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With the financial support of the European Union Programme for Employment and Social Innovation “EaSI” (2014-2020). The information contained in this publication does not necessarily reflect the official position of the European Commission.

Executive summary

The EU has taken an important first step in ensuring disability rights by adopting the Web Accessibility Directive & the Accessibility Act, harmonising the rules on accessibility of public websites, ICT, and mobile technology.

The purpose of this study is to create guidelines highlighting the role of each relevant stakeholder and describing the needed steps to ensure the standards are in place. To achieve this, we have analysed the legal texts and interviewed support services for people with disabilities, as they are historically experienced in the provision of accessible tools and instruments.

Our main observance is that when accessibility is considered at the earliest stage possible, the costs tend to be marginal. Users must be involved from the beginning of the development process, paid for their participation, and ideally be recognised as co-researchers. The involvement of people with intellectual or psychosocial impairments is nothing to be hesitant of. It only requires certain management skills.

We've created a practical step-by-step guide on how to comply with the accessibility directives, focussing on what's relevant for the sector of support services:

1. Update knowledge on accessibility
2. Don't limit yourself to the scope of the Directives
3. Establish target group
4. Involve users from beginning
5. Optional: co-operate with experts
6. Take technical measures
7. Ensure cyber security & privacy
8. Test before release & include feedback system
9. Draft information on accessibility measures

10. Test periodically

11. Update if problems arise

These principles are already (in varying degrees) in place with most of our members, especially for their core services and the physical environment. ICT is slowly getting a more prominent role, with websites often not yet accessible. Whereas most don't consider themselves accessibility experts, their insights are invaluable, as illustrated with 'promising practices' in this paper. Accessibility consulting could even be turned into a business model.

The most pressing concern lies in the lack of harmonised standards for the accessibility of ICT goods/services. For websites it is clear which technical measures should be taken (seen the Web Content Accessibility Guidelines), but this is not the case for the Accessibility Act. Its 'Annex I' lists binding criteria and 'Annex II' non-binding examples, but these are not detailed enough. The EU should thus prioritise its pledge to create more harmonised standards and technical specifications (see: (76) – (77) Preamble Accessibility Act). Only when these are in place, national authorities can model their market surveillance authorities towards the effective ones on web accessibility.

Businesses will usually not invest in accessibility, unless it is in their own interest. Besides the Accessibility Act still needing to be transposed into national law, state authorities can ensure the implementation through a combination of policing, marketing, and promoting. It should be highlighted that most people don't know the accessibility features already in place. Training on accessibility is therefore key.

Seen the limited scope of the current directives, more EU legislation is needed in the future. Plus, our members have stressed struggling to find web developers who can actually comply with the accessibility standards. We recommend the creation of a harmonised accessibility certification for programmers, searchable in a database.

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1 Introduction

1.1 Legal framework

1. The UN Convention on the Rights of Persons with Disabilities (UNCRPD) recognises the fundamental human rights of persons with disabilities. All states within the Council of Europe are bound by its provisions, and the ratification by the EU makes it an integral part of the European legal order. The Convention can be seen as a framework of core principles, which its members need to implement, i.e. by taking further legislative action.

One of the main areas covered, is accessibility (art.9). People with disabilities have the right to access the physical environment, transportation, information, and communication, on an equal basis with others.

2. The UN Committee on the Rights of Persons with Disabilities has (in General Comment No 2) stressed the importance of ICT for gathering knowledge and opening up a wide range of services.¹ Subsequently, with an eye on the requirement to take further legislative action (cf. *supra* nr. 1), the EU has adopted two Directives laying out specific rules regarding accessibility of ICT and mobile technology. First, the EU Directive on the accessibility of the websites and mobile applications of public sector bodies (26 October 2016) (*hereafter*: ‘Web Accessibility Directive’).² Second, the EU Directive on the accessibility requirements for products and services (17 April 2019) (*hereafter*: ‘Accessibility Act’).³ The commonly used abbreviation ‘Accessibility Act’ is not ideal, since the document is not an Act, but a Directive. In this study, we’ll nevertheless use this terminology in order to avoid confusion when consulting other sources.

These Directives fall within the framework of the European Disability Strategy 2010-2020,⁴ and do not replace any previous legislation. The effect differs greatly depending on the Member State, as many had already similar (or bigger) measures in place. Both Directives are adopted

with the additional aim to “improve the functioning of the internal market for accessible products and services, by removing barriers created by divergent rules in Member States”.³

3. Contrary to EU Regulations, all EU Directives need to be transposed into national law before taking full effect. As for the Web Accessibility Directive, it should already be transposed. There are however still some transitional measures. New public sector websites must conform by 23 September 2019, old ones by 23 September 2020, and all public sector mobile apps by 23 June 2021.⁶ For the Accessibility Act, Member States still have until 28 June 2020 to adopt laws and regulations, and until 28 June 2025 to apply all measures.⁷ For a smooth transition into the new requirements, there are some extra transitional measures for products that were already lawfully in use.⁸

Transposed or not: the UNCRPD with its general 'accessibility requirement' (cf. *supra* nr. 1) still stands. It is important to keep in mind that the Directives do not lay down any 'new' requirements but specify what is needed to comply with the Convention. It is a harmonising minimum. Moreover, since the UNCRPD interacts mostly with shared competences between the EU and its Member States, the latter are also under the obligation to take necessary legislative action. There is no guarantee that the Directives are enough.

The UNCRPD is less enforceable than European Directives, but individuals or organisations can always claim their state does not enough for its implementation. Complaints can be brought before the UN Committee on the Rights of Persons with Disabilities. After examination, they'll formulate recommendations and make them public. As the Convention is also part of the European legal order, another option would be to bring the case before the European Court of Human Rights or the European Court of Justice.

