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IMPACT ASSESSMENT

Accompanying the document

**Proposal for a Directive of the European Parliament and of the Council
on the accessibility of public sector bodies' websites**

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1. PROCEDURAL ISSUES AND CONSULTATION OF INTERESTED PARTIES

1.1. Introduction

Information and Communication Technologies (ICT), including the internet, are major drivers of economy and society. The Internet economy, for example, is today larger than that of energy or agriculture. As part of the Internet domain, web-accessibility is a major contributor to the development of a knowledge-based society, to economic growth, and societal inclusion.

Web-accessibility refers to principles and techniques that, when considered in the making of a website, render its content accessible to all users, in particular those with disabilities including functional ones.

The market for web-accessibility related products and services is still immature but growing. Member States are well engaged into web-accessibility and governments could make a considerable contribution to this growth and to mainstreaming Web-accessibility.

However, a harmonisation of national measures at EU level has been identified as necessary to unlock the unrealised potential of the internal market of web-accessibility products and services. It would encourage economic operators (web-developers), in particular SMEs, to consider business ventures outside their own domestic markets, and help them to elaborate more competitive service offers, as well as to concentrate resources on innovation rather than adaptation to national measures.

The resulting momentum in the market will contribute to allow both website owners and web-developers to contribute to economic growth and jobs creation in the EU. Governments and other institutions will benefit from more and better offers while contracting web-accessibility related services. Strengthening the single market will increase the interest for investments in the EU.

Ultimately all citizens, in particular those with disabilities, will benefit from better access to a wider range of online services and from exercising their rights to receive services across the EU, notably when exercising their rights to move and reside freely within Europe.

1.2. Organisation and timing of the Impact Assessment

An Impact Assessment was carried out as part of the policy-making process, and in November 2011, a draft Impact Assessment report was submitted to the Impact Assessment Board of the Commission for examination. Responding to the resulting recommendations, a revised draft was submitted in January 2012. The Board's final opinion contained the following recommendations, which were considered in this present report.

- (1) Better explain the context and the problems to be addressed
 - corroborate the evidences on market barriers and potential economies of scale for the market players;
 - indicate the websites that will be affected and who will benefit from the initiative; justification on the limitation to public sector websites;
 - substantiate the expected spill-over from the public to private sector websites.
- (2) Better demonstrate the case for EU action
 - address subsidiarity issues and the value added of EU action;
 - explaining will deliver on web-accessibility compared to the baseline scenario;
 - present the different views of stakeholders and Member States.
- (3) Broaden and deepen the discussion of the options
 - explain lack of further feasible substantive policy options;

- reinforce the presentation of the newly introduced sub-options.
- (4) Further improve the assessment of impacts and comparison of options.
- (5) Different stakeholder views should be systematically referenced throughout the text.

For (1):

With regard to evidences on market barriers, an updated overview on the highly heterogeneous landscape of national legislations related to web-accessibility is presented, and so, how this hinders the well functioning of the internal market. The presented anecdotal cases were confirmed via studies.

It should be noted that the availability of relevant data is limited since the market for web-accessibility is still emerging. Stakeholders at all levels have been contacted repeatedly; in addition, civil organisations were extremely engaged in supporting this data-gathering and fully used their apparatus to let their members and other contacts take part.

Additional explanations on potential economies of scale were included in 'Section Market Problems'. In addition, a reasoning on the 'economy of scale' to be achieved by suppliers (web-developers) and the benefits to the buyers (public authorities) was included in 'Section 6.3.2 6.3.2. Assessments of Impact and benefits' as well as in 'Section 6.3.3 6.3.3.

Sensitivity analysis'. Simulations (evidences) were presented in a newly created Annex VIII– Simple simulation of the effect of economies of scale in the authoring tools and web accessibility markets presents simulations.

With regard to the scope of the interversion in terms of types of websites, additional explanations were included in 'Section EU Added-value'. It should be remarked that, in principle, the main objective of the proposal for action is to harmonise the national legislations and measures. Provisions requesting the making of websites accessible represent a way to secure a minimum implementation of such a harmonised approach, and to help leveraging the market ("public expenditures are proven catalyst to influence general market conditions and to boost the uptake of technologies"). This section also presents that a full implementation (including private sector websites) is not within the scope of this proposal . The 'Section Deferred suboption: extending the scope to cover other types of websites' has been included.

With regard to the expected spill-overs, additional explanations were included in 'Section 3.3.1 3.3.1. Website owners' and 'Section EU Added-value'. Essentially, the argument is that if such a number of regulated web sites become accessible, both the general offers for website development and the specifications for general web procurement might come to increase somewhat the inclusion of accessibility by default.

For (2):

The 'Section 3.5 3.5. EU right to act and evidence of the EU added value' has been further elaborated for addressing both the subsidiarity issues and the value added of EU Action. Additional explanations on the delivery on web accessibility compared to the baseline scenario and explaining the advantages of pursuing web accessibility at EU level were included.

The views of the different stakeholders and Members States, as well as the respective effect on each of them were considered and presented throughout the report.

For (3):

Two new policy options, which had been considered during the impact assessment exercise, are presented in separate sub-sections. One is related to the choice of the delivering instrument; this could be considered as tangible option, but there are contra arguments in terms of the current policy context. The second is related to the scope but, as explained, it has been discarded for not being realistic.

The presentation of the newly introduced sub-options was reinforced and the relevant background provided in 'Sections 5.5.2 5.5.2. Extension to authoring tools' and '5.5.3 5.5.3. Extension to assistive technologies'.

The choice of a Directive instead of a Regulation (as the delivery instrument) has been further explained in 'Section 5.3 5.3. Policy Option 3: Legally binding measure'. In addition, having the binding option delivered by a Regulation was also assessed as a different option in a new 'Section 5.3.1 5.3.1. Considered proposal for a Regulation as legal delivery instrument'.

For (4):

The analysis for all the options was further extended and their non-/feasibility explained in the respective sections.

The views of and effects on the different stakeholder were more systematically referenced throughout the text.

1.3. Consultation and expertise

An Impact Assessment Steering Group (IASG) led by Directorate General for the Information Society and Media was established in April 2010 with a wide representation of services and departments of the Commission. This included the Secretariat-General, the Legal Service and the Directorates-General Communication; Economic and Financial Affairs; Employment, Social Affairs and Inclusion; Enterprise and Industry; Eurostat; Health and Consumers; Informatics; Internal Market and Services; and Justice. Its task has been to analyse and discuss the different issues and perspectives relevant to a proposal for action.

A number of analytical studies and consultations have been carried out with a wide range of stakeholders, to support the identification of problems and needs. They addressed a large range of stakeholders, including representatives from Member States, industry and major civil society organisations.

These consultations and studies are listed below, and a summary of conclusions and references of some exchanges with external stakeholders is provided in Annex II.

Overview of consultations of external stakeholders

- (1) **Benchmarking Study 2010-2011 – “Monitoring eAccessibility” (MEAC-2)**¹ provides new and updated information, including detailed country profiles, following up on MEAC-1 (see (5)). It concluded that no significant changes in the overall status took place.

¹ The study (procured in 2008 as SMART 2008/0066) produced two annual reports, in 2010 and 2011. <http://ec.europa.eu/digital-agenda/en/news/study-economic-assessment-and-evaluation-recommendations-improving-e-accessibility-services-and>

Study on “Economic Assessment for Improving e-Accessibility Services and Products” (SMART 2009/00-72) analysed the costs and benefits of web-accessibility, and developed a 'Business Case Tool' to estimate the implementation costs of web-accessibility, according to the Web Content Accessibility Guidelines 2.0. This tool has been used in this Impact Assessment².

- (2) **Public Consultations and workshops on web-accessibility (2008).** Consultation workshops with Member States’ representatives and other stakeholders concluded that an EU-level intervention on web-accessibility would be unanimously appreciated, and
 - (a) there was a risk of further divergence of national approaches to equal access without binding intervention by the European Commission;
 - (b) an EU-level intervention might help to provide the necessary focus to overcome differences among existing national legislation;
 - (c) Member States representatives concluded that a common approach of the deployment of web-accessibility was necessary.

Furthermore, through the Commission’s interactive Internet platform “Your voice”, a consultation was carried out under individuals, civil organisations, experts, public authorities, business and industry associations. Nearly 95 % of the responses supported a common European approach for the accessibility of public sector websites and websites providing services to citizens. About 50% of the respondents were of the opinion that binding legislation has a high priority

- (3) **Survey - “Web-accessibility in European countries: level of compliance with latest international accessibility specifications, notably WCAG 2.0, and approaches or plans to implement those specifications” (SMART 2008/0068).** The results demonstrated the significant divergences in specifications, efforts, and approaches undertaken by each Member State (see table from the study in Annex II).
- (4) **Benchmarking Study 2006-2008 – “Measuring Progress of eAccessibility in Europe” (MEAC-1).** This study showed that insufficient progress has been achieved in web-accessibility.
- (5) **Study “E-accessibility legislation, implementation and market monitoring” 2007-2008.** The study monitored the status and progress in e-Accessibility in selected countries and provided information as to the approaches, practices and the impact of e-Accessibility measures.

1.3.1. Direct consultations of the Member States and other relevant stakeholders

- (1) **i2010 e-inclusion subgroup.** The i2010³ e-inclusion subgroup has discussed web-accessibility at most of its thirteen meetings (from 2006 to 2010)⁴. Member States

² <http://ec.europa.eu/digital-agenda/en/news/study-economic-assessment-and-evaluation-recommendations-improving-e-accessibility-services-and>

³ 'i2010' refers to Commission Communication "European i2010 initiative on e-Inclusion - to be part of the information society" adopted on 8 November 2007.

⁴ See <http://ec.europa.eu/digital-agenda/en/news/groups-supporting-e-inclusion-agenda>, in particular the report of its twelfth meeting in January 2010.

voiced recommendations on common guidelines and definitions for web-accessibility. They recommended to apply WCAG 2.0 AA as the harmonised (*de-facto*) functional and technology-neutral specifications.

- (2) **Post-i2010 public consultation.** Most of the 834 respondents underlined the need to improve the acceptance of electronic systems in general, and consumer organisations emphasised the need for strengthening e-accessibility.
- (3) Members of the **INCOM** (Inclusive Communications) working group of the Communications Committee (COCOM), provided updated information on web-accessibility-related legislations and measures in their respective Member States.
- (4) **Other direct consultations.** Direct consultations and meetings were carried out during 2011 with industry representatives and major civil society organisations such as the European Disability Forum (EDF) and the European Blind Union (EBU). Exchanges with large software industries and European industry associations were held under condition of non-disclosure of sources. Their inputs confirmed assumptions and anecdotal cases presented in the next chapter of this report. To note is that, in June 2011, those civil organisations issued a “Proposal for a Legal Act on Accessible Websites”⁵.

1.3.2. *Internal consultations*

The Impact Assessment Steering Group met four times between April 15th 2010 and May 5th 2011, and e-mail exchanges proceeded to elaborate and review the impact assessment roadmap and report.

2. CONTEXT AND BACKGROUND

This chapter gives insights in the concept of Web-accessibility and refers to widely accepted guidance for implementing it. It also describes how significant accessible websites are for both their owners and users, in particular if used for the exchange of essential information and services such as those from the public sector.

It presents accessible websites as the product entailed in economic operations between website's owners and suppliers (enterprises acting in the web-accessibility market segment). Survey results reveal considerable differences in provisions related to web-accessibility across the EU, which creates entry barriers and hinders the growth of this market. Hence, this chapter also suggests that, for internal market objectives to be attained, web-accessibility should be ensured according to 'common elements'.

Lastly, this chapter presents relevant actions such as the preparation for an EU standard, EU initiatives and legislations, as well as national and international initiatives, which could contribute to promoting web accessibility.

2.1. Web-accessibility

Web-accessibility refers to principles and techniques for making websites accessible to all. Web-accessibility concerns websites and their content, web browsers, and assistive technologies (such as screen-readers). The most widely accepted functional specifications for

⁵ http://www.edf-feph.org/Page_Generale.asp?DocID=13854&thebloc=28120

web-accessibility are the Web Content Accessibility Guidelines (WCAG) from the World Wide Web Consortium (W3C) (see Annex IV); its first version, WCAG 1.0, became available in 1999 and the latest, WCAG 2.0, in 2008. These are used by Member States as the basis of their national standards and regulations, but with various modifications.

The adequate implementation of these accessibility specifications allows websites' users to perceive and understand the content, navigate the website and make use of the respective information or service provided on-line. Furthermore, it ensures that browsers and assistive technologies can interact consistently and intelligently with the website. **These guidelines do not impose specific technical solutions** and, as a consequence, they are intended not to be made obsolete too soon by the rapid new technological developments.

Websites that comply with web-accessibility criteria have a higher degree of usability for all users, considering that anyone may be subject to functional disabilities, such as mobile internet users in noisy or glaring environments, elderly with lower dexterity. According to surveys, 60% of adults at working age would benefit from accessibility features⁶. Web-accessibility is a condition *sine qua non* for many people with functional limitations that come with ageing (24% of the EU-27 projected population will be 65 or over by 2030⁷) or health-related impairments (some 15% of the EU population).

Owners of websites that apply web-accessibility find that they attract more visitors and customers for their online information and services. They also profit from the fact that certain web-accessibility features help the respective websites to be prioritised by Internet search engines (which implies a higher chance to be selected by citizens and consumers).

2.1.1. *Web-accessibility in the public sector*

Hereafter, the following existing terminology is used. A **public-sector body** can be the State, regional or local authorities (public administration), or bodies governed by public law which are financed for the most part by the State⁸. A **public sector website** is a website owned by a public sector body. A **website** is a coherent collection of webpages that together provide common use or functionality.

The Internet is becoming the preferred way for governments to provide all their citizens **with information and public services**. Some of the latter are essential for the civil participation and cannot be obtained from other sources, for example, as certificates, permits, income tax declarations. Going on-line allows governments to offer their citizens services in a more cost efficient and convenient way, allowing all parties to benefit fully from the growing possibilities of government.

WCAG 2.0; Example of requirements:

1 Perceivable (text alternatives for any non-text content so that it can be changed into other forms people need, such as large print, Braille, speech, symbols or simpler language; alternatives for time-based media; content that can be presented in different ways without losing information or structure; easier for users to see and hear content including separating foreground from background).

2 Operable (all functionality available from a keyboard; enough time for users to read and use content; content not in a way that is known to cause seizures; ways to help users navigate, find content, and determine where they are).

3 Understandable (text content readable and understandable; Web pages appearing and operating in predictable ways; help users avoid and correct mistakes).

4 Robust (maximize compatibility with current and future user agents, including assistive technologies).

⁶ The Wide Range of Abilities and Its Impact on Computer Technology – Forrester Research Inc., 2003.

⁷ Eurostat: Europop2010 population projections (online data code: proj_10c2150p)

⁸ Directive 2003/98/EC of the European Parliament and of the Council on the re-use of public sector information

An important success factor for reaching 'every' citizen is the accessibility of the information or services offered on-line, regardless whether the device employed by any of the users is on a fixed PC or a mobile phone, or any other appliance to access the Internet.

Public sector bodies are under increasing pressure to make their websites accessible, due to national legislations or policies, proven efficiency gains, public pressure, and the positive prospects of an extended reach, as well as the need to fulfil their public responsibilities.

We estimate that public sector websites make up at least 2% of the total number of websites in each Member State or at least 4 % of private sector websites (see Annex VI for more details). Table 1 below provides an estimation for the number of websites concerned in the EU-27.

Public sector + Private sector + others	38.080.000
Public sector + Private sector	19.801.600
Private sector	19.040.000
Public sector	761.600

Table 1 Estimated number of websites in EU-27 per sector category.

A significant number of Member States (21) have already either enacted legislation or taken other measures on web-accessibility. Other Member States will probably follow as the majority of the Member States have ratified the United Nations Convention on the Rights of Persons with Disabilities.⁹ A further impulse is provided by the Commission's commitment to web-accessibility in the Digital Agenda for Europe and the European Disability Strategy 2010-2020.

Nevertheless, there are significant and evident differences among the Member States with regard to legislative approaches, and most legislation is weakly enforceable. Table 2 presents a summary inventory and Table 3 gives an overview of the divergence, based on direct updates by Members States representatives in December 2011¹⁰.

	Obligation or concrete target specified	Specified time frame for achieving obligation/ target
Legislation (e.g. equality law) or other concrete policy measures aimed at web-accessibility	AT, BE, BU, CZ, DE, DK, EE, ES, FR, FI, IT, LT, NL, PT, SI, UK, MT, RO, SE, SK, PL	AT, BE, CZ, DE, EE, ES, FR, IT, NL, PT, RO, SE, SI, SK, UK
No known web-accessibility policy in place	CY, EL ¹¹ , IE, LU, LV ¹² , HU ¹³	

Table 2 Overview of legislation and other measures directed at the accessibility of public sector websites.

Dimension	Member States
Type of approach	About half of the Member States have imposed direct legislative/regulative obligations on website owners (including soft law such as parliament resolutions). Prominent examples include AT, CZ, DE, ES, FR, IT, MT, NL, PL, SK, UK. Some countries have equality or other legislation in place that has given a more indirect

⁹ Source: <http://www.un.org/disabilities/default.asp?id=150>

¹⁰ Source: SMART 2009/0068, see section 2.4.1 and Annex II.

¹¹ Since 2001 the constitution guarantees the right for everyone to participate in the Information Society, but no concrete legislation seems to have emerged from this yet

¹² The concept of equal right has been adopted on 30th June 1998

¹³ Act 1998. XXVI on "The Rights of Disabled and on Ensuring Their Equality" does not impose a direct eAccessibility obligation, but seems to have been influential in encouraging public agencies to make their websites accessible

	<p>stimulus to web-accessibility efforts, for example, BE, IE.</p> <p>The remainder have addressed web-accessibility through non-legislative measures of various types (e.g., ministerial resolution, action plan), for example, DK, FI, LT, PT.</p>
Websites covered	<p>The majority of Member States focus only on public sector websites in their direct measures on web-accessibility. The available evidence suggests that the scope of coverage of public sector websites varies; some Member States include all levels of government and public entities, whereas others, only directly address central government.</p> <p>Intranets are rarely addressed in an explicit manner.</p> <p>In the few cases where commercial websites are directly addressed (e.g. DE, IT, PT), this tends to be of a softer, more 'encouragement' type of approach.</p>
Timeframe for web-accessibility	<p>About one-half of the Member States have implemented a specific timeframe within which web-accessibility is to be achieved, with time horizons ranging from 2005 to 2011. The timeframe of the DAE is 2015 for the accessibility of all public sector websites.</p> <p>In some countries (e.g. DE, NL, SK, UK), new websites are given an immediate deadline whereas existing websites are given some time to adapt.</p>
Accessibility requirements	<p>WCAG 1.0 guidelines represent a major reference point in almost all Member States that have taken some type of interventional measure.</p> <p>Some countries have developed variants, based on national norms and/or the US section 508 standards (e.g. CZ, IT, NL, SE).</p> <p>Most countries refer to WCAG 1.0 single A and/or double A requirements; triple A requirements are referenced to a lesser extent.</p> <p>The WCAG 2.0 guidelines have been rarely addressed so far (exceptions with on-going updating actions: DE, IT, MT and SE).</p>
Support for web owners	<p>A number of countries have implemented dedicated “flanking measures” to support web owners in the implementation of their accessibility-related policies; these tend to focus on three key aspects – awareness raising, networking of relevant actors, and organisational capacity building.</p>
Enforcement	<p>Enforcement is not explicit in the majority of countries. It tends more towards “persuasion”, e.g. through award schemes or “naming and shaming”. Sanctions for non-compliance are only apparent in a few countries (e.g. UK, ES, IT, SK).</p>
Conformity assessment	<p>In the majority of countries, conformity assessment schemes have not been put in place. So far, they have been set up as part of a dedicated government policy only in a few Member States (e.g. AT, DK, NL, IT, MT).</p> <p>In some countries, voluntary web-accessibility labelling schemes have emerged, operated by NGOs or commercial parties.</p>
Monitoring	<p>Benchmarking of accessibility of websites has been identified in less than half of the Member States with annual benchmarking as a rare exception.</p> <p>The various monitoring efforts are difficult to compare across countries, as they vary a lot in terms of scope (e.g. number and types of websites sampled) and methods applied (e.g. accessibility criteria applied, self-evaluation vs. external evaluation).</p>

Table 3 National approaches related to web-accessibility.

The different approaches among the Member States create barriers in the internal market.

In addition, in spite of all initiatives, the accessibility of public sector websites is still low. In 2007, the benchmarking study MEAC 1 (see section 1.3.1) showed that only 5% of public sector websites were accessible when tested manually. In 2010, the follow-up study MEAC 2 (see section 1.3.1) selected eight governmental websites per country on different administrative levels that target interaction with citizens; and it found that 39% were web-accessible. However, these figures were generated with a different method. For calculation purposes in this document, we assume that currently one third (33%) of public sector websites are compliant.

2.1.2. *Web-accessibility in the private sector*

The accessibility of private sector websites is still low as well. The benchmarking study MEAC 2 selected per country a handful of much used commercial websites with public relevance such as public transport, banks, newspapers and other media, and found that 18% of them were web-accessible. For purposes of market estimation, it is assumed that only 9% of the business sector are accessible.

Nevertheless, important private sector examples show that realising web-accessibility can bring considerable benefits¹⁴. The following two cases can illustrate this¹⁵.

