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MeAC - Measuring Progress of eAccessibility in Europe

# Assessment of the Status of eAccessibility in Europe

Main Report

October 2007

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Bonn, October 2007

# Executive Summary

*The 'MeAC' study* This is the executive summary of the report from a study on "Measuring Progress of eAccessibility in Europe" (henceforth referred to as the 'MeAC' study). The study was commissioned by the European Commission in 2006 as a follow-up to the eAccessibility Communication of 2005<sup>1</sup>. The basic aim was to provide an evidence-base to support the future development of EU policy in the eAccessibility field.

## The eAccessibility challenge

*eAccessibility concerns disabled, older people and many others...* "eAccessibility" concerns the design of Information and Communication Technology (ICT) products and services so that they can be used by people with disabilities, whether of a permanent or temporary nature, and by older people with age-related changes in functional capacities. For people with visual impairments, hearing impairments and other disabilities, eAccessibility is a sine qua non as ICT products and services become essential ingredients of everyday social and economic life. It is a crucial component of eInclusion and one that will become even more important as the European population ages. In fact, improvement of the accessibility of ICT products and services can be beneficial to everyone, by making ICTs more usable in general as well as facilitating their usage in a wide variety of situations (e.g. hands-free usage, in noisy or poor lighting environments, and so on).

*... and a diverse range of ICTs.* eAccessibility requirements arise across the full spectrum of ICT products and services, including telecommunications services and equipment, TV services and equipment, public and commercial websites, computer hardware and software, self-service terminals such as bank machines, consumer electronics and so on.

*Many millions are affected today...* The scale of the eAccessibility issue is enormous in terms of the numbers of Europeans that are affected. Data suggests that up to one-in-five of the working age population have such a degree of disability that eAccessibility provisions may be needed for them to effectively use ICTs and that, overall, up to 60% would be likely to benefit from eAccessibility provisions. There are also many children with such disabilities and very many older people for whom eAccessibility is essential if they are to be able to avail of everyday ICTs in the same manner as everyone else.

*...and even more will be as the population ages.* This already high level of demand for eAccessibility solutions will increase substantially with the ageing of the population. Already there are more than 33 million Europeans aged 50 years or older with disabilities that are severe enough to pose direct eAccessibility challenges and this is projected to reach 46 million by 2050. In addition, there are currently a further 69 million Europeans aged 50 years and older who have some degree of disability that needs to be taken into account in the design of ICT products and services, with this projected to grow to 94 million by 2050.

*Major socio-economic importance of eAccessibility* Apart from the implications for the large number of individuals concerned, there are major socio-economic implications for Europe as a whole. For example, lack of attention to eAccessibility could substantially inhibit the achievement of the employment rate targets for older workers that have been established within European employment policy. In addition, eAccessibility is crucial if the benefits promised by developments in eGovernment and eHealth are to be realised and reach those who are often the ones that could benefit the most.

## The European policy context

*eAccessibility Communication (2005)* Because of its social and economic importance, eAccessibility has been receiving increased policy attention in Europe and internationally in recent years. In this regard, the European Commission's eAccessibility Communication of 2005 provides the immediate policy context for the MeAC study. With this Communication, the Commission highlighted the need for improving access to Information and Communication Technologies (ICTs) by people with disabilities.

<sup>1</sup> Communication on eAccessibility. COM(2005)425 final. Brussels 13.9.2005

Three key approaches for EU-level policy intervention were identified: the application of accessibility requirements in public procurement (utilising freedoms given to Member States in transposing the Public Procurement Directives); the introduction of a product and service certification scheme; and better use of existing legislation (e.g. in telecommunications and employment).

*Benchmarking to inform policy*

Depending on a benchmarking exercise to evaluate the status of, and progress in relation to eAccessibility in Europe, to be presented two years after the publication of the Communication, the Commission reserved the option to consider additional measures including new legislation if deemed necessary. The evidence-base and analysis presented in this report has been prepared as a key input to this.

*i2010*

eAccessibility is currently one of the priority themes within 'i2010', the European Commission's strategic policy framework laying out broad policy guidelines for the information society and the media in the years up to 2010. A Communication on eInclusion is expected later in 2007 that will, inter alia, follow-up on the the eAccessibility Communication of 2005. On the part of the Member States, at their meeting in Riga in June 2006 the Ministers agreed on reinforced efforts to improve levels of eAccessibility in Europe.

## The benchmarking approach

*Three key questions*

Against the background of the eAccessibility Communication, the evidence-base generated by the MeAC study was intended to be used to answer three core questions:

- what is the current eAccessibility status situation in Europe as a whole and across the Member States?
- how well-developed is current eAccessibility policy at EU-level and across the Member States?
- what conclusions can be drawn in support of decision-making about possible future needs for reinforced or new policy measures at EU-level?

*Major data gathering effort*

A major data gathering programme was implemented to compile the necessary information for this purpose, including:

- survey of the policy situation in relation to eAccessibility in each of the Member States and in selected comparison countries (Australia, Canada, United States)
- measurement of the status of eAccessibility in each of these countries on a common set of selected key indicators
- surveys of key stakeholders (ICT industry, user organisations, and public procurement officials).

The dataset generated through these methods provides by far the largest and most representative information on the eAccessibility field in Europe and internationally that has been available anywhere in the world to date.

## Highlight results

*Three key benchmarks*

Overall, the results show that whilst some progress towards eAccessibility can be detected in Europe, this has not been enough and further EU-level measures need to be considered. Three key benchmarks underpin this conclusion:

- the eAccessibility 'deficit'
- the eAccessibility 'gap'
- the eAccessibility 'patchwork'.

