format.</p>				
<p><b>5.5.1 Means of operation</b> Where ICT has operable parts that require</p>				

<p>grasping, pinching, or twisting of the wrist to operate, an accessible alternative means of operation that does not require these actions shall be provided.</p>				
<p><b>5.5.2 Operable parts discernibility</b> Where ICT has operable parts, it shall provide a means to discern each operable part, without requiring vision and without performing the action associated with the operable part.</p>				
<p><b>6.2.1.1 RTT communication</b> Where ICT supports two-way voice communication in a specified context of use, the ICT shall allow a user to communicate with another user by RTT.</p>				
<p><b>6.2.1.2 Concurrent voice and text</b> Where the ICT, or set of ICT, provided to a user, supports two-way voice communication and enables a user to communicate with another user by RTT, it shall provide a mechanism to select a mode of operation allowing concurrent voice and text.</p>				
<p><b>6.2.2.1 Visually distinguishable display</b> Where ICT has RTT send and receive capabilities, displayed sent text shall be visually differentiated from and separated from received text.</p>				
<p><b>6.2.2.2 Programmatically determinable send and receive direction</b> Where ICT has RTT send and receive capabilities, the send/receive direction of transmitted text shall be programmatically determinable, unless the RTT has closed functionality.</p>				
<p><b>6.2.3 Interoperability</b> Where ICT with RTT functionality interoperates with other ICT with RTT functionality (as required by 6.2.1.1) they shall support at least one of the four RTT interoperability mechanisms described below:  a) ICT interoperating over the Public Switched Telephone Network (PSTN), with other ICT that directly connects to</p>				

<p>the PSTN as described in Recommendation ITU-T V.18 [i.23] or any of its annexes for text telephony signals at the PSTN interface;b) ICT interoperating with other ICT using VOIP with Session Initiation Protocol (SIP) and using real-time text that conforms to RFC 4103 [i.13];c) ICT interoperating with other ICT using RTT that conforms with the IP Multimedia Sub-System (IMS) set of protocols specified in TS 126 114 [i.10], TS 122 173 [i.11] and TS 134 229 [i.12];d) ICT interoperating with other ICT using a relevant and applicable common specification for RTT exchange that is published and available. This common specification shall include a method for indicating loss or corruption of characters.</p>				
<p><b>6.2.4 Real-time text responsiveness</b> Where ICT utilises RTT input, that RTT input shall be transmitted to the ICT network supporting RTT within 1 second of the input entry.</p>				
<p><b>6.3 Caller ID</b> Where ICT provides caller identification and similar telecommunications functions are provided, the caller identification and similar telecommunications functions shall be available in text form and in at least one other modality.</p>				
<p><b>6.4 Alternatives to voice-based services</b> Where ICT provides real-time voice-based communication and also provides voice mail, auto-attendant, or interactive voice response facilities, the ICT should offer users a means to access the information and carry out the tasks provided by the ICT without the use of hearing or speech.</p>				
<p><b>6.5.2 Resolution</b> Where ICT that provides two-way voice communication includes real time video functionality, the ICT:  a) shall support at least QCIF resolution;  b) should preferably support at least CIF resolution.</p>				



<p><b>6.5.3 Frame rate</b></p> <p>Where ICT that provides two-way voice communication includes real-time video functionality, the ICT:</p> <p>a) shall support a frame rate of at least 12 frames per second (FPS);</p> <p>b) should preferably support a frame rate of at least 20 frames per second (FPS) with or without sign language in the video stream.</p>				
<p><b>6.5.4 Synchronization between audio and video</b></p> <p>Where ICT that provides two-way voice communication includes real-time video functionality, the ICT should ensure a maximum time difference of 100 ms between the speech and video presented to the user.</p>				
<p><b>6.6 Alternatives to video-based services</b></p> <p>Where ICT provides real-time video-based communication and also provides answering machine, auto attendant or interactive response facilities, the ICT should offer users a means to access the information and carry out the tasks related to these facilities:</p> <p>a) for audible information, without the use of hearing;</p> <p>b) for spoken commands, without the use of speech;</p> <p>c) for visual information, without the use of vision.</p>				
<p><b>7.1.1 Captioning playback</b></p> <p>Where ICT displays video with synchronized audio, it shall have a mode of operation to display the available captions. Where closed captions are provided as part of the content, the ICT shall allow the user to choose to display the captions.</p>				
<p><b>7.1.2 Captioning synchronisation</b></p> <p>Where ICT displays captions, the mechanism to display captions shall preserve synchronization between the audio and the corresponding captions.</p>				

<p><b>7.1.3 Preservation of captioning</b></p> <p>Where ICT transmits, converts or records video with synchronized audio, it shall preserve caption data such that it can be displayed in a manner consistent with clauses 7.1.1 and 7.1.2.</p> <p>Additional presentational aspects of the text such as screen position, text colours, text style and text fonts may convey meaning, based on regional conventions. Altering these presentational aspects could change the meaning and should be avoided wherever possible.</p>				
<p><b>7.2.1 Audio description playback</b></p> <p>Where ICT displays video with synchronized audio, it shall provide a mechanism to select and play available audio description to the default audio channel.</p> <p>Where video technologies do not have explicit and separate mechanisms for audio description, an ICT is deemed to satisfy this requirement if the ICT enables the user to select and play several audio tracks.</p>				
<p><b>7.2.2 Audio description synchronisation</b></p> <p>Where ICT has a mechanism to play audio description, it shall preserve the synchronization between the audio/visual content and the corresponding audio description.</p>				
<p><b>7.2.3 Preservation of audio description</b></p> <p>Where ICT transmits, converts, or records video with synchronized audio, it shall preserve audio description data such that it can be played in a manner consistent with clauses 7.2.1 and 7.2.2.</p>				
<p><b>7.3 User controls for captions and audio description</b></p> <p>Where ICT primarily displays materials containing video with associated audio content, user controls to activate subtitling and audio description shall be provided to the user at the same level of interaction (i.e. the number of steps to complete the task) as the primary media controls.</p>				

<p><b>8.1.2 Standard connections</b></p> <p>Where an ICT provides user input or output device connection points, the ICT shall provide at least one input and/or output connection that conforms to an industry standard non-proprietary format, directly or through the use of commercially available adapters.</p>				
<p><b>8.1.3 Colour</b></p> <p>Where the ICT has hardware aspects that use colour, colour shall not be used as the only visual means of conveying information, indicating an action, prompting a response, or distinguishing a visual element.</p>				
<p><b>8.2.1.1 Speech volume range</b></p> <p>Where ICT hardware has speech output, it shall provide a means to adjust the speech output volume level over a range of at least 18 dB.</p>				
<p><b>8.2.1.2 Incremental volume control</b></p> <p>Where ICT hardware has speech output and its volume control is incremental, it shall provide at least one intermediate step of 12 dB gain above the lowest volume setting.</p>				
<p><b>8.4.1 Numeric keys</b></p> <p>Where provided, physical numeric keys arranged in a rectangular keypad layout shall have the number five key tactilely distinct from the other keys of the keypad.</p>				
<p><b>8.4.2.1 Means of operation of mechanical parts</b></p> <p>Where a control requires grasping, pinching, or twisting of the wrist to operate it, an accessible alternative means of operation that does not require these actions shall be provided.</p>				
<p><b>8.4.2.2 Force of operation of mechanical parts</b></p> <p>Where a control requires a force greater than 22,2 N to operate it, an accessible alternative means of operation that requires a force less than 22,2 N shall be</p>				