- When the financial firm Legal&General redesigned its website to be fully accessible, it achieved an increase of 30% in search engine traffic; an additional 13.000 visitors per month thanks to improved browser compatibility (including mobile and handheld devices); and an increase of on line sales of 95%. Within 6 months, the firm had a 100% return on investment, and the company saved £ 200.000 annually (or 66%) on site maintenance.
- Tesco, an online grocery supplier in the UK, produced the Tesco Access site using a panel of visually impaired shoppers. By having Tesco.com and Tesco.Access side-by-side, all users could finally benefit from '15-minute shopping' (purchase 30 items over a slow internet connection in 15 minutes or less). Although originally designed for visually impaired users, the Access site attracted a much wider audience. The development of the accessible site costed £35.000, but on line sales increased by £13 million per year. For little extra cost, the use of the site could be extended to other devices, such as PDAs with low speed connections and/or limited screen sizes. As a next step, Tesco has developed a new and unified main Website which is fully accessible, further reducing maintenance costs¹⁶.

The examples indicate that, beyond fulfilment of public sector responsibility, there are many other benefits that can entice also the private sector to invest in the accessibility of their websites, giving an even larger impulse to the web-accessibility market.

2.2. **The market for web-accessibility**

In 2009, the website developers market (calculated as the sum of the economic activities, NACE Rev 2 classes J6201 - Computer programming activities and J6312 - Web portals)¹⁷ consisted of some 175.000 enterprises in the 27 EU Member States. It employed some 842.000 people and the generated turnover was € 144 billion (Source: Eurostat). Table 4 below provides estimates for the web-accessibility market, based on the total number of websites in EU and on a low and a high estimate of website size and complexity¹⁸. The calculation of the size of the Web-accessibility market takes into account the daily fees of developers in each of the EU27 Member States. For estimation purposes, the market size is based on current compliance levels of 33% for public and 9% for business websites, as discussed in the previous two sections.

¹⁴ For a range of examples of benefits of Web-accessibility, see Smart 2009/0072.

¹⁵ Sources: Abrahms (2007), Davies (2007), eConsultancy (2007), Lawson (2006), Nicholl (2006), Sloan (2006), Thatcher et al (2006), Wilton & Howell (2007), W3C (2009).

¹⁶ Sources: EFoD (2006), W3C (2009)

¹⁷ Source: Eurostat, Annual detailed enterprise statistics for services (NACE rev2 H-N and S95), online data code sbs_na_la_se_r2

¹⁸ For the low estimate: 7 Templates, 100 pages, 50 pictures and 5 forms. For the high estimate: 15 templates, 300 pages, 50 pictures and 5 forms. Details are provided in section 6.1.2 and Annex VI).

Current EU web-accessibility market estimates (EUR)	Low estimate	High estimate
Public sector	179 million	428 million
Private sector	1,221 million	2,915 million
Public and private sectors	1,400 million	3,343 million

Table 4 The EU web-accessibility market.

The EU web-accessibility market is estimated to be around € 2,0 billion, but realising less than 10% of its potential.

The harmonisation of the national provisions, as presented in Table 3, has the potential to lead to market growth and jobs, increased take-up of web-accessibility, and to make web-accessibility drastically cheaper – a triple win for governments, businesses, and citizens.

2.3. European standard under preparation

The Commission has issued a Mandate (M/376)¹⁹ to the European Standards Organisations to support the use of accessibility requirements in public procurement of ICT products and services. The outcome of this mandate shall be a standard (EN), specifying the functional accessibility requirements for ICT products and services, including web content and authoring tools. Documentation and a toolkit for procurers will also be provided. Accessibility experts, industry, national representatives of standardisation bodies, and representatives of both users and consumers associations participate in this process. The formal adoption procedure of the EN standard is expected to start in the third quarter of 2012. It is intended that the EN will be based on WCAG 2.0 in the area of the web and will become a EU reference document leading to harmonisation of national standards.

It is important to note here that the existence of a standard is not sufficient for guaranteeing its adoption in relevant provisions; it has to be enforced.

2.4. Policy context

The following sections present the EU initiatives and legislations, which are related to this proposal for action. Where appropriate, a short reasoning on the relevant circumstances and the potential contribution to the desired effects of this proposal are presented.

Encouragements and commitments for web-accessibility

Since the early 2000s, governments have made many political pledges to improve the accessibility of their websites.

- (1) In the eEurope Action Plan and the subsequent 2001 Communication on web-accessibility the **European Commission** urged the Member States to adopt common accessibility specifications (WCAG) for public sector websites. Council stressed the need to speed up accessibility to the Web with two **Council Resolutions**²⁰, and encouraged Member States to require developers to implement WCAG 1.0.

¹⁹http://ec.europa.eu/enterprise/standards_policy/mandates/database/index.cfm?fuseaction=search.detail&id=33

3

²⁰ 2002/C 86/02 and 2002/C 86/02

- (2) In 2002, the **European Parliament** suggested all public sector websites to be fully accessible to persons with disabilities by 2003 conform WCAG²¹.
- (3) Two **Commission Communications** – “eAccessibility” (2005)²² and “Towards an accessible information society” (2008)²³ – called upon Member States to cooperate and foster industry self regulation. The possibility of a legislative proposal – if necessary – was mentioned.
- (4) In 2006, the **European Economic and Social Committee** issued an Opinion²⁴ on the 2002 Communication, calling on all Member States to formally adopt the latest version of the WCAG for all public sector websites. In September 2011, the Committee issued an opinion²⁵ on the European Disability Strategy 2010-2020 that stated: “The mainstreaming of accessibility will contribute to the EU's competitiveness and economic recovery by creating new markets for assistive goods and services and new jobs”.
- (5) In June 2006, the '**Riga Ministerial Declaration**' was approved at the Ministerial Conference “ICT for an inclusive society”²⁶. This committed the Member States to promote and ensure accessibility of all public websites by 2010 through compliance with WCAG.
- (6) In **2009 Council Conclusions** on the accessible information society²⁷ invited the Member States to “apply accessibility criteria in their public procurement of ICT goods and services, including web-accessibility requirements. [...]Implement the provisions of the UNCRRPD [...].Adopt, and better implement measures, to promote e-accessibility, and particularly to implement the WCAG 2.0 guidelines.” It proposed a common approach to avoid “a fragmented European market”.
- (7) Within the Europe 2020 Strategy,²⁸ the **Digital Agenda for Europe (DAE)**²⁹ announced: “The Commission will, based on a review of options, make proposals by 2011 that will make sure that public sector websites (and websites providing basic services to citizens) are fully accessible by 2015”.
- (8) The European Disability Strategy 2010-2020 contains a number of initiatives to improve accessibility, including to the web.
- (9) **The eGovernment Action Plan 2011-2015**³⁰ set as one of its aims for 2015 to stimulate the development of services designed around user needs, that ensure inclusiveness and accessibility, amongst others, by “supporting effective and

²¹ C5-0074/2002-2002/2032(COS)

²² COM(2005)425; eAccessibility refers to ICT in general, such as mobile phones, self-service terminals (e.g. ATMs) and the internet (web-accessibility).

²³ COM(2008) 804

²⁴ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2006:110:0026:0032:EN:PDF>

²⁵ CESE 1382/2011 - SOC/403

²⁶ http://ec.europa.eu/information_society/events/ict_riga_2006/doc/declaration_riga.pdf

²⁷ COM(2009) 804

²⁸ COM(2010) 2020, http://ec.europa.eu/eu2020/index_en.htm

²⁹ <https://ec.europa.eu/digital-agenda/>

³⁰ http://ec.europa.eu/information_society/activities/egovernment/action_plan_2011_2015/index_en.htm

concrete accessibility solutions, compliant with relevant European and international standards when available.”

- (10) With the intention to lead by example the Commission evaluated the conformance of a selection of its websites to WCAG.³¹ The result indicated a “Medium-High” accessibility level. According to its Information Providers Guide³²: “as from January 2010, all new 'Europa' websites should be created in compliancy with the latest WCAG 2.0 level AA”.
- (11) EU funding programmes (e.g., FP RTD, CIP-ICT PSP) support R&D and stimulate innovation on web-accessibility. Other means such as studies and platforms (like e-Practice³³) support the monitoring of web-accessibility progress and implementation in the Member States, as well as the exchange of good practices.

2.4.1. Existing EU legislation

Some EU legislation supports 'accessibility' in general but does not provide for harmonised conditions for the web-accessibility market (see Annex III for details):

- (1) Public Procurement Directive (2004/18/EC)³⁴. A proposal to update this Directive (adopted by the Commission on 20 December 2011³⁵) strengthens the accessibility provisions by stating that: “For all procurement the subject of which is intended for use by persons, [...] technical specifications shall [...], be drawn up so as to take into account accessibility criteria for people with disabilities or design for all users,” and “Where mandatory accessibility standards are adopted by a legislative act of the Union, technical specifications shall, as far as accessibility criteria are concerned, be defined by reference thereto.”
- (2) Structural Fund Regulations require to observe accessibility in all stages of expending the funds.
- (3) Future 'European Accessibility Act' as announced in the Commission Work Programme for 2012 under item 99, for which the impact assessment work is ongoing, aims to improve accessibility of goods and services in the Internal Market.

2.4.2. National and international legal acts

From 2000 onwards, several Member States took actions on web-accessibility based on WCAG 1.0 and some Member States are updating these now, in the light of WCAG 2.0, the new version of the guidelines. Countries like DE, NL and UK have taken substantial initiatives. However, differences between Member States persist and even increase. In spite of the recognised qualities of the WCAG 2.0 guidelines, new differences emerge in terms of criteria or conformance levels (A, AA or AAA; see Annex IV). Additional criteria were added for specific disabilities (see section 3.2.1), while a number of WCAG 1.0 variations still exists.

³¹ Technosite, Final Report of Study on Accessibility of European Commission Websites - SMART 2008/0069

³² http://ec.europa.eu/ipg/standards/accessibility/index_en.htm

³³ <http://www.epractice.eu/index.php?page=search&q=einclusion>

³⁴ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2004:134:0114:0240:EN:PDF>

³⁵ COM(2011) 896 final 2011/0438 (COD)

Germany, for example, recently sent a notification (2011/0070/D – SERV60)³⁶ to the Commission on “applicable standards” for Internet sites in the draft of their new “Barrier-free Information Technology Regulation”. This states that the technical provisions to be applied are principally based on the international guidelines ('Web Content Accessibility Guidelines - WCAG 2.0'). However, variations were introduced to these guidelines. Italy also recently sent a notification (2011/297/I) to the Commission on the amendment of a legislation establishing criteria and methods for the technical checks and technical accessibility. The described requirements refer to the WCAG 2.0 but there is no explicit reference to a level of compliance (for instance, 'AA').

At United Nations level, the UN Convention on the Rights of Persons with Disabilities (UNCRPD)³⁷ provides new momentum for actions on e-accessibility and will help boosting the relevant market segment. Article 9 requests State parties to take appropriate measures to ensure, on equal basis, the access to ICT systems and services provided to the public. The Convention is a legally binding Treaty, concluded by the EU and ratified by the majority of the Member States. Its implementation is a key goal of the EU Disability Strategy 2020. Nevertheless, it does not specify implementation deadlines for the specific topics in the different application domains.

3. PROBLEM DEFINITION AND NEED FOR ACTION

This Chapter describes the **problems** regarding the web-accessibility market, the underlying **drivers**, and **those affected** by these problems. In addition, it describes how the current state of affairs would evolve if no further action were taken, and the **EU right to act**. In describing the problem, three actors are considered: web-developers (providing websites and web-accessibility solutions), website owners/buyers (in particular public administrations), and users of websites (i.e. citizens).

3.1. Problem definition

The main persistent problem regarding web-accessibility is the **non-functioning of the internal market** for the provision of web-accessibility. This negatively contributes to the still very **poor level of accessibility of the websites providing services to the citizens**.

3.1.1. *Market problems - non-functioning of the internal market*

Web-developers suffer from a huge unrealised market potential for web-accessibility, because of market barriers in the form of complex market conditions, and different regulations on a national or even regional level. These differences are mirrored in the wide variation of technical provisions in calls for tenders, which raise barriers for operating cross-border. For example, a company willing to bid on public contracts has to deal with different standards and has to master several different and changing market and regulatory conditions. For SMEs in particular, the cost burden imposed by such fragmentation might be prohibitive. Providers of tools for web-accessibility (like authoring tools or automatic checkers), face the additional barriers of having to implement all these specifications in their tools.

Furthermore, if web-developers employ non commonly adopted specifications in the coding of a website, then assistive technologies (such as a screen reader) might not be able to interpret the web content or to control user interface components. Hence, the interoperability

³⁶http://ec.europa.eu/enterprise/tris/pisa/app/search/index.cfm?fuseaction=pisa_notif_overview&iYear=2011&inum=70&lang=DE&sNLang=DE

³⁷ <http://www.un.org/disabilities/default.asp?id=150>

of these assistive technologies is negatively affected. This causes losses to suppliers and buyers of web-accessibility related products and services, as well as to the users (citizens), who would not be able to employ their user agents ubiquitously to access websites, and eventually, benefit from increased choice and reduced prices across the EU.

Hence, fragmentation is a significant market barrier, and potential market growth is not realised. Based on the public consultations, the impact of the divergences on the web development market can be summarised as follows:

- Concept: different interpretations of what is considered accessible due to different rules.
- Business model: different requirements regarding specifications, conformity assessment and certification schemes lead to barriers for internationalisation.
- Competitive advantage: (i) extra resources spent on learning how to apply each national legislation are charged to the client, making quotes higher than from a local competitor; (ii) accessibility of the supplier's own website represents a differential element.
- Liability: a product (on-line service) could be considered as 'accessible' in one country, and therefore not discriminatory. In another country, the same service could default to the reference standard and the provider might find itself in court.
- Market size: missed economy of scale when doing R&D, developing products/tools or training and marketing material, if not on a global market. Corresponding gains could be partly reflected also in lower prices for the buyers.

To illustrate this, some reported concrete **cases and complaints** provided during public consultations are summarised here³⁸:

- Some countries require the websites of bidders for public procurements to be accessible according to their national specifications, or consider this as an advantage in the award criteria (e.g. Spain with 'Plan Avanza'). Hence, in addition to learning and adaptation costs, web-developers would have to create different websites, one for each country where they intend to sell their goods and services.
- While Ireland, Italy and Denmark require compliance to WCAG2.0 level AA, The Netherlands (with Web Guidelines 2.0) and Germany (with BITV 2.0) have introduced requirements that go beyond WCAG 2.0 AA. In the UK, there are no nationwide technical requirements and so, different public sector departments use different accessibility requirements.
- Not enforced standard results in higher production costs and longer implementation times for web-accessibility as well as for related authoring tools.
- “The use of regulation to improve technological accessibility will be most effective when it is globally 'harmonized' and embodies a consistent set of expectations and objectives. If multiple conflicting regulations emerge, it would become technically and economically difficult for vendors and their clients to support them and could create a

³⁸ SMART 2009/0072 and responses from internationally operating companies offering web-accessibility services, provide under condition of anonymity.

disincentive to participate in certain markets. The end result is that the user does not benefit, and may have less choice and significantly increased costs”³⁹.

- “Divergences in legislative approaches wherever they occur – whether between Member States of the EU or between the EU and the rest of the world – represent a fundamental challenge to the ability to make accessible tools available. Barriers include increased go-to-market costs for products and services, non-availability of some products in certain countries, increased implementation times and also the associated costs of overcoming these barriers. The availability of accessibility expertise for testing and training resources to help people new to accessibility to develop skills, is also limited by legislative divergence – with harmonized standards expertise can cross political boundaries to help bridge gaps in local capacity. ”

Providers of assistive technologies may be confronted with (unfair) claims from consumers because of a lack of interoperability of their technologies, resulting in different and disruptive user-experiences in different countries.

For website owners or those commissioning websites, limited competition implies higher a cost of websites, as well as the risk of remaining vendor locked, which implies high maintenance and switching costs. Due to non-harmonised national approaches, website owners are limited in their possibilities to share experiences with peers and to pool efforts in responding to the dynamic technology developments.

For public administrations with a service obligation to all citizens, the lack of web-accessibility requires them to maintain costly alternative channels such as call centres or physical counters. Finally, differences lead to uncertainty about the choice of which 'web-accessibility' specification to implement for cross-border services as promoted by the eGovernment Action Plan.

3.1.2 Problems for citizens - poor accessibility of websites providing services to citizens

Progress in web-accessibility remains slow, as has been shown in Sections 2.1.2. and 2.1.2. Citizens that have no access to websites are forced to seek alternative access, for example, by going to a physical counter (where mobility is also often a severe barrier for them), or by using offline mail. This takes time, money, and effort, and it exposes them to the risk of being excluded from certain services altogether.

Specific web-accessibility features may cause problems to assistive technologies if the former are not implemented according to widely adopted specifications. Hence, users with disabilities would not be able to fully access essential or sometimes vital services abroad like emergency information.

3.2. Drivers to the problem

The drivers to the problem of slow progress of web-accessibility in the EU are twofold: fragmentation and uncertainty. The persistently identified **fragmentation** is the result of the different approaches to web-accessibility among the Member States (and also at global level). **Uncertainty** is fed by lack of agreement on common specifications on the part of national authorities and business actors. Both drivers are related to and influenced by:

³⁹ European Information & Communications Technology Industry Association; White paper on eAccessibility, http://www.digitaleurope.org/fileadmin/user_upload/document/document1166614008.pdf

- (1) Websites that do not migrate to WCAG 2.0 fast enough or fully and, therefore, still function on the basis of old specifications with many national variations.
- (2) Member States wanting to apply higher or lower levels of compliance (e.g. AAA, respectively A) for some websites.
- (3) Member States with policies that cluster accessibility with other quality criteria for public sector websites, e.g. with a focus on usability⁴⁰, causing confusion with unwanted market distortion as a consequence.
- (4) The many political declarations on web-accessibility without effective follow up, as well as the economic crisis have contributed to a declining focus on web-accessibility on the political agenda.
- (5) Lack of possibilities for cooperation and sharing of best practices between public authorities from different Member States.
- (6) Lack of a clear legal framework.

3.3. Who are most affected by the problems

The sections below describe the three actors that are most affected by the problem (web-developers, public administrations, citizens).

Private parties – web-developers

Within the sector of ICT expertise provision, the most relevant enterprises for this assessment and proposal for action are those performing activities such as:

- Computer programming, in particular designing the infrastructure and content of, and or writing of computer code to create and implement web pages; customising of software (NACE code 62.01)⁴¹
- Computer consultancy, in particular the planning and designing of computer systems, including related users training (62.02)
- Data processing, in particular application service provisioning (63.11)
- Software publishing, in particular translation or adaptation of non-customised software for a particular market (58.29)

Their profile is very similar to that of the 'ICT consultancy' sub-sector,⁴² where in 2006 micro enterprises (1-9 employees) represented more than 94% of all enterprises and 30% of total employment in ICT consultancy. A number of 517.368 enterprises had 1-9 employees; 27.689 10-49, 5.206 50-249, and 989 had over 250 employees.

The web-developers market can be described as an ecosystem with a **large proportion of SMEs**. In this ecosystem harmonised web-accessibility specifications could make a positive

⁴⁰ Until recently, this was reported to be the case in NL, where it presently has been solved.

⁴¹ The numerical codes following the activities are those from the statistical classification of economic activities in the European Community –NACE Revision 2– established by the Regulation EC No 1893/2006. See http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-RA-07-015/EN/KS-RA-07-015-EN.PDF

⁴² Study "Competitiveness of the EU SMEs in the ICT services Industry". Source: ENTR/06/054, Final Report.

contribution as they allow web-developers to achieve economies of scale, to grow into the larger EU market, and to innovate.

The non-harmonised national approaches create **unfavourable market conditions** for SMEs (as described in section 3.1.1) and raise barriers for **large enterprises**, such as those offering authoring tools. The fragmentation results in higher development and marketing costs for their products and services. Therefore, business entities need to (be enabled to) reduce costs of web-accessibility activities and to be freed from the burden of trade barriers and different national web-accessibility rules when they want to compete crossborder; and, thereby, be enabled to gain access to a wider European market in a cost-effective way.

3.3.1. Website owners

Some citizen-oriented services are of particular value to both public administration and citizens. For the purpose of eGovernment benchmarking in 2001, Commission and Member States issued a list of *basic public services on line* aimed at citizens⁴³:

- Income taxes
- Job search services
- Social security benefits
- Personal documents (passports / driver's license)
- Car registration
- Application for building permission
- Declaration to police
- Public libraries
- Certificates
- Enrolment in higher education
- Announcement of moving
- Health-related services

The availability of these basic public sector services is high, but their accessibility, definitely not, as confirmed by the conducted surveys. Public service providers, a major part of relevant website owners or commissioners, are negatively affected by the diversity of the web-accessibility approaches, as mentioned in section 3.1.1. Hence, it is assumed that a policy proposal aimed at this core set of essential and well defined websites will have an immediate (spill-over) effect on all other public sector websites.

Moreover, the lack of web-accessibility exposes governments to criticisms, because they do not fulfill their national legislations and social responsibility, or simply because of non-efficient practices. In the USA for example, on these grounds disabled citizens have raised litigations against federal, state, and local governments, and even against the private sector (e.g. Apple, Amazon and the large retailer Target).

Concluding: website owners need clear guidance on standards and guidelines for web-accessibility, in order to avoid unnecessary cost and to enable a cost efficient and effective implementation of their policies for and commitments to eGovernment, public procurement and web-accessibility.

⁴³ <http://ec.europa.eu/digital-agenda/en/news/egovernment-indicators-benchmarking-europe>

3.3.2. Citizens – website users

As indicated above, public-sector websites increasingly contain critically important information and services for daily life, education, and work. It is difficult to estimate the number of affected citizens, but one can observe the enormous increase of people relying on mobile Web-based applications while on the move. In 2006 it was estimated that 60% of EU citizens would benefit from adequate e-accessibility⁴⁴.