1.2 Definitions

4. Before analysing the accessibility Directives, we'll define our usage of the concepts 'accessibility' and 'disability'.

When talking about 'accessibility', we refer to the principle of 'universal design', as mentioned in the Preamble of both Directives.⁹ This concept refers to the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design.¹⁰

As for 'disability', no definition is necessary. With design for all, there is no need for an 'in-' and an 'out-group'.

5. One should keep in mind that the concept 'disability' has many framings, of which nor the UN, nor the EU, has made a final choice. Both institutions did start to walk away from the medical model of disability. The UNCRPD (cf. *supra* nr. 1) does not include a definition, but does stress the role of the environment.¹² This reverses how to think about design: the role of the environment is not to meet the needs of people with disabilities, but is causing disabilities by not being accessible by default.

The Accessibility Act hints towards the same idea. It defines persons with disabilities as *“persons 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”*.¹³ The Web Accessibility Directive refrains from defining disability, but explicitly includes elderly people.¹⁴

6. The physical, social, and communicative environment is designed for the majority, easily rendering any differences disabling. Disability can thus be seen as a spectrum that everyone can encounter throughout their lifetime. Plus, with rising life expectancy and an ever-ageing population, more and more people will have some form of disability. Accessibility measures would therefore not be any 'special rights', but an approach benefiting us all.

It should also be noted that if something works for people with disabilities, it usually works better for everyone else. The Accessibility Act gives as example that accessibility measures may i.e. benefit pregnant women and people travelling with luggage.¹⁵ Another example is how an easy-to-read text is much more accessible to the average person than a full technical text.

7. To conclude: in this paper, 'disability' is seen as a spectrum that's highly influenced by its environment. 'Accessibility' is defined as design for all, supporting not only persons with disabilities, but also the general population at various stages of life.

1.3 Goal of study

8. Social and health services - *such as services providing support in the field of employment, education, housing, day care and respite facilities, prevention, early intervention, community-based living, arts, culture, sport and leisure activities* - are essential to persons with disabilities to fully participate in society, enjoy their human rights, and be empowered to live as independent as possible.

These service providers have a wealth of resources, expertise, and know-how in the field of accessibility. They are well-placed to showcase and train other providers on how accessibility features can be adopted in various environments to comply with international standards and ultimately benefit end-users. They differ greatly in specialisation, size, and location. Learning from one-another can be thought-provoking and result in an amelioration of their respective accessibility strategies.

9. In this study, we'll take a closer look at how these support services implement accessibility requirements for the products and services covered by the above-mentioned accessibility Directives (cf. *supra* nr. 2). The goal is to create guidelines highlighting the role of each relevant stakeholder (i.e. end-user/person with support needs, staff of service providers, authorities, etc.) and describing the needed steps to ensure the standards are in place.

On top, the Accessibility Act mentions that the Commission should “*establish a working group consisting of relevant authorities and stakeholders to facilitate exchange of information and of best practices and to provide advice. Cooperation should be fostered between authorities and relevant stakeholders, including persons with disabilities and organisations that represent them*”.¹² This study could therefore potentially be used as a basis to start the discussion on

best practices within the Commission, as well as for talks on more harmonised standards and technical specifications (cf. *infra* nr. 16).

10. Before laying out the state-of-the-art within support services for people with disabilities, we'll first zoom in on the requirements laid down in the above-mentioned Directives. Chapter 2 can be seen as 'theory', with footnotes referring to the legal basis. In chapter 3 the practical implications will be laid out, each time cross referencing to chapter 2.

For the theoretical part, we've not only looked at the articles of the Directives, but also their preambles. A preamble is an introductory part of a legal text, stating the purpose and aims. It does not have the same legal value but serves as an important interpretation tool.

2 Accessibility Directives

2.1 What are the obligations?

11. Overall, The Accessibility Act and the Web Accessibility Directive are similar. First, they have a limited scope. The Web Accessibility Directive covers the websites and mobile applications of public sector bodies, while exempting areas such as broadcasting, archives, and schools.¹⁸ The Accessibility Act covers a set of ICT services and products such as computers, smartphones, e-readers, banking services, and e-commerce, while exempting areas such as transport, built environment, health care, education, and household appliances.¹⁹

The Directives are complimentary: no matter how accessible a website is, it cannot be used without an accessible computer or smartphone. It should also be noted that if a product or service falls out of the scope of European legislation, the obligation of accessibility still stands. The general obligations from art. 9 UNCRPD are still applicable (cf. *supra* nr. 3).

12. Second, they create an obligation for Member States to ensure that the selected products and services placed in the market comply with accessibility requirements. According to the Web Accessibility Directive, this means the products and services need to be 'perceivable, operable, understandable and robust'.²⁰ The Accessibility Act goes a bit further with outlining

these principles in a set of accessibility requirements. In its 'Annex I', binding criteria are listed, whereas its Annex II consists of non-binding examples of possible solutions.

As for the provision of information, besides requirements on i.e. the availability of more than one sensory channel, Annex II proposes "Using the same words in a consistent manner, or in a clear and logical structure, so that persons with intellectual disabilities can better understand it."

Lots of attention is given to the user interface, i.e. flexible magnification and contrast, interoperability with programmes and assistive devices, alternatives for fine motor control, avoidance of triggering photosensitive seizures, and protecting the user's privacy when he or she uses the accessibility features. As for the non-binding examples, things like "When a computer gives an error signal, providing a written text or an image indicating the error, so as to allow deaf persons to apprehend that an error is occurring", and "Making touch screen buttons bigger and well separated so that persons with tremor can press them", are named.