## The eAccessibility 'deficit'

### A) The '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.

#### Europe's eAccessibility 'deficit' - some examples

- Text relay services (essential for deaf and speech impaired people) are only available in one-half of the Member States; emergency services are directly accessible by text telephone in only seven Member States
- Mobile operators in only seven Member States provide dedicated information for customers with disabilities on their websites
- On average, less than one-third of national language broadcasts of main public broadcasters in Europe were provided with subtitling (for deaf people) in 2006; there is wide variability (from 95% to none) in the amount of subtitling across individual countries
- On average, less than one-tenth of national language broadcasts of main commercial broadcasters in Europe were provided with subtitling in 2006; most of this is provided in just a few countries
- Public broadcasters in only five Member States provided any of their programmes with audio description (for visually impaired people) in 2006 and, where they did, the levels provided amounted to a very small percentage of their overall programming; only in one country did any commercial broadcaster provide any audio description
- Only a very small proportion of key government web sites in the Member States meet the accepted minimum international standards on accessibility (12,5% passed automated testing and only 5,3% passed both automatic and manual examination)
- The share of key commercial/sectoral web sites (e.g. railways, TV, newspapers, retail banking) providing this minimum level of accessibility is even lower (only 3,9% passed automated testing while not a single site passed both automatic and manual testing)
- Only in six Member States has one of the leading retail banks installed ATMs with 'talking' output (enabling self-service for customers with visual impairments); across countries, on average only 8% of all ATMs that have been installed by the two main retail banks in the EU 25 Member States provide such output, with the bulk of this provided in just a few countries.

### Telephony

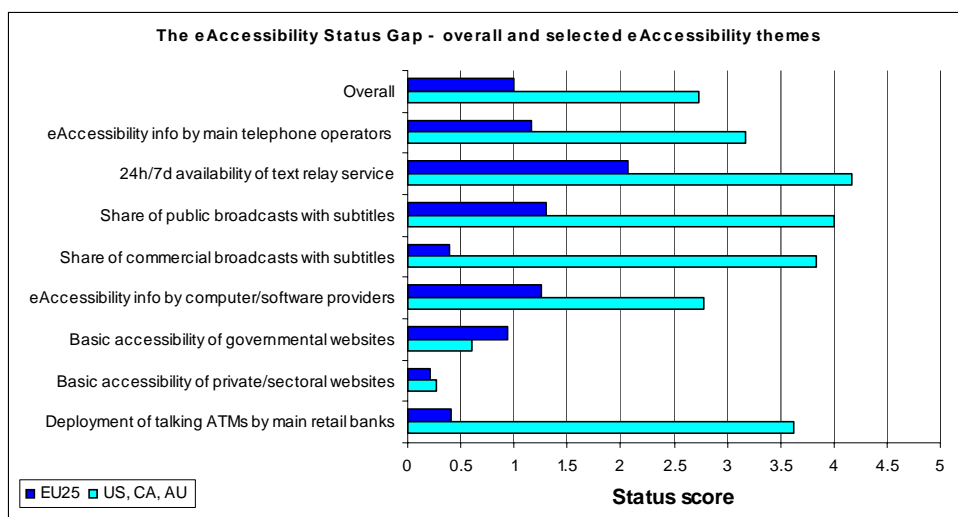
In the case of telephony, the basic eAccessibility yardstick is 'functional equivalence', whereby disabled people have access to the same level and quality of everyday telecommunications services (at the same price and with the same choice) as everyone else. The evidence presented by the MeAC study indicates a substantial lack of availability of key accessibility provisions and a range of factors (e.g. lack of awareness, lack of information and high costs) that act as barriers to take-up of solutions that are available, as well as a perception of limited and slow progress overall. To take just two examples, text telephone relay services are still only available in one-half of Member States and only seven Member States have facilities in place to enable text telephone users directly access the emergency telephone number.

- TV broadcasting* In the case of television, the basic eAccessibility yardstick is the extent to which disabled people (in so far as is technologically possible) have access to and can enjoy the same choice of programming as everyone else. The evidence from the MeAC study again indicates a substantial lack of availability of key accessibility provisions and a range of factors (e.g. lack of awareness, lack of information and, in some cases, high costs) that act as barriers to take-up of solutions that are available, as well as a perception of limited and slow progress in general. On average, less than one-third of the national language broadcasts (by the two main public broadcasters) across the Member States are subtitled to ensure that they are accessible for people with hearing impairments, with levels of provision varying from almost none to more than 95% across countries. The comparable figures for commercial channels are very much lower. Public broadcasters in only five Member States provide any audio description to enable accessibility for people with visual impairments and, where they do, the levels provided amount to very small percentages of programming. Only in one country do any of the main commercial broadcasters provide any audio description.
- World Wide Web* When the MeAC study tested a similar sample of key public and sectoral/commercial websites in each Member State, only a very small percentage were found to meet accepted international accessibility standards - 8.2% were accessible based on automated testing and just 2.6% when subjected to a more stringent follow-up manual testing. For government websites, percentages accessible were 12.5% and 5.3% for automated and manual testing, respectively. For sectoral/commercial websites, just 3.9% passed the automated test and none passed the manual test. These results mean that only a small proportion of key public websites (national government, national parliament, and key ministries such as social, employment, health and education) meet the accessibility standards and the situation is even worse for key sectoral/commercial websites (e.g. railways, TV, newspapers, retail banking). In a few countries, the majority of the public websites tested met the standards but in many none of them did.
- Self-service terminals* The basic eAccessibility yardstick in relation to self service terminals concerns the extent to which people with disabilities (in so far as is technologically possible) can have access to the same level of self-service as everyone else. The evidence from MeAC indicates little progress in the deployment by the banking sector of the accessible ATMs that are now available on the market and even less progress in relation to other self service domains. Only in six Member States has one of the two leading retail banks installed such machines at all and, where they have, in many cases only a few machines have been deployed. Across countries, on average just 8% of all ATMs that have been installed by the two main retail banks in the EU 25 countries provide 'talking' output to ensure accessibility for people with visual impairments, with most of these to be found in just three countries. User organisations also report very limited availability of accessible versions of other types of self-service machines, such as information kiosks and automatic ticket machines.