Non-accessible websites create undue access barriers and exclude people from the conveniences, opportunities and savings that on-line services bring. All citizens are affected but persons with functional limitations including persons with disabilities in particular. A Commission study⁴⁵ estimated them at about 84 million in Europe. Of these, 34 million are aged 65+ and about 36 million have a combination of severe functional limitations. Another EC study⁴⁶ makes an extrapolation showing that up to 60% of EU's 50+ population can be expected to be functionally restricted. The affected population can be extended to all people with cognitive, learning or language challenges. As an indication, it is estimated that "about 4% of undergraduate students in the UK have a learning disability"⁴⁷.

The proportion of digitally excluded people with functional limitations has not yet been measured in Europe. In the USA, 54% of disabled people use the Internet against 81% of the non-disabled population⁴⁸ and in the UK, the numbers are 41% against 75%.⁴⁹ In the USA, 28% of disabled non-users state that their disability makes internet use difficult or impossible⁵⁰. The democratic divide (or civil exclusion) will grow in keeping with the growing use of the internet by public administrations.

For society in general, the overall loss or gain of benefits depends on the potential increase of reach of websites, once web-accessibility is in place.

Concluding: citizens need to obtain barrier-free access to online information, services and other on-line facilities across Europe.

3.4. How the situation would evolve if no action is taken - Baseline Scenario

Proceeding with existing policies and current actions as they are, means that with relation to web-accessibility the EU would:

- (1) continue to raise awareness and disseminate ideas, opportunities, and solutions through communications, events, thematic networks or platforms;
- (2) continue benchmarking, monitoring, having dialogues with Member States and other stakeholders, and gathering evidence through studies;
- (3) continue the development of a European standard in the context of the mandate 376, leading to a EN (European reference document);

⁴⁴ Source: study mentioned in Communication on e-accessibility (COM(2005) 425).

⁴⁵ "Accessibility to ICT Products and services by Disabled and Elderly People", 11 July 2008

⁴⁶ http://ec.europa.eu/employment_social/social_situation/docs/lot7_ict_finalreport_en.pdf "The Demographic Change – Impacts of New Technologies and Information Society", 2005, p.10.

⁴⁷ http://www.hesa.ac.uk/index.php?option=com_datatables&Itemid=121&task=show_category&catdex=3

⁴⁸ Pew Internet Survey, <http://www.pewinternet.org>

⁴⁹ Source: Oxford Internet Survey 2009 (http://www.oii.ox.ac.uk/research/oxis/OxIS2009_Report.pdf)

⁵⁰ Pew Internet Survey, <http://www.pewinternet.org>

- (4) continue to implement web-accessibility in its own websites;
- (5) carry on supporting R&D and innovation on web-accessibility through its funding programmes;
- (6) continue to promote and support involvement of users and their organisations in all these actions;
- (7) reinforce the Member States' commitment to UNCRPD, and the industries efforts to deploy WCAG 2.0 as well as the Commission-adopted proposal for a new Public Procurement Directive (see Section 2.4.2) .

In spite of all these points, both the pressure for compliance and the timeline would remain uncertain. In addition, despite the merits and achievements of these measures, studies and consultations show that this approach over the past ten years has not been able to resolve the problems and remove the drivers behind these. The following sections present reasoning on the situation in case such a baseline scenario is maintained.

Economic dimension

Suppliers / enterprises and web-developers: A widely accepted specification for implementing web-accessibility (such as the existing WCAG 2.0 or the European standard being developed under mandate M/376) will contribute to an easier, more cost efficient and harmonised uptake of web-accessibility. Yet, the actual uptake would still depend on voluntary actions. Without mandatory and enforceable rules and deadlines, barriers will continue to exist for cross border entrepreneurial activities and the market would grow slowly at most and may even regress.

The lack of mandatory web-accessibility based on harmonised criteria means that companies supplying web-accessibility solutions have reduced business opportunities in the home, the European and also the international market, with low economies of scale and little opportunity for competitive and more attractive pricing as a consequence. **Owners / procurers / public administrations:** The continued lack of a common approach on web-accessibility would hinder European governments in realising accessible and inclusive cross-border eGovernment, to which they are committed.⁵¹ Due to the recent economic crisis there is a pressure on public administrations to be more (cost-)efficient, e.g. by offering services on line. Without web-accessibility in place, governments would have to invest an estimated € 30 million⁵² for every 1% of citizens that do not interact with governments online, because they would have to continue to provide public services at a physical counter, by mail, by phone, or in the form of Braille printouts.

Consumers / end-users/ citizens: All people with functional limitations – and probably most citizens - will lose time and money if web-accessibility is not in place. The value of the time EU citizens lose if they cannot access public services online, has been calculated to range from € 150 million to 600 million, given a reach of just 5 to 20% of all those with disabilities.⁵³

⁵¹ Ministerial Declaration on eGovernment, Malmö, 18/11/2009, reinforced in the 2010 eGovernment Action Plan, see Annex III.

⁵² Study "Accessibility of ICT products and services to Disabled and Older People"

⁵³ Study "Accessibility of ICT products and services to Disabled and Older People". See also annex VI and results of the study in Annex II.

Finally, web-accessibility design lends itself for job creation across Europe, in particular for people that are naturally sensible to the problem: the people with disabilities themselves. The unrealised potential of such a service is demonstrated by initiatives such as "Fix the Web"⁵⁴; where disabled persons report accessibility problems and volunteers take these issues further with website owners.

3.4.1. *Social dimension*

A considerable number of Europeans risk exclusion from the opportunities created and facilitated by the Internet, if the uptake of web-accessibility lingers. The **social cost** (in terms of reduced quality of life and personal fulfilment) would be considerable, given 84 million people with functional limitations, that would risk being excluded from participating in many aspects of economy and society. The fragmentation of web-accessibility approaches and specifications may also limit the 'right of receiving services' for citizens depending on web-accessibility features in their own country that are not implemented in other Member States.

3.4.2. *Policy dimension*

At governmental level, fragmentation could increase if the implementation and enforcement of policies fail, and if a systematic sharing of specifications (standards) and goals is not ensured.

Presently, many national actions depend on voluntary commitments, and they are under threat because of present budget pressures.

As their Web presence grows, the urge for governments to provide alternatives to non-accessible web content will increase, with the corresponding risks of providing poor or no alternatives.

3.5. **EU right to act and evidence of the EU added value**

EU-action is needed to ensure the availability throughout the EU of high quality products and services for web-accessibility and to ensure the functioning of the internal market. As the market segment for Web-accessibility is still not well established, now is the right time to act in order to mitigate problems and lay down settings that would lead into a much larger growth.

There are actions being taken within each Member State that contribute to the growth of this market. However, recalling the results of the conducted analysis and survey (see section 2.1.1 and 3.1.1) major differences in nature and content of these actions (e.g. technical provisions or standards referred in legislations) create barriers for enterprises aspiring to offer their services in several EU countries.

A measure at EU level is needed for the approximation of the different provisions laid down in the Member States in order to create better conditions for the functioning of the internal market.

EU Added-value

Action at EU-level, including a dialogue for further compatibility at world level, is the most efficient way to address the main problem: fragmentation. It would provide the missing link

⁵⁴ <http://www.fixtheweb.net/>

to render existing policies at Member States as well as EU levels more effective and their implementation less expensive.

It would greatly help to deliver web-accessibility according to existing political commitments, including that of the DAE. It would ensure the effectiveness of the introduction of the European Standards for accessibility developed under Mandate 376 (see section 2.3). Furthermore, it would greatly complement the effect of the upcoming European Accessibility Act, and facilitate the implementation of the new public procurement directive.

If fragmentation around web-accessibility is removed, the suppliers – web-developers – would encounter lower entry barriers in other countries; and might improve their competitiveness and achieve a considerable economy of scale. For the buying parties – public administrations – more and better service-offers from the part of the web-developers plus collaboration among themselves on relevant policies would make cheaper going online in an accessible form. Citizens would benefit from the increased availability of more usable on-line services, and citizens with functional limitations would be able to exercise their right to receive these services.

A reason for limiting the scope to public sector websites is that public expenditures have been proven catalyst to influence general market conditions and to boost the uptake of technologies to some extent. The public sector as such constitutes already a likely secure and sizable market for web-developers, given the growing shift from public authorities towards the online provision of information, services and transactions. An extension of the scope to private sector websites (at least those providing basic services to citizens such as transport and banking) would without a doubt boost the market addressed by the EU action. However, a full and mandatory implementation and control of the EU action is not within the scope of this proposal.

Nevertheless, if **accessible public sector websites become the default offer for website development**, as well as **a regular award criterion from procurers**, a 'spillover' to web-developers and private sector contractors might happen. In any case, the proposal for action did consider the option to extend the scope to other types of websites (including private ones) however, it was discarded because the Commission is already looking into these issues in the context of the preparation of the European Accessibility Act. In addition, it will leave the Member States the freedom to extend the list of public sector websites concerned according to their needs and existing legislations. Further impetus - as highlighted by the European Parliament - might be gained when also accessibility specifications for authoring tools become available.

3.5.1. Legal basis

The EU "shall adopt the measures for the approximation of the provisions laid down by law, regulation or administrative action in Member States which have as their object the establishment and functioning of the internal market," according to **Article 114.1 of the Treaty on the Functioning of the European Union** (TFEU). On the basis of this article, the Union has the right to act on web-accessibility, given the link between the first problem identified in this Impact Assessment (disrupted and too-slow emerging market) and the objectives of this Article, and in the view of the shared competences between the Union and the Member States. Thus, this article forms the legal basis of the proposal that is discussed in this impact assessment. It would allow for direct reference to harmonised standards on web-accessibility, whose lack, as analysed, is the key factor contributing to fragmentation.

See section 5.5 for the discarded option of a measure based on 'anti-discrimination', based on article 19.1.

3.5.2. *Subsidiarity*

In examining whether an EU action on web-accessibility would be justified, the following criteria were applied:

Necessity test: transnational aspects that cannot be dealt with satisfactorily by Member States actions:

- As described in 2.4, the many Member States measures on web-accessibility have not provided the boundary conditions for a mature and effective market for web-accessibility products and services. If the action would remain restricted to national level only, approximation of national measures and coordinated implementation of harmonized specifications would not be achieved, and comparability of progress would be difficult. Fragmentation, lack of interoperability, and uncertainty would not be removed.
- Actions by Member States alone, or the lack of Community action, would significantly damage the interests of Member States. The national divergences put burdens and barriers on companies and citizens that try to act across borders. This limits the perspectives for a mature public market for web-accessibility products and services, with as possible results e-exclusion and mobility constraints to a considerable portion of the population.

Efficiency test: a more efficient use of resources would be achieved by jointly adhering to common specifications (lower implementation cost), by participating in a European cooperation scheme for the sharing of good practices and expertise on required updating as a consequence of technological developments.

- The effectiveness of any web-accessibility action would be greatly enhanced by a joint European approach. Positive European feedback loops (such as joint comparison of progress) would prevent or counter further fragmentation of the emerging market for public web-accessibility products and services. This would speed up the implementation of web-accessibility.
- An EU-wide adoption of the reference specifications would yield higher competitiveness in the market for web-accessibility services and products.
- Finally, the EU and Member States could quicker adapt to new technological developments. The preparation of European functional specifications (as the expected outcome of M/376) contributes to this approach.

To avoid subsidiarity infringement, the focus of the action on web-accessibility should be on a small set of issues: functional requirements for web-accessibility, harmonisation of scope and timing of deployment. These should be agreed upon at European level, leaving the maximum of discretionary options to the national, regional, or local level.

3.5.3. *Consistency with other EU policies*

The European Digital Agenda is one of the flagships of the Europe 2020 strategy for smart, sustainable and inclusive growth, aiming at high levels of employment, productivity and social cohesion. Effective action on public web-accessibility contributes to at least 3 of the 5 EU-2020 objectives: employment, innovation, and social inclusion.

The proposed EU action on web-accessibility would in the first place contribute to the size, efficiency and effectiveness of the market for web-accessibility services for public sector

websites. This could make a considerable contribution to the global competitiveness of companies in the field of web-accessibility. At present, web developers and providers of authoring tools from the USA are advantaged over their European counterparts because of the adoption in the USA of harmonised and mandatory specifications. A more mature market for public web-accessibility might influence positively adjacent markets such as the market for private web-accessible products and services, and the markets for website development in general, to some extent. All in all, this would be a considerable stimulus for an internationally competitive and innovative single digital market, in line with the first pillar of the European Digital agenda. Mainstreaming of web-accessibility would contribute to a more inclusive European knowledge-based society.

The proposed intervention would contribute to existing commitments related to economic growth, competitiveness, the digital single market, e-inclusion, equality and overall e-accessibility, as set by the DAE, the eGovernment Action Plan, the European Disability Strategy 2010-2020, the proposed Public Procurement Directive and the UNCRPD (see also the section 2.4).

3.5.4. Regulatory convergence with other major trading partners

The policy option proposed in this report would lead to regulatory convergence with other major trading partners, given that the proposed harmonisation approach with M376 will align with international developments (WCAG) and with those of major trading partner the USA, where most ICT companies are active. Harmonization according to WCAG 2.0 in the context of Mandate 376 would enjoin the EU market with other major markets including the USA, Japan, Australia, Canada, and other countries that have also requirements based on WCAG 2.0.

Industry has pledged for common specifications between the USA and EU via the transatlantic dialogue (TEC 2011). In the USA web-accessibility is mandatory for public procurement of federal websites since 1998 (according to Section 508 of the Rehabilitation Act). The reference specifications are presently being updated⁵⁵ to take into account new technologies and web specifications. The current draft (published December 2011) makes direct references to functional requirements of WCAG 2.0 level AA⁵⁶.

In the USA, the industry has reacted positively to the regulation, because the guidelines provide for transparent competition in terms of functional requirements. The US industry is presently cooperating in the development of the EU standards under M376. Under the EU-US dialogue on standardisation, there have already been exchanges of views during the production of the (USA) 508 refresh text and the execution of the (EU) Mandate 376, that both address web-accessibility in line with the work of W3C on WCAG. Other countries such as Canada, Australia and New Zealand⁵⁷ have also moved to use WCAG2.0. Finally the WCAG2.0 functional specifications have now been submitted for ISO recognition via the PAS process.⁵⁸

⁵⁵ United States Access Board, <http://www.access-board.gov/news/ict-draft-rule.htm>, 03/2010. Efforts for harmonisation with Europe are undertaken via cooperation of the US in the EU's Mandate 376.

⁵⁶ Source: <http://www.access-board.gov/sec508/refresh/notice.htm> - <http://www.access-board.gov/sec508/refresh/draft-rule.htm>.

⁵⁷ Source: 2011 - <http://webstandards.govt.nz/standards/nzgws-2/> with a complement precisising the "Only Accessibility-Supported Ways of Using Technologies" as foreseen in the W3C/WAI conformance requirements.

⁵⁸ Source: <http://www.w3.org/2011/pas/wcag2-er4.htm> - http://www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=58625

4. OBJECTIVES

The following objectives (expected effects or impacts) for action on web-accessibility can be identified, on the basis of the previous chapters.

4.1. General objectives

- I. Improvement of the functioning of the Internal Market for the specific market segment for the supply of web-accessibility-related products and services.
- II. Supporting commitment relating to web-accessibility in public sector websites laid down in the Digital Agenda for Europe and further related policy initiatives, the European Disability Strategy or legal acts (notably UNCRPD).

4.2. Specific objectives

III.	Establish a harmonised EU standards in considering websites accessibility in relevant national and EU approaches
IV.	Definition of types of websites concerned, with a minimum common list
V.	Promoting the web-accessibility of websites beyond those of the types belonging to the 'basic public services', as well as supporting capacity building and changes in the website development process to sustain a behavioural change towards 'web-accessibility.'

4.3. Operational objectives

VI.	Achieve regular and comparable monitoring reporting
VII.	Achieve collaboration on accessibility measurement and metrics, costs/benefits measurement, certification, responses to technological evolutions, exchanging good practices, and common indicators
VIII.	Achieve full web-accessibility in the public sector websites that are present in a common list and were newly created after the adoption of this intervention
IX.	Achieve by 2015 web-accessibility of websites that are present in the common list and already existed before the adoption of this intervention

The achievements on these objectives will be monitored and assessed in evaluation activities (see Chapter 8), for which evaluation criteria and indicators are defined.

5. POLICY OPTIONS

This chapter examines the three main policy options that have been identified.

5.1. Policy Option 1: Baseline scenario – no change in policies

The baseline scenario means continuing all actions as in Section 3.4 of this report, such as: current best practice support to public administrations in Member States, cooperation on

standardisation actions, performing EC studies into state of play, and EU support to R&D. Under the baseline scenario, we also assume:

- the adoption of the revised Public Procurement Directive with strengthened provisions on accessibility requirements;
- the implementation of the United Nations Convention on the Rights of People with Disabilities (UNCRPD);
- the modernisation of national specifications according to WCAG 2.0, though in often fragmented ways.
- The development of an EU harmonised standard under M376

5.2. Policy Option 2: Adoption of a Recommendation ('soft law')

This option concerns the adoption of a Recommendation expressing a common approach for Web-accessibility, in particular the implementation of the Web Content Accessibility Guidelines (WCAG 2.0 level AA). The Recommendation would:

- provide specifications defining a 'harmonised level of web-accessibility' equivalent to the WCAG 2.0 level AA;
- specify a minimum list of types of public sector websites concerned –the so called 'basic public services' (see Section 3.3.1) that should be made accessible to trigger the accessibility market growth

It would also:

- invite Member States to refer to the defined harmonised level of web-accessibility in the adoption, revision, and implementation of legislation concerning web-accessibility;
- recommend Member States to ensure that the websites concerned are accessible in accordance with the specified harmonised level of web-accessibility; and (where possible) that compliance with this specification should be considered in the award criteria at the public procurement of website development services;
- recommend Member States to ensure that appropriate mechanisms are set up for relevant web-accessibility policy and for consultations in this area with relevant entities from the private sector as well as with citizens and organisations representing them;
- recommend Member States to create programmes that foster capacity building on web-accessibility.

5.3. Policy Option 3: Legally binding measure

The third option is a legally binding measure based on article 114 of the Treaty on the Functioning of the European Union to establish a framework in support of a harmonisation of national rules and existing practices of the Member States on web-accessibility. It shall provide for the implementation of web-accessibility principles and techniques, in accordance with a harmonised level of web-accessibility for a predefined set of public sector websites.

The measure would:

- Ensure an approximating the laws, regulations and administrative provisions of the Member States on web-accessibility.

- Specify the minimum set of public sector web sites to be concerned (as specified in Section 3.3.2), with a possibility for each Member State to extend the approximated provisions to other types of public sector websites.
- Specify what the common requirements for web-accessibility are, and use available channels for recognising and referring to relevant standards (notably a EU harmonised standard under M376) or specifications, in line with the usual approaches regarding presumption of conformance ("new approach") and considering both the currently proposed new channels for "ICT standards" and if necessary directly the W3C normative material.

It will state that Member States:

- Shall bring into force their laws, regulations and administrative provisions necessary to comply with this Directive by 30 June 2014 in order to apply these measures by 31 December 2015.
- Are participating via their standardisation organisations in the definition of a harmonised European standard under M376, or (if this channel has to be used) via a Multi Stakeholder Group or Committee as foreseen in the currently proposed, new channel for recognising additional "ICT standards".
- Shall participate in a Committee on Web-Accessibility, with advisory and regulatory procedures depending on the matter handled
 - (a) to select the standard to be used for providing presumption of conformance with the requirements for web-accessibility,
 - (b) to define the monitoring methodology for regular conformance verification
 - (c) to define the reporting modalities
- Shall deploy additional measures
 - (a) to ensure that information about the accessibility of a website concerned is clearly visible on the website.
 - (a) to support consultations mechanisms with stakeholders and for making public the policy developments.
 - (b) to promote that other public sector websites, such as those providing other basic services to citizens, are accessible using the same requirements.
 - (c) to cooperate at European level with industry and civil society stakeholders, to exchange best practices and to review market and technological developments and progress.
- Shall report annually on the results of the conformance monitoring and the additional measures.

A Directive would be the appropriate instrument, given the flexibility with which it would provide Member States. It would allow them to extend the minimum list of types of public sector websites, and would respect the fact that some Member States already have related legislations in place. It is up to the Member States to put in force the laws, regulations and administrative provisions necessary to comply with this Directive.

The choice for a Directive over a Regulation is motivated by the fact that Regulation allows Member States less flexibility to adjust the implementation to already existing policies and to extend – if they so wish – the list of public sector websites concerned. Furthermore, proportionality might not be violated because many of the implementation parameters such as the organisation of monitoring and handling of complaints would be left to the Member States. It would probably imply a more costly burden of approximation, especially for those Member States that already have legislation in place.

Deferred suboption: extending the scope to cover other types of websites

This suboption would include extending the scope of the proposal by specifying additional types of website concerned, for instance those providing 'basic services to citizens' (e.g. transport) regardless whether they were public or private.

During consultation especially civil organisations like AGE, ANEC, EBU, and EDF called for this extension. In addressing them, the proposed intervention would be fully coherent with the commitment expressed in the European Digital Agenda, to "[...] make sure that public sector websites (and websites providing basic services to citizens) are fully accessible". Furthermore, it would promote the Web-accessibility market segment even more. However, it would be difficult to define the boundaries of the relevant service-categories, and full implementation will take longer.

The proposed legal measure, however, provides the Member States with a basis for further extension. In the form of the request to 'promote accessibility according to the harmonised level of other public sector websites', Member States could effectively extend the scope of the measure as well as maximise spillovers for example by supporting translation in local languages of the harmonised web-accessibility specifications and associated toolkit, by praising or awarding organisations and companies that apply harmonised web-accessibility; by requiring harmonised web-accessibility in all public procurement of websites and web-applications on inter- and intranet. They could extend this public procurement measure to all websites that are partly funded with public money, and they could require that the authoring tools and content management systems for the self-building or maintenance of websites and applications comply with the harmonised web-accessibility specifications. These issues are being looked at in the context of the preparation of the European Accessibility Act.