Where available, support services (help desks, call centres, technical support, relay services and training services) providing information on the accessibility of the service and its compatibility with assistive technologies, have to offer them in accessible modes of communication.

13. Third, neither Directive imposes detailed technical solutions telling "how" to make it accessible, allowing for innovation. Both Directives do provide a presumption of compliance when adhering to harmonised standards.²¹ This means that when harmonised standards (who are updated regularly in order to keep up with the state of technology) are followed, one is expected to be in order with the Directive's criteria (cf. *supra* nr. 12). Since it's only a presumption, the contrary can (theoretically) still be proven.

So far, no standards are in place for the Accessibility Act. It is thus not clear how the criteria should be implemented. For web accessibility things are clearer. The harmonised standards

can be found in the Web Content Accessibility Guidelines,²² a very extensive instrument. In the future, further standards will follow (cf. *infra* nr. 16).

14. Fourth, the products and services need to be periodically tested, and information regarding compliance with the Directives must be provided.

Which information is needed, varies for products and services. For products falling under the scope of the Accessibility Act (cf. *supra* nr. 11), the manufacturer must do a conformity test with the accessibility requirements (cf. *supra* nr. 12).²³ He then needs to draw up an official declaration of conformity before the product is placed on the market in Europe.²⁴ Technical information does not need to be shared with the public,²⁵ but a description of the functionality of the product addressing the needs of persons with disabilities, as well as a description of the software and hardware interfacing with assistive devices, must be provided.²⁶ For services falling under the scope of the Accessibility Act, the rules are different. Service providers don't need to fill out any official declarations, but they do need to include in their general terms and conditions (or equivalent documents) how the service meets the accessibility requirements.²⁷ The obligation to periodically perform tests cannot literally be found, but it is clear throughout the text, i.e. with mentions of the requirement to adapt products and services that (no longer) comply with the rules.

The Web Accessibility Directive is stricter. Public bodies' websites and applications need to provide even more information on their accessibility, including a statement on why certain aspects are not accessible, and on the feedback-mechanism enabling any person to notify failure to comply with the accessibility requirements. On top, this information needs to be regularly updated.²⁸

15. The main difference between the Directives lies in who must comply with the requirements. The Web Accessibility Directive only targets public sector bodies,²⁹ whereas the Accessibility Act lays out different obligations for manufacturers, representatives, importers, distributors, and service providers.³⁰

Another difference lies in that only the Web Accessibility Directive includes an obligation for Member States to promote and facilitate training programmes relating to the accessibility of websites and mobile applications for relevant stakeholders.³¹ The Accessibility Act has no such obligation. In order to adhere to its standards, continuous trainings will nonetheless be vital (cf. *infra* nr. 26).

16. Seen the limited scope of current accessibility Directives (cf. *supra* nr. 11), further legislation will be necessary, but it is clear the EU takes accessibility seriously. They have pledged to take further action, creating more harmonised standards and technical specifications. Where this is feasible, they'll involve European umbrella organisations of persons with disabilities and all other relevant stakeholders.³²

2.2 What happens when I don't comply?

17. Both Directives provide in a monitoring system.³³ Member States are responsible for ensuring strong and efficient market surveillance in their territories and should allocate sufficient powers and resources to their market surveillance authorities.³⁴ These authorities can test products and services, handle complaints, withdraw products from the market, and represent individuals in court. Wherever possible, they work in cooperation with persons with disabilities.³⁵

When an inaccessible product is withdrawn from the market in one Member State, other market surveillance authorities have to do the same.³⁶ It should also be noted that the preamble of the Accessibility Act states that penalties must be adequate in relation to the character of the infringements and not serve as an alternative to making products or services accessible.³⁷ This means the penalty has to be high enough in order for companies not to "buy off" the obligation to make their product or service accessible. In other words: market surveillance authorities can decide upon an adequate amount, depending on the size of the company and character of the infringement.

18. The accessibility requirements (cf. *supra* nr. 12) are however not absolute. Both Directives provide in the exemption of a disproportionate burden.³⁸ In case it would be a disproportionate burden for economic operators to make a service or product accessible, they don't have to.

This does not mean the Directives are hollowed out. First, not every reason can be invoked as a burden: the Accessibility Act contains a list of criteria for the 'disproportionate burden assessment', mainly referring to the ratio between the costs and overall turnover.³⁹ Second, all exemptions should be interpreted strictly in light of General Comment No 2, which speaks of an 'unconditional' obligation to implement accessibility.⁴⁰

19. So far, the monitoring and sanctioning of the Web Accessibility Directive has proven to be effective. The ongoing data collection seems to be working, and it has resulted in more awareness on the topic. It has truly brought a shift in attention of those responsible for developing and maintaining the websites and apps of public institutions.

Regarding the Accessibility Act, the future will tell how effective the monitoring system will be. Modelling it to the one of the Web Accessibility Directive, is a good idea. However, this is currently not possible seen the lack of clarity which technical measures are necessary to comply with the Accessibility Act (cf. *supra* nr. 13). For a monitoring system to work, the EU will have to put lots of effort into their pledge of creating more harmonised standards (cf. *supra* nr. 16).

3 How do disability support services address the requirements of both Directives?

3.1 Introduction: methodology

20. In the previous chapter, we've distinguished the main rules from both accessibility Directives (cf. *supra* nr. 11-19). Now, we'll research their implementation by taking a closer look at ICT accessibility within service providers for persons with disabilities.

21. To find out what's important within the sector, we have sent out a questionnaire to support services within various fields. The questions ranged from their involvement in the development of ICT and needs of their target group, to user testing (see Annex). The answers were then compared to the requirements from the accessibility Directives, after which we scheduled some follow-up interviews. We've also conducted in-depth interviews with experts who don't directly provide support services but assist them on-demand. Their input is invaluable, seen their core business consists of researching, developing, and managing assistive technology and accessible solutions.