provided.				
<p><b>8.4.3 Keys, tickets and fare cards</b></p> <p>Where ICT provides keys, tickets or fare cards, and their orientation is important for further use, they shall have an orientation that is tactilely discernible.</p>				
<p><b>11.2.1.1 Non-text content (screen reading supported)</b></p> <p>Where ICT is non-web software that provides a user interface and that supports access to assistive technologies for screen reading, it shall satisfy the success criterion in Table 11.1.</p> <p>Table 11.1: Software success criterion: Non-text content</p> <p>All non-text content that is presented to the user has a text alternative that serves the equivalent purpose, except for the situations listed below:</p> <ul style="list-style-type: none"> <li>- Controls, Input: If non-text content is a control or accepts user input, then it has a name that describes its purpose. (Refer to WCAG 2.0 Guideline 4.1 [4] for additional requirements for controls and content that accepts user input.)</li> <li>- Time-Based Media: If non-text content is time-based media, then text alternatives at least provide descriptive identification of the non-text content. (Refer to WCAG 2.0 Guideline 1.2 [4] for additional requirements for media.)</li> <li>- Test: If non-text content is a test or exercise that would be invalid if presented in text, then text alternatives at least provide descriptive identification of the non-text content.</li> <li>- Sensory: If non-text content is primarily intended to create a specific sensory experience, then text alternatives at least provide descriptive identification of the non-text content.</li> <li>- CAPTCHA: If the purpose of non-text content is to confirm that content is being accessed by a person rather than a computer, then text alternatives that identify and describe the purpose of the non-text content are provided, and alternative forms of CAPTCHA using output modes for different types of sensory perception are provided to</li> </ul>				

accommodate different disabilities.

- Decoration, Formatting, Invisible: If non-text content is pure decoration, is used only for visual formatting, or is not presented to users, then it is implemented in a way that it can be ignored by assistive technology.

NOTE 1: CAPTCHAs do not currently appear outside of the Web. However, if they do appear, this guidance is accurate. NOTE 2: This success criterion is identical to the WCAG 2.0 Success Criterion 1.1.1 Non-text content with the words "WCAG 2.0" added before each occurrence of the word "guideline" and with the addition of note 1 above.

**11.2.1.2 Audio-only and video-only (pre-recorded)**

Where ICT is non-web software that provides a user interface and that supports access to assistive technologies for screen reading and where pre-recorded auditory information is not needed to enable the use of closed functions of ICT, it shall satisfy the success criterion in Table 11.2.

Table 11.2: Software success criterion: Audio-only and video-only (pre-recorded)

For pre-recorded audio-only and pre-recorded video-only media, the following are true, except when the audio or video is a media alternative for text and is clearly labelled as such:

- Pre-recorded Audio-only: An alternative for time-based media is provided that presents equivalent information for pre-recorded audio-only content.
- Pre-recorded Video-only: Either an alternative for time-based media or an audio track is provided that presents equivalent information for pre-recorded video-only content.

NOTE 1: The alternative can be provided directly in the software - or provided in an alternate version that meets the success criterion. NOTE 2: This success criterion is identical to the WCAG 2.0 Success Criterion 1.2.1 Audio-only and Video-only (Pre-recorded) with the addition of note 1 above.

**11.2.1.3 Captions (pre-recorded)**

Where ICT is non-web software that provides a user interface, it shall satisfy


the success criterion in Table 11.3.

Table 11.3: Software success criterion: Captions (pre-recorded)

Captions are provided for all pre-recorded audio content in synchronized media, except when the media is a media alternative for text and is clearly labeled as such. NOTE 1: The WCAG 2.0 definition of "captions" notes that "in some countries, captions are called subtitles". They are also sometimes referred to as "subtitles for the hearing impaired". Per the definition in WCAG 2.0, to meet this success criterion, whether called captions or subtitles, they would have to provide "synchronized visual and / or text alternative for both speech and non-speech audio information needed to understand the media content" where non-speech information includes "sound effects, music, laughter, speaker identification and location".

NOTE 2: This success criterion is identic.

**11.2.1.4 Audio description or media alternative (pre-recorded)**

Where ICT is non-web software that provides a user interface and that supports access to assistive technologies for screen reading, it shall satisfy the success criterion in Table 11.4.

Table 11.4: Software success criterion: Audio description or media alternative (pre-recorded)

An alternative for time-based media or audio description of the pre-recorded video content is provided for synchronized media, except when the media is a media alternative for text and is clearly labeled as such. NOTE 1: The WCAG 2.0 definition of "audio description" says that "audio description" is "also called 'video description' and 'descriptive narration'".

NOTE 2: Secondary or alternate audio tracks are commonly used for this purpose.

NOTE 3: This success criterion is identical to the WCAG 2.0 Success Criterion 1.2.3 Audio Description or Media Alternative (Pre-recorded) with the addition of notes 1 and 2 above.


<p><b>11.2.1.5 Captions (live)</b></p> <p>Where ICT is non-web software that provides a user interface, it shall satisfy the success criterion in Table 11.5.</p> <p>Table 11.5: Software success criterion: Captions (live)</p> <p>Captions are provided for all live audio content in synchronized media.NOTE 1: The WCAG 2.0 definition of "captions" notes that "in some countries, captions are called subtitles". They are also sometimes referred to as "subtitles for the hearing impaired". Per the definition in WCAG 2.0, to meet this success criterion, whether called captions or subtitles, they would have to provide "synchronized visual and / or text alternative for both speech and non-speech audio information needed to understand the media content" where non-speech information includes "sound effects, music, laughter, speaker identification and location".</p> <p>NOTE 2: This success criterion is identical to the WCAG 2.0 Success Criterion 1.2.4 Captions (Live) with the addition of note 1 above.</p>				
<p><b>11.2.1.6 Audio description (pre-recorded)</b></p> <p>Where ICT is non-web software that provides a user interface, it shall satisfy the success criterion in Table 11.6.</p> <p>Table 11.6: Software success criterion: Audio description (pre-recorded)</p> <p>Audio description is provided for all pre-recorded video content in synchronized media.NOTE 1: The WCAG 2.0 definition of "audio description" says that audio description is "Also called 'video description' and 'descriptive narration'".</p> <p>NOTE 2: Secondary or alternate audio tracks are commonly used for this purpose.</p> <p>NOTE 3: This success criterion is identical to the WCAG 2.0 Success Criterion 1.2.5 Audio Description (Pre-recorded) with the addition of note</p>				

1 above.				
<p><b>11.2.1.7 Info and relationships</b></p> <p>Where ICT is non-web software that provides a user interface and that supports access to assistive technologies for screen reading, it shall satisfy the success criterion in Table 11.7.</p> <p>Table 11.7: Software success criterion: Info and relationships</p> <p>Information, structure, and relationships conveyed through presentation can be programmatically determined or are available in text. NOTE 1: In software, programmatic determinability is best achieved through the use of accessibility services provided by platform software to enable interoperability between software and assistive technologies and accessibility features of software. (see clause 11.3 Interoperability with assistive technology).</p> <p>NOTE 2: This success criterion is identical to the WCAG 2.0 Success Criterion 1.3.1 Info and Relationships with the addition of note 1 above.</p>				
<p><b>11.2.1.8 Meaningful sequence</b></p> <p>Where ICT is non-web software that provides a user interface and that supports access to assistive technologies for screen reading, it shall satisfy the success criterion in Table 11.8.</p> <p>Table 11.8: Software success criterion: Document success criterion: Meaningful sequence</p> <p>When the sequence in which content is presented affects its meaning, a correct reading sequence can be programmatically determined. NOTE: This success criterion is identical to the WCAG 2.0 Success Criterion 1.3.2 Meaningful Sequence.</p>				
<p><b>11.2.1.9 Sensory characteristics</b></p> <p>Where ICT is non-web software that provides a user interface, it shall satisfy the success criterion in Table 11.9.</p> <p>Table 11.9: Software success criterion: Software success criterion: Sensory</p>				



characteristics

Instructions provided for understanding and operating content do not rely solely on sensory characteristics of components such as shape, size, visual location, orientation, or sound. NOTE 1: For requirements related to colour, refer to WCAG 2.0 Guideline 1.4 [4].