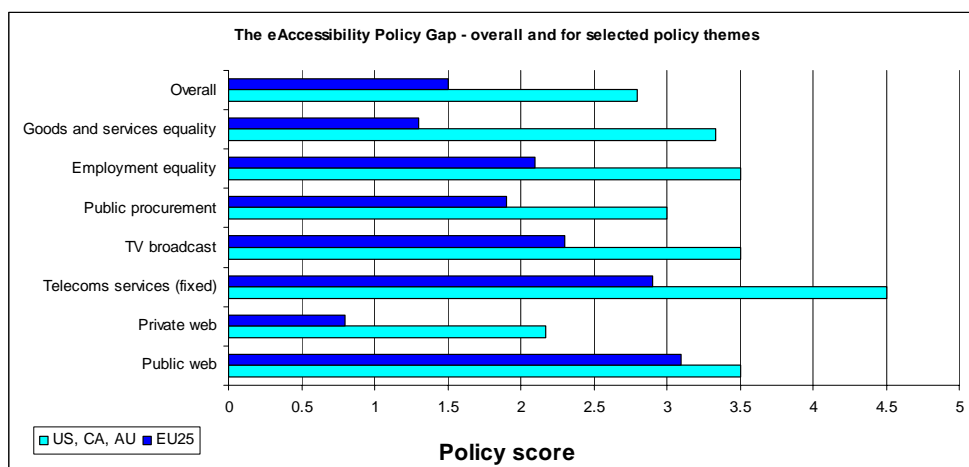
## The eAccessibility 'gap'

- B) The '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 of their peers in the comparison countries examined in the MeAC study (AU, CA and US). More generally, according to the status and policy yardsticks employed in the MeAC analysis, in absolute terms the overall European eAccessibility situation across the Member States must be assessed as being weak and even very weak in many respects.

...in eAccessibility status



...and in policy



...shows what can be achieved

Although these 'gaps' show that Europe, as a whole, currently has a less well-developed eAccessibility situation in comparison to key international peers, they also show that it is neither unreasonable nor unrealistic to aim for a much stronger situation in Europe, given that this has already been achieved in the other countries (especially in the US) and in at least one EU country.

## The eAccessibility 'patchwork'

C) The 'Patchwork'

Finally, the situation across Europe for both eAccessibility status and eAccessibility policy is very much a patchwork at present. These patchworks present a picture of many important 'white spaces', of uneven attention across the spectrum of eAccessibility themes and of wide disparities across the Member States.

'White' spaces

The patchworks indicate that there are domains that currently provide no or only a very low level of eAccessibility in almost all EU countries (e.g. accessibility of commercial web sites, provision of access services by commercial broadcasters, self service terminals) and similar "white spaces" appear on the policy side. Such "white spaces" are a lot less visible in the three comparison countries.

Uneven attention to themes

The patchworks also show that the scores for eAccessibility for some ICT domains and for some eAccessibility policy themes tend to be higher than others. In relation to eAccessibility status, for example, the telephony, public broadcasting and computer domains tend to score better when compared with other domains, even if yet far from satisfactory.

Disparities across the Member States

Finally, there is wide variability across the Member States in overall eAccessibility status and policy scores, with very few countries achieving comparatively high scores across many ICT sectors or policy approaches.



## The eAccessibility Status 'Patchwork'

	MeAC overall status index	Telephony		TV		Computer Hard- and software manufacturers provision of accessibility information	Web		Self-service terminals Deployment of accessible cash dispensers
		Telecom operators provision of accessibility information	Availability of text relay service	Share of national language broadcasts with subtitles by two main public broadcasters	Share of national language broadcasts with subtitles by two main commercial broadcasters		Basis accessibility of governmental websites	Basic accessibility of private/sectoral websites	
AT									
BE									
CY									
CZ									
DE									
DK									
EE									
EL									
ES									
FI									
FR									
HU									
IE									
IT									
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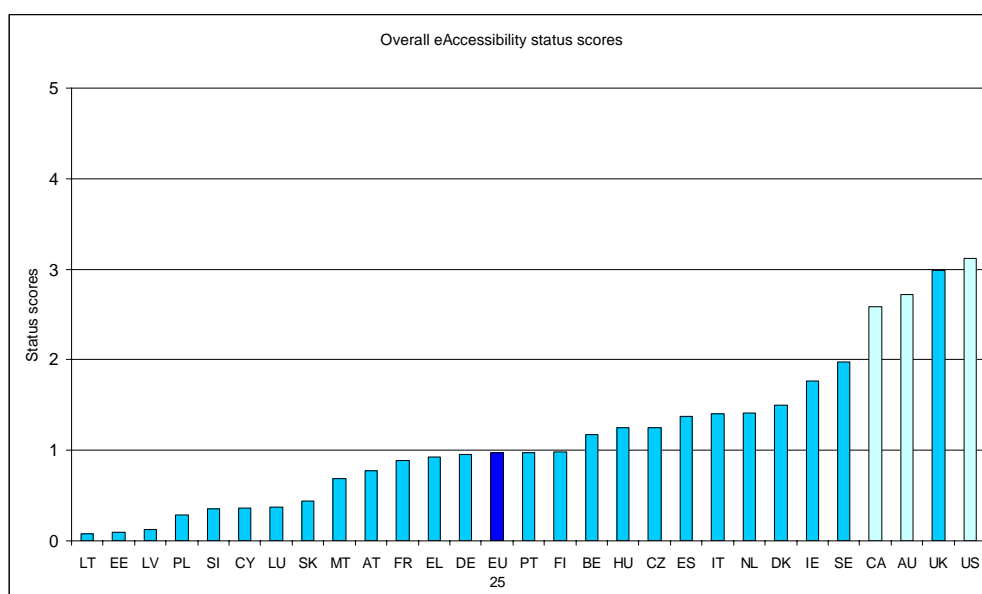
Note: darker shading indicates better eAccessibility status