Opting for a qualitative approach, the sample size is too small to draw representative conclusions for the whole sector, but it does give a good indication for what to look out for regarding accessibility when developing and/or providing ICT -goods or -services.

22. Combining the results of these interviews with a practical deduction of the "theory" from chapter 2, we've drafted a step-by-step guide for developers and service providers to implement the accessibility Directives. Where possible, cross-references to the "theory" are included. Next, we've illustrated these steps with some promising practices of service providers. We conclude with clear recommendations for state authorities and the EU.

It is to be noted that the promising practices are merely examples of how to implement (certain aspects of) the Directives. We do not offer a legal opinion on the compliance of specific goods and services with any current or future legislation.

3.2 Expertise within support services

23. Disability support services are historically experienced in the provision of accessible tools and instruments due to the needs of the users they support. Therefore, extensive know-how has been developed to accommodate a variety of needs and a constant search for innovative, accessible solutions is part of their daily operations. Support services do differ greatly in specialisation, size, and location. It is therefore interesting to learn from one-another.

24. Support services are not the only ones active in this field. A growing number of companies label themselves as "accessibility experts". Notwithstanding the lack of quality label, we have asked our members if they ever make use of these external services. The answer varied mainly on the core activity of the member.

Those who research and/or develop assistive ICT technology are confident about the expertise within their own organisation, and do not make use of external services. Some are themselves the to-go-to experts, advising both private and public entities on accessibility. Members who rather focus on a specific sphere, such as housing services, usually combine their own (specific) accessibility knowledge with those of externals. All support services have valuable expertise on accessibility but might lack some supporting competences (such as computer programming), often resulting in productive co-operations.

3.3 How do I comply with the Directives?

3.3.1 Step-by-step approach

25. Whether designing a website, or an ICT or mobile technology service/good, the following steps must be followed to comply with the accessibility Directives:

1. Update knowledge
2. Don't limit yourself to the scope of the Directives
3. Establish target group
4. User involvement from beginning
5. Optional: co-operate with experts
6. Take technical measures
7. Ensure cyber security & privacy
8. Test before release & include feedback system
9. Draft information on accessibility measures
10. Test periodically
11. Update if problems arise

12. Optional: develop (web) accessibility as a business

3.3.2 Update knowledge

26. For accessibility to be mainstreamed into the processes of an organisation or business, and more general into society, a change in mentality is needed. Accessibility is not a question to be asked after developing a product or service, but should be considered from the beginning, resulting in universal design benefiting all (cf. *supra* nr. 4-7). On top, technology keeps evolving rapidly, with new questions on privacy and accessibility arising every day.

It is therefore important for management and staff to have a basic understanding of accessibility. Not only for those directly involved with the development/provision of goods and services, but also for supporting staff, such as persons working in front offices. A first comprehension comes from education, ideally as a mandatory part of the curriculum, and a refresher from in-house training.

27. The existence of in-depth courses on accessibility as part of Computer Science programmes (and related ICT programmes) at university level, as well as postgraduates in accessibility and assistive technologies, is to be applauded. The same counts for shorter and smaller course programmes for other educational institutions, such as teacher trainings, health care studies, ergotherapy, logotherapy, etc.

However, this is not enough. Continuous training on accessibility is vital. The Web Accessibility Directive makes it an obligation of the state to host such trainings for public bodies (cf. *supra* nr. 15). Private institutions will have to organise it themselves, either by teaching colleagues if they have their own research department on accessibility, or by contacting externals. These externals can be self-proclaimed accessibility experts (cf. *supra* nr. 24), service providers for persons with disabilities for which accessibility is a key field of operation (cf. *infra* nr. 42), or university departments specialising in the research of accessible solutions.

3.3.3 Don't limit yourself to the scope of the Directives

28. To adhere to international law, it is not necessarily enough to apply the rules of the accessibility Directives. Seen the limited scope of the latter, one could easily think they are not obliged to make their products and services accessible. This is not true: the basic requirement of 'accessibility' from art. 9 of the UNCRPD still stands (cf. *supra* nrs. 1, 3 and 11).

Plus, making products and services accessible means a bigger market share, by i.e. including the ever more ageing population (cf. *supra* nr. 6). It is a good businesses strategy.

29. While service providers for people with disabilities are generally very good at what they do, their websites often don't meet the accessibility standards. As most of them are private in nature, they don't fall under the scope of the Web Accessibility Directive (cf. *supra* nr. 15). It is however most important that they lead as an example and open their content towards as many people as possible.

The members we've consulted in this research, are aware their website is an area for improvement. Some have seen a shift in thinking within their own organisation: where they saw the website as not that relevant for (some of) their clients in the past, they now want to include them. For others, their website is just a 'proof of existence' and doesn't hold any real information, so there's no direct need to make it fully accessible.

One thing that kept coming up in the interviews, is the difficulty to make a website accessible. On one hand, there is the lack of funding. As most organisations work on a limited budget, their website is often last on their priority list. Another problem is the lack of quality label for "accessibility experts" (cf. *supra* nr. 24). Many companies claim they can comply with the accessibility standards, but don't necessarily deliver these promises. Hence, our members call for a harmonised certification on accessibility for programmers, combined with a database where these specialists can be found.

3.3.4 Establish target group

30. Once the necessary knowledge is gathered and the right intention set, it is time to establish a target group. Questions such as *“What is the purpose? Who is the audience?”* have to be kept in mind from early on. If the audience is 'everyone', the product or service should be as generic as possible.