NOTE 2: This success criterion is identical to the WCAG 2.0 Success Criterion 1.3.3 Sensory Characteristics with the words "WCAG 2.0" added before the word "Guideline" in note 1 above.

**11.2.1.10 Use of colour**

Where ICT is non-web software that provides a user interface, it shall satisfy the success criterion in Table 11.10.

Table 11.10: Software success criterion: Software success criterion: Use of colour

Colour is not used as the only visual means of conveying information, indicating an action, prompting a response, or distinguishing a visual element. NOTE 1: This success criterion addresses colour perception specifically. Other forms of perception are covered in WCAG 2.0 Guideline 1.3 [4] including programmatic access to colour and other visual presentation coding.

NOTE 2: This success criterion is identical to the WCAG 2.0 Success Criterion 1.4.1 Use of Color with the words "WCAG 2.0" added before the word "Guideline" in note 1 above.

**11.2.1.11 Audio control**

Where ICT is non-web software that provides a user interface, it shall satisfy the success criterion in Table 11.11.

Table 11.11: Software success criterion: Document success criterion: Audio control

If any audio in a software plays automatically for more than 3 seconds, either a mechanism is available to pause or stop the audio, or a mechanism is

available to control audio volume independently from the overall system volume level. NOTE 1: Since any part of a software that does not meet this success criterion can interfere with a user's ability to use the whole software, all content in the software (whether or not it is used to meet other success criteria) shall meet this success criterion.

NOTE 2: This success criterion is identical to the WCAG 2.0 Success Criterion 1.4.2 Audio Control replacing "on a Web page" with "in a software", "any content" with "any part of a software", "whole page" with "whole software", "on the Web page" with "in the software", removing "See Conformance Requirement 5: Non-Interference" and adding note 1.

**11.2.1.12 Contrast (minimum)**

Where ICT is non-web software that provides a user interface, it shall satisfy the success criterion in Table 11.12.

Table 11.12: Software success criterion: Document success criterion: Contrast (minimum)

The visual presentation of text and images of text has a contrast ratio of at least 4.5:1, except for the following:

- Large Text: Large-scale text and images of large-scale text have a contrast ratio of at least 3:1.

- Incidental: Text or images of text that are part of an inactive user interface component, that are pure decoration, that are not visible to anyone, or that are part of a picture that contains significant other visual content, have no contrast requirement.

- Logotypes: Text that is part of a logo or brand name has no minimum contrast requirement.

NOTE: This success criterion is identical to the WCAG 2.0 Success Criterion 1.4.3 Contrast (Minimum).

**11.2.1.13 Resize text**

Where ICT is non-web software that provides a user interface and that supports access to enlargement features of platform or assistive technology, it shall satisfy the success criterion in Table

<p>11.13.</p> <p>Table 11.13: Software success criterion: Document success criterion: Resize text</p> <p>Except for captions and images of text, text can be resized without assistive technology up to 200 percent without loss of content or functionality. NOTE 1: Content for which there are software players, viewers or editors with a 200 percent zoom feature would automatically meet this success criterion when used with such players, unless the content will not work with zoom.</p> <p>NOTE 2: This success criterion is about the ability to allow users to enlarge the text on screen at least up to 200 % without needing to use assistive technologies. This means that the application provides some means for enlarging the text 200 % (zoom or otherwise) without loss of content or functionality or that the application works with the platform features that meet this requirement.</p> <p>NOTE 3: This success criterion is identical to the WCAG 2.0 Success Criterion 1.4.4 Resize text with the addition of notes 1 and 2 above.</p>				
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<p><b>11.2.1.14 Images of text</b></p> <p>Where ICT is non-web software that provides a user interface and that supports access to assistive technologies for screen reading, it shall satisfy the success criterion in Table 11.14.</p> <p>Table 11.14: Software success criterion: Document success criterion: Images of text</p> <p>If the technologies being used can achieve the visual presentation, text is used to convey information rather than images of text except for the following:</p> <ul style="list-style-type: none"> <li>- Customizable: The image of text can be visually customized to the user's requirements.</li> <li>- Essential: A particular presentation of text is essential to the information being conveyed.</li> </ul> <p>NOTE 1: Logotypes (text that is part of a logo or brand name) are considered</p>				
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<p>essential.</p> <p>NOTE 2: This success criterion is identical to the WCAG 2.0 Success Criterion 1.4.5 Images of Text.</p>				
<p><b>11.2.1.15 Keyboard</b></p> <p>Where ICT is non-web software that provides a user interface and that supports access to keyboards or a keyboard interface, it shall satisfy the success criterion in Table 11.15.</p> <p>Table 11.15: Software success criterion: Document success criterion: Keyboard</p> <p>All functionality of the content is operable through a keyboard interface without requiring specific timings for individual keystrokes, except where the underlying function requires input that depends on the path of the user's movement and not just the endpoints. NOTE 1: This exception relates to the underlying function, not the input technique. For example, if using handwriting to enter text, the input technique (handwriting) requires path-dependent input but the underlying function (text input) does not.</p> <p>NOTE 2: This does not forbid and should not discourage providing mouse input or other input methods in addition to keyboard operation.</p> <p>NOTE 3: This does not imply that software is required to directly support a keyboard or "keyboard interface". Nor does it imply that software is required to provide a soft keyboard. Underlying platform software may provide device independent input services to applications that enable operation via a keyboard. Software that supports operation via such platform device independent services would be operable by a keyboard and would comply.</p> <p>NOTE 4: This success criterion is identical to the WCAG 2.0 Success Criterion 2.1.1 Keyboard with the addition of note 3 above.</p>				
<p><b>11.2.1.16 No keyboard trap</b></p> <p>Where ICT is non-web software that provides a user interface, it shall satisfy the success criterion in Table 11.16.</p>				

Table 11.16: Software success criterion:  
Document success criterion: No keyboard trap

If keyboard focus can be moved to a component of the software using a keyboard interface, then focus can be moved away from that component using only a keyboard interface, and, if it requires more than unmodified arrow or tab keys or other standard exit methods, the user is advised of the method for moving focus away. NOTE 1: Since any part of a software that does not meet this success criterion can interfere with a user's ability to use the whole document, all content in the document (whether or not it is used to meet other success criteria) shall meet this success criterion.

NOTE 2: Standard exit methods may vary by platform. For example, on many desktop platforms, the Escape key is a standard method for exiting.

NOTE 3: This success criterion is identical to the WCAG 2.0 Success Criterion 2.1.2 No Keyboard Trap replacing "page" and "Web page" with "document", removing "See Conformance Requirement 5: Non-Interference" and with the addition of note 1 above.

### 11.2.1.17 Timing adjustable

Where ICT is non-web software that provides a user interface, it shall satisfy the success criterion in Table 11.17.

Table 11.17: Software success criterion:  
Document success criterion: Timing adjustable

For each time limit that is set by the software, at least one of the following is true:

- Turn off: The user is allowed to turn off the time limit before encountering it; or
- Adjust: The user is allowed to adjust the time limit before encountering it over a wide range that is at least ten times the length of the default setting; or
- Extend: The user is warned before time expires and given at least 20 seconds to extend the time limit with a simple action (for example, "press the space bar"), and

the user is allowed to extend the time limit at least ten times; or

- Real-time Exception: The time limit is a required part of a real-time event (for example, an auction), and no alternative to the time limit is possible; or
- Essential Exception: The time limit is essential and extending it would invalidate the activity; or
- 20 Hour Exception: The time limit is longer than 20 hours.