### The eAccessibility Policy 'Patchwork'

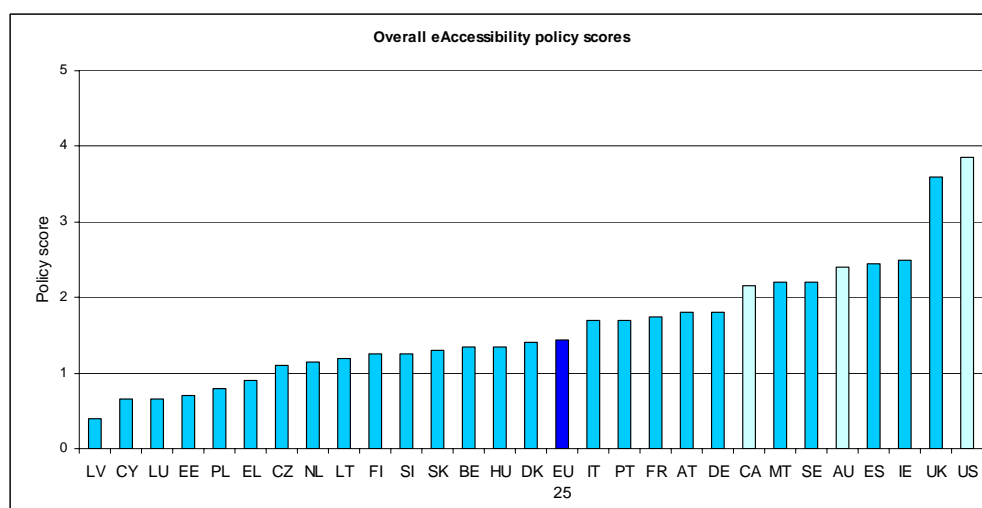
	Sectoral									Horizontal		
	Web		Telecommunications			TV		Other		Public Procurement	Equality / Anti-discrimination	
	Public websites	Other websites	Telecoms services – fixed	Telecoms services – mobile	Telecoms equipment sector	TV services	TV equipment sector	Computer hardware / software	Kiosks, consumer audiovisual etc.		Employment	Goods & Services
AT												
BE												
CY												
CZ												
DE												
DK												
EE												
EL												
ES												
FI												
FR												
HU												
IE												
IT												
LT												
LU												
LV												
MT												
NL												
PL												
PT												
SE												
SI												
SK												
UK												
EU 25												
AU												
CA												
US												

Note: darker shading indicates stronger eAccessibility policy provisions

...in status



...and in policy



*The risk of market fragmentation*

Apart from the direct implications for disabled people because of the widely differing eAccessibility situations across the Member States, these disparities are a source of fragmentation that is not helpful when it comes to market functioning. Differing levels of development of eAccessibility policy may result in differing levels of eAccessibility requirements and obligations on ICT providers and ICT deployers in the different European countries. This has been raised as an important concern by the ICT industry and the need for a 'level playing field' across Europe and internationally has been emphasised.

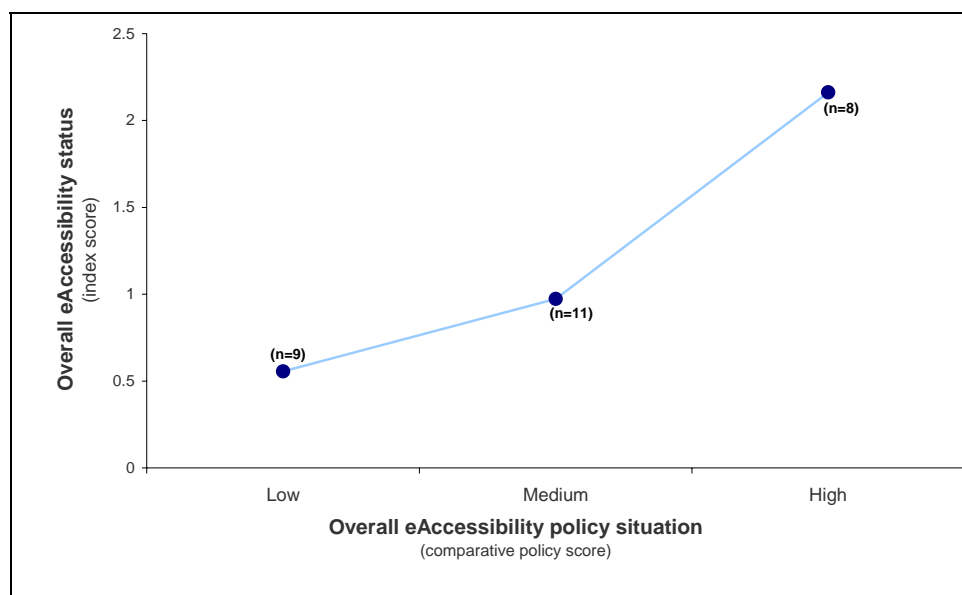
## Policy implications

*Policy can work...*

The results of the MeAC study clearly demonstrate the importance of policy for achieving eAccessibility. In addition to this being suggested in the policy and status comparisons between Europe and the US that were presented in the previous section, the more detailed data and analysis provides clear evidence that well-developed and implemented policies have a strong impact in terms of the achievement of eAccessibility, whether in Europe or the other countries. For example, the following chart shows the strong positive link between overall eAccessibility policy and overall eAccessibility status scores<sup>2</sup>. Similar patterns are found for each of the specific ICT domains.