31. It is important to be upfront about the fact that it's impossible to make something useable for everyone. It is no coincidence that the principle of 'universal design' speaks of *“useable by all people, to the greatest extent possible”* (cf. *supra* nr. 4). One should nevertheless stay proactive about people with disabilities differing enormously. They are expert in their own limitations but are not representative for all. A good accessibility strategy includes as many different impairment types as possible.

3.3.5 User involvement: from beginning

32. Our members have noticed that when accessibility is considered at the earliest stage possible, the costs tend to be marginal. In order to avoid costly repair, it is important to already test templates and ideas. However, users are too often only consulted when it comes to 'end product testing', even within many support services for people with disabilities.

One of the main conclusions from this research, is that users must be involved from the beginning. They are not mere tokens but have to be treated as important actors in the development process. Questions such as: *‘What is their vision on the envisaged product or service? Do our ideas make sense to them? How can our approach empower users, both during the development process, and in their daily lives?’*, must be asked.

33. Involving users from the beginning allows developers to think outside their own framework. Even the language of technology can be problematic, as people with intellectual disabilities or the elderly may not know the meaning of “click”, “swipe”, etc. The premise that

this won't be a problem in the future, does not hold. Technology evolves so quickly that when the young generation grows old, they will not understand the novelties.

3.3.6 Optional: co-operate with experts

34. Companies and organisations can either develop their products and services all by themselves or cooperate with experts in the field. The Accessibility Act has established obligations for everyone in the production cycle (cf. *supra* nr. 15). Nonetheless, it is advisable to have good outsourcing contracts that include responsibility and liability clauses, as well as to closely supervise the whole process.

3.3.7 Take technical measures

35. Take measures to introduce accessibility in the design, development and production of a product or service, in order to make it perceivable, operable, understandable and robust (cf. *supra* nr. 12-13). Future harmonised standards will lay out more what this means (cf. *supra* nr. 16).

Accessibility measures should always have an empowerment-approach towards users with disabilities who should not only benefit from increased accessibility of a product or service, but ultimately also become more empowered in their daily lives.

3.3.8 Ensure cyber security & privacy

36. Make sure the privacy of users is ensured and cyber security built into the process. Also questions such as “*What happens if the power goes down?*” must be addressed to ensure stability. The world of technology is expanding and almost everything is connected to the internet. This requires different discipline.

Regarding privacy, the target group must be considered. E.g.: remembering a password can be too much (and easily be hacked). Plus, other possibilities such as face recognition and biometrics ultimately benefit us all (cf. *supra* nr. 6).

3.3.9 Test before release & include feedback system

37. The Accessibility Act ordains a conformity test (cf. *supra* nr. 14). Ideally, users are involved, since their view can be totally different from the developer. User testing is highly recommended from the earliest stage possible (cf. *supra* nr. 32) but should definitely happen before finalising. As an extra incentive to involve users, it is good to keep in mind that the market surveillance authorities also cooperate with them (cf. *supra* nr. 17), meaning they are the ones holding you accountable anyway.

38. After release of the product/service, the input of users stays important. The Web Accessibility Act requires a feedback mechanism enabling any person to notify failure to comply with the accessibility requirements (cf. *supra* nr. 14). This is usually done through a web form. Such an obligation does not exist in the Accessibility Act, but it is still highly recommended.

3.3.10 Draft information on accessibility measures

39. Draft information on the accessibility measures taken. Please note that having a certificate, or gone through detailed testing, does not relieve you from the obligations of the Directives. It is just an extra requirement.

Some of our members record which measures (e.g. which visual cues) work best. This is to be applauded. It is very helpful for the organisation, as well as for sharing purposes. If the goods or services fall under the scope of the Directives (cf. *supra* nr. 11), more specific data is necessary. Which information is required and what should be open to the public, differs for goods and services (cf. *supra* nr. 14).

3.3.11 Test periodically

40. The accessibility requirements still stand after release of the product or service. It is also necessary to keep up with the state of technology (cf. *supra* nr. 13). To make sure everything remains accessible, (user) testing should be performed periodically. There is no guideline how often, but as a rule, once a year should be sufficient.

3.3.12 Update if problems arise

41. If any problems arise, either through feedback (cf. *supra* nr. 38) or tests (cf. *supra* nr. 40), the product or service must be updated/repared. Wherever possible, the information on the accessibility measures (cf. *supra* nr. 39) should be updated.

3.3.13 Optional: develop (web) accessibility as a business

42. Support services for people with disabilities have an extensive know-how on accessibility. Their accessible solutions have a huge impact on the lives of their clients (cf. *supra* nr. 23), yet this expertise stays too often within service settings. Meanwhile, a growing number of companies label themselves as "accessibility experts" (cf. *supra* nr. 24), as accessibility consulting is turning into a great business opportunity.

The sector often demands 'to make things accessible', like the bus stop in front of their organisation, but could also go out and tell municipalities how. Turning accessibility into an activity of the organisation, means taking hold of a growing market share, and can lead to (a big) increase in revenue. Support services are in the unique position of having an overview of the needs of their target group, and already offer state-of-the-art workshops for people with disabilities. If they would actively take this expertise outside of the traditional settings, lots of positive change could happen.

43. In the end, people with disabilities are best placed to detect gaps in an accessibility strategy. When developing (web)accessibility as a business, ideally people with disabilities

would be hired to perform peer research. In order to be representative, this team should include a broad range of impairments (cf. *supra* nr. 31).

As support services are used to work with people with intellectual and psychosocial disabilities, having them on board shouldn't cause difficulties regarding management skills. It might require a shift in thinking at first but will lead to positive outcomes. On top, this would place the organisation in an even more unique business position, as this group is (sadly) under-represented in the job market.