NOTE 1: This success criterion helps ensure that users can complete tasks without unexpected changes in content or context that are a result of a time limit. This success criterion should be considered in conjunction with clause 11.2.1.29 (On focus), which puts limits on changes of content or context as a result of user action.

NOTE 2: This success criterion is identical to the WCAG 2.0 Success Criterion 2.2.1 Timing Adjustable replacing "the content" with "software" and with the words "WCAG 2.0" added before the word "Success Criterion" in note 1 above.

**11.2.1.18 Pause, stop, hide**

Where ICT is non-web software that provides a user interface, it shall satisfy the success criterion in Table 11.18.

Table 11.18: Software success criterion:  
Document success criterion: Pause, stop, hide

For moving, blinking, scrolling, or auto-updating information, all of the following are true:

- Moving, blinking, scrolling: For any moving, blinking or scrolling information that (1) starts automatically, (2) lasts more than five seconds, and (3) is presented in parallel with other content, there is a mechanism for the user to pause, stop, or hide it unless the movement, blinking, or scrolling is part of an activity where it is essential; and
- Auto-updating: For any auto-updating information that (1) starts automatically and (2) is presented in parallel with other content, there is a mechanism for the user to pause, stop, or hide it or to


control the frequency of the update unless the auto-updating is part of an activity where it is essential.

NOTE 1: For requirements related to flickering or flashing content, refer to WCAG 2.0 Guideline 2.3.

NOTE 2: This success criteria is applicable to all content in the software (whether or not there is an alternate accessible mode of operation of the software) since any part of a software that does not meet this success criterion can interfere with a user's ability to use the whole software (including a user interface element that enables the user to activate the alternate accessible mode of operation).

NOTE 3: Content that is updated periodically by software or that is streamed to the user agent is not required to preserve or present information that is generated or received between the initiation of the pause and resuming presentation, as this may not be technically possible, and in many situations could be misleading to do so.

NOTE 4: An animation that occurs as part of a preload phase or similar situation can be considered essential if interaction cannot occur during that phase for all users and if not indicating progress could confuse users or cause them to think that content was frozen or broken.

NOTE 5: This is to be applied to all content. Any content, whether informative or decorative, that is updated automatically, blinks, or moves may create an accessibility barrier.

NOTE 6: This success criterion is identical to the WCAG 2.0 Success Criterion 2.2.2 Pause, Stop, Hide replacing "page" and "Web page" with "software", removing "See Conformance Requirement 5: Non-Interference" in note 2 of the success criterion, with the words "WCAG 2.0" added before the word "Guideline" in note 1 above, with note 2 above re-drafted to avoid the use of the word "must" and with the addition of note 5 above.

**11.2.1.19 Three flashes or below threshold**

Where ICT is non-web software that provides a user interface, it shall satisfy the success criterion in Table 11.19.

Table 11.19: Software success criterion:  
Three flashes or below threshold

Software does not contain anything that flashes more than three times in any one second period, or the flash is below the general flash and red flash thresholds. NOTE 1: This success criteria is applicable to all content in the software (whether or not there is an alternate accessible mode of operation of the software) since any part of a software that does not meet this success criterion can interfere with a user's ability to use the whole software (including a user interface element that enables the user to activate the alternate accessible mode of operation).

NOTE 2: This success criterion is identical to the WCAG 2.0 Success Criterion 2.3.1 Three Flashes or Below Threshold replacing "Web pages" with "software", "the whole page" with "the whole software", "the Web page" with "the software" and removing "See Conformance Requirement 5: Non-Interference" and with note 1 above re-drafted to avoid the use of the word "must".

**11.2.1.22 Focus order**

Where ICT is non-web software that provides a user interface, it shall satisfy the success criterion in Table 11.22.

Table 11.22: Software success criterion:  
Focus order

If software can be navigated sequentially and the navigation sequences affect meaning or operation, focusable components receive focus in an order that preserves meaning and operability. NOTE: This success criterion is identical to the WCAG 2.0 Success Criterion 2.4.3 Focus order replacing "Web page" with "software".

**11.2.1.23 Link purpose (in context)**

Where ICT is non-web software that provides a user interface, it shall satisfy the success criterion in Table 11.23.

Table 11.23: Software success criterion:  
Link purpose (in context)



The purpose of each link can be determined from the link text alone or from the link text together with its programmatically determined link context, except where the purpose of the link would be ambiguous to users in general. NOTE 1: In software, a "link" is any text string or image in the user interface outside a user interface control that behaves like a hypertext link. This does not include general user interface controls or buttons. (An OK button, for example, would not be a link.)

NOTE 2: This success criterion is identical to the WCAG 2.0 Success Criterion 2.4.4 Link purpose (in context), replacing both "web page" and "page" with "software" and with the addition of note 1 above.

**11.2.1.24 Empty clause**

This clause contains no requirements. It is included to align the numbering of related sub-clauses in clauses 9.2, 10.2 and 11.2.

**11.2.1.25 Headings and labels**

Where ICT is non-web software that provides a user interface, it shall satisfy the success criterion in Table 11.25.

Table 11.25: Software success criterion: Headings and labels

Headings and labels describe topic or purpose. NOTE 1: In software, headings and labels are used to describe sections of content and controls respectively. In some cases it may be unclear whether a piece of static text is a heading or a label. But whether treated as a label or a heading, the requirement is the same: that if they are present they describe the topic or purpose of the item(s) they are associated with.

NOTE 2: This success criterion is identical to the WCAG 2.0 Success Criterion 2.4.6 Headings and labels with the addition of note 1 above.

**11.2.1.26 Focus visible**

Where ICT is non-web software that provides a user interface, it shall satisfy the success criterion in Table 11.26.


Table 11.26: Software success criterion:  
Focus visible

Any keyboard operable user interface has a mode of operation where the keyboard focus indicator is visible. NOTE: This success criterion is identical to the WCAG 2.0 Success Criterion 2.4.7 Focus visible.

**11.2.1.27 Language of software**

Where ICT is non-web software that provides a user interface and that supports access to assistive technologies for screen reading, it shall satisfy the success criterion in Table 11.27.

Table 11.27: Software success criterion:  
Language of software

The default human language of software can be programmatically determined. NOTE 1: Where software platforms provide a "locale / language" setting, applications that use that setting and render their interface in that "locale / language" would comply with this success criterion. Applications that do not use the platform "locale / language" setting but instead use an accessibility-supported method for exposing the human language of the software would also comply with this success criterion. Applications implemented in technologies where assistive technologies cannot determine the human language and that do not support the platform "locale / language" setting may not be able to meet this success criterion in that locale / language.

NOTE 2: This success criterion is identical to the WCAG 2.0 Success Criterion 3.1.1 Language of page, replacing "each web page" with "software" and with the addition of note 1 above.

**11.2.1.28 Empty clause**

This clause contains no requirements. It is included to align the numbering of related sub-clauses in clauses 9.2, 10.2 and 11.2.

**11.2.1.29 On focus**

Where ICT is non-web software that


provides a user interface, it shall satisfy the success criterion in Table 11.29.