<sup>2</sup> n = no. of countries. For purposes of this analysis, the 28 countries are grouped into categories according to their overall average policy scores across the various fields outlined in the 'eAccessibility policy patchwork'; countries with an average score of 1.2 or

*...strong policy  
has good  
impacts*



*The case for EU-  
level measures*

In addition to the evidence of eAccessibility gaps, deficits and patchworks, on the one hand, and of the effectiveness of (good) policy, on the other, the MeAC evidence and analysis also indicates the importance of the role of EU-level policies in progressing eAccessibility in Europe. In this regard, although there is evidence that EU-level measures can have positive impacts, the overall findings and analysis provide a clear indication that further EU-level measures need to be considered if satisfactory progress in eAccessibility is to be achieved within any reasonable timeframe. The following sections outline the EU-level policy considerations that are raised in relation to a number of major sectoral and policy themes.

### Telecommunications services and equipment

*Impacts of EU  
measures to  
date*

On the positive side, the evidence from MeAC indicates that in relation to fixed telephony services, at least, some reference to accessibility issues has been made in the transpositions of the EU telecoms directives<sup>3</sup> in almost all countries (although there are a few exceptions). On the negative side, however, in some cases the accessibility themes that are mentioned have not yet been followed-up and implemented in practice.

Overall, the impact of EU policy across Europe as a whole has not been sufficient to bring the 'average' policy situation on accessibility of fixed telephony services to the same level as that in the comparison countries (US, Australia and Canada). Only a small number of Member States compare favourably with these reference countries and the majority compare unfavourably.

Of equal importance is the fact that the situation across the Member States is quite uneven in terms of the strength of requirements implemented in national transpositions of the EU measures and, also, in the dimensions of telecoms accessibility that are addressed. The result is a patchwork of provisions, with differing mixes of accessibility issues being addressed and many gaps.

Even if it can be expected that, if left alone, some improvements in eAccessibility policy strength might be expected over time in some countries (especially in those where the laws/regulations are very recent and have not yet been fully implemented in practice), overall the evidence indicates that sufficient progress is unlikely to be achieved without (further) EU-level intervention.

less are included in the 'low' group, those between 1.2 and 1.9 are included in the 'medium' group, and those scoring 2 or above are included in the 'high' group; the graphs show the average overall eAccessibility status scores for each group of countries.

<sup>3</sup> Directive 2002/22/EC on universal service and users' rights relating to electronic communications networks and services. ("Universal Service Directive"); Directive 2002/21/EC on a common regulatory framework for electronic communications networks and services. ("Framework Directive")

In addition, the absence of EU-level provisions in relation to accessibility of mobile telecommunications services and also in relation to the (fixed and mobile) telecommunications equipment sectors<sup>4</sup> is reflected in the fact that very few Member States have implemented any policies in these areas.

*Policy options to consider*

The challenges that are presented suggest a need to consider (some combination of) possible measures at EU level, as listed in the following box.

#### **Policy options for consideration at EU-level: Telecommunications**

- Revision and strengthening of the eAccessibility dimension of the EU telecommunications regulatory package
- Introduction of measures to address the accessibility of telecommunications equipment (as well as services) and, in relation to services, to widen the scope to include mobile services and beyond
- Wider, multi-sectoral measures to help ensure coherence across all relevant policy sectors – telecommunications services, telecommunications equipment, and social policy
- Measures that address affordability as a dedicated issue (including encouragement of mainstreaming of eAccessibility features so that they are provided as standard in popular products and services, and clarification of the role of social policy in relation to issues of affordability and equipment provision)
- Accompanying measures to reach, mobilise and increase the capacity of the various stakeholders (industry, users, policy) in this field.

### **Television services and equipment**

*Impacts of EU measures to date*

Although there have been no EU measures of direct relevance in this field to date, the political agreement on the new Audiovisual Services Directive (amending the Television Without Frontiers - TVWF - Directive) includes accessibility within its scope<sup>5</sup>. On the positive side, the inclusion of accessibility within the Directive can be expected to encourage more and better Member State activity on accessibility of TV broadcasts. On the negative side, the new provisions in the Directive do not seem to require the imposition of mandatory obligations nor do they establish specific targets or indicate a sense of urgency for action.

Even if it can be expected that, over time, the introduction of accessibility in the Audiovisual Services Directive will make a contribution to progressing this field, the evidence from MeAC would suggest that (further) EU-level measures need to be considered if sufficient accessibility of TV services is to be achieved across Europe within any reasonable timeframe. The current absence of EU-level measures addressing the TV equipment sector or the new opportunities and challenges posed by digital TV also needs to be taken into account in this regard.

<sup>4</sup> There are (latent) provisions in the Radio & Telecommunications Terminal Equipment (R&TTE) - Directive 1999/5/EC, but these have yet to be invoked.

<sup>5</sup> [http://ec.europa.eu/avpolicy/docs/reg/modernisation/proposal\\_2005/avmsd\\_cons\\_may07\\_en.pdf](http://ec.europa.eu/avpolicy/docs/reg/modernisation/proposal_2005/avmsd_cons_may07_en.pdf).

*Policy options to consider* The challenges that are presented suggest a need to consider (some combination of) possible measures at EU level, as listed in the following box.

**Policy options for consideration at EU-level: Television**

- Strengthening of the eAccessibility dimension of EU policies on TV services, including measures to address both public and commercial broadcasters
- Introduction of measures to address accessibility of TV equipment (as well as services)
- Introduction of measures to address new issues posed by digital TV
- Wider, multi-sectoral measures to help ensure coherence across all relevant policy sectors – TV services, TV equipment and, where relevant, the social policy sector which continues to play an important role in relation to affordability and equipment provision in some countries
- Accompanying measures to reach, mobilise and increase the capacity of the various stakeholders (industry, users, policy) in this field.