3.4 Concrete examples of service providers

3.4.1 Promising practices

44. The previous principles are already (in varying degrees) in place with most of our members, especially for their core services and the physical environment. ICT is slowly getting a more prominent role. To make things clearer, we've gathered some promising practices.

3.4.2 Accessibility training

45. The Accessibility Act didn't introduce many technical novelties. Much is already in place, but most people don't know about it. Training on accessibility of ICT is key to make use of its full potential to include people with disabilities in all areas of life.

ÖZIV Bundesverband (Austria), active in accessibility and employment coaching, has noticed that employers (and employees) often don't know the possibilities already granted by ICT to keep people with disabilities in employment. E.g. employers usually think screen readers are a big investment, while their computer's operating system already offers it.

3.4.3 User involvement

46. When users are involved, their knowledge must be given according credit. They are important actors in the process and should be paid. Too often, people with disabilities are

asked to cooperate on a voluntary basis. An example of how to do it right, is how **Aspa Foundation**⁴³ (Finland) - *presently working on an even more accessible website* -, chose a service provider whose employees are visually impaired to test her current website.

User involvement is generally still limited to the beginning ("*user needs*") and the end ("*evaluation*") (cf. *supra* nr. 37). Users' potential as co-researchers, contributors to ideas, concepts and solutions, is thereby not taken into account. The **institute of integrated study**⁴⁴ at the **Johannes Kepler University** (Austria), who performs her own accessibility testing (as well as for others), has a radical different approach. As a general rule, 50% of the staff must have a disability. However, since the field of computer science requires specific skills, that percentage may vary. The institute tries to be as representative as possible by including a broad range of impairments (vision, hearing, motor, cognition and psychosocial). These colleagues essentially serve as users, and are involved in all aspects of R&D, teaching, and service provision. In particular all R&D activities, from problem identification towards solution implementation, are driven by the core interests of users. Project/research ownership and responsibility involves real users.

47. User involvement of people with intellectual or psychosocial impairments requires certain management skills. This is however nothing to be hesitant of, as the following good practices illustrate. E.g. **Keystone**⁴⁵ (Moldova), lets her easy-to-read texts be proofread by people with intellectual disabilities. This is done through focus group discussions.

ÖZIV Bundesverband (Austria) has a volunteer with an intellectual disability who comes about 3h/ week. It is her own decision not to work more. She just works as much as her abilities allow, which can differ per week. Unfortunately, such flexible contracts do not exist, so she has to work on a volunteering basis. She has 1 mentor in the organisation that canalises all communication, organises her working hours, and keeps contact to see how she is experiencing the cooperation. This is working very well.

Theotokos Foundation⁴⁶ (Greece) is always mindful of their users' varying abilities, such as level of understanding, literacy skills, and needs regarding type and size of visual support. They

have noticed that a 'one size fits all' solution does not work. The differences are catered to through page design and set-up, as well as through clarity and amount of the presented information. The users have options regarding extra support, i.e. symbols, icons, clipart, photographs or spoken words (cf. *infra* nr. 51).

3.4.4 Cooperation with other experts

48. When it comes to ICT, there is often some sort of cooperation with externals. **Aspa Foundation** (Finland) has let us know partners are chosen based on their expertise in a specific field (e.g. web design), plus external accessibility experts consulted where necessary. It remains the Foundation's priority to involve users in every phase of the process, which requires to keep managing the project closely at all times.

49. The other way around can also happen: other organisations/businesses contacting support services. Some support services do not specialise in one field but have a general view of the needs of their target group. These types of organisations could function as a first reference to see if product-ideas would work (cf. *supra* nr. 42).

Support Girona (Spain), a former guardianship organisation transitioning towards supported decision making, serves as a link with other (support) organisations in the region. One of their observations is that banks start to provide easy-to-read information on finance (*What is a bank account? What is a loan? Etc.*), but that people with intellectual disabilities often still don't know how to operate an ATM. And whereas communication through smartphones usually works for the younger generation, tele-assistance is regularly needed for the ageing one. However, the latter cannot always afford this technology, so subsidies would be in order.

Another example comes from **ÖZIV Bundesverband** (Austria). Besides working in the field of employment coaching, they provide trainings on accessibility. While ICT is not one of their specialities, they do have lots of knowledge from a user perspective. One of their employees, a wheelchair user with a sight impairment, shared some common barriers for people in her position. First, banking services are not always adapted for people who have a human

assistant. The height and size of the screen should allow the user to see what the assistant is doing. Second, websites referring to “the rights of people with disabilities” (e.g. when buying a train ticket) are not always user friendly. Instead of linking to the rights, these are hidden somewhere on the website. Third, she emphasized the importance of colours, contrast, and size. Users should always be able to set the size themselves, as both too small and too big can be an issue. Plus, reactive design is key: when something is enlarged with a device, the design must follow.

Lastly, there is no need to reinvent the wheel. For example, when manufacturers draft an easy-to-read manual for their products, they can first look at what's already out there. E.g. **Theotokos Foundation** (Greece) has developed written information and guides which make the use of the telephone easier. Other organisations, such as **leder(in)** (The Netherlands), have compiled good practices regarding websites. More precisely, they have developed a toolkit for making the websites of local governments accessible.⁴⁷

3.4.5 ICT to empower

50. Accessibility measures should not only signify increased accessibility of a product or service, but ultimately let users become more empowered in their daily lives. One example is the approach from **Theotokos Foundation** (Greece). They developed a game for developing social skills which includes “speaker buttons” where the player who cannot read has the option of hearing the written instructions/choices/questions.