Table 11.29: Software success criterion:  
On focus

When any component receives focus, it does not initiate a change of context. NOTE 1: Some compound documents and their user agents are designed to provide significantly different viewing and editing functionality depending upon what portion of the compound document is being interacted with (e.g. a presentation that contains an embedded spreadsheet, where the menus and toolbars of the user agent change depending upon whether the user is interacting with the presentation content, or the embedded spreadsheet content). If the user uses a mechanism other than putting focus on that portion of the compound document with which they mean to interact (e.g. by a menu choice or special keyboard gesture), any resulting change of context would not be subject to this success criterion because it was not caused by a change of focus.

NOTE 2: This success criterion is identical to the WCAG 2.0 Success Criterion 3.2.1 On focus, with the addition of note 1 above.

#### 11.2.1.30 On input

Where ICT is non-web software that provides a user interface, it shall satisfy the success criterion in Table 11.30.

Table 11.30: Software success criterion:  
On input

Changing the setting of any user interface component does not automatically cause a change of context unless the user has been advised of the behavior before using the component. NOTE: This success criterion is identical to the WCAG 2.0 Success Criterion 3.2.2 On input.

#### 11.2.1.31 Empty clause

This clause contains no requirements. It is included to align the numbering of related sub-clauses in clauses 9.2, 10.2 and 11.2.

<p><b>11.2.1.32 Empty clause</b></p> <p>This clause contains no requirements. It is included to align the numbering of related sub-clauses in clauses 9.2, 10.2 and 11.2.</p>				
<p><b>11.2.1.33 Error identification</b></p> <p>Where ICT is non-web software that provides a user interface and that supports access to assistive technologies for screen reading, it shall satisfy the success criterion in Table 11.33.</p> <p>Table 11.33: Software success criterion: Error identification</p> <p>If an input error is automatically detected, the item that is in error is identified and the error is described to the user in text.NOTE: This success criterion is identical to the WCAG 2.0 Success Criterion 3.3.1 Error identification.</p>				
<p><b>11.2.1.34 Labels or instructions</b></p> <p>Where ICT is non-web software that provides a user interface, it shall satisfy the success criterion in Table 11.34.</p> <p>Table 11.34: Software success criterion: Labels or instructions</p> <p>Labels or instructions are provided when content requires user input.NOTE: This success criterion is identical to the WCAG 2.0 Success Criterion 3.3.2 Labels or instructions.</p>				
<p><b>11.2.1.35 Error suggestion</b></p> <p>Where ICT is non-web software that provides a user interface, it shall satisfy the success criterion in Table 11.35.</p> <p>Table 11.35: Software success criterion: Error suggestion</p> <p>If an input error is automatically detected and suggestions for correction are known, then the suggestions are provided to the user, unless it would jeopardize the security or purpose of the content.NOTE: This success criterion is identical to the WCAG 2.0 Success Criterion 3.3.3 Error suggestion.</p>				
<p><b>11.2.1.36 Error prevention (legal, financial, data)</b></p> <p>Where ICT is non-web software that</p>				

provides a user interface, it shall satisfy the success criterion in Table 11.36.

Table 11.36: Software success criterion: Error prevention (legal, financial, data)

For software that cause legal commitments or financial transactions for the user to occur, that modify or delete user-controllable data in data storage systems, or that submit user test responses, at least one of the following is true:

- Reversible: Submissions are reversible.
- Checked: Data entered by the user is checked for input errors and the user is provided an opportunity to correct them.
- Confirmed: A mechanism is available for reviewing, confirming, and correcting information before finalizing the submission.

NOTE: This success criterion is identical to the WCAG 2.0 Success Criterion 3.3.4 Error prevention (legal, financial, data) replacing "web pages" with "software".

### 11.2.1.37 Parsing

Where ICT is non-web software that provides a user interface and that supports access to any assistive technologies, it shall satisfy the success criterion in Table 11.37.

Table 11.37: Software success criterion: Parsing

For software that uses markup languages, in such a way that the markup is separately exposed and available to assistive technologies and accessibility features of software or to a user-selectable user agent, elements have complete start and end tags, elements are nested according to their specifications, elements do not contain duplicate attributes, and any IDs are unique, except where the specifications allow these features. NOTE 1: Start and end tags that are missing a critical character in their formation, such as a closing angle bracket or a mismatched attribute value quotation mark are not complete.

NOTE 2: Markup is not always available to assistive technology or to user

selectable user agents such as browsers. In such cases, conformance to this provision would have no impact on accessibility as it can for web content where it is exposed.

NOTE 3: Examples of markup that is separately exposed and available to assistive technologies and to user agents include but are not limited to: documents encoded in HTML, ODF, and OOXML. In these examples, the markup can be parsed entirely in two ways: (a) by assistive technologies which may directly open the document, (b) by assistive technologies using DOM APIs of user agents for these document formats.

NOTE 4: Examples of markup used internally for persistence of the software user interface that are never exposed to assistive technology include but are not limited to: XUL, GladeXML, and FXML. In these examples assistive technology only interacts with the user interface of generated software.

NOTE 5: This success criterion is identical to the WCAG 2.0 Success Criterion 4.1.1 Parsing replacing "In content implemented using markup languages" with "For software that uses markup languages, in such a way that the markup is separately exposed and available to assistive technologies and accessibility features of software or to a user-selectable user agent" with the addition of notes 2 and 3 above.

### 11.2.1.38 Name, role, value

Where ICT is non-web software that provides a user interface and that supports access to any assistive technologies, it shall satisfy the success criterion in Table 11.38.

Table 11.38: Software success criterion: Name, role, value

For all user interface components (including but not limited to: form elements, links and components generated by scripts), the name and role can be programmatically determined; states, properties, and values that can be set by the user can be programmatically set; and notification of changes to these items is available to user agents, including assistive technologies. NOTE 1: This success criterion is primarily for software

developers who develop or use custom user interface components. Standard user interface components on most accessibility-supported platforms already meet this success criterion when used according to specification.

NOTE 2: For conforming to this success criterion, it is usually best practice for software user interfaces to use the accessibility services provided by platform software. These accessibility services enable interoperability between software user interfaces and both assistive technologies and accessibility features of software in standardised ways. Most platform accessibility services go beyond programmatic exposure of name and role, and programmatic setting of states, properties and values (and notification of same), and specify additional information that could or should be exposed and / or set (for instance, a list of the available actions for a given user interface component, and a means to programmatically execute one of the listed actions).

NOTE 3: This success criterion is identical to the WCAG 2.0 Success Criterion 4.1.2 Name, Role, Value replacing the original WCAG 2.0 note with: "This success criterion is primarily for software developers who develop or use custom user interface components. For example, standard user interface components on most accessibility-supported platforms already meet this success criterion when used according to specification." and the addition of note 2 above.