This option has **not** been discarded altogether though, as Policy Option 3 would allow the Commission to modify – if needed - the minimum list of public sector websites concerned in line with ex-post evaluations of the proposed measures if for example the European Accessibility Act would not include these issues(see section 8.3).

5.3.1. Considered proposal for a Regulation as legal delivery instrument

Proposing a Regulation would lead to matching national legal acts, which would facilitate references, consultations, and revisions concerning web-accessibility at EU level; and the proposed provisions would not be transposed into national laws, regulations and administrative provisions in different domains (e.g. within an 'Equality Act' in one country and within an 'Information Technology Directive' in another). On the other hand, a Regulation

would provide less flexibility to Member States and imply a more costly and less proportional burden of approximation, especially for Member States that already have legislation in place.

A Regulation would have immediate enforcement; hence, it would anticipate positive effects on the internal market and possibly bestow more assurance upon the reaching of timely dependent commitments (recalling the DAE). However, web-developers would incur considerable compliancy costs on a very short term (for example, for updating tools, training, and materials) to be able to continue operations in their own country of residence, even if they would still not be interested in internationalisation.

5.4. Proportionality

In Option 3, proportionality is observed by limiting the proposal to a minimum list (of types of) public sector websites concerned, giving the Member States the option to extend this list as they wish. Furthermore proportionality is taken into account by leaving many of the implementation parameters such as enforcement, monitoring and complaints handling fully to the Member States. Table 5 presents 'mandatory and optional elements' for Option 3 and the effects on the Subsidiary and Proportionality principles.

<i>Element</i>	<i>Mandatory / Optional</i>	<i>Affecting</i>
Proof of compliance with web-accessibility specifications	<i>Optional</i> : compliance approach (e.g. supplier-declared compliance or self-certification, third-party certification)	Subsidiarity
Methodology for assessing accessibility	<i>Mandatory</i> : common, as specified in this measure and periodically reviewed by delegated act	Subsidiarity
Reporting at EU level	<i>Mandatory</i> : web-accessibility status including degree of web-accessibility according to common measurement methodology	Proportionality
Relevant public sector websites (websites concerned)	<i>Mandatory</i> : minimum list of websites concerns as specified by this measure (or updated by delegated act) <i>Optional</i> : more extensive list of websites concerned, through additional national list	Subsidiarity, Proportionality
Compliance date for newly built websites	<i>Mandatory</i> : upon entry into force	Subsidiarity
Compliance date for existing websites	<i>Mandatory</i> : 2015 <i>Optional</i> : before 2015	Subsidiarity
Complaints and suggestions handling	<i>Optional</i> : to have a mechanism in place for accessible online submission of complaints and suggestions	Subsidiarity Proportionality
Cooperation	<i>Mandatory</i> : cooperation with EU-level stakeholders involving industry representatives (ICT companies and providers of basic services), and citizen/consumer organisations on common EU-level reporting and implementation measures.	Subsidiarity

Table 5 Elements of option 3

The use of the proportionality approach in Option 3 would not hinder Member States to adapt their web-accessibility situation to their national context, but at the same time the proposed Directive will have enough impact to trigger a substantial positive spillover effect.

5.5. Discarded options

Legally binding measure based on anti-discrimination

A legally binding measure based on Art. 19.1 of the TFEU has been considered with a view of putting in effect in Member States equal treatment for online participation and countering (in)direct discrimination on the grounds of limited functionality because of disability or age. The purpose was also to comply with related policy commitments, for example, UNCRPD.

Due to the legal basis, such a measure would only define the principle of 'web-accessibility', and not address a 'harmonised level of web-accessibility'. The anti-discrimination legal option has been discussed within the IASG. It was considered attractive to address the availability of web-accessibility for the group of people at risk of discrimination, but it was agreed that it would not correlate to the problems to be solved and not contribute to abate growing regulatory and market fragmentation. It would merely add to the anti-discrimination measures⁵⁹, whereas harmonisation (or de-fragmentation) is the missing piece in the process to achieve an efficient web-accessibility market (see also section 3.5.1).

Finally, the focuses on discrimination of individuals due to their disabilities would narrow the approach of the measure, as any action on web-accessibility should be of interest and beneficial to every citizen.

5.5.1. Use of public procurement legislation

The proposal COM(2011)896 for a revision of the Public Procurement Directive (2004/18/EC)⁶⁰ (adopted by the Commission on 20 December 2011) states that "For all procurement the subject of which is intended for use by persons whether general public or staff of the contracting authority, those technical specifications shall, except in duly justified cases, be drawn up so as to take into account accessibility criteria for people with disabilities or design for all users."

Despite the role for public procurement to leverage a broader uptake of web-accessibility, the obligations derived from the Public Procurement Directive are not sufficient. It would help making public sector websites accessible, but it would not directly establish common web-accessibility criteria and so would fail to address market fragmentation. Moreover it would not establish targets such as deadlines for achieving web-accessibility and it would not put in place the monitoring and cooperation which are necessary to adequately react to ongoing market and technology developments. Furthermore, its impact would be limited, as it would not address non-procurement situations such as in-house development and maintenance and update of content (which are typically done in-house).

5.5.2. Extension to authoring tools

As a sub-option has been considered to extend the scope of the intervention to the harmonisation of functional specifications for web content authoring tools or accessibility

⁵⁹ All Member States and EU have signed and most Member States have ratified the UNCRPD, and 21 Member States already have policies or legislation on the accessibility of public sector websites, based on anti-discrimination grounds. An anti-discrimination approach of web-accessibility with reference to 'equal access' and 'digital exclusion/inclusion' (with article 19.1. as the legal basis), is already covered in the proposal for an Equal Treatment Directive, that is still before the Council. The issue of non-discriminatory access to goods and services is covered by Articles 3(1)d, 4, 4a, and 5 of this proposal.

⁶⁰ COM(2011) 896 final 2011/0438 (COD), see http://ec.europa.eu/internal_market/publicprocurement/modernising_rules/index_en.htm

checking tools, and their applications. The owners of the websites concerned would be requested to consider these when building or procuring such tools.

This approach would increase the prospects of achieving web-accessibility even for (non-procured) in-house created websites. The accessibility of the authoring tools themselves could open up employment possibilities for developers with disabilities (as indicated earlier in this document and also noted by the European Parliament).

It should be noted that the Mandate 376 (see section 2.3) also covers the standardisation of functional specifications for authoring tools (as the USA did it in the draft revision of their Section 508 rules). The current proposal for revision of the Directive on Public Procurement, if adopted, could help ensuring their deployment. Factually, the W3C/WAI is currently finalising such specifications (Authoring Tool Accessibility Guidelines-ATAG 2.0).

This option has been discussed within the IASG, and the conclusions were that additional information would be needed to assess the proportionality of such an extended intervention.

5.5.3. *Extension to assistive technologies*

The option has been considered to develop a measure that would (also) cover the third large element of accessibility (after web content and authoring tools); the capability of browsers and assistive technologies to access content. These devices and software need to be up-to-date with the evolution of web technologies to be able to access content.

In theory, it would be possible to assess this topic for the work-place, e.g. via public-procurement policies. However it is much more complex for other wider contexts targeting the citizens at large, as the service models for assistive technologies to access the web, vary too significantly per Member State (as regards actors, coverage level and type of support).⁶¹

It is not possible to conceive a mandatory intervention that would ensure that the population concerned would be equipped with up-to-date browsers and assistive technologies. Nevertheless, it is worthwhile monitoring the state of equipment of the population concerned. Also Member States should take this into consideration when developing policies to support on line activities of people with disabilities and older people, as internet access and web interfaces become ever more essential for communication and interaction. In addition, presently, with the ongoing the EC-supported modernisation of the EASTIN portal of assistive technologies, incentives are put in place for AT vendors to make better and more affordable products and disseminating more efficiently information about them.

6. ANALYSIS OF THE EFFECTS OF THE POSSIBLE INITIATIVES

This chapter assesses the costs of the policy options for different impact areas and actors.

6.1. Policy Option 1 – no change in policies

Economic impact – Web-developers

In the Baseline Scenario described in previous sections, the market for web-design will remain fragmented in terms of approaches for web-accessibility. This causes two types of costs to the industry:

⁶¹ Source: smart 2008/0067, Internal market for inclusive and assistive ict; Targeted market analysis and legislative aspects (Final report June 2011). Deloitte & AbilityNet. See http://ec.europa.eu/information_society/activities/einclusion/library/studies/assistive_market/index_en.htm

- a loss in the value of online content that is not or not easily accessible for a wider public, nor easy to adapt to other access devices (eg. 'web on mobile'), in case no (tailor made) solutions are implemented;
- additional costs for web design because web developers have to confront non-harmonised accessibility requirements in case of fragmented solutions.

Web-developers would face a smaller domestic demand, and high entry barriers for cross-border sales (with additional costs to adapt their bids to national specificities⁶²). It would be uncertain if **SMEs** could profit from a growing market for web-accessibility, as they might not be able to achieve the economies of scale needed to compete with larger companies. **Large enterprises** might be better able to cope with adaptation to the market condition, either because they have resources of their own, or by subcontracting schemes (yet with additional costs to suit fragmented markets).

Economic impact - Member States

Member States with legislation for web-accessibility in place: unless multilateral initiatives for cooperation are taken, Member States could not benefit from sharing knowledge and approaches, because of persisting differences. Member States would also suffer from supplier lock-in (see also section 3.1.1) and not benefit from enhanced competition in the web-designing market, including the supply of web-accessibility tools and services.

Member States without legislations on web-accessibility, or legislation addressing just a small part of the websites concerned: these Member States would continue facing high costs for off-line support (via counters or helpdesks) for citizens who are unable to access their websites. These costs will increase in proportion to demographic changes (e.g. ageing society) and the growth of the digital society.

Social impact:

Citizens: those, who are unable to interact with the on-line facilities, will continue experiencing 'digital exclusion' and limitations to social, economic, and civil participation. This situation will result in reduced access to jobs (through on line job search and application services) and online education opportunities for persons with disabilities or low digital skills.

Political impacts:

Member States: Under the present budgetary constraints, and in line with the Digital Agenda and the eGovernment Action Plan, the full digitisation of public services will continue to be a priority. Full online availability has been steadily increasing from 59% in 2007 to 82% in 2010⁶³, but without a rapid implementation of web-accessibility for those services, a large part of the population will likely be excluded. This could cause political reputation damage for all levels of government. Litigation (for example, based on existing national anti-discrimination legislation) will likely increase.

Environmental impacts:

No positive environmental impacts are likely to originate from the baseline scenario, as no improvement in the availability of accessible web-services might contribute to (i) enhanced

⁶² SMART 2009/0072

⁶³ Digitizing Public Services in Europe: Putting ambition into action; 9th Benchmark Measurement, December 2010, Capgemini, IDC, Rand Europe, Sogeti and DTi.

virtualisation of service provisions especially for persons with physical and sensory impairments, and (ii) reduced provision of alternative physical formats of online information, such as large print or Braille-printed paper forms. These impacts have not been quantified.

6.2. Policy Option 2 - recommendation

As a non-binding measure, the impact of a Recommendation depends on the willingness of Member States to put it into action. In those countries that already have legislation or other measures on web-accessibility, revisions regarding more updated specifications (i.e. WCAG 2.0) might or are already occurring, as it has become evident that implementing WCAG 2.0 or equivalent harmonised M 376 standard can lead to savings (to up to 8%) compared to WCAG 1.0 (see also Annex II)⁶⁴.

A Recommendation will however not unlock the potential of the Digital Single Market for web-accessibility, because it will not fully remove fragmentation by enforcing harmonised specifications. Therefore, legal uncertainty will largely remain in the area of web-accessibility of public sector websites, thus increasing the costs linked to its implementation and to the needed tools and resources (due to reduced competition in the supply side).

Costs

If public sector and businesses would voluntary increase web-accessibility in conformance to WCAG 2.0 or equivalent M 376 EN, then the maximum costs for them would be the same as for option 3, although it should be taken into account that monitoring and administrative burden might be moved to the Commission (as the Commission would have to carry out studies to learn on the current state).

Economic impacts:

Web-developers: these are likely to continue facing a fragmented internal market with the same disadvantages as Option 1.

Member States: For those that have already followed WCAG 1.0, savings could be expected, as the costs of applying WCAG 2.0 or equivalent M 376 EN are somewhat lower than of WCAG 1.0. Otherwise, little change is expected in the economic impact compared to Option 1.

Social impacts:

Citizens: Improvement is likely in Member States that would introduce relevant legislation as a consequence of the Recommendation. However, at EU level, citizens would still not be able to benefit from accessible online public services across Europe, as those online services will continue to suffer from a fragmented approach.

Political impacts:

Member States: For Member States that would introduce newly relevant legislation or extend the scope of type of websites as a consequence of such a Recommendation, increased operational efficiency and an improved reputation could be expected.

At EU level, Member States would not be able to deliver on common objectives on web-accessibility (see Riga Ministerial Declaration), nor on EU-level policy objectives such as the one for web-accessibility in the DAE to "make sure that public sector websites [...] are

⁶⁴ Source: EC study, ref. SMART 2009/0072: Technosite, "Economic Assessment for Improving e-Accessibility Services and Products."

fully accessible by 2015". There is a risk that the concept of 'fully accessible' would still widely differ across the EU. Hence, fragmentation would remain.

Environmental impacts:

Just as in Option 1, environmental impacts will materialise to a limited extent. These have not been quantified.

A Recommendation is feasible and can be done at low cost, but it is ineffective as regards to problem and the objectives.

6.3. Policy Option 3 – legislative measure based on Internal Market

A legally binding measure would ensure an approximation of the national provisions on web-accessibility, and enforce a coherent level of implementation of web-accessibility for the selected public sector websites. Thereby, it would remove current and avoid future fragmentation of the internal market.

6.3.1. Assessment of costs associated with the proposed action

The assessment focuses on those costs that are connected to the necessary investments and procedures for making websites accessible according to this proposal, and thereby achieving its objectives. Based on the degree of harmonisation proposed, a range of low and high estimates on costs is provided. Finally, an estimation is provided of the administrative costs implied by implementing the proposed legislation.

The cost estimates below are based on data, evidence and assumptions described in Annex VI. When exact figures are not available, the upper bound on figures leading to higher estimates on costs is used. For example, it is difficult to obtain the exact number of websites that belong to the twelve types of eGovernment services referred to as 'basic public services' websites. So, it is assumed that 'basic public services' websites represent half of the total number of all public websites in the EU: 380.000.

For the 6 Member States **without pre-existing relevant measures for web-accessibility**, there will be compliance costs for making websites accessible, ensuring annual evaluation of websites, and guaranteeing adequately skilled human resources. Assuming that no website is currently web-accessible (0% compliance), to achieve 100% compliance of the websites concerned in 1 year (including monitoring and administrative burden), would cost on average € 62 million (i.e., € 37 million if all websites were simple and € 88 million they all are as complex as defined in Annex VI). The yearly expenditures are € 41 million and comprise redevelopment of one third of these websites and maintenance, monitoring, and assessing web-accessibility for the rest.

For the 21 Member States **with pre-existing web-accessibility measures**, the additional costs should be minimal, since the websites concerned fall under the existing national regulation. There are broadly two categories of Member States: those that implement variations of WCAG 1.0 and those with variations of WCAG 2.0.

UK represents the group of EU Member States that have already introduced WCAG 1.0 level AA in their Web content Accessibility criteria. For these countries the (re)development of accessible websites according to WCAG 2.0 is estimated to cost 8% less than according to WCAG 1.0. Assuming that websites are redeveloped every 3-4 years, the measure actually leads to savings. France and Germany represent the Member States that have already implemented web-accessibility measures that prescribe variations of WCAG 2.0. For them,

the development and maintenance costs would not change, except for countries that follow variations of WCAG 2.0 level A.

As many countries do not have time targets or have not reached them, the costs were estimated to achieve 100% compliance of the websites concerned in one year, under the assumption that, by 2015, 45% of them would already be compliant. In that case, the additional investments would amount to between € 260 million for simple websites and € 560 million if all were as complex as defined in Annex VI (including the costs of monitoring and administrative burden).

Cost of information obligation

For all Member States, minimal additional costs could result from the reporting schemes for common monitoring of implementation and from Information Obligations⁶⁵. Option 3 entails information obligations for national, regional and local administrations to monitor the indicators at EU level and to share experiences. A more extensive EU-level cooperation mechanism would be needed, including meetings with stakeholders (e.g. in a national forum of users, industry, and public administrations) and meetings on Delegated Acts. Cost indications were obtained from the studies and consultations. Using the available calculation facilities, the annual cost at EU level for Option 3 is estimated at € 1,65 million.

Types of Information Obligation (IO)	Required actions
(1) Submission of reports on the accessibility status of websites – once a year	Familiarising with the IO Training employees about the IO Collecting information and filling forms Sending the information to EC
(2) Coordinated actions related to Delegate acts & Committees – twice a year	Holding meetings
(3) Meeting with stakeholders at national level	Holding meetings

Table 6 Overview administrative burden

Cost of monitoring

The calculation of the monitoring costs at country level is given in the table below. It is based on the monitoring specifications proposed in Annex IX, based on regions.

Country	Total daily fees	N° of regions	N° of sampled websites	Price
EU27	337	273	573	686.517
Austria	436	9	19	25.441
Belgium	459	11	23	32.433
Bulgaria	97	7	15	4.470
Cyprus	302	2	5	4.644
Czech Republic	183	8	17	9.532
Denmark	601	5	11	20.320

⁶⁵ Types of Information Obligation are, for example, 'Submission of recurring reports' (e.g. with results of annual assessments) and 'Collaborations'. More details and estimations are given in Section 7.6.

Estonia	134	1	3	1.234
Finland	385	5	11	13.010
France	429	26	53	69.866
Germany	446	39	79	108.282
Greece	330	13	27	27.335
Hungary	165	7	15	7.616
Ireland	610	2	5	9.374
Italy	438	21	43	57.889
Latvia	151	1	3	1.396
Lithuania	119	1	3	1.100
Luxembourg	605	1	3	5.576
Malta	159	1	3	1.467
Netherlands	466	12	25	35.785
Poland	184	16	33	18.641
Portugal	212	7	15	9.766
Romania	168	8	17	8.756
Slovakia	167	4	9	4.617
Slovenia	321	2	5	4.930
Spain	360	19	39	43.129
Sweden	625	8	17	32.657
United Kingdom	552	37	75	127.253

Table 7 Calculation of the monitoring costs

Administrative burden

The administrative burden is calculated in accordance with details provided in Annex VI.

Proposal for a Directive of the European Parliament and of the Council on Web accessibility					Tariff (1 per hour)	Time (min.)	Price (per action)	Freq (per year)	Nr. entities	Total number of actions	Equip. costs (per entity & per year)	Outsourcing costs (per entity & per year)	Total administrative costs	Business as usual costs (% of ACT)	Total administrative burdens (AC-BAU)
Administrative Costs for the Public Administrations (27 Member States)															
No.	Art.	Orig. Art.	Type of obligation	Description required action(s)	Target group										
1			Submission of (recurring) reports	Familiarizing with the information obligation	External Communication (*) 2 technicians	18,47	120	36,94	0,5	540	270		9.974	0%	9.974
			Submission of (recurring) reports	Training employees about the information obligations	External Communication	25,63	120	51,26	0,5	135	67,5		3.460	0%	3.460
			Submission of (recurring) reports	Filing the information	External Communication	25,63	60	25,63	1	54	54		1.384	0%	1.384
			Submission of (recurring) reports	Submitting the information	External Communication	25,63	30	12,82	1	27	27		346	0%	346
2			Coordinated actions (related to Delegated Acts)	Holding meetings	External Communication	25,63	480	205,04	2	27	54	10.000	281.072	0%	281.072
3			Stakeholders meetings at national level	Holding meetings	External Communication	25,63	480	205,04	1	27	27	50.000	1.355.536	0%	1.355.536

(*) National body in charge of development or procuring development of Websites (each with 5 professionals + 10 technicians assigned to this info oblig.)

Total adm. costs 1.651.772

Table 8 Administrative burden calculation

Web-developers might incur costs for training their personnel, for buying equipment for providing 'web-accessibility' according to the harmonised criteria and for delivering

certifications. Nevertheless, these would be incorporated into their service offers to the contracting authorities, and should not be counted twice.

For Public Administrations, the obligations would apply 'immediately' only to websites designed after the adoption of the measure. The cost of refurbishing already existing websites for Public Administrations would depend on their number and complexity. Evidence indicates that these costs would be largely compensated by efficiency gains realised relatively quickly (such as reduced helpdesk support; see 'economic impact' in the next paragraph).

6.3.2. *Assessments of Impact and benefits*

Detailed calculation of estimations for economic values and further discussion on benefits are provided in annex VII.

Social impacts - Citizens

1. The significantly increased web-accessibility will lead to increased opportunities for economic and social participation for citizens, and especially for those with disabilities. Citizens would also not experience service denial while trying to access essential basic public services from other countries.
2. Experts on web-accessibility, who have disabilities themselves (and so, a valuable personal experience) would likely have more job opportunities.

Policy impacts:

3. Governments that have introduced strong web-accessibility approaches have seen a significant increase in the usage of their web portals; some have won awards, for instance, Ireland (Department of Social and Family Affairs) and USA (West Virginia).
4. Governments could easier and with less cost fulfill their public obligations, and could avoid litigations (see the cases in the UK and Spain mentioned in earlier section).
5. The proposal would help delivering EU common objectives for accessibility (Riga Ministerial Declaration), and political objectives concerning the Digital Agenda and the Digital Single Market. The Digital Agenda's goal of "making sure that public sector websites [...] are fully accessible by 2015", could still be achieved even with transposition delays (to accommodate for the fact that national provisions differ).