Another example comes from **Keystone** (Moldova), who has developed a hotline service within a EU funded project.⁴⁸ This is a free number people with disabilities can dial. Questions can range from information (on their rights, on the procedures to get benefits, ...) and counselling, to complaints on rights violations. To ensure maximum accessibility of the hotline, mobile phones have been offered for free in all residential institutions; and brochures, posters and flyers on how to access the hotline service have been shared in an easy-to-read format. As a result, people with disabilities (especially those living in residential institutions) have

increased access to legal assistance, the abuse in institutions has decreased, and some systematic problems have been solved (e.g. people in institutions were given wheelchairs). The hotline-team has also several times intervened in situations of attempted propriety dispossession, and Moldovans with disabilities became in general more informed and active in solving their issues.

3.4.6 Feedback mechanism & repair

51. User feedback should be a priority, as is with **Theotokos Foundation** (Greece). Besides having a verbal feedback system, they have developed an online “Service User Evaluation of Programs”- form, which is filled out once a year. The users are alone for this procedure, while still being supervised by a professional, and only have access to the intranet system for this evaluation form.

As their users are people aged 14 – 35 with intellectual disabilities and/or autism spectrum disorders, and have little or no reading and/or writing skills, several measures are taken to facilitate understanding. To start with, the form has large font size. On top, each question has 3 levels of simplification:

1. Level 1: further written explanations with examples;
2. Level 2: text supported by MAKATON Symbols;
3. Level 3: text supported by photographs.

52. The usefulness of these feedback mechanisms can be illustrated by an example provided by the **institute of integrated study** at the **Johannes Kepler University** (Austria). One of her clients, a ministry, had an inaccessible date picker in its online tax form. This left a disabled citizen unable to declare taxes. Next, the user filled out the online complaint form, after which the university managed to fix the form in a couple of days. Without this intervention, it would have been an interesting legal case to see who's found responsible for not declaring taxes: the user (as many courts still do), or the government.

3.4.7 Business opportunities

53. There are many business opportunities within accessibility consulting, for example intervening in public procurement applications for the development of websites for public institutions. As these websites fall under the Web Accessibility Directive (cf. *supra* nrs. 11 and 15), an accessibility plan must be part of the application. This can either be integrated by the applicant, or by a third party hired by them (cf. *supra* nrs. 23-24).

One of these third parties, is the **institute of integrated study** at the **Johannes Kepler University** (Austria). They have developed a methodology where they test templates from applicants (e.g. a button for the website) at a very early stage, and repair if necessary. This makes accessibility most cost-effective, as templates are used and copied from page to page and application to application.

4 Recommendations

4.1 For state authorities

54. Besides transposing the Accessibility Act into national law (cf. *supra* nr. 3), state authorities play a huge role in the implementation of the Directives. They have a triple role: to police, to market, and to promote.

55. First, the police-role (cf. *supra* nr. 17-19). Without adequate monitoring, accessibility laws aren't implemented by the general public. For the Web Accessibility Directive, there are already well-functioning market surveillance authorities. Those of the Accessibility Act can be modelled towards the existing ones, taking the following points into account:

- Cooperation with people with disabilities;⁴⁹
- High enough penalties, so the accessibility obligations cannot be “bought off”;⁵⁰
- Strict interpretation of the 'disproportionate burden'-exemption (cf. *supra* nr. 18);
- Monitoring based on future European harmonised standards (cf. *infra* nr. 59).

56. Second, the marketing role. Besides punishing companies for non-compliance, states can spread awareness around the benefits (for companies) and the existence (for users and employers) of accessibility measures. While marketing, the following should be stressed:

- ICT already has many (hidden) accessibility features (cf. *supra* nr. 45);
- Harmonised EU law leads to improvement of the internal market (cf. *supra* nr. 2);
- Accessibility is a good marketing strategy: bigger market share for products (cf. *supra* nr. 6).

More awareness on disability rights is also needed within the judicial system (cf. *supra* nr. 52).

Plus, states should equip their developers. This can be done in several ways:

- By making accessibility an obligatory part of Computer Science (and related ICT-) programmes at university level (cf. *supra* nr. 27);
- By prioritising on training programs, such as required by the Web Accessibility Directive.⁵¹

57. Third, the promotional role. Besides spreading knowledge and awareness, states can take active promotional action through funding for accessible websites (cf. *supra* nr. 29) or assistive technology (cf. *supra* nr. 49).

4.2 For the EU

58. The two current accessibility Directives are an important first step in opening the discussion around accessibility. Seen the limited scope, more legislation is needed in the future.

59. For now, it is best the EU focusses on their pledge to create more harmonised standards and technical specifications, for which they'll involve European umbrella organisations of persons with disabilities and all other relevant stakeholders.⁵² These standards are needed in order for manufacturers to know which technicalities are expected of them (cf. *supra* nr. 35),

and for market surveillance authorities to have a reference for their monitoring (cf. *supra* nr. 19).

60. Plus, it is advisable to work towards a harmonised certification on accessibility for programmers. This would allow organisations and businesses to be sure developers know how to meet accessibility standards. Ideally, these certified programmers would be contactable via a database (cf. *supra* nr. 29).

Footnotes

[1https://tbinternet.ohchr.org/_layouts/15/treatybodyexternal/Download.aspx?symbolno=CRPD/C/GC/2&Lang=en](https://tbinternet.ohchr.org/_layouts/15/treatybodyexternal/Download.aspx?symbolno=CRPD/C/GC/2&Lang=en)

[2 https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2016.327.01.0001.01.ENG&toc=OJ:L:2016:327:TOC](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2016.327.01.0001.01.ENG&toc=OJ:L:2016:327:TOC)

[4 https://www.easpd.eu/sites/default/files/sites/default/files/com2010_0636en01.pdf](https://www.easpd.eu/sites/default/files/sites/default/files/com2010_0636en01.pdf)

[5](#)Art. 1 Web Accessibility Directive; art. 1 Accessibility Act.