**11.3.2.1 Platform accessibility service support for software that provides a user interface**

Platform software shall provide a set of documented platform services that enable software that provides a user interface running on the platform software to interoperate with assistive technology. Platform software should support requirements 11.3.2.5 to 11.3.2.17 except that, where a user interface concept that corresponds to one of the clauses 11.3.2.5 to 11.3.2.17 is not supported within the software environment, these requirements are not applicable. For example, selection attributes from 11.3.2.14 (Modification of focus and selection attributes) may not exist in environments that do not allow selection, which is most commonly

<p>associated with copy and paste.</p>				
<p><b>11.3.2.2 Platform accessibility service support for assistive technologies</b></p> <p>Platform software shall provide a set of documented platform accessibility services that enable assistive technology to interoperate with software that provides a user interface running on the platform software.</p> <p>Platform software should support the requirements of clauses 11.3.2.5 to 11.3.2.17 except that, where a user interface concept that corresponds to one of the clauses 11.3.2.5 to 11.3.2.17 is not supported within the software environment, these requirement are not applicable. For example, selection attributes from 11.3.2.14 (Modification of focus and selection attributes) may not exist in environments that do not allow selection, which is most commonly associated with copy and paste.</p>				
<p><b>11.3.2.3 Use of accessibility services</b></p> <p>Where the software provides a user interface it shall use the applicable documented platform accessibility services. If the documented platform accessibility services do not allow the software to meet the applicable requirements of clauses 11.3.2.5 to 11.3.2.17, then software that provides a user interface shall use other documented services to interoperate with assistive technology.</p>				
<p><b>11.3.2.4 Assistive technology</b></p> <p>Where the ICT is assistive technology it shall use the documented platform accessibility services.</p>				
<p><b>11.3.2.5 Object information</b></p> <p>Where the software provides a user interface it shall, by using the services as described in clause 11.3.2.3, make the user interface elements' role, state(s), boundary, name, and description programmatically determinable by assistive technologies.</p>				
<p><b>11.3.2.6 Row, column, and headers</b></p> <p>Where the software provides a user</p>				



<p>interface it shall, by using the services as described in clause 11.3.2.3, make the row and column of each cell in a data table, including headers of the row and column if present, programmatically determinable by assistive technologies.</p>				
<p><b>11.3.2.7 Values</b></p> <p>Where the software provides a user interface, it shall, by using the services as described in clause 11.3.2.3, make the current value of a user interface element and any minimum or maximum values of the range, if the user interface element conveys information about a range of values, programmatically determinable by assistive technologies.</p>				
<p><b>11.3.2.8 Label relationships</b></p> <p>Where the software provides a user interface it shall expose the relationship that a user interface element has as a label for another element, or of being labelled by another element, using the services as described in clause 11.3.2.3, so that this information is programmatically determinable by assistive technologies.</p>				
<p><b>11.3.2.9 Parent-child relationships</b></p> <p>Where the software provides a user interface it shall, by using the services as described in clause 11.3.2.3, make the relationship between a user interface element and any parent or children elements programmatically determinable by assistive technologies.</p>				
<p><b>11.3.2.10 Text</b></p> <p>Where the software provides a user interface it shall, by using the services as described in clause 11.3.2.3, make the text contents, text attributes, and the boundary of text rendered to the screen programmatically determinable by assistive technologies.</p>				
<p><b>11.3.2.11 List of available actions</b></p> <p>Where the software provides a user interface it shall, by using the services as described in clause 11.3.2.3, make a list of available actions that can be executed on a user interface element, programmatically determinable by</p>				

<p>assistive technologies.</p>				
<p><b>11.3.2.12 Execution of available actions</b></p> <p>When permitted by security requirements, software that provides a user interface shall, by using the services as described in clause 11.3.2.3, allow the programmatic execution of the actions exposed according to clause 11.3.2.11 by assistive technologies.</p>				
<p><b>11.3.2.13 Tracking of focus and selection attributes</b></p> <p>Where software provides a user interface it shall, by using the services as described in clause 11.3.2.3, make information and mechanisms necessary to track focus, text insertion point, and selection attributes of user interface elements programmatically determinable by assistive technologies.</p>				
<p><b>11.3.2.14 Modification of focus and selection attributes</b></p> <p>When permitted by security requirements, software that provides a user interface shall, by using the services as described in clause 11.3.2.3, allow assistive technologies to programmatically modify focus, text insertion point, and selection attributes of user interface elements where the user can modify these items.</p>				
<p><b>11.3.2.15 Change notification</b></p> <p>Where software provides a user interface it shall, by using the services as described in 11.3.2.3, notify assistive technologies about changes in those programmatically determinable attributes of user interface elements that are referenced in requirements 11.3.2.5 to 11.3.2.11 and 11.3.2.13.</p>				
<p><b>11.3.2.16 Modifications of states and properties</b></p> <p>When permitted by security requirements, software that provides a user interface shall, by using the services as described in clause 11.3.2.3, allow assistive technologies to programmatically modify states and properties of user interface elements, where the user can modify these items.</p>				

<p><b>11.3.2.17 Modifications of values and text</b></p> <p>When permitted by security requirements, software that provides a user interface shall, by using the services as described in 11.3.2.3, allow assistive technologies to modify values and text of user interface elements using the input methods of the platform, where a user can modify these items without the use of assistive technology.</p>				
<p><b>11.4.1 User control of accessibility features</b></p> <p>Where software is a platform it shall provide sufficient modes of operation for user control over those platform accessibility features documented as intended for users.</p>				
<p><b>11.4.2 No disruption of accessibility features</b></p> <p>Where software provides a user interface it shall not disrupt those documented accessibility features that are defined in platform documentation except when requested to do so by the user during the operation of the software.</p>				
<p><b>11.5 User preferences</b></p> <p>Where software provides a user interface it shall provide sufficient modes of operation that use user preferences for platform settings for colour, contrast, font type, font size, and focus cursor except for software that is designed to be isolated from its underlying platforms.</p>				
<p><b>11.6.1 Content technology</b></p> <p>Authoring tools shall conform to clauses 11.6.2 to 11.6.5 to the extent that information required for accessibility is supported by the format used for the output of the authoring tool.</p>				
<p><b>11.6.2 Accessible content creation</b></p> <p>Authoring tools shall enable and guide the production of content that conforms to clauses 9 (Web content) or 10 (Non-Web content) as applicable.</p>				

<p><b>11.6.3 Preservation of accessibility information in transformations</b></p> <p>If the authoring tool provides restructuring transformations or re-coding transformations, then accessibility information shall be preserved in the output if equivalent mechanisms exist in the content technology of the output.</p>				
<p><b>11.6.4 Repair assistance</b></p> <p>If the accessibility checking functionality of an authoring tool can detect that content does not meet a requirement of clauses 9 (Web content) or 10 (Documents) as applicable, then the authoring tool shall provide repair suggestion(s).</p>				
<p><b>11.6.5 Templates</b></p> <p>When an authoring tool provides templates, at least one template that supports the creation of content that conforms to the requirements of clauses 9 (Web content) or 10 (Documents) as applicable shall be available and identified as such.</p>				
<p><b>12.1.1 Accessibility and compatibility features</b></p> <p>Product documentation provided with the ICT whether provided separately or integrated within the ICT shall list and explain how to use the accessibility and compatibility features of the ICT.</p>				
<p><b>12.1.2 Accessible documentation</b></p> <p>Product documentation provided with the ICT shall be made available in at least one of the following electronic formats:</p> <p>a) a Web format that conforms to clause 9, or</p> <p>b) a non-web format that conforms to clause 10.</p>				
<p><b>12.2.2 Information on accessibility and compatibility features</b></p> <p>ICT support services shall provide information on the accessibility and compatibility features that are included in</p>				

the product documentation.				
<p><b>12.2.3 Effective communication</b></p> <p>ICT support services shall accommodate the communication needs of individuals with disabilities either directly or through a referral point.</p>				
<p><b>12.2.4 Accessible documentation</b></p> <p>Documentation provided by support services shall be made available in at least one of the following electronic formats:</p> <p>a) a Web format that conforms to clause 9, or</p> <p>b) a non-web format that conforms to clause 10.</p>				
<p><b>13.2 Access to relay services</b></p> <p>Where ICT systems support two-way communication and a set of relay services for such communication is specified, access to those relay services shall not be prevented for outgoing and incoming calls.</p>				
<p><b>13.3 Access to emergency services</b></p> <p>Where ICT systems support two-way communication and a set of emergency services for such communication is specified, access to those emergency services shall not be prevented for outgoing and incoming calls.</p>				

## **Solicitation Language for Desktop and portable computers**

Advisory note - not to be included in a Call for Tenders:

A procuring body that decides to use EN 301 549 "Accessibility requirements suitable for public procurement of ICT products and services in Europe", for accessibility requirements in the Technical Specification, has two options:

1. refer to the Functional Performance Statements in clause 4.2 of EN 301 549
2. refer to appropriate Functional Accessibility Requirements in clauses 5-13 of EN 301 549.