Environmental impacts:

6. As the intervention would reduce the necessity to provide electronic public services via alternative options, the environmental impacts would consist of (i) reduced provision of printed material (e.g. large Braille imprints), and (ii) reduced travel of citizens to government offices. These impacts have not been quantified. They will further increase when web-accessibility will subsequently diffused to services offered on the web by other actors.

Economic impacts for governments:

7. It is estimated that, if just 50% of the population with long-standing health problems or disabilities is reached, the net yearly benefit for public administrations in EU 27 can surpass € 200 million, since online service provision is cheaper than the face-to-face equivalent (see Table 10 and Table 11, using data from the cost-benefit study

from Eurostat and more detailed calibrations from the Czech Republic and the Netherlands).

8. If savings for government transactions, unemployment and disability benefits and increased tax revenues from employment are taken into account, the estimation rises to about € 600 million per year.
9. Better service offers as discussed in the section below on economic impact for web-developers.

Economic impacts for citizens:

10. All citizens would benefit from the facilitated access to essential 'basic public services', saving transport cost and time. If the spill-over into the private sector is realized, consumers would benefit from savings of an estimated € 300 million a year by being able to compare services in the internal market⁶⁶.
11. Access to more competitive offers and consequently lower prices will provide citizens with benefits that can be estimated at above € 500 million by 2015 (see appendix VII).
12. Increased web-accessibility will lead to better economic and social participation, thus, a better quality of life. For example, the use of broadband has been shown to lead to a 20% reduction of depression rates amongst elderly (less social isolation). It is hard to quantify 'quality of life improvement', but case studies provide anecdotal evidence.
13. Jobs will be created for the development, maintenance and monitoring of web-accessibility, that could be particularly suitable for young people and people with disabilities (as the personal experience from the latter is considered a major asset).

Economic impacts for web-developers:

14. Web providers benefit from both the growing expenditures of governments on web-accessibility and improved conditions of the internal market for web-accessibility services.
15. Web-developers would be able to provide their services and products across Europe more easily and at lower costs. These benefits could be equalled to the expenditures of public administrations and companies on accessible websites. See section 6.3.1.
16. While large enterprises would also enjoy better conditions in a harmonised market, the larger beneficiary would be SMEs, who would be provided with better conditions to grow in this area – thanks to uniform and easy to adopt technical criteria. Unfamiliarity with national requirements on web-accessibility would no longer be a barrier to participate in certain markets.
17. Economy of scale would be realized due to a reduced cost of production and higher sales volumes; whereas the buying parties (public administrations) would, over time,

⁶⁶ Study on Accessibility of ICT products and services to Disabled and Older People, Annex II and V

benefit from potentially lower prices of web accessibility. See Section 6.3.3 on the sensitivity analysis and related Annex VIII for further estimation.

Economic impacts for private sector (as website owners):

18. Public authorities could influence website owners in the private sector through leadership by example and the provision of more evidence on the return on investment in terms of more online customers attracted. This would reinforce the critical mass of the market for web-accessibility. Major players (such as Employers Alliance, Lloyds Bank) have already expressed such intentions. Evidence generated by first movers in the public sector can trigger positive spill-over effects of the proposed legislation (see Annex II).⁶⁷ Case studies show that web-accessibility increases markets and reduces costs (e.g., Tesco and General&Ledger in Section 2.1.2). Costs reductions on helpdesk support of 20% have been reported.

6.3.3. *Sensitivity analysis*

Technology evolution: In the context of the sensitivity analysis it is important to stress that the proposal based on the Mandate 376 that build on the W3C/WCAG 2.0 approach is future-proof, as its functional specifications for web-accessibility are technology neutral. They indicate which basic criteria have to be fulfilled for the user to perceive, operate or understand a site and its content. However, they do not dictate how this has to be achieved or what technology should be selected for a particular site or piece of on-line material (such as HTML+CSS, Flash, and PDF), or for which device (such as a computer screen, mobile device or digital TV screen).

The European Standardisation Organisations make full use of the way in which organisations like the W3C Web-Accessibility initiative and the other proprietary technology designers that develop, update and enrich regularly so called techniques documents, providing "sufficient methods" (and corresponding conformance tests) to achieve such criteria. A recent example is the availability of guidance for rich internet applications (RIA) with much interactivity and dynamic content. This ensures that there is an adequate mechanism to tackle the web-accessibility aspects of new developments in web technologies (e.g. the upcoming HTML5) or platforms (e.g. with the cloud computing concept). In addition, the use of EU harmonised standards is a flexible way of providing presumption of conformity.

Analysis shows that the potential market growth is significant. The market for the web-accessibility of the public sector websites in EU could double rapidly, reaching € 540 million per year, if transitional costs of € 300 million are made to reach 100% compliance. The market growth of business sector websites could accelerate towards its potential of € 15 billion per year if over the years € 20 billion is invested to reach high compliance. The market size in 2012 has been calculated based on current compliance levels of 33% for all public websites and 9% for business websites, as done in section 2.2. If both types of websites would grow at the same rates until 2015, one can assume the levels of compliance for that year 45% for public and 12% for private websites.

⁶⁷ European Commission, Economic Assessment for Improving e-Accessibility Services and Products (SMART 2009/0072)

Going beyond the transitional phase, the market size given 100% web accessibility, based on the current number of websites, is calculated as the cost of maintenance of web accessibility for 66% of the websites and the cost of re-development for 33% of the websites.⁶⁸

Yearly market size with 100% web-accessibility levels (EUR)	Low estimate	High estimate
Public sector	399 million	828 million
Private sector	9.979 million	2.071 million

Table 9 Estimate of the potential web-accessibility market with 100% compliance both in public sector and businesses

The indicated average potential of the business web-accessibility market of €15 billion per year will not be realised since many businesses are too small or do not provide services online. Yet, it does show that the market has the potential to multiply many times. For the calculation of the costs and benefits of full compliance to the proposal, different factors have been taken into account in this sensitivity analysis: the complexity of the website (as described in the low and high estimate's introduced in Annex VI) the estimated compliance of the public sector website and the percentage of the fraction of the targeted population that gains access to the website and actually uses it.

It can be assumed that without intervention the compliance level achieved by 2015 would be only 45% of *basic public websites* in EU 27, and according to national specifications. Table 10 below indicates the cost but also the benefits if 100% web-accessibility is achieved – after EU intervention - within a year. In that case the costs outweigh the benefits in both the high and low scenario. The costs would be even lower if they were spread over a 3- or 5-year period.

The calculation of the benefits is based on on-line transaction advantages, according to evidence from Ireland. There the Revenue Commissions have estimated government savings due to the introduction of the online filing and payment system. If the barriers to Internet access were removed, and if just 20% of Irish population with disabilities completed just 3 eGovernment transactions per year, savings of almost €4 million would accrue to Government.⁶⁹

People with disabilities	Low estimate (Simple websites)	High estimate (Large websites)	Benefits	Costs	Costs
Compliance in %	Net benefits	Net benefits	Basic public sector services	Low estimate (Simple websites)	High estimate (Large websites)
100	487.327.060	191.147.305	747.750.307	260.423.247	556.603.002
75	300.389.484	4.209.728	560.812.730	260.423.247	556.603.002
50	113.451.907	-182.727.849	373.875.153	260.423.247	556.603.002
25	-73.485.670	-369.665.425	186.937.577	260.423.247	556.603.002
5	-223.035.731	-519.215.487	37.387.515	260.423.247	556.603.002

Table 10 Calculation of net benefits of reaching full compliance with WCAG 2.0 in EU27

The cost and benefits have been calculated, for just the six countries not having any legislation or special measures, under the assumption that there is presently no web-

⁶⁸ Calls for the inclusion of these additional types have been stressed during public consultations.

⁶⁹ Source: "Economic Assessment for Improving e-Accessibility Services and Products" (SMART 2009/0072).

accessibility for the *basic public sector services* at all, and that investments are spread out over 3 years.

People with disabilities	Low estimate (Simple websites) 7	High estimate (Large websites) 15	Benefits	Costs	Costs
Compliance in %	Net benefits	Net benefits	Basic public sector services	Low estimate (Simple websites)	High estimate (Large websites)
100	31.502.980	14.597.479	43.780.725	12.277.745	29.183.246
75	20.557.798	3.652.298	32.835.544	12.277.745	29.183.246
50	9.612.617	-7.292.883	21.890.362	12.277.745	29.183.246
25	-1.332.564	-18.238.064	10.945.181	12.277.745	29.183.246
5	-10.088.709	-26.994.209	2.189.036	12.277.745	29.183.246

Table 11 Calculation of net benefits of reaching full compliance with WCAG 2.0 in 6 countries without any measures

Economy of scale: The above cost calculations assume that the benefits due to the economies of scale are fully received by the producers of the authoring tools and the suppliers of web accessibility services. The calculations are, therefore, very prudent as these could also possibly be received by the governments in terms of lower prices. This situation has not been included, as it would be multiplying the number of scenarios. Nonetheless, simulation of a situation, where all the benefits would go to the governments, is pictured in the Annex VIII. In this simulation, the authoring tools producers and the web developers would only benefit from higher sales volumes, whereas governments would benefit from lower prices of web accessibility.

7. COMPARISON OF OPTIONS

In this chapter, the expected impacts of the three options for the web-developers, citizens and governments/public authorities are in relation to the general and specific objectives, following the numbering of the 'Obj.' in Section 4.

In the tables the following coding applies: '↑' stands for 'very likely'; '→' for 'to some degree'; '--' for 'unlikely'.

7.1. In terms of the economic impacts

	Options			Obj.
	1	2	3	
Web-developers: on the functioning of the internal market and competition				
<ul style="list-style-type: none"> approximation of provisions laid down by Member States, lowering barriers for economic operators to act across border 	--	--	↑	I, III, V
Web-developers: competitiveness				
<ul style="list-style-type: none"> global competitiveness of European web-developers thanks to practices with a widely adopted specifications 	--	→	↑	I, III, V
<ul style="list-style-type: none"> economy of scale 	--	→	↑	I, III
Web-developers: for SME specifically				
<ul style="list-style-type: none"> opportunities for new business 	--	→	↑	I, II, V
Citizens: as consumers				

<ul style="list-style-type: none"> • new way to get access to information and services • their assistive technologies are fit for websites across the EU 	--	→	↑	II, IV V
Public authorities including EU institutions: as buyers <ul style="list-style-type: none"> • benefits of using common standards and collaborating on responses to technological evolutions • saving on the need to provide alternative services • address web-accessibility in a systematic way, in line with other commitments (DAE, eGovernment Action Plan) • administrative burden 	--	→	↑	I, II, III, V
	--	→	↑	II
	--	→	↑	II
	--	--	↑	II

Table 12 Comparison of Economic Impacts

7.2. In terms of the political impacts

The expected political impacts are compared between the options. These concern governments/public authorities at Member State and EU level.

	Options			Obj.
	1	2	3	
Governments: social responsibility and reputation <ul style="list-style-type: none"> • positive effect to the society 	→	↑	↑	II
Governments: obligations <ul style="list-style-type: none"> • fulfilment of commitments towards Digital Agenda 	--	--	↑	II

Table 13 Comparison of Political Impacts

7.3. In terms of social impacts

The expected social impacts are compared between the options. These come about for citizens to the extent that the level of web-accessibility increases.

	Options			Obj.
	1	2	3	
Citizens: access to services <ul style="list-style-type: none"> • Fundamental Rights, chapter III – Equality; chapter IV – Solidarity (i) right to access to placement services, (ii) Access to services of general economic interest • UNCRPD obligations of the EU and Member States 	--	--	↑	II, V
	--	→	↑	II
Citizens: social inclusion of particular groups <ul style="list-style-type: none"> • on-line information and services become also accessible to people with disabilities and declining abilities 	--	→	↑	II, IV

Table 14 Comparison of Social Impacts

7.4. In terms of environmental impacts

The expected environmental impacts are compared between the options. These largely concern governments/public authorities and citizens.

	Options			Obj.
	1	2	3	
Governments/citizens: providing/receiving access to services				

<ul style="list-style-type: none"> • reduced travel required 	--	→	↑	II, IV
<ul style="list-style-type: none"> • reduced need for paper or other physical alternative to online information 	--	→	↑	II, IV

Table 15 Comparison of environmental Impacts

7.5. Multi-criteria Analysis

In defining:

Efficiency - the relation between expected Results and Inputs, i.e. the extent to which objectives can be achieved for a given level of resources/at least cost;

Effectiveness - the relation between Expected Impacts and Objectives, i.e. the extent to which options achieve the objectives of the proposal;

Sustainability - as the sustainability of the impacts, i.e. the extent to which the impacts are ensured to be present in the longer-run;

Coherence - the extent to which options are coherent with the overarching objectives of EU policy, and the extent to which they are likely to limit trade-offs across the economic, social, and environmental domain;

Cost/Benefit - the net of costs and benefits.

A summary comparison of the policy options is presented in table 17.

Option	Efficiency	Effectiveness	Sustainability	Coherence	Costs/benefits
Option 1 Continuation of current actions for voluntary cooperation	No additional expenditures.	Achieving the objectives depends on voluntary commitments; unlikely to be realised given the history. Loss of political credibility and 'disenfranchisement' of interest groups (ICT industry, disabled, elderly).	External factors may lead to changes on priorities of funding programmes and other policy activities putting continuity of implementation measures at risk.	Not coherent with Digital Agenda (Digital Single Market) and Europe 2020 (inclusive growth)	Large net negative due to persistent digital exclusion and thereby growing social & economic exclusion. 'Costs/benefits' is the opposite of option 3.
Option 2 Recommendation	Likely some cost savings due to lower cost of newer specifications; possibly voluntary investment by Member States for common reporting.	Achieving the objectives depends on voluntary commitments; unlikely to be realised given the history. High risk of loss of political credibility and 'disenfranchisement' of interest groups.	External factors may lead to changes on priorities of funding programmes and other policy activities putting continuity of implementation measures at risk.	Not coherent with Digital Agenda (Digital Single Market), coherent with Europe 2020 (inclusive growth)	Likely net negative due to limited impacts, and extra administrative burden of coordination.
Option 3 Directive to harmonize web-accessibility specifications	Needs resources that are more than being offset by benefits depending on the decided conformance levels. Over time feedback loop in monitoring and experience sharing will reduce administrative costs.	Positive prospects of achieving all of the objectives. Highly credible for interest groups (ICT industry, disabled, elderly).	Strong prospects that necessary skills and process would be consolidated and contribute to an enduring implementation especially because of commitment and sharing of efforts and information.	Coherent with Digital Agenda (Digital Single Market) and with Europe 2020 (inclusive growth). Coherence between economic and social/political impacts.	Large net positive for all actors, either on the short run (web-accessibility industry, citizens) or on the mid-term by 2015 or longer-term (public administrations, other industry).

Table 16 Multi-criteria Analysis

7.6. Preferred option

To summarize the analysis: option 1 and 2 are assessed to be ineffective, because they are non-mandatory and incomplete with respect to the objectives. They are not likely to overcome fragmentation and reduce uncertainty sufficiently to unlock the market rapidly enough, if at all, to meet the political deadlines.

Given the analysis results, option 3 is recommended as the preferred option.

This option (binding legislation based on the 'internal market') would receive the support from the ICT industry, as it has expressed such views with certain conditions through their umbrella organisation – Digital Europe. The latter “supports the spirit and intent of emerging regulatory activity that encourages technological products and services to be accessible to people with disabilities and the elderly. However, we believe that regulations must be objective, attainable and standards-based [...]”⁷⁰.

Support would be given also by citizens' representatives, notably by the organisations representing people with disabilities and elderly. Intensive discussions and requests for binding legislation, for instance, are supported by recent position papers and campaigns from organisations, such as AGE, ANEC, EBU, and EDF (refer to their "Proposal for a Legal Act on Accessible Websites" in Section 1.3.1).

8. MONITORING AND EVALUATION

In addition to the reporting on the transposition, Member States shall monitor the conformance of the websites concerned with the web-accessibility requirements on a continuous basis. A methodology will be established by the Commission, to be published in the *Official Journal of the European Union*. Member States shall annually report on the sampling of the websites concerned and the results of their monitoring activities. Their reports should also include decisions on any extensions of the list of types of websites concerned, as well as any other additional measures they have taken.

These reports and the outcome of the foreseen meetings will support the assessment of the results and effects of this Directive.

8.1. Success criteria

The success criteria are those that have been defined in section 7.5.

8.2. Associated indicators

The monitoring and success indicators associated to (the expected impacts of) the General and Specific Objectives of this action are:

	Obj.
Number of Member States and EU institutions with compliance of monitored Websites to harmonised standard	II, VI, VIII, IX
Number of web-service providers bidding for public contracts in a Member State	I

⁷⁰ Source: Toward an inclusive Information Society. ICT industry White Paper on Inclusion (Brussels, 2006). http://www.unic.pt/images/stories/publicacoes/Third_EICTA_i2010_White_paper_eInclusion.pdf, 2006.

different from their own (across borders)	
Number of European professionals or enterprises qualified to implement web-accessibility	I, V
Number of registered training enterprises acting in the web-accessibility domain	I, V
Necessary revisions of this intervention due to contradictory objectives raised by auditing in connection to policy actions	I, III, VII
Number and nature of citizens' complaints related to the non accessibility of Websites (such as litigation cases based on discrimination)	II, IV
Number of requests for or use of special accommodations (non on-line channels)	II, IV

Table 17 Overview of monitoring and success indicators

Sources of verification would be:

- Future EC public consultations and studies, including for example an impact report commissioned to the EU Committee of the Regions to evaluate the impact (e.g. cost bearing, number of enterprises) at local and regional levels.
- Consumer organisations, organisations representing people with disabilities such as EDF, national organisations such as Royal National Institute of Blind People (UK), and service sector (e.g. Digital Media) associations.
- European Ombudsman and European Network of Ombudsmen, National Contact Points.
- Web portal "e-practice" supported by DG CNECT, where the community on "eAccessibility practice, policy, monitoring and impact" actively promotes the exchange of knowledge and experiences on e-accessibility.
- Eurostat ESHSI (European Survey on Health and Social Integration), for data on disability defined in accordance with the UNCRPD and the ICF (e.g. 'e5601 Media systems').
- Monitoring by Member States of a sample of the concerned websites. See Annex IX.

8.3. Prospective evaluations

Two years after this intervention is adopted, an evaluation will be organised by a Steering Group of Commission services, representatives of the Member States, and a reference group for experts. The terms of reference would be to access:

- actual effects and coherence – effectiveness of the administrative apparatus (costs);
- potential improvements & lessons learnt; and sustainability (functioning, lasting apparatus at each Member State for dealing with web-accessibility and training);
- context variables such as new legal basis generated by other policy areas.
- Developments under the European Accessibility Act initiative.

Evaluation tools and techniques would be desk studies, interviews and surveys, followed by expert panels with the reference group.