### World Wide Web

*Impacts of EU measures to date* In relation to public websites, the assessment indicates both positive and negative aspects. On the positive side, there is clear evidence that EU-level policy initiatives are being taken up in the policies of the Member States. Almost all countries have policies in place, in many cases directly triggered by EU-level initiatives such as the Ministerial Resolutions and eEurope<sup>6</sup>. On the negative side, there are still some gaps, with little happening in a few countries, and overall there is quite wide variability in the nature and strength of approaches across countries. Crucially, the evidence shows that the impacts to date on levels of accessibility of key websites have generally been very modest.

In relation to other (commercial) websites, there is no direct EU-level policy currently in place. The absence of leadership from the EU can be detected in the low levels of policy activity across the Member States as well as in the diversity of approaches amongst the countries where there is at least some relevant activity.

*Policy options to consider* The challenges that are presented suggest a need to consider (some combination of) possible measures at EU level, as listed in the following box.

**Policy options for consideration at EU-level: Web**

Public websites

- Accompanying measures to help Member States put the most effective policy approaches in place (linked with wider inclusive eGovernment activity), including use of certification

Other (commercial) websites

- Examination of the scope for introduction of horizontal measures in the equality/anti-discrimination and/or other fields.

<sup>6</sup> COM (2001) 529 Communication from the Commission eEurope 2002: Accessibility of Public Web Sites and their Content; Council Resolution on "eAccessibility" - improving the access of people with disabilities to the Knowledge Based Society, 2-3 December, 2002, 14892/02; EP Resolution on eEurope 2002: Accessibility of Public Web Sites and their Content (2002 (0325))

## Other sectoral themes

*Other sectoral themes* There are also a number of other sectors that need to be taken into account in considering future policy options for the EU. These include:

- Self-service terminals
- Computing and other specific ICT sectors
- Copyright exemptions and Digital Rights Management
- Assistive Technologies
- ICTs in education.

These need to be given appropriate consideration in the context of future eAccessibility policy development at the EU level.

*Policy options to consider* The challenges that are presented in relation to these sectors suggest a need to consider (some combination of) possible measures at EU level, as listed in the following box

### **Policy options for consideration at EU-level: Other sectoral themes**

#### Self-service terminals

- Introduction of legislative or other measures to encourage Member States (and ultimately manufacturers and deployers) to ensure that self-service kiosks are accessible to disabled people
  - equality/anti-discrimination approaches may provide useful models in this regard; specific attention to accessibility of self-service terminals in public procurement and, where relevant, within eGovernment policy also can play an important role
- Accompanying measures to encourage and support accessibility initiatives by other stakeholders, including both manufacturers and deployers of self-service terminals

#### Computing and other important consumer ICT sectors

- Introduction of measures that encourage greater efforts by industry to mainstream accessibility as a standard feature of computer hardware and software, and other consumer ICTs, and to better communicate achievements to disabled customers across the EU
- Development and implementation of consumer support measures to increase awareness and information on available accessibility solutions, targeting both the demand (user) and supply sides
- Development and implementation of appropriate EU-level initiatives to encourage the development of (public) assistive technology services in the Member States and/or other approaches to subsidising end-user costs (e.g. through social policy)

#### Copyright exemptions and Digital Rights Management

- This policy area is of great importance for people with visual impairments and others who have difficulties accessing printed materials; the specific provisions for copyright exemptions and interactions with wider digital rights management vary widely across Europe and warrant further attention at EU-level

#### Assistive Technologies

- Measures to encourage the provision of comprehensive (public) assistive technology services in the Member States, including attention to affordability
- Clearer explication and leveraging of the linkages between assistive technology policy and policies in other fields, such as employment equality
- Measures to support RTD and market development in the field of assistive technology

#### ICTs in education

- eAccessibility in the educational context needs a high visibility and attention in future EU-level policy on eAccessibility.

## Public procurement

### *Impacts of EU measures to date*

The revised EU public procurement directives offer the potential to significantly contribute to eAccessibility if effectively implemented by the Member States and followed-up by public procurers in their day-to-day work.

On the positive side, provisions in the revised Directives have at least introduced the potential in many EU countries for eAccessibility to be addressed in public procurements of ICTs. In addition, the planned EU standards and toolkit, when available, can be expected to be very helpful as there is a strong reported need on the ground in the Member States. On the negative side, it seems that the intent of the Directives on accessibility has not been fully recognised / implemented in many cases, even if most Member States may not necessarily be aware of this. In addition, there seems to be quite wide variability across the Member States in the specifics of the implementation of the accessibility provisions of the Directives.

Overall, the policy situation in the majority of Member States seems currently to be very weak and the EU situation, as a whole, compares very unfavourably with (two of the) reference countries.

### *Policy options to consider*

The challenges that are presented suggest a need to consider (some combination of) possible measures at EU level, as listed in the following box.

#### **Policy options for consideration at EU-level: Public procurement**

- The possibility of clarifying / reinforcing the accessibility provisions in the EU Directives
- Consideration to making the provisions mandatory
- Introduction of efforts to build synergies with and leverage the eAccessibility impetus being given from the public website accessibility field
  - the procurement implications of accessibility requirements in public website laws and regulations could be spelled out and made more visible
  - in this context, however, there is also a need to raise awareness that the scope covers both customer-facing and internal ICTs
- Synergies and leverage are also possible with equality legislation and with the accessibility dimension now included in the Structural Funds; potential links with public procurement for eAccessibility could be spelled out and made more visible
- Accompanying measures to support the Member States and procurers, including actions directly linked to the EU Directives as well as a more general initiative to put public procurement strongly and visibly on the agenda as a core vehicle for encouraging and achieving eAccessibility in Europe:
  - evidence reinforces the importance of the EU standards bodies work on eAccessibility standards and toolkit for procurers
  - awareness-raising to include education of procurers about eAccessibility
  - measures to re-assure (demonstrate to) procurers that addressing eAccessibility does not add more costs, need not be too complex/time-consuming and so on; at the same time support measures to be put in place to ensure that this is in fact the case
  - encouragement of supplier capacities in eAccessibility would also make a useful contribution

## Certification

### *Impacts of EU measures to date*

There has not yet been any concerted EU-level effort to put into practical effect a European-wide eAccessibility certification regime. Nevertheless, the policy attention given to eAccessibility certification in the eAccessibility Communication of 2005, and in earlier Resolutions and Declarations on eAccessibility and eInclusion, has led to some efforts in relation to web accessibility certification by the European Standards organisations.