For more advice see

<http://mandate376.nomensa.com/procurement-stages/call-for-tender>.

### **Text for Solicitation Language - Functional Accessibility Requirements**

The offered solution shall meet Clauses 5.2, 5.3, 5.4, 5.5.1, 5.5.2, 6.2.1.1, 6.2.1.2, 6.2.2.1, 6.2.2.2, 6.2.3, 6.2.4, 6.3, 6.4, 6.5.2, 6.5.3, 6.5.4, 6.6, 7.1.1, 7.1.2, 7.1.3, 7.2.1, 7.2.2, 7.2.3, 7.3, 8.1.2, 8.1.3, 8.2.1.1, 8.2.1.2, 8.4.1, 8.4.2.1, 8.4.2.2, 8.4.3, 11.2.1.1, 11.2.1.2, 11.2.1.3, 11.2.1.4, 11.2.1.5, 11.2.1.6, 11.2.1.7, 11.2.1.8, 11.2.1.9, 11.2.1.10, 11.2.1.11, 11.2.1.12, 11.2.1.13, 11.2.1.14, 11.2.1.15, 11.2.1.16, 11.2.1.17, 11.2.1.18, 11.2.1.19, 11.2.1.22, 11.2.1.23, 11.2.1.24, 11.2.1.25, 11.2.1.26, 11.2.1.27, 11.2.1.28, 11.2.1.29, 11.2.1.30, 11.2.1.31, 11.2.1.32, 11.2.1.33, 11.2.1.34, 11.2.1.35, 11.2.1.36, 11.2.1.37, 11.2.1.38, 11.3.2.1, 11.3.2.2, 11.3.2.3, 11.3.2.4, 11.3.2.5, 11.3.2.6, 11.3.2.7, 11.3.2.8, 11.3.2.9, 11.3.2.10, 11.3.2.11, 11.3.2.12, 11.3.2.13, 11.3.2.14, 11.3.2.15, 11.3.2.16, 11.3.2.17, 11.4.1, 11.4.2, 11.5, 11.6.1, 11.6.2, 11.6.3, 11.6.4, 11.6.5, 12.1.1, 12.1.2, 12.2.2, 12.2.3, 12.2.4, 13.2, 13.3 from EN 301 549, available at

[http://www.etsi.org/deliver/etsi\\_en/301500\\_301599/301549/01.01.01\\_60/en\\_301549v010101p.pdf](http://www.etsi.org/deliver/etsi_en/301500_301599/301549/01.01.01_60/en_301549v010101p.pdf).

## **Verification**

Any of the following means of proof will be accepted:

- Accredited third part certification - a certificate with content compliant with Annex B.5 in CEN/CLS/ETSI/TR 101 552 "Guidance for the application of conformity assessment to accessibility requirements for public procurement of ICT products and services in Europe", and issued by a conformity assessment body, accredited in accordance with Regulation (EC) No 765/2008 of the European Parliament and of the Council
- A test report from a conformity assessment body, accredited in accordance with Regulation (EC) No 765/2008 of the European parliament and of the Council.
- A Supplier's Declaration of Conformity - compliant with Annex B.2 in CEN/CLC/ETSI/TR 101 552.
- A First Party Declaration, compliant with Annex B.1 in CEN/CLC/ETSI/TR 101 552.
- A technical dossier of the manufacturer of the offered Desktop and portable computers.

Note 1: The statement of conformity should be compliant with clause C1 of EN 301 549, i.e. the statement of conformity should have a form that:

- makes clear whether there is compliance with all the applicable requirements or whether there is only compliance with some requirements;
- notes the sampling and assessment techniques used to evaluate the ICT;
- notes whether equivalent accessible functionality exists in places where non-compliance was found;
- notes whether equivalent means were used that achieve the outcome envisioned, where technical non-compliance was found.

Note 2: "Technical dossier" is a term used in EU procurement directives. A technical dossier could be a product sheet or a technical description. This dossier shall be issued by the manufacturer and must not be produced specifically for the tender in question.



# Solicitation Language for Customer Relationship Management system

## Advisory note - not to be included in a Call for Tenders:

A procuring body that decides to use EN 301 549 "Accessibility requirements suitable for public procurement of ICT products and services in Europe", for accessibility requirements in the Technical Specification, has two options:

1. refer to the [Functional Performance Statements](#) in clause 4.2 of EN 301 549
2. refer to appropriate Functional Accessibility Requirements in clauses 5-13 of EN 301 549.

For more advice see <http://mandate376.nomensa.com/procurement-stages/call-for-tender>

## Text for Solicitation Language - Functional Performance Statements

The offered solution shall meet Clauses 4.2.1, 4.2.2, 4.2.3, 4.2.4, 4.2.5, 4.2.6, 4.2.7, 4.2.8, 4.2.9, 4.2.10, 4.2.11 from EN 301 549 "Accessibility requirements suitable for public procurement of ICT products and services in Europe", available at [http://www.etsi.org/deliver/etsi\\_en/301500\\_301599/301549/01.01.01\\_60/en\\_301549v010101p.pdf](http://www.etsi.org/deliver/etsi_en/301500_301599/301549/01.01.01_60/en_301549v010101p.pdf)

## Verification

Any of the following means of proof will be accepted:

- Accredited third party certification - a certificate with content compliant with [Annex B.5](#) in CEN/CLC/ETSI/TR 101 552 "Guidance for the application of conformity assessment to accessibility requirements for public procurement of ICT products and services in Europe", and issued by a conformity assessment body, accredited in accordance with Regulation (EC) No 765/2008 of the European parliament and of the Council.
- A test report from a conformity assessment body, accredited in accordance with Regulation (EC) No 765/2008 of the European Parliament and of the Council.
- A [Supplier's Declaration of Conformity](#) compliant with Annex B.2 in CEN/CLC/ETSI/TR 101 552.
- A [First Party Declaration](#), compliant with Annex B.1 in CEN/CLC/ETSI/TR 101 552.

- A technical dossier of the manufacturer of the offered Customer Relationship Management system.

Note 1: The statement of conformity should be compliant with clause C1 of EN 301 549, i.e. the statement of conformity should have a form that:

- makes clear whether there is compliance with all the applicable requirements or whether there is only compliance with some requirements;
- notes the sampling and assessment techniques used to evaluate the ICT;
- notes whether equivalent accessible functionality exists in places where non-compliance was found;
- notes whether equivalent means were used that achieve the outcome envisioned, where technical non-compliance was found.

Note 2: "Technical dossier" is a term used in EU procurement directives. A technical dossier could be a product sheet or a technical description. This dossier shall be issued by the manufacturer and must not be produced specifically for the tender in question.



# The European Electronic Communications Code (EECC) and end-users with disabilities

18 September 2018

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**Disclaimer: The views expressed in this presentation are those of the author and do not necessarily reflect the opinion of the European Commission**

## Directive establishing the EECC, the "Code"



### Status

- Commission's proposal establishing the European Electronic Communications Code, COM(2016)590 – September 2016
- Negotiations with the European Parliament and the Council; political agreement reached 6 June 2018.
- Formal adoption is expected to take place at the end of this year (2018).
- Member States (MSs) will have two years from the entry into force to adopt necessary provisions; some exceptions.
- **This presentation is based on the politically agreed text, NOT yet the final adopted text. The article numbers are indicative.**

<http://www.consilium.europa.eu/en/press/press-releases/2018/06/29/telecoms-reform-to-bolster-better-and-faster-connectivity-across-eu-approved-by-member-states/>

## The Code and end-users with disabilities

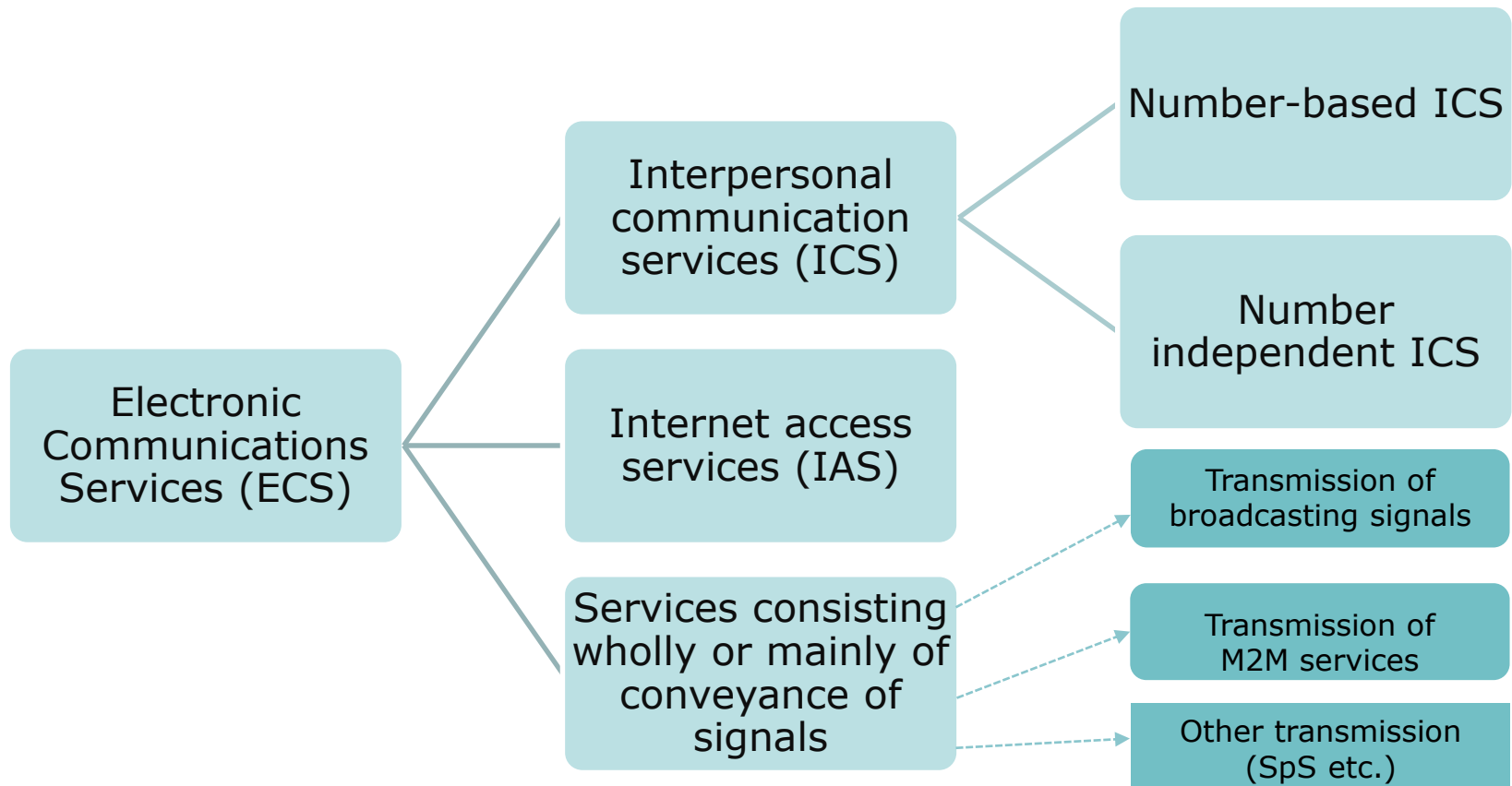
### Contents of the presentation

- 1. Scope**
- 2. Subject matter, aim, consultation**
- 3. Universal service**
- 4. End-user protection**

## 1

## Definitions

New definition of 'Electronic communications service' (ECS)



# 2

## Subject matter, aim, consultation

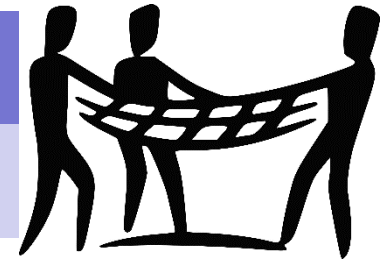
End-users with disabilities

- **Art 1 Subject matter and aim**
  - including end-users with disabilities in order to access the services on an equal basis with others
- **Art 3 General objectives**
  - addressing the needs of specific social groups, in particular end-users with disabilities
- **Art 24 Consultation of interested parties**
  - including issues related to equivalent access and choice for end-users with disabilities

### 3

## Universal service 1/2

End-users with disabilities



Affordable adequate broadband internet access and voice communications to all consumers

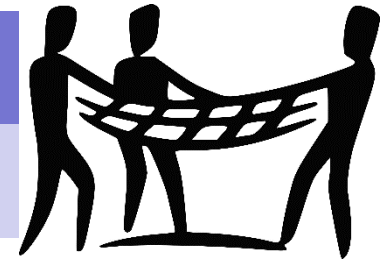
- *Art 79*: The **bandwidth** needs to support at least a number of services. Bandwidth is defined by MSs (national conditions and the minimum bandwidth enjoyed by the majority of consumers).
- *Art 79*: Universal service **at a fixed location**, but MSs may ensure affordability also of **mobile** connections if necessary.
- *Art 81*: **Availability** of the services ensured if not possible under commercial circumstances or through other public policy tools.



### 3

## Universal service 2/2

End-users with disabilities



- *Art 80: **Affordability*** measures for low-income or special social needs consumers: if retail prices are not affordable: support or tariff options.
- *Art 80:* availability and affordability of related **terminal equipment, specific equipment and specific services** for consumers with disabilities, including where necessary total conversation and relay services.
- *Art 84 **Financing**:* public funds and/or shared between providers.

# 4

## End-user protection 1(2)

End-users with disabilities



- **Art 95 Information requirements for contracts:** in an accessible format for end-users with disabilities; Annex VII bis: details on products and services designed for end-users with disabilities.
- **Art 96 Transparency:** information to be published in an accessible format for end-users with disabilities; Annex VIII: details of products and services for end-users with disabilities.
- **Art 97 Quality of service:** information on the quality, including on measures taken to ensure equivalence in access; BEREC (*Body of European Regulators for Electronic Communication*) guidelines to include parameters for end-users with disabilities

# 4

## End-user protection (2/2)

End-users with disabilities



- **Art 102 Emergency communications:** access to emergency services for end-users with disabilities available and equivalent in accordance with Union law harmonising accessibility; measures to ensure access on an equivalent basis whilst travelling
- **Art 103 Equivalent access and choice for end-users with disabilities:** specifying requirements to be met by providers of electronic communications services
- **Art 106 Must carry obligations:** may be imposed by MSs (requirements) on providers of ECN or ECS used for the transmission of radio and TV broadcast channels that are specified by MS; in particular services to enable appropriate access for end-users with disabilities

**Thank you for your attention**