9. ANNEXES

Annex I : Glossary

Acronyms

ANEC	Organisation representing the European consumer interest in the creation of technical standards, especially those to support EU laws and public policies.
AT	Assistive Technologies
ATAG	Authoring Tool Accessibility Guidelines (by W3C)
BITV 2.0	Barrierefreie Informationstechnik Verordnung (Germany / Barrier Free Information Technology Directive)
C2C	Consumer to Consumer
CEN	European Committee for Standardization (one of the European Standards Organisations)
CENELEC	European Committee for Electrotechnical Standardization (one of the European Standards Organisations)
CIP	Competitiveness and Innovation Programme
CIP-ICT PSP	CIP ICT Policy Support Programme (aims at stimulating innovation and competitiveness through the wider uptake and best use of ICT by citizens, governments and businesses)
CMS	Content Management System
COMM	(DG) Communication
CNECT	(DG) Communications Networks, Content & Technology
CWA	CEN Workshop Agreements (consensus-based specifications, drawn up in an open Workshop environment under CEN supervision)
DAE	Digital Agenda for Europe
DG	Directorate General of the European Commission
DIGIT	(DG) Informatics
DTV	Digital Television
ECFIN	(DG) Economic and Financial Affairs
EMPL	(DG) Employment, Social Affairs and Inclusion
EN-standard	European Standard
ENTR	(DG) Enterprise and Industry
EEA	European Environment Agency
EBU	European Blind Union

EDF	European Disability Forum
EN standard	European Standard
EC	European Commission
EESC	European Economic and Social Committee
ESO	European Standards Organisations
ESTAT	(DG) Eurostat, Statistical office of the European Union
ETSI	European Telecommunications Standards Institute (one of the European Standards Organisations)
EuroStat	Statistical office of the European Union (= ESTAT)
FP7	Seventh Framework Programme of the European Community for Research, Technological Development and Demonstration activities (2007-2013)
FP RTD	European Funding Program for Research and Technological Development
FS	Functional Specifications
GDP	Gross Domestic Product
IASG	Impact Assessment Steering Group
ICF	International Classification of Functioning, Disability and Health
ICT	Information and Communication Technology
IO	Information Obligation
ISO	International Organization for Standardization
JUST	(DG) Justice
M376	Mandate 376 from the European Commission
MARKT	(DG) Internal Market and Services
P2P	Peer to peer (see also B2B and P2C)
PAS	Publicly Available Specification (ISO transposition procedure)
PDA	Personal Digital Assistant
PC	Personal Computer
PDF	Portable Document Format (open standard)
PPD	Public Procurement Directive (2004/18/EC)
R&D	Research and Development
RIA	Rich Internet Application
SANCO	(DG) Health and Consumers
SME	Small & Medium Enterprise
TBD	Transatlantic Business Dialogue (see also TEC)
TEC	Transatlantic Economic Council (organising TBD)
TFEU	Treaty on the Functioning of the European Union

UAA	User Agents Accessibility (i.e. browsers and related assistive technologies);
UAB	United States Access Board
UI	User Interface
UNCRRPD	United Nations Convention on the Rights of People with Disabilities
US 508	"Section 508" (amendment to the US Workforce Rehabilitation Act, requiring that publicly procured ICT is accessible by people with disabilities..)
WAI	Web-Accessibility Initiative
WCA	Web Content Accessibility
WCAG	Web Content Accessibility Guidelines
W3C	World Wide Web Consortium

Terminology

Public service – It may refer either to the actual body providing the service or to the general interest role assigned to the body concerned. It is with a view to promoting or facilitating the performance of the general interest role that specific public service obligations may be imposed by the public authorities on the body rendering the service. These obligations can be applied at national or regional level. Thus, the term public service relates to the vocation to render a service to the public in terms of what service is to be provided, and the term public sector (including the civil service) relates to the legal status of those providing the service in terms of who owns the services. (Ref.: Communication (OJ C 17, 19.1.2001))

Basic public services – a list of common public services covering the different tasks and interactions of the public sector with citizens and with businesses chosen within the annual assessment of the progress of online public service delivery across Europe; (Ref. The User Challenge Benchmarking - The Supply of Online Public Services⁷¹;

National portals – a nationally organised, comprehensive one-stop gateway to public services (e.g. for the UK: <http://www.direct.gov.uk/en/index.htm>)

Services of general interest (SGI) – This term (not found in the TFEU) covers market and non-market services, which the public authorities class as being of general interest and subject to specific public service obligations. (Ref.: Communication OJ C 17, 19.1.2001). "These services are essential for the daily life of citizens and enterprises, and reflect Europe's model of society. They play a major role in ensuring social, economic and territorial cohesion throughout the Union and are vital for the sustainable development of the EU in terms of higher levels of employment, social inclusion, economic growth and environmental quality. Although their scope and organisation vary significantly according to histories and cultures of state intervention, they can be defined as the services, both economic and non-economic, which the public authorities classify as being of general interest and subject to specific public service obligations. Public authorities can decide to carry out the services themselves or they can decide to

⁷¹ http://ec.europa.eu/information_society/eeurope/i2010/docs/benchmarking/egov_benchmark_2007.pdf

entrust them to other entities, which can be public or private, and can act either for-profit or not for-profit." (Ref.: COM(2007) 725)

Services of general economic interest (SGEI) – Term used in Articles 14 and 106(2) of the TFEU (it is not defined in the Treaty or in secondary legislation). It refers to market services, which the Member States subject to specific public service obligations by virtue of a general interest criterion. This would tend to cover such things as transport networks, energy and communications. (Ref.: Communication OJ C 17, 19.1.2001 and White Paper COM(2004) 374).

The EU Charter of Fundamental Rights (article 36) includes the SGEI in the “fundamental rights” whose access is recognized and respected.

Annex II : Summary of public consultations

1) Public Consultations on web-accessibility and other e-accessibility issues⁷² accompanying the Communication "Towards an accessible information society"

– Excerpts from the report –

The Commission’s 2007 Communication on eInclusion concluded that insufficient progress had been made on e-accessibility in Europe and that further steps were needed. In particular, the Communication called on Member States to agree on a roadmap for accessibility of public sector websites and stated that it would assess the need to propose new legislation in 2008. The prospect of horizontal legislation on e-accessibility was also considered.

In this regard, a public consultation was launched in July 2008 through the European Commission’s interactive Internet platform “Your voice”. It closed in September 2008 and focused on two core themes: firstly, to explore a common European approach to web-accessibility and secondly to elicit public opinion on other aspects of e-accessibility that go beyond the World Wide Web and possible action at European level.

Participants

Overall, 161 responses were received. They represent various stakeholder groups, including individual citizens with and without disabilities, research experts and centres, public authorities, business and industry associations and user organisations (see Figure 1 for the profile of the respondents). Some stakeholders (such as UMIC, ONCE, ANEC-EDF, BSKyB, RNIB) also sent position papers. In terms of geographic coverage, respondents were located in 18 European Members States, Israel and the United States. In addition, responses were received from European organisations.

⁷² http://ec.europa.eu/information_society/activities/einclusion/policy/accessibility/com_2008/index_en.htm

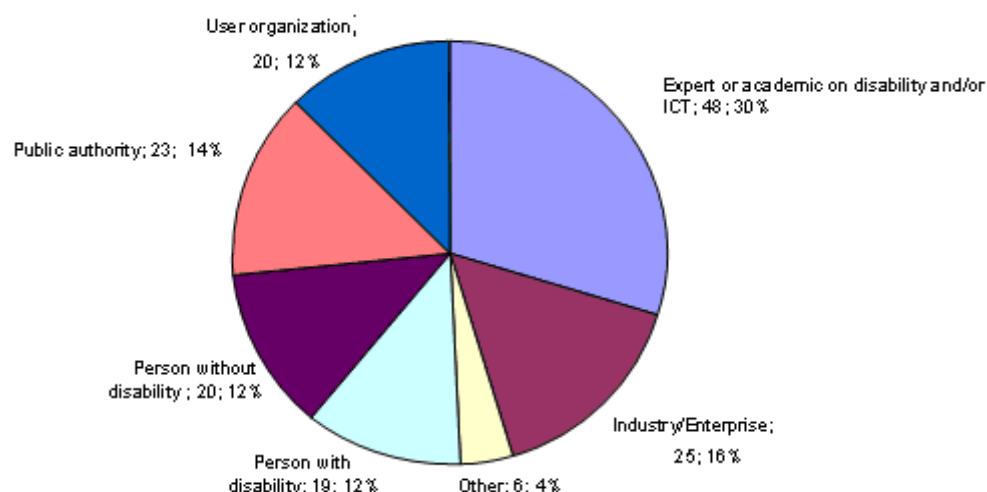


Figure 1 Profile of respondents (n=161)

Among the respondents, the support for a common European approach to web-accessibility was almost unanimous. Overall, 96.9% of respondents agreed that a common approach was needed to facilitate a high level of availability of accessible websites, and 95.6% stated that this should be equally motivated by the desire to improve the situation of people with disabilities and the competitiveness of European companies.

Concerning the type of websites that should be covered by a common European approach, a clear majority (93%) agreed that such an approach should not merely cover public sector websites but also other websites providing services of general interest to citizens, although industry and public authority respondents were somewhat less affirmative. 94.9% of respondents agreed that intranet websites should also be accessible. According to 87% of respondents, web content authoring tools should also be covered by a common European approach to web-accessibility.

Subjects and their positions:

From the perspective of the technology providers, the consultation included a question on the current provision of technologies or services that are accessible to people with disabilities. 86.4% of respondents stated that they provided accessible solutions, either as a standard offering (69.1%) or on request (17.3%). When it comes to barriers experienced when dealing with accessibility issues from the perspective of a technology provider, lack of demand (23.7%) and lack of a harmonised European approach to web-accessibility (21.7%) were equally cited.

In addition, 29.6% reported practical difficulties in implementing technical specifications concerning web-accessibility as a barrier, while 10.3% mentioned the lack of suitable technical specifications. Implementation costs were cited as a barrier by 9.3%.

From the perspective of people with disabilities, the public consultation included a question on problems encountered in web-accessibility and the extent to which such problems act as a barrier to using websites for one's own purposes. The majority of respondents stated that websites were either totally (10.4%) or partially (47.9%) inaccessible.

Regarding the impact of no accessibility, 72.6% stated that it would result in exclusion from important information, facilities or services, either severely (29.7%) or moderately (42.9%). About 7% stated they would find other ways to access information, facilities and services.

From the perspective of website owners, questions were asked about the level of awareness of the issue of accessibility and its implications for users, as well as concrete steps taken to improve accessibility of their websites. 82% of respondents stated they were fully aware of these issues and 14.8% reported at least partial awareness. As for steps taken to improve the accessibility of their websites, 90.5% of respondents stated that they had taken concrete steps.

The comments submitted suggest that the web content accessibility guidelines (WCAG 1.0) developed by the W3C consortium are widely used as a key reference point for this purpose.

Concluding remarks:

Overall, a common European approach to web-accessibility received very strong support. Almost unanimously, respondents agreed that this approach was needed to facilitate a high level of availability of accessible websites, and it should be equally motivated by the desire to improve the situation of people with disabilities and improve the competitiveness of European companies.

When it comes to particular types of websites that should be covered by a common European approach, a clear majority agreed that this approach should not merely concern public sector websites but also other websites providing services of general interest to the citizen. Also, there was strong support for making intranet websites accessible and web content authoring tools should also be covered by a common European approach to web-accessibility. In doing so, meeting international standards was deemed important by a clear majority. Finally, a clear majority would also welcome accompanying measures (e.g., capacity building by supply side actors, provision of information and guidance to users, exchanging best practice and collation of user input).

In relation to other ICT domains, again a clear majority would welcome further EU-level action. Regarding how this should be addressed, the responses received were more varied. About half of the respondents considered **binding legislation as a high priority approach**, whereas non-binding legislation was highly prioritised by about one quarter. Other than legislation, various other measures such as standardisation, benchmarking, exchanging good practice and research received comparably high levels of support from respondents.

2) Consultation workshops on web-accessibility and e-accessibility⁷³

– Excerpts from the report Summary of Outcomes –

This workshop was held with stakeholders and separately with Member States representatives in 2008. It followed two others on eAccessibility held in 2007.

With regard to the "Summary of outcomes on the sessions on web-accessibility", in particular the "Rationale for EU-level Intervention", an EU-level intervention in the field of web-accessibility was unanimously appreciated by the workshop participants.

There was, however, some debate on the preferred nature of such an intervention. Some Member States' representatives, notably those from France and the Netherlands, called for a non-binding EU recommendation. The argument was brought forward that such an intervention would deliver needed guidance to the Member States, while at the same time leave sufficient flexibility to address the web-accessibility theme in the context of their

⁷³ <http://ec.europa.eu/digital-agenda/en/news/consultation-workshop-web-accessibility-10-june-2008>

particular national situation. In relation to the Netherlands, it was stressed that the market was not yet ready for any binding legislation in this field, one important reason being that there was not enough knowledge and organisational capacity on the part of website owners to actually implement existing web-accessibility guidelines such as WCAG 1.0. Legislation alone would thus not guarantee any progress on the ground. It was felt that rather than legislation, a “culture change” among web owner and developer communities was required. Measurement of compliance was also mentioned as a challenge in this context. In relation to web-accessibility policy pursued in France, it was stressed that an EU-level recommendation would be helpful in convincing the private sector about the relevance of the web-accessibility theme through setting a good example in the public domain which could then be followed by commercial website owners on a voluntary basis.

User representatives, notably from EDF, ANEC and AGE, expressed their concerns that a non-binding EU-level intervention would not yield the desired effects. It was recalled that progress in the Member States was insufficient despite the fact that these had already made a clear commitment concerning accessibility of public sector websites in the framework of the Riga Ministerial Declaration. It was argued that the Commission’s benchmarking study showed a positive link between the existence of legislation and levels of accessibility achieved on the ground, and that standardised technical guidance on how to practically achieve web-accessibility was available in terms of W3C guidelines. An EU Directive was called for in order to effectively address the current lack of implementation. It was argued that such an instrument would also leave flexibility to the Member States to cater for any national peculiarities. Concerns were expressed that there was a risk of further fragmentation without binding intervention by the European Commission.

Further issues were highlighted by other workshop participants. It was stressed that by providing focus, an EU-level intervention might help to overcome ambiguity that was observable in relation to existing national legislation, e.g. when it comes to provision made in relation to compliance. As an example, it was mentioned that the Disability Discrimination Act in the UK would not refer to compliance at all. Also, it was stressed that there was a need for harmonisation in the field of assistive technologies, regardless of which type of intervention instrument ultimately was to be used. Further, it was argued that kiosk and self-service technology increasingly relied upon internet technologies and that there was a general lack of awareness of e-accessibility issues among technology provider and related communities.

3) Public consultation - "Economic Assessment for Improving e-Accessibility Services and Products" (SMART 2009/00-72)

- Please refer to <http://www.eaccessibility-impacts.eu/>

4) Survey – “web-accessibility in European countries: level of compliance with latest international accessibility specifications, notably WCAG 2.0, and approaches or plans to implement those specifications” (SMART 2009/0068)⁷⁴

– Excerpts from the Executive Summary of the report –

⁷⁴http://ec.europa.eu/information_society/activities/einclusion/library/studies/web_access_compliance/index_en.htm

This survey in the form of a study was commissioned to provide data and analysis to support the European Commission in the identification of EU-level measures that can help to progress the achievement of greater levels of web-accessibility across the Member States.

The main methods used in gathering the data and information presented in the report were:

- collection of information on the national situations in selected Member States (through desk research and information provided by official contacts)
- examination of compliance with WCAG 1.0 and 2.0 guidelines for a representative sample of websites.
- The aim was to provide evidence and analysis to help understand and compare the approaches followed by the European countries, with a view to identifying issues and challenges, good practices and future priorities in the web-accessibility field.

Evidences:

See tables below for an overview of Accessibility-related obligations imposed in selected Member States and the specified time-frame for achieving obligation. This has been updated in December 2011 by members of the INCOM group.

Country	Hard law (may be complemented by other measures)	Other measure only	Parties / websites addressed
AT	X		All Web services of public sector (e.g. ministries, cities, local collectives, public organisations, schools, hospitals) at the national, regional and local level providing information and transaction services
BE		X	Selected priority websites in the Walloon region Government websites available to the public and intranets in the Flemish region
CY			n.a.
CZ	X		Websites of public authorities directed to the public. It concerns authorities acting on the federal (government organizations) and local level (regions, municipalities) too.
DE	X		Websites of the federal government and publicly accessible intranet websites owned or operated by federal public administrations (Note: A federal law regulates compliance of websites at the federal administrative level and does not apply to the regional and local administrative level. However, many regions seem to have adopted similar legislation by now)
DK		X	Websites maintained by the public administration the national, regional and local level
EL	(X)		Potentially public administration websites at all administrative levels (Note: Since 2001 the constitution guarantees the right for everyone to participate in the Information Society, but no concrete legislation seems to have emerged from this yet)
ES	X		Websites owned by public bodies, websites funded with public money and websites of organisations that manage public services at national and regional level. (Note: The central government has competence to regulate general conditions of accessibility, while the regions [Autonomous Regions] seem to have competence to further develop these basic conditions)
EE		X	Public sector websites (Note: From the evidence available it is not clear whether the federal and local levels are concerned)
FI	X		Websites of public sector bodies concerned with administrative, juridical, prosecution and enforcement matters (Note: From the evidence available it is not clear whether the

Country	Hard law (may be complemented by other measures)	Other measure only	Parties / websites addressed
			federal and local levels are concerned)
FR	X		Websites and electronic publications of public bodies that provide information and services to the public.
HU	(X)		Potentially public administration websites at the national, regional and local level (Note: Act 1998 XXVI on “The Rights of Disabled and on Ensuring Their Equality” does not impose a direct eAccessibility obligation but seems to have been influential in encouraging public agencies to make their websites accessible)
IE	X		Websites of public agencies that provide services to the public at federal, regional and local level at least potentially (Note: the current legislation falls short on a direct statement of an obligation to make public websites accessible, code of practice refers however to WCAG AA conformance as good practice)
IT	X		Websites of public administration services which make use of computer and data transmission and of services in the public interest at the national, regional and municipal level. (Note: The law explicitly applies to educational and didactic materials used in all schools and at every level which may include intranet sites)
LT		X	Websites of the national government, local authorities and public institutions. The standard (Methodological recommendation for design implementation and maintenance of websites for disabled) foresees advisory (non-mandatory) requirements for adapting private websites for the needs of disabled. Legal acts in Lithuania do not provide any measures to encourage implementation of the standard requirements on private websites.
LU		X	Websites of the national government/administration (Note: From the evidence available it is not clear whether the federal and local levels are concerned)
LV		X	Websites of the public administration
MT	X		All web services of the public sector (e.g. ministries, cities, local collectives, public organisations, schools, hospitals) at the national and local level providing information and transaction services to the public.
NL		X	Websites of the national government/administration (Note: websites of the provinces, water boards and the municipalities are addressed by means of subsequent formal agreement)
PL		X	Websites of ' entities performing public tasks' have to remove legal and procedural barriers in access to services offered by public entities to citizens, particularly the disabled. A law that was adapted in June 2010 sets requirements for public administration websites that allow people with disabilities, including blind and partially sighted people to easily use them. These regulations are concerned with public tasks at the federal and local administrative levels.
PT		X	Websites of public bodies providing services to the public at the national, regional and local level
RO	X		Websites of national government/administration entities providing information and services to the public at national, regional and local level. In 2009, the Ministry of Communications and Information Society issued a guide for all public authorities, including general recommendations on websites accessibility features, such as the appliance of W3C and web-accessibility Initiative specifications. The Ministry of Labour, Family and Social Protection monitors the appliance of the above-mentioned legal provisions.
SE		X	Websites of public authorities providing information and services to the public on the national level. There are no obligations on local and regional level. There are guidelines for national authorities (and others) on web-accessibility that are currently being updated. The updated guidelines will be following WCAG 2.0 level AA. There is no goal with a time frame in Sweden but all authorities under the government (national level) are obliged to promote accessibility of information through action plans and follow up for people with disability.
SI		X	Websites of the national public administration (Note: From the evidence available it is not clear whether the federal and local levels are concerned)

Country	Hard law (may be complemented by other measures)	Other measure only	Parties / websites addressed
SK	X		Websites of national government/administration providing information and services to the public at national, regional and local level
UK	X		Websites of public bodies providing services and information to the public at the national, regional and local level

Table 18 Scope of legislation (situation as per July 2008, source Study SMART 2007/0056 - see item 9 in this Annex - and updated in December 2011)

Year	Country
2005	DE, BE (priority sites selected in the Walloon region)
2006	IT, NL/SK (new websites)
2007	ES (WCAG A), RO, UK (new websites), BE (websites of the Flemish regional government)
2008	AT, CZ, DK, ES (WCAG AA), PT, UK/SK (existing websites)
2010	EE, NL (existing websites), SI
2011	FI (websites of national public services)
2012	FR (websites of local public services)

Table 19 Specified time frame for implementing accessibility standard at national level (situation as per July 2008, source Study SMART 2007/0056 - see item 9 in this Annex - and updated in December 2011).

Main Conclusions:

- Levels of full compliance with existing web-accessibility guidelines (generally WCAG 1.0 based) remain very low and, at current rates of progress, the web-accessibility situation across the EU seems set to fall far short of the targets set for 2010 in the Riga Ministerial Declaration; however, some more hidden progress towards accessibility (for government websites at least) seems to be detectable which is not being picked up by metrics that simply apply a 'pass/fail' logic
- Websites often fail to maintain compliance over time - sites that pass the accessibility tests at one time often fail when measured at another time
- The scope of coverage of existing web-accessibility legislation/regulations varies across the Member States: in most countries, central government websites are covered but there is a lot more variability as regards coverage of other levels of governance; also, coverage of websites of non-governmental services of 'public interest' is a lot more limited
- WCAG 2.0 may well ultimately bring positive benefits in terms of the levels of accessibility that are supported but the process of implementing the new guidelines is seen in many Member States to give rise to new challenges
- Careful consideration needs to be given to developing an effective transitioning process and timeframe, that interweaves as un-problematically as possible with existing efforts and timeframes associated with the current standards/guidelines that have been applied in the Member States

- A variety of actions at EU-level that have been suggested by the parties concerned in Member States could help in the transitioning process as well as in supporting the achievement of web-accessibility goals more generally.

Possible EU policy actions:

* Improving compliance assessment

- As regards compliance assessments conducted by the Member States, there is scope for supporting the development of a common approach at the European level in terms of samples covered (including levels of governance addressed) and methods employed, with a view to enable coordinated tracking of progress across countries. This was something that was explicitly suggested by some of the Member State officials that were consulted as part of this study
- Consider establishing an EU-supported exercise (study/working group, for example) to examine the scope for more refined metrics in this field, with a view to enable tracking of useful progress over time even if full and exhaustive compliance may not have been achieved by a website. Such an approach could be a pragmatic one, geared towards better recognising and documenting positive achievements in terms of improved accessibility for users even if the achieved level of accessibility is still not 'perfect'. The need for more EU-level attention to the metrics used in this field is reinforced by the finding that some Member States are already adopting more pragmatic approaches in a variety of ways and the issue has also emerged in public web owner discourse in some countries.
- Give more attention and visibility to the 'churn' issue in policy - raise awareness and support dialogue on how sustainability of accessibility achievements can be maintained over time
- Engage in dialogue with Member States with a view to arriving at a common view on which types of non-government websites can be considered as being of key 'public interest', and on how to better reach these in web-accessibility efforts at the national level. The evidence suggests that, in general, such sites are making less progress towards accessibility than are government websites (at least in the countries covered). There may also be merit in directly involving umbrella organisations representing relevant actor groupings at the European level, e.g. the media industry, the banking industry, the transport industry, the retail industry, the internet services industry, the telecommunications industry, the educational sector and other such players.
- Provide support for a larger-scale exercise to assess the extent of additional effort required to achieve WCAG 2.0 compliance given the current baseline situation as regards WCAG 1.0 compliance levels. In the meantime, the findings from this study that, as might be expected, effort spent on working to achieve compliance with WCAG 1.0 is likely to place websites in a position where less effort will be required to bring them to WCAG 2.0 compliance are important. Even if necessarily only of an indicative value for now, this could be helpful in the context of concerns to ensure that existing efforts by web owners towards WCAG 1.0 will not be wasted when WCAG 2.0 criteria are introduced

* Progressing web-accessibility in general

- Initiate consultation with the Member States on (as far as appropriate in coordination with work currently conducted under Mandate 376 to the European Standardisation Organisations) on:
 - the types of websites to be covered by national obligations at a minimum

- realistic time frames that can be achieved by the various website owner groupings concerned
 - a common approach towards accessibility criteria that could be taken up in national guidelines/standards
 - a common approach towards the provision of accessibility information (e.g. web-accessibility statement and guidance) on public and other websites.
- Consolidate experiences gained in the Member States in relation to awareness-raising and capacity-building geared towards specific actor groupings such as decision-makers at policy level, web managers/masters, the web designer community and the like in order to bring these experiences into the process of dialogue with Member States.
 - There is scope for supporting the development of guidance and tools to support stakeholders in putting intra-organisational processes in place that enable implementation and sustained maintenance of web-accessibility over time. This concerns both the public sector (e.g. government agencies) and the commercial sector (e.g. industries that can be considered as being of ‘public interest’).
- * Transitioning to WCAG 2.0 guidelines
- Initiate consultation with the Member States on:
 - how to achieve a common approach in relation to technical aspects of the transition to WCAG 2.0 (updating of national standards/guidelines, compliance assessment and benchmarking approaches to be adopted, etc.)
 - establishment of common compliance targets and timeframes to be imposed.
 - Implement measures to support progress on specific technical aspects:
 - support for the development of a common European WCAG 2.0 compliance assessment and benchmarking approach
 - support for the development of an agreed mapping between WCAG 1.0 and WCAG 2.0 criteria for given levels of compliance.
 - Implement a programme of practical accompanying measures:
 - EU-level driven awareness-raising and support for training of the stakeholders across Europe
 - establish and operate a mechanism/forum for Member States to exchange experiences: both an online environment and a regular face-to-face forum could be considered in this context.

5) Benchmarking study – Measuring Progress of eAccessibility in Europe (MEAC, 2007)⁷⁵

– Excerpts from the report –

⁷⁵ Empirica, WRC, RNIB, RNID, eWORX (2007), <http://ec.europa.eu/digital-agenda/en/news/assessment-status-eaccessibility-europe>

This study was commissioned as part of the follow-up to the European Commission's Communication on eAccessibility of 2005. This Communication highlighted the need for improving access to ICTs by people with disabilities; and it announced such a follow-up on the eAccessibility situation to be made two years afterwards, at which time the Commission could consider additional measures (e.g. a legislative intervention).

The report provided the results of an extensive benchmarking exercise and analysis on the status and progress of eAccessibility in Europe. See in particular its Annex II – Policy Inventory. The report clearly showed that insufficient progress has been achieved.

Highlight Results:

Overall, the results showed that there was only limited progress towards eAccessibility detected in Europe, and further EU-level measures needed to be considered to stimulate progress in eAccessibility. Three key findings underpinned this conclusion:

The eAccessibility 'deficit' – People with disabilities in Europe continue to be confronted with many barriers to usage of the everyday ICT products and services that are now essential elements of social and economic life. Such eAccessibility deficits can be found across the spectrum of ICT products and services, for example telephony, TV, web and self-service terminals.

The eAccessibility 'gap' – From a comparative perspective, the eAccessibility situation for people with disabilities across Europe as a whole, in terms of both eAccessibility status and eAccessibility policy, compares very unfavourably with that comparison countries examined in the MeAC study (for instance, USA and Canada).

The eAccessibility 'patchwork' – The situation across Europe for both eAccessibility status and eAccessibility policy is very much a patchwork at present. The overall picture shows many important gaps, uneven attention across the spectrum of eAccessibility themes, and wide disparities across the Member States.

6) Benchmarking Study 2010-2011 – "Monitoring eAccessibility " (MEAC-2)⁷⁶

A subsequent report on the eAccessibility status situation as well as on detailed country profiles were elaborated in 2008. The evidence collated suggests that no significant changes in the overall eAccessibility status have taken place since 2007.

8) Study "Economic Assessment for Improving e-Accessibility Services and Products" (SMART 2009/0072)⁷⁷

9) Study "Accessibility of ICT products and services to Disabled and Older People - Evidence-based analysis for a possible co-ordinated European approach to web-accessibility " (SMART 2007/0056)⁷⁸

– Abridged excerpts from the report –

Conclusions:

⁷⁶ <http://www.eaccessibility-monitoring.eu/>

⁷⁷ <http://ec.europa.eu/digital-agenda/en/news/study-economic-assessment-and-evaluation-recommendations-improving-e-accessibility-services-and>

⁷⁸

http://ec.europa.eu/information_society/activities/einclusion/docs/access/comm_2008/coordinated_approach.doc

The analysis shows that reinforced efforts to achieve greater web-accessibility are needed in Europe. Levels of web-accessibility across Europe remain very low and it is unlikely that the targets set by the Member States in the Riga Ministerial Declaration (that all public sector websites should be accessible by 2010) will be met without a coordinated intervention to accelerate progress. Progress across the Member States is uneven and there **is considerable fragmentation in the approaches being implemented**. The emerging situation **presents barriers to optimal functioning of the internal market** in areas such as cross-border shopping, procurement of web-development products and services, and free movement of the many citizens with eAccessibility needs.

A key factor underlying the lack of sufficient progress in Europe has been the **wide variation in approaches and degree of prioritisation of web-accessibility across the Member States**. Some countries have quite strong legislation or policy statements but have not yet implemented much in the way of follow-up measures to ensure that the policy objectives are achieved; others have made only quite general policy statements without putting any concrete measures in place. Only a minority of countries can be considered to have strong legislation supported by extensive follow-up measures. The evidence shows that the best results are being achieved in this group of countries. A coordinated European approach aiming to encourage best practice across all Member States would therefore be expected to make a substantial contribution to the achievement of the objectives that have been set at the Riga Ministerial Declaration.

Importantly, the analysis also shows that **implementation of web-accessibility can generally be expected to present a very favourable cost-benefit return for governments overall as well as for individual public organisations and for many business sectors**. The benefits can be achieved through the extended reach that accessibility provides, not just amongst disabled and older people with specific accessibility needs but also amongst a much wider range of users, such as those with older technologies or software, those using mobile or other small display devices and those without broadband connections. Lack of awareness and skills amongst web owners and web developers of the benefits of accessible web design, and of the close overlaps between accessible design and good design more generally, is one of the biggest barriers to the achievement of the substantial benefits on offer. This seems to be a key factor underlying the low levels of accessibility currently being achieved and also the fact that many websites fail to maintain accessibility once it has been achieved.

Against this background, there is a strong case to be made for better coordination of web-accessibility efforts across the Member States. Key objectives for a coordinated European-wide effort would include the achievement of rapid improvement in levels of web-accessibility in all Member States, support for the internal market in aspects linked to web-accessibility, and measures to ensure sustainability and future-proofing of web-accessibility efforts in Europe.

Ultimately a **legislative approach may be required to achieve the levels of progress and coordination that are needed**. Such an approach would be consistent with many of the key policies and objectives of the European Union, including internal market and freedom of movement, consumer policy, the Lisbon Strategy for the knowledge society and the social agenda, as well as the more specific fields of equality/non-discrimination and the implementation of commitments under the UNCRPD.

In the meantime, reinforcement of non-legislative measures can make an important contribution. These might include a renewed and reinforced OMC-type approach as well as supporting measures in standardisation and other areas.

Against this background, the analysis presented in Chapter 4 examines a number of dimensions that could be addressed in a coordinated approach. Based on this, it is suggested that although the main focus might be especially on **websites of public services and websites of services of general interest**, the scope of a coordinated approach could also include intranets and Public Internet Access Points. As regards Member State approaches, a coordinated effort to encourage the implementation of a combination of 'top-down' approaches (that impose direct obligations on web owners) and 'bottom-up' approaches (that give users rights of complaint and support them in various ways, such as provision of information about the accessibility of websites) could be envisaged. This should also encourage the utilisation of public procurement as an important mechanism in support of the achievement of wider web-accessibility.

EU-level support for various other actions could also be envisaged, such as encouraging and supporting the efforts to develop appropriate **European web-accessibility standards** and associated conformance testing mechanisms, introduction of common web-accessibility monitoring and reporting procedures (including the possibility of better metrics for assessing web-accessibility), and programmes to increase awareness and skills amongst web owners, designers and other key players.

Annex III : Other relevant policies and actions in the EU and Member States

1. Policy and actions at EU level that have a bearing on e-Accessibility

- Public Procurement Directive (2004/18/EC)⁷⁹: Article 23.1 on Technical specifications assumes, in the case of public service contracts technical, specifications as those "defining the required characteristics of a service such as design for all requirements and conformity assessment". It also establishes that "whenever possible, these technical specifications should be defined so as to take into account accessibility criteria for people with disabilities or design for all users".

Public Procurement can give leverage to a broader uptake of web-accessibility. However, this provision does not oblige contracting authorities to do so. Furthermore, the enforcement of a common technical specification (standard) does not apply.

The Directive is in a revision process, and the reform will look into the issue of using public procurement to pursue social goals (vide Commission's Green Paper on the modernisation of EU public procurement policy⁸⁰, from Jan 2011). With positive prospects, it can bestow significant leverage of accessibility in the web-accessibility market. However, website development that is not outsourced could not be addressed.

- The Audiovisual Media Services Directive (2010/13/EU⁸¹) – Article 7, which establishes that Member States shall encourage media service providers to ensure that their services are gradually made accessible to people with a visual or hearing disability. This 'soft' message does not create solid prospects of increased market opportunities. In any case, it refers to accessibility but not to web-accessibility.
- The R&TTE Directive (1999/5/EC, on radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity⁸²) – Article 3.3.(f), which establishes that the Commission may decide that apparatus within certain equipment classes or apparatus of particular types shall be so constructed that it supports certain features in order to facilitate its use by users with a disability.
- Directive on Electronic Commerce (2000/31/EC⁸³) – Pursuant Article 16 Codes of Conduct, the Member States and the Commission shall consult associations representing the visually impaired and disabled in order to take account of their specific needs in the drafting and implementation of codes of conduct. Its implementation may positively contribute to an increased demand on the web-accessibility market.
- Directive 2009/140/EC amending the Authorisation Directive (2002/20/EC, on the authorisation of electronic communications networks and services⁸⁴), whose referred consumer protection rules include conditions on accessibility for users with disabilities. Nevertheless, measures are not focused on web-accessibility.

⁷⁹ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2004:134:0114:0240:EN:PDF>

⁸⁰ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2011:0015:FIN:EN:PDF>

⁸¹ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:095:0001:0024:EN:PDF>

⁸² <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:1999:091:0010:0028:en:PDF>

⁸³ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2000:178:0001:0016:EN:PDF>

⁸⁴ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:337:0037:0069:EN:PDF>

- The Universal Service Directive (2002/22/EC⁸⁵), which establishes special measures for disabled users to undertakings, who provide publicly available electronic communications networks and services. Despite, an Amending Act in 2009 (Directive 2009/136/EC, in particular Article 1.17), web-accessibility remains not covered.
- Employment Directive (2000/78/EC⁸⁶) – Article 5, which establishes that in order to guarantee compliance with the principle of equal treatment, 'reasonable accommodation' shall be provided. This means that (public and private) employers shall take appropriate measures, to enable a person with a disability to have access to, participate in, or advance in employment. The implementation positively contributes to increasing demand on the web-accessibility market.
- Copyright Directive (2001/29/EC⁸⁷) – Article 5, which allows Member States to provide exceptions in author's rights related to reproduction of their works, allowing for these to be reproduced in any form (alternative accessible medium) for the benefit of people with a disability, to the extent required by the specific disability.
- The Proposal for a Council Directive on implementing the principle of equal treatment between persons irrespective of religion or belief, disability, age or sexual orientation – COM(2008)426⁸⁸ – Article 4 proposes non-discriminatory access to the services that are available to the public. It clearly refers to web-accessibility in its Impact assessment, but the scope only refers to services offered for remuneration. It is before the Council. Even after adoption, the anti-discrimination approach, while contributing to improve web-accessibility, could not tackle the challenge of a fragmented market, as it would focus on addressing discrimination of individuals and could not encompass harmonised technical solutions.
- Council Directive (2006/112/EC⁸⁹) on the common system of value added tax – Annex III, which provides a list of goods and services to which reduced rates may be applied for products for the exclusive personal use of the disabled.
- The Structural Funds Regulations⁹⁰ - Article 16, which require that "accessibility for disabled persons shall be one of the criteria to be observed in defining operations co-financed by the Funds and to be taken into account during the various stages of implementation." It sets clear obligations when funds are used to develop websites but these cannot harmonise the market. Although implementation positively contributes to increasing demand on the web-accessibility market.
- Europe 2020 Strategy flagships:
 - Digital Agenda for Europe with the mentioned action as well as relevant other actions in the field of e-accessibility (in its pillar 6).

⁸⁵ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32002L0022:EN:NOT>

⁸⁶ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32000L0078:en:HTML>

⁸⁷ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2001:167:0010:0019:EN:PDF>

⁸⁸ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2008:0426:FIN:EN:PDF>

⁸⁹ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:2006L0112:20100409:EN:PDF>

⁹⁰

[http://ec.europa.eu/regional_policy/sources/docoffic/official/regulation/pdf/2007/general/ce_1083\(2006\)_en.pdf](http://ec.europa.eu/regional_policy/sources/docoffic/official/regulation/pdf/2007/general/ce_1083(2006)_en.pdf)

- Innovation Union (notably, its pilot European Innovation Partnership on active and healthy ageing depends among other elements on digital accessibility for the elderly;
- New Skills for Jobs (new skills often meaning digital or digitally-acquired skills).

<i>Action</i>	<i>Title</i>
63	Systematically evaluate accessibility in revisions of legislation undertaken under the Digital Agenda, e.g. eCommerce, eIdentity & eSignature, following the UN Convention on the Rights of Persons with Disabilities
64	Based on a review of options, make proposals by 2011 that will make sure that public sector websites (and websites providing basic services to citizens) are fully accessible by 2015
65	Facilitate by 2012, in cooperation with Member States and relevant stakeholders, a Memorandum of Understanding on Digital Access for persons with disabilities in compliance with the UN Convention
67	Member States: Implement by 2011 the provisions on disability in the Telecoms Framework and the Audiovisual Media Services Directive

Table 20 The relevant actions of DAE pillar Digital Literacy, Skills and Inclusion

- The European Disability Strategy 2010-2020 adopted in November 2010, which has 'Accessibility' as a main area for action. Relevant actions refer to the DAE's commitments on web-accessibility. It also puts forward actions to comply with the UNCRPD obligations within EU institutions; the list of actions includes improving accessibility of websites.
 ⇒ The announced 'European Accessibility Act' (proposal foreseen for the end of 2012) could refer to an adopted web-accessibility measure when addressing accessibility of websites in relation to services.
- Commission's Green Paper on the modernisation of EU public procurement policy⁹¹, from Jan 2011, which realized a consultation that included questions on the use by contracting authorities of the possibilities concerning accessibility criteria for persons with disabilities.

2. Other Inter-/National Initiatives

- The Global Initiative for Inclusive ICTs (G3ICT) White Paper "Web-accessibility policy making: an international perspective"⁹² identifies relevant initiatives and best practices, which have been adopted by 15 countries (including USA, Japan, and 6 EU Member States). For policy makers, it advises having a set of policies that focuses on the issue of web-accessibility co-living with or as part of another more comprehensive addressing e-accessibility. It advocates the forming of a systemized forum to review and monitor the

⁹¹ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2011:0015:FIN:EN:PDF>

⁹² http://g3ict.com/download/p/fileId_811/productId_150; Dec 2009

implementations as well as review changes to the policy, in the light of any changes in standards (WCAG) or additional requirements.

Annex IV : WCAG and Realizing e-Accessibility

The *de-facto* reference standard Web Content Accessibility Guidelines (WCAG)

The Web-Accessibility Initiative (WAI) by the World Wide Web Consortium (W3C)⁹³ is an international cooperation establishing technical specifications in web-accessibility. It is sponsored by governments and industry such as the European Commission's FP and the USA Department of Education's National Institute on Disability and Rehabilitation Research. WAI offers three accessibility guidelines: (1) Web Content Accessibility Guidelines (WCAG), (2) Authoring Tool Accessibility Guidelines (ATAG), and (3) User Agent Accessibility Guidelines (UAAG)⁹⁴. WCAG 2.0, the latest version, was adopted in December 2008.

The WCAG 2.0 is organized around four design principles – perceivable, operable, understandable, and robust – related to access and use of Web content. Each principle sets 'guidelines', and each of the latter has testable 'success criteria' to be used where requirements and conformance testing are necessary such as in design specification, regulation, and contractual agreements. The first of five conformance requirements deals with the defined three 'levels of conformance': A(lowest), AA, and AAA.⁹⁵

Example: in WCAG 2.0, for a content-related issue "colour contrast":

Principle 1: Perceivable - Information and user interface components must be presentable to users in ways they can perceive.

Guideline 1.4 Distinguishable: Make it easier for users to see and hear content including separating foreground from background

Guid 1.4.3 Contrast (minimum) The visual presentation of text and images of text has a contrast ratio of at least 4.5:1 <= success criterion Level AA

Guid 1.4.6 Contrast (enhanced) The visual presentation of text and images of text has a contrast ratio of at least 7:1 <= success criterion Level AAA

An international or European standard does not exist yet (although the latter is under development I M/376). WCAG 1.0 is referred to in older legislation in most Member States, while more recent legislation refers to WCAG 2.0.

E-accessibility practices and accompanying evolutions

Realising e-accessibility is a matter of awareness of user requirements, moderate technical and design capability, following specifications with the help of supporting tools and guidance, and monitoring.

⁹³ URL:<http://www.w3.org/WAI/>, 2010

⁹⁴ 'user agent' includes Web browsers, media players, and assistive technologies

⁹⁵ W3C, "Understanding WCAG 2.0", <http://www.w3.org/TR/UNDERSTANDING-WCAG20/complete.html>

Figure 2 shows the necessary components. WCAG 2.0 is the reference for content. Web design tools and web browsers continue to improve in adhering to their own set of requirements, corresponding respectively to the ATAG and UAAG specifications of W3C.

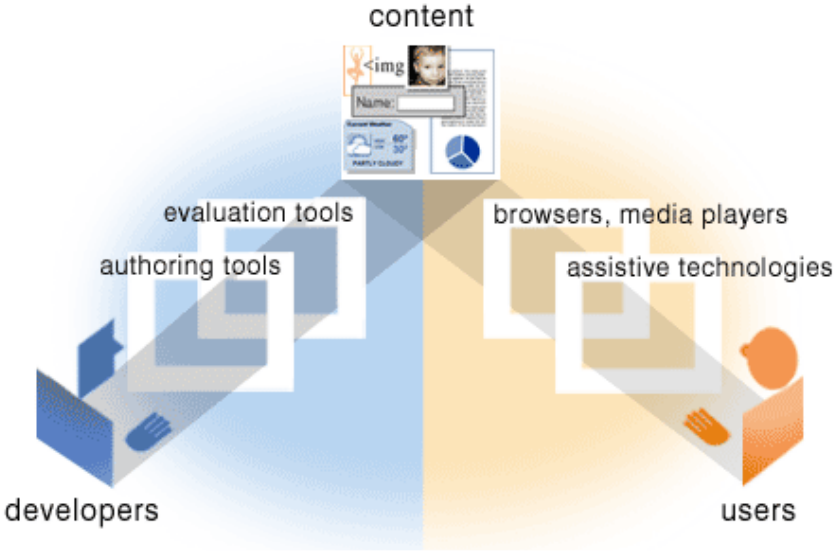


Figure 2 Web-accessibility components (source: W3C)

In addition, a reference body of best practices is building up. Practical assistance is provided to public administrations in Europe through the collaborative effort in the CIP-funded network project eAccess+.

Annex V : Overview of figures and data sources

The following key data items and calculated figures are mentioned in this report.

Item	Values	Calculation	Sources
Population to benefit from web-accessibility	With regard to people with disability: 84 million, of which 34 million are 65+		SMART 2009/0072
Internet use by people with disabilities	UK: 41% of disabled people use the internet against 75% of the non-disabled population (2009); USA: 54% of disabled people use the internet against 81% of the non-disabled population (2011); 28% of disabled non-users state that their disability makes it difficult or impossible to use the internet (2003).	Disability is self-declared. At European level (Eurostat) disability is not measured as a characteristic of internet users/non-users.	UK: Oxford Internet Survey 2009. USA: Pew Internet Surveys
% accessible public sector websites, WCAG 2.0 AA, WCAG 1.0 AA	0% (strict test), 27% (composite indicator)	Results depending on measurement approach	SMART 2009/0066 (MEAC-2)
% accessible private sector websites, WCAG 2.0	0% (strict test)	Results depending on measurement approach	SMART 2009/0066 (MEAC-2)
Price differences due to national variations in web-accessibility for suppliers	5-20% of bidding price	Based on small number of cases studies.	SMART 2009/0072
Time savings of citizens when using public services online (€ value)	30 M€ for every 1% of people with disabilities	Model calculation, assuming 69 minutes saved per online contact, valued at minimum wages (only 65+ population), 1 contact p.a.	Study "Accessibility of ICT products and services to Disabled and Older People"
Savings to customers when enabled by web-accessibility to shop online	300 M€ for every 1% increase in online shopping by the people with disabilities (nationally)	Model calculation based on observed savings from online shopping and timesaving (e.g. reduced costs in UK are €358 p.a.)	Study "Accessibility of ICT products and services to Disabled and Older People"
Savings from finding lower prices in the internal market	5% additional savings		EC consumer surveys
Productivity increase	1.04 B€ for every 1% of	Model calculation based	SMART 2009/0072

thanks to web-accessibility	the population of people with disabilities (though the impact should not be fully allocated to web-accessibility of public sector websites/basic services)	on bridging the 10 points wage gap between disabled and non-disabled employees, controlling for factors such as education level, and assuming that productivity increase is translated into higher wages.	
Labour participation increase	<p>Example: for every 1% increase in labour participation, in the UK 150 M€ increase in wages and 30 M€ increase in tax revenues. A crude extrapolation to EU-27 population gives about 2 B€ as value of increase of wages (but country differences are huge so the range from selected countries on this extrapolation is from 400 M€ to 5 B€).</p> <p>Similar results, 1.4 B€, are obtained by the 0072 study (scenario 1).</p>	At minimum wages; ceteris paribus e.g. assuming that there are no crowding-out effects. Also assuming that all in the group of working age disabled persons are reached with a web-accessibility measure.	<p>Study "Accessibility of ICT products and services to Disabled and Older People"; EC extrapolation from selected countries</p> <p>SMART 2009/0072</p>
Quality of life from increased labour participation	75 M€ p.a. for every 1% of increased labour participation in the group of working age disabled persons		SMART 2009/0072
Government transaction cost savings	30 M€ for every 1% of the population of people with disabilities switching one transaction per year from offline to online use	Based on (low) estimate of €18 saving per transaction.	Study "Accessibility of ICT products and services to Disabled and Older People"; EC extrapolation from selected countries
Additional costs of WCAG 2.0 web-accessibility	<p>-8% compared to WCAG 1.0 or UNE (Spanish standard); there is a thus net cost saving</p> <p>Additional costs for web-accessibility vary with choices for certification and assessment, size of website etc</p> <p>Case studies indicate that additional costs are small once a website is accessible, except for about 5 k€ p.a. for external assessment and</p>	A Business Case Tool is provided by SMART 2009/0072.	SMART 2009/0072

	certification (per website).		
Net costs-benefits of accessible online public services	600 M€ for 10% reach by people with disabilities		Study "Accessibility of ICT products and services to Disabled and Older People"
Countries with legislation	List of countries		SMART 2009/0066
National deadlines for WCAG 2.0 implementation	2011..2015 (of 13 countries surveyed only 6 have a deadline)		SMART 2009/0072

Table 21 Overview of figures and data sources

Annex VI: Calculations and methodology

Number of websites and number and proportion of public sector websites

The number of websites calculation is based on the data provided by Czech Republic relevant administration and compared by empirical evidence from Netherlands and France. The total number of websites in the Czech Republic is 700.000. They include public sector websites, businesses websites, NGO and other organisations websites, limited time "project of event type websites as well as private individual or 'household' websites.

As there is a legal obligation to set up a website for every business registered in the Czech Republic, we could assume that there is roughly one website per business. The number of businesses websites is 350.000 (assuming that about 10% of total 400000 businesses do not comply with the obligation to have a website).

The sum of central and local government (the general government) websites is 7.500 public libraries are 2.400 websites and schools 4.200 websites. So we can estimate that **public sector websites are at least 2%** of the total number of websites or 3.9% of business websites (since we are not counting websites of other public institutions such as museums, publicly funded project websites etc).

Empirical evidence from France indicated a higher number of public sector websites (6%) and from Netherlands where public administration only websites (subset of all public sector websites) were estimated to 1%.

For consistency purposes we note that at the EU27 level there were some 19.040.000 companies (source: Eurostat) in 2010 which would imply that there could be around the same number of websites run by private sector. These aggregate figures are further decomposed based on the size of the population to different Member States with the lowest number of public websites in Malta (638) and the highest in Germany (125.941).

The calculation of costs associated with web-accessibility

The assessment focuses on those costs that are connected to the necessary investments and procedures for making websites accessible according to this proposal, and thereby achieving its objectives. Based on the degree of harmonisation proposed, a range of minimum and maximum costs is associated to each of the different policy options from chapter 4. Finally, an estimation is provided as to the administrative costs implied by implementing the proposed legislation.

In the implementation of web-accessibility compliant with criteria such as those of WCAG 2.0, compliance and administrative costs depend on:

- (1) the number of websites;
- (2) the number of different "templates" (navigation structure, page layout, etc.) used for pages per website;
- (3) the nature and complexity of the contents (information content, interactive applications, downloadable material);

- (4) whether the website development, maintenance, and evaluations are supposed to be commissioned to external web-developers⁹⁶ or carried out internally;
- (5) whether most of the 'basic public services' are already offered on the Web, implying that costs for the provision of those are being made anyway;
- (6) whether most websites are updated regularly, implying that costs for refurbishing already existing websites, are being made anyway.

The range of possible compliance- and administrative costs are calculated against the backdrop of the baseline scenario ("no extra action taken"). This results in that - over time - only Member States that have not already put Web-accessibility-related legislations and other measures in place would be confronted with new costs. For all other Member States the compliance and administrative costs would be neutral (in case of countries with existing legislation referring to WCAG 2.0 specifications) or even positive (in case of countries referring to often more complex to implement WCAG 1.0 specifications).

Indeed, according to a recent report,⁹⁷ the costs of complying with the standard WCAG 2.0 are 8% cheaper than with WCAG 1.0. This is partially the result of progress in increased accessibility features in content and in user interfaces which help avoiding the need to duplicate content in separate formats (e.g. as it was previously the case for PDF documents or javascript).

For Member States **with pre-existing web-accessibility measures**, the additional costs of complying with a proposed EU legally binding measure on web-accessibility will be minimal as they will materialise only for those sites that do not possibly fall under the scope of existing national regulation or whose applied technical requirements are less demanding than the harmonised specification.

For Member States *without* pre-existing relevant measures for web-accessibility, compliance costs will relate to making 'websites concerned' accessible, ensuring annual evaluation of websites, guaranteeing necessary skilled human resources.

For all Member States minimal additional costs could result from the necessary reporting schemes to allow for common monitoring of implementation and from Information Obligations.⁹⁸

The average price of building an accessible website varies in time and depends on the current state of implementation in each of the Member States. Empirical research has shown that the number of "templates" (see above) influences the final price of the accessibility of a website together with other factors, such as the number of pages and the type of content (e.g. the number of images, forms and PDF's) and the nature of the processes the website is supposed to carry out (informative, interactive or transactional).

In addition there is a cost to maintain/assess the website accessibility over the years, which are independent from the initial design of an accessible website. For example, adding an

⁹⁶ This is a simplification assumption; it is probably less valid for content maintenance, where public authority staff often updating content themselves via a CMS

⁹⁷ Technosite, "Economic Assessment for Improving e-Accessibility Services and Products" (SMART 2009/0072).

⁹⁸ Types of Information Obligation are, for example, 'Submission of recurring reports' (e.g. with results of annual assessments) and 'Collaborations'. More details and estimations are given in Section 7.6.

image in an accessible format a year after the website has been built, will add 0.04 working day to the equation. Monitoring cost (certification) is another cost as well as Information obligation cost (referred to as administrative burden and presented in Annex VII).

Training costs for web personnel within the public administrations are not considered in the following model, as they can vary considerably (some websites will be maintained by employees who already have the knowledge while others will need a one-to-three day training). Besides some of the tasks might result being contracted out. Administrative costs of procurements and handling accessibility in them is not discussed here either.

According to a recent study⁹⁹, the average price charged for the design (excluding data content) of a website according to accessibility criteria is €5.232 with seven and €9.737 with fifteen templates. These two price profiles correspond to the following two estimate's, which also were the basis for the calculation of the markets for web-development and web-accessibility in section 2.2.

The sensitivity analysis in this section is based on two estimates, each associated with different number of required pages and templates. The **low estimate** is based on the cost of web-accessibility for programming and designing a simple website with 100 pages, 7 templates, 50 images and 5 simple forms, done by an external consultancy firm. The **high estimate** is based on the cost of web-accessibility for programming and designing a more complex website with 300 pages, 15 templates, 50 images and 5 simple forms, also done by an external consultancy firm.

The **price of web-accessibility** for a simple website would be € 713 on average and € 1701 for a more complex one. This does not take into account the cost of website elements that are used for (e.g. financial) transactions, possible PDFs documents and multimedia content.

	Low estimate	High estimate
Cost of website build up	5.232	9.737
Costs of web-accessibility only	713	1.701

Table 22 Calculation of website build up and web-accessibility per website

The costs of website built up as well as the costs of web-accessibility are based on a recent study taking into account the daily fees in the Member States.¹⁰⁰ Cost of website build up is calculated as the difference of the previous two figures.

Empirical research has shown that the number of templates influences the final price of the accessibility of a website together with other factors, such as for example the number of pages, the nature of the processes and the types of text. Therefore, the sensitivity analysis that follows in this section is based on two scenarios. EU27 average wages are taken as a basis for both scenarios. Then first scenario, referred to as low scenario, has 100 pages, 7 templates, 50 images and 5 forms. The second, high scenario, has 300 pages, 15 templates, 50 images and 5 forms. Furthermore it is assumed that the web-accessibility work is carried out by an external consultant. Note that web-accessibility services are themselves examples of cross-border online services and lend themselves well to be delivered over the internet, provided language is not a barrier, thus creating job opportunities also in low-wage EU countries.

⁹⁹ SMART 2009/0072: Public consultation - "Economic Assessment for Improving e-Accessibility Services and Products". See <http://www.eaccessibility-impacts.eu/>.

¹⁰⁰ SMART 2009-0072 D7

Costs of website maintenance and updates

Regarding the number of websites, it is assumed, in the model used, to correlate with the population size. This model has of course some limitations as the degree of distribution of public authorities greatly varies (in particular at local level; see for example France and its very large number of municipalities). Nevertheless, the model can in general be considered adequate.

Calculating the overall price of the implementation of web-accessibility is based on the costs described in Table 23. The 'daily' fees are the average cost of personnel per day, as in the respective Member State.

	Low scenario	High scenario
Web accessibility for public sector to catch up to 100% coverage	299.000.000	713.000.000
Web accessibility for 12 services to catch up to 100% coverage	149.000.000	356.000.000
Maintenance for public sector for the one year	218.000.000	396.000.000
Maintenance for 12 services for the one year	109.000.000	198.000.000
Monitoring for the one year	700.000	700.000
Administrative burden for the one year	1.400.000	1.400.000
Total cost of transition for public sector	519.000.000	1.111.000.000
Total cost of transition for the 12 services	260.000.000	557.000.000

Table 23 Implementation costs for the transition from the present situation to 100% coverage of web-accessibility

There are three types of Member States, when it comes to the accounting of costs. First there are those that have already implemented the WCAG 2.0 specifications and oblige public e-services to be accessible. For them there would be no costs over time as a result of the WCA intervention. Then there are 6 Member States that do not yet have legislation on web-accessibility. For them there would be costs associated with introducing criteria like WCAG 2.0 AA in their legislation and implementing them on the related websites. Finally there are Member States that have already introduced WCAG 1.0 AA. For them the introduction of WCAG 2.0 AA in their legislation is assumed to add substantial costs to the implementation. The development of accessible website according to WCAG 2.0 on the contrary is estimated to cost 8% less than development of website accessible according to WCAG 1.0.

	Low estimate	High estimate
Web-accessibility	314.453.384	750.689.293
Monitoring	686.517	686.517
Administrative burden	1.355.536	1.355.536
Total cost	314.453.384	750.689.293

Table 24 Total costs for EU 27 governments when implementing the basic public services

Annex VII : Benefits of increased web-accessibility

Benefits depend on the degree of web-accessibility actually achieved and on the take-up of the Internet amongst the target group.

1 - Increased economic and social participation of citizens

Increased web-accessibility would likely lead to more possibilities for participation in social and economic life, leading to increased quality of life. This can be due to increased labour participation but also to increased social interaction. For example, the use of broadband has been shown to lead to a 20% reduction of depression rates amongst elderly (less social isolation). It is hard to quantify such quality of life improvement, but case studies provide anecdotal evidence.

Studies and modelling assume that web-accessibility would lead to increased employment participation of people with disabilities and older persons, more income from increased labour productivity, and less time lost by citizens when using public services. If private sector websites also become more accessible, access to more competitive offers and consequently lower prices will result for consumers.

Total benefits for citizens in monetary terms can be calculated as follows:

- A. value of additional income: at least 400 M€ for every 1% increase in labour participation at minimum wages in the public sector. This will have to be combined with the expected increased participation of persons with disabilities and the general increased employment rate targeted in EU 2020.
- B. value of time savings: € 30 million for every 1% increase in take-up of online access
- C. value of savings in online shopping (basic services): 300 M€ for every 10% increase in online shopping, assuming basic services compose 10% of the consumer basket

As regards savings of time and money (items B and C): The DAE target is to increase regular internet use for disadvantaged persons from 41% to 60% (from 2009 to 2015). Over the period 2012-2015 (the period of actual measure-implementation) a similar increase in the order of 10% could be expected for people with disabilities. In total the citizens benefits would then be at least € 500 million.

The Table 25¹⁰¹ shows the potential benefits of employment to society and public purse, calculated on the basis of an increase of 1% in employment rate of people with disabilities in selected EU countries.

Employment benefits	Minimum Wage		Average Wage	
	Societal	Public Purse	Societal	Public Purse
Austria	6,533,832	2,502,458	61,612,575	23, 597, 616
Belgium	46,770,130	N/A	173,764,791	N/A
Czech Republic	17,117,697	2,567,655	62,040,790	9,306,118
Finland	11,012,688	936,078	52,286,508	4,444,353

¹⁰¹ Source: Study "Accessibility of ICT products and services to Disabled and Older People".

France	360,058,465	N/A	1,313,281,837	N/A
Germany	279,344,533	2,567,655	847,101,561	9,306,118
Ireland	39,321,414	7,864,283	98,582,816	19,716,563
Slovakia	4,895,881	930,217	16,621,047	3,157,999
Spain	165,804,325	N/A	574,666,859	N/A
Sweden	95,085,031	N/A	211,329,274	N/A
United Kingdom	148,229,315	29,645,863	1,040,781,849	208,156,370

Table 25 Employment benefits of web-accessibility

2 - Reducing governments' costs and improving their reputation

Public administrations save money when citizens use public services online (transaction costs are significantly lower). Unemployment and disability benefits will be reduced when more disabled citizens find a job or become more independent using the internet. With the same assumptions as above, in particular a 10% increase of Internet usage among people with disabilities thanks to web-accessibility, the government benefits are:

- D. government transaction cost savings: 316 M€ p.a.
- E. unemployment and disability benefit savings: assumed to be 70% of item A, i.e. 224 M€.
- F. increased tax revenues from employment: can be taken to be 20% of item E, i.e. 45 M€.

Total government benefits can thus be estimated at up to about 600 M€ p.a.

3 - Market increase and cost reduction for enterprises (website owners) providing basic services

The various case studies suggest that web-accessibility increases markets (cf. Tesco, General&Ledger) and reduces costs such as helpdesk support. Costs reductions on helpdesk support of 20% have been reported.

4 - Increasing the market for web-developers

Web service providers benefit from both the growing expenditures of governments on web-accessibility and the opening up of the internal market for web-accessibility services. Benefits are:

- G. market growth for web-accessibility services: estimated to be in the public sector in the order of several hundred M€ (for assessment and certification services). To be added the value of the market of web-accessibility for basic services websites.

5 - Benefits of harmonised specifications

Harmonised specifications (and common approaches to measurement, training, reporting etc) will reduce website costs for public administrations, open up the digital single market for citizens and open up the internal market for web-accessibility services.

5.1 - Reduced costs for governments

H. for those that implement WCAG 1.0 today, a reduction of costs for website maintenance when switching to WCAG 2.0 of 8%.

5.2 - Barrier-free digital single market

For citizens

I. value of comparative shopping in the internal market: 5% of item C (based on average savings found in consumer surveys), i.e. 15 M€.

For web-developers (the suppliers)

J. value of internal market for web-accessibility services and tools: this is hard to estimate, but the web-adaptation and assessment and certification services can readily be supplied from one country to another (as evidenced by approach of the SMART 2009/0072 and SMART 2009/0066 studies and the approach of initiatives such as Fix-the-Web). A considerable part of item G will therefore constitute the internal market

K. cost-savings for operating in the internal market: bidding costs can be saved for the suppliers of web-accessibility solutions.

For public bodies (the buying parties)

L. Procurers of web-accessibility solutions can have considerable savings given the wage differences in Europe, as many web-accessibility services can be provided from one country to another, being labour-based, suitable to be provided at a distance and electronically and requiring mostly general country-independent skills (except for language dependencies).

5.3 - Costs of a harmonised approach

Three types of costs for governments:

1) one-off organisational costs to ensure procedures are in place to handle web-accessibility, estimated at 100 k€ for an organisational unit providing five public services.

2) one-off costs per website to ensure that the website is made accessible (possibly carried over to website providers by requiring web-accessibility in public procurement) and related staff is trained. For estimates, see SMART 2009/0072¹⁰².

3) annual costs to ensure web-accessibility is maintained; case studies claim that these are mainly assessment and certification costs, estimated at 5 k€ per website.

In addition, there is the administrative burden (information obligation, EU level cooperation costs), typically, per country in the order of a few hundred k€ per year (see administrative burden estimate).

¹⁰² Using Business Case Tool of study SMART 2008/0072

Annex VIII. Simple simulation of the effect of economies of scale in the authoring tools and web accessibility markets

The economies of scale due to the legislative action can be realized compared to the baseline (column 1 in both Table 26 and Table 27) in two stages in both authoring tools and web accessibility markets regarding the public sector websites. We assume that the costs of the authoring tools purchased by the web developers are spread over the period of three years due to its investment nature. We are also assuming that the profit margins of the authoring tools for producers and the web developers represent an equal share of the final price (14%) at both stages. The scenarios in section 6 on the other hand are assuming that all benefits of economies of scale would be received by them. Therefore, their margins might grow with up to 50%. In the end, the size of the margins should be dependent on the degree of competitiveness of these two markets.

The market of **authoring tools** is assuming five competitive producers. We are assuming also that there are 10 versions of the technical requirements varying across EU Member States, as they are not harmonised. They face fixed costs in terms of the production of the SW and variable costs depending on the number of clients and the number of versions they need to design. Their costs and the margin sum up to the final price (column 1). The baseline is assuming 33% compliance (column 2) of the government websites in the EU therefore the market is not exploiting its full potential.

During the first stage, as the harmonisation of the technical specifications will take place there will be no need to design ten versions of the SW bringing the variable costs and in turn overall costs of production down (column 3). The final price should decrease by about one third. This is under the assumption that the margins of the authoring tools producers stay the same in terms of its share of the price.

During the second stage, as the number of clients of producers of authoring tools triples due to the attainment of 100% coverage level fixed costs per client will further decrease (column 5). This will bring the final price of the authoring tools to one third of the original price (column 5 and 6). This is also assuming that the margins of the authoring tools producers stay the same in terms of its share of the price.

	1	2	3	4	5	6
	clients/EUR	%	clients /EUR	%	clients /EUR	%
Web developer clients per SW developer	707	33	707	33	2.141	100
Production costs of authoring tools per client	5.717	86	3.595	54	1.856	28
Price of the authoring tools per client	6.667	100	4.191	63	2.164	32

Table 26 Authoring tools market

The market of **web accessibility** is assuming some 11 000¹⁰³ competitors. They face fixed costs in terms of the purchase of the authoring tools and variable costs depending on the amount of labour needed for the web accessibility design.

During the first stage, as the harmonisation of the technical specifications takes place bringing the final price of the authoring tools down, the cost of the web developers related to their purchases go down (column 3). This is reducing the price of the web accessibility by around 17%.

During the second stage, as the number of clients per web developer triples due to the 100% coverage, bringing the fixed costs per client further down (column 5), the final price of the web accessibility will go down to 59% of the original price (column 5 and 6).

	1	2	3	4	5	6
	units/EUR	%	units/EUR	%	units/EUR	%
Websites per web developer	23	33	23	33	71	100
Production costs of the WA per website	611	86	506	71	358	50
Price of the WA per website	713	100	590	83	417	59

Table 27 Web accessibility market

¹⁰³ Number of enterprises J6312 - Web portals in 2010, Eurostat

Annex IX : National surveillance: accessibility assessment procedure

The evolving nature of website content requires that regular verification is carried out.

Assessment of each website will use a harmonized assessment method associated with the harmonized web-accessibility functional specifications and the compliance demonstration provided in the standards to be used for presumption of conformity.

The resulting data are to be reported and provided for public use.

A methodology will be specified for precisising the regular verification to be carried out at Member State level of all the websites concerns. One can imagine that it will be based on a sampling approach including services from each of the categories of websites concerned.

For the costs simulation done in this Impact Assessment, a simple sampling scheme has been used: the sample in the same time including at least one site at NUTS 0 level (i.e. national or federal) and at least one local and at least one regional for each of the NUTS 2 level regions.¹⁰⁴

The websites should be checked on yearly basis and the sample collection should be significantly refreshed every year (and for example completely over a two year period).

To allow later analysis of the sampled data, it would be useful that the modalities of the reporting the results of assessing each site follow the below characteristics :

- Reporting granularity at the level of each harmonised accessibility functional specification criterion.
- Reporting – when appropriate – to be split between the three major categories of content: information pages, applications and downloadable material. Related technologies used to be indicated.
- Indicating the categories of websites concerned covered by the site, as well as the root URL(s) of the site and the name of the entity responsible for the site.
- Indicating of presence on the site of a visible and adequate accessibility statement.

¹⁰⁴ Depending on the Member States, the choice of NUTS 1 or NUTS3 level region might be more adequate