More generally, the current situation in relation to availability of and utilisation of eAccessibility certification in Europe poses a number of important challenges that warrant attention at the EU-level. These include:

- the general lack of availability of an appropriate certification regime for use across the Member States
- the fact that only a small number of countries are yet actively using accessibility certification in the one field - web accessibility - where the evidence already shows that 'official' certification schemes can lead to better accessibility outcomes
- the lack of a commonly shared understanding of what accessibility may actually mean in terms of testable criteria when it comes to particular ICT domains which are to be made accessible to different user groupings
- the fact that awareness among users of current labelling practices seems to be rather low and that existing labels are not unanimously perceived as reliable indicators for accessibility at the users' side
- the possibility (already evident in the web accessibility field) that a variety of different national eAccessibility certification schemes, based on differing national standards, will emerge, posing a strong risk of market fragmentation.

*Policy options to consider*

The challenges that are presented suggest a need to consider (some combination of) possible measures at EU level, as listed in the following box.

#### **Policy options for consideration at EU-level: Certification**

- The implementation of an accelerated and reinforced effort to develop and introduce a comprehensive European eAccessibility certification regime (covering all of the key ICT product and service sectors), backed by the necessary European standards, and harmonised as appropriate with relevant international standards
- Possible options to explore:
  - The possibility of addressing this through accelerating / expanding the work of the European Standards Organisations under the existing Mandate 376<sup>7</sup>, in order to provide as soon as possible the groundwork needed to underpin such a European certification regime.
  - Initiation of an additional, dedicated measure directed towards the development of commonly agreed technical standards on eAccessibility across the various ICT domains concerned and implementation of a comprehensive European eAccessibility certification regime linked to this.

### **Equality / anti-discrimination approaches**

*Impacts of EU measures to date*

Although Article 13 of the Treaty of the European Union provides a broad legal basis for combating discrimination based on disability, EU-level measures in the disability field to date have only directly addressed the field of employment equality (through the 'employment equality' directive<sup>8</sup>).

#### Employment equality

The evidence from MeAC suggests that whilst the EU's 'employment equality' Directive has led to the establishment of a good potential to leverage eAccessibility benefits in the Member States this potential is not yet being realised to any appreciable extent.

<sup>7</sup> Standardization Mandate 376 to the European Standards Organizations in support of European Accessibility Requirements for Public Procurement of Products and Services in the ICT domain. M 376 - EN; Brussels, 7th December 2005

<sup>8</sup> Directive 2000/78/EC of 27 November 2000 establishing a general framework for equal treatment in employment and occupation

On the positive side, EU employment equality policy as presented in the Directive seems to broadly be implemented in most, but not all Member States. On the negative side, the MeAC evidence shows that the current implementations and follow-up activity in the Member States have important limitations in relation to the achievement of eAccessibility policy objectives, including:

- not much impact to date in terms of visibility of and attention to eAccessibility in the Member States, probably at least in part due to the fact that this is not directly emphasised in the current text
- it seems that the link in the Directives between reasonable requirements and available public supports for employers is not yet being made in most Member States in relation to public supports for assistive technologies for employers/employees.

#### Equality of access to goods and services

This approach seems to offer good potential as a vehicle to reach producers and deployers of ICT goods and services in relation to eAccessibility. However, there are no direct EU-level measures addressing this as of yet. This is reflected in less overall attention to this aspect in Member State legislation as well as in wide variability in the extent to which there are equality/anti-discrimination laws addressing goods and services in place at all, and in the strength and other characteristics of the laws that are in place.

#### *Policy options consider*

The challenges that are presented suggest a need to consider (some combination of) possible measures at EU level, as listed in the following box.

#### **Policy options for consideration at EU-level: Equality / anti-discrimination**

##### Employment equality

- Next revision of the Directive could incorporate more specific reference to eAccessibility issues
- Direct linkage and fostering of synergies between employment equality policy and policy in relation to assistive technologies
- Accompanying measures to better leverage existing legislation; these might include stimulation of exchange of good practice amongst Member States and implementation of targeted support measures such as awareness-raising, technical support / guidance, etc.
- Development and implementation of more proactive approaches targeting eAccessibility in employment

##### Goods and services equality

- Examination of the potential to invoke the equality provisions of Article 13 of the Treaty of the European Union across all policy areas of relevance to eAccessibility; possibilities to implement both rights of redress and positive duties or other proactive actions to foster wider systemic change could be considered in this regard; links with the concept of "services of general interest" also could be examined in this context
- Development and implementation of an EU-level measure (Directive) on equality/anti-discrimination in relation to access to goods and services, to include a strong and explicit coverage of eAccessibility within this
- Accompanying measures to help support other relevant stakeholders to address eAccessibility in the equality/anti-discrimination context (e.g. Member State equality agencies, adjudicating bodies, and disability NGOs), including technical guidance and support

## An integrated approach

### *Three main strands...*

Overall, the evidence from the study suggest a need to consider an EU-level approach that combines three main strands:

- better leveraging of existing EU-level measures
- strengthening of existing EU-level measures
- introduction of new measures.

An integrated approach involving a combination of these three elements would seem most likely to be effective in achieving Europe's eAccessibility objectives within an acceptable timeframe.

### *...better leveraging...*

To begin with, there are various EU-level measures already in place (e.g. in relation to telecommunications, public websites, public procurement and employment equality) where the evidence suggests that efforts to better leverage their potential could be considered. The evidence shows that, when well implemented, such approaches can have positive impacts on the status of eAccessibility for people with disabilities.

### *...strengthening...*

In addition to this minimalist approach, the evidence suggests that strengthening of some of the existing measures also warrants serious consideration. This applies especially in the case of existing measures in relation to telecommunications and TV, and possibly also in other areas such as public procurement and employment equality. Existing efforts in relation to certification also need concerted attention and strengthening.

### *...and new measures*

Finally, the evidence also suggests a need to give serious attention to the possibility of introducing new measures. This may be warranted in order to address a number of important challenges presented by the current situation, including:

- reaching the 'white spaces', the ICT sectors and employer sectors that are not being reached by existing EU-level measures
- addressing the European 'patchwork' whereby there are wide disparities across Member States in the strength of policy attention being given to different aspects of eAccessibility
- achieving co-ordination and synergies across the different (and potentially complementary) policy approaches.

In addition, a new concerted effort would seem to be required in order to close the eAccessibility gap between the EU, as whole, and the reference countries.

## Possible new measures for consideration

As regards possible new measures to be considered, two (not necessarily mutually exclusive) options might warrant more detailed examination. These are the introduction of:

- an EU-level directive on equality of access to goods and services
- a wider, overarching and cross-cutting EU-level eAccessibility instrument.

### *Equality of access to goods and services*

As noted earlier, there is currently no EU-level instrument addressing equality of access to goods and services. Some countries have implemented legislation of varying forms but many have not yet initiated anything in this regard. The evidence shows that this can be a useful mechanism for reaching ICT and employer sectors that may otherwise be difficult to address through direct sectoral policies. For these reasons, an examination of the possibility of introducing a Directive on equality of access to goods and services, to include a strong eAccessibility component, seems warranted.

*Wider  
eAccessibility  
instrument*

In addition, the evidence suggests a need to give serious consideration to the possibility of introducing at EU-level a wider, overarching and cross-cutting eAccessibility instrument. This would seem to be the most effective way of supporting the development of a coherent approach across the Member States and of avoiding the emergence of unhelpful market fragmentation in relation to eAccessibility. Linked to the equality/anti-discrimination approach, it might also be an effective way to reach ICT sectors and deployer sectors that may otherwise be difficult to directly address. It would also provide a mechanism for effective policy co-ordination and for the identification and achievement of the potential synergies that exist across policy approaches.

**Policy option for consideration at EU-level: Overarching, cross-cutting instrument**

- Outlining a comprehensive perspective on eAccessibility that will support a shared view on eAccessibility (and all of its dimensions) across the Member States and of the mix of policy approaches that can best support its achievement
- Making the cross-policy linkages that are needed to ensure coherence across EU-level (and, ultimately, Member State level) measures and foster the achievement of the cross-policy synergies that are possible
- Instituting whatever specific legislative/regulatory measures that might be needed, to include strengthening of existing measures and introduction of new measures as appropriate
- Specifying accompanying measures to better leverage existing legislative / regulatory measures and to help support the other stakeholders in their efforts to address eAccessibility.

# Main Report

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# 1 Introduction

This report presents the first main results from a study on "Measuring Progress of eAccessibility in Europe" (referred to as the 'MeAC' study throughout this report). The study was commissioned by the European Commission in 2006 as a follow-up to the eAccessibility Communication of 2005<sup>9</sup>. The basic aim was to provide an evidence-base to support the future development of EU policy in the eAccessibility field.

The remainder of this Chapter provides an introduction to the report, organised into four sections that present, respectively:

- a brief outline of what the 'eAccessibility' challenge encompasses and of the scale and importance of the issue for Europe
- an overview of the policy context within which the study is being conducted
- an overview of the approach and methods that were employed in the study
- an introduction to the analytic perspective that provides the framework for the presentation of the results in this report.

## 1.1 The nature and scale of the eAccessibility challenge

"eAccessibility" concerns the design of Information and Communication Technology (ICT) products and services so that they can be used by people with disabilities, whether of a permanent or temporary nature, and by older people with age-related changes in functional capacities. For people with visual impairments, hearing impairments and other disabilities, eAccessibility is a sine qua non as ICT products and services become essential ingredients of everyday social and economic life. It is a crucial component of eInclusion and one that will become even more important as the European population ages. In fact, improvement of the accessibility of ICT products and services can be beneficial to everyone, by making ICTs more usable in general as well as facilitating their usage in a wide variety of situations (e.g. hands-free usage, in noisy or poor lighting environments, and so on).

### 1.1.1 The spectrum of ICTs and of eAccessibility problems & solutions

eAccessibility issues arise when the content, functions or other features of ICT products and services pose problems of access and usage for people with disabilities or older people. Exhibit 1 overleaf presents an indication of just some of the wide spectrum of ICT-based technologies and services of relevance. Apart from the eAccessibility issues posed by already available technologies there is also a need to keep pace with the fast moving developments in the technology field. Exhibit 2 provides an illustration of the accessibility challenges that can be posed by different aspects of ICTs for people with different impairments.

#### Visual impairments

People with visual impairments may experience barriers to using visual services, content and features, for example: web sites; visual displays and visual status indicators on computers, mobile phones, bank machines and other devices; paper telephone directories; the video content of TV broadcasts / videocassettes / DVDs; teletext and subtitles on TV. eAccessibility solutions include designing ICT products and services so that the visual presentation can be adjusted by the user to meet their needs (e.g. font type and size, contrast, use of colours); provision of speech, audio or other output modes as alternatives to visual displays and to visual status indicators on ICT products; provision of an additional audio channel / track to narrate the