[6](#)Art. 12 Web Accessibility Directive.

[7](#)Art. 31 Accessibility Act.

[8](#)Art. 32 Accessibility Act.

[9](#)(12) Preamble Web Accessibility Directive; (50) preamble Accessibility Act.

[10](#)Art. 2 UNCRPD.

[12](#)Art. 1 UNCRPD.

[13](#)Art. 3 Accessibility Act.

[14](#)(23) Preamble Web Accessibility Directive.

[15](#)(4) Preamble Accessibility Act.

[17](#)(96) Preamble Accessibility Act. See also art. 28 Accessibility Act.

[18](#)Art. 1 Web Accessibility Directive.

[19](#)Art. 2 Accessibility Act.

[20](#)Art. 4 Web Accessibility Directive.

[21](#)Art. 6 Web Accessibility Directive; art. 15 Accessibility Act.

[22 www.w3.org/TR/WCAG20/.](http://www.w3.org/TR/WCAG20/)

[23](#)Art. 7 Accessibility Act.

[24](#)Art. 16 Accessibility Act.

[25](#)Annex IV Accessibility Act.

[26](#)Annex I Accessibility Act.

[27](#)Annex V Accessibility Act.

[28](#)Art. 7 Web Accessibility Directive.

[29](#)Art. 1 Web Accessibility Directive.

[30](#)Art. 7 – 13 Accessibility Act.

[31](#)Art. 7 Web Accessibility Directive.

[32](#)(76) – (77) Preamble Accessibility Act.

[33](#)Art. 16-22 Accessibility Act; art. 8-9 Web Accessibility Directive.

[34](#)(94) Preamble Accessibility Act.

[35](#)(80) Preamble Accessibility Act.

[36](#)Art. 21 Accessibility Act.

[37](#)(98) Preamble Accessibility Act.

[38](#)Art. 5 Web Accessibility Directive; art. 14 Accessibility Act.

[39](#)Annex VI Accessibility Act.

[40https://tbinternet.ohchr.org/_layouts/15/treatybodyexternal/Download.aspx?symbolno=CRPD/C/GC/2&Lang=en](https://tbinternet.ohchr.org/_layouts/15/treatybodyexternal/Download.aspx?symbolno=CRPD/C/GC/2&Lang=en)

[43](#) Active in housing services, their mission is to promote opportunities for persons with disabilities and people recovering from mental health problems to live an independent and autonomous life.

[44](#) Offering courses on accessibility, providing inclusion services for students with disabilities, and performing R&D on inclusion, independent living, ICT, assistive technology, and accessibility.

[45](#) Active in human rights and social inclusion, focus on deinstitutionalisation and community-based service alternatives.

[46](#) Service provider for children and young adults with intellectual developmental disorders and autism spectrum disorders, as well as their families. Active in rehabilitation, education, vocational training, and supported employment.

[47 https://iederin.nl/lokaal-aan-de-slag/](https://iederin.nl/lokaal-aan-de-slag/)

[48 https://www.eu4moldova.md/en/content/advancing-and-monitoring-rights-people-mental-disabilities-neuro-psychiatric-residential](https://www.eu4moldova.md/en/content/advancing-and-monitoring-rights-people-mental-disabilities-neuro-psychiatric-residential)

[49](#)(80) Preamble Accessibility Act.

[50](#)(98) Preamble Accessibility Act.

[51](#)Art. 7 Web Accessibility Directive.

[52](#)(76) – (77) Preamble Accessibility Act.

Annex

Questionnaire send out to members

- In which field are you active?

- Rehabilitation
- Employment
- Education
- Residential care
- Other (*specify*)

– Do you have trainings on accessibility for managers? If so, what are the most important components?

– When developing/purchasing a product or service, how is accessibility mainstreamed in your processes? At which fase(s) do you talk to the user?

- Have you contributed to the development of ICT services or products? (Including outsourcing)

=> No = **end survey**

=> Yes, indicate which:

- Websites
- Mobile applications
- Computers or operating systems
- Smartphones
- E-readers or e-books
- ATMs or ticketing machines
- Banking services or e-commerce
- TV equipment related to digital television services
- Telephony services and related equipment

- Other ... (*specify*)

NOTE: *If contributed to multiple products and/or services, please indicate in the following questions which product or service you are referring to. Multiple answers are possible.*

- Could you highlight some features making the above mentioned product(s) or service(s) accessible? (Perceivable/operatable/understandable) Be as specific as possible.

- Does the product or service have a specific target group regarding accessibility?

=> No: **next question**

=> Yes: which? What is important to meet the needs of this group? Did you also implement accessibility features for other possible users?

- Are there measures for protecting the user's privacy when he or she uses the accessibility features? If so, which?

- Which role did you play in the development?

- Managing
- Outsourcing
- Giving expertise on accessibility while developing
- Technical (development, editing, programming, designing, ...)
- (Organisation of) testing
- Giving information on the use and/or accessibility features for users
- Other (*specify*)

- Did you ever contact accessibility experts? And if so: at which state of the process? What was their role vs. your own expertise on the matter?

– Do you keep record of the accessibility features of the products and services you (co-)developed/offer? If so, how detailed?

- Do you organise user testings before releasing the product or service? If so, how? Anything specific you have learned from this experience?

- Once a product or service is ready, how often do you re-test it on accessibility? Do you do this yourself, by users, and/or by accessibility experts?

- Do you have a feedback system (= users letting you know if anything fails regarding accessibility)? If so, how do you organise this? Can you give (an) example(s) of feedback received?

- How do you keep up with the state of technology, e.g. the interoperability with programmes and assistive devices? Can you give (an) example(s) of how you have adapted products or procedures in the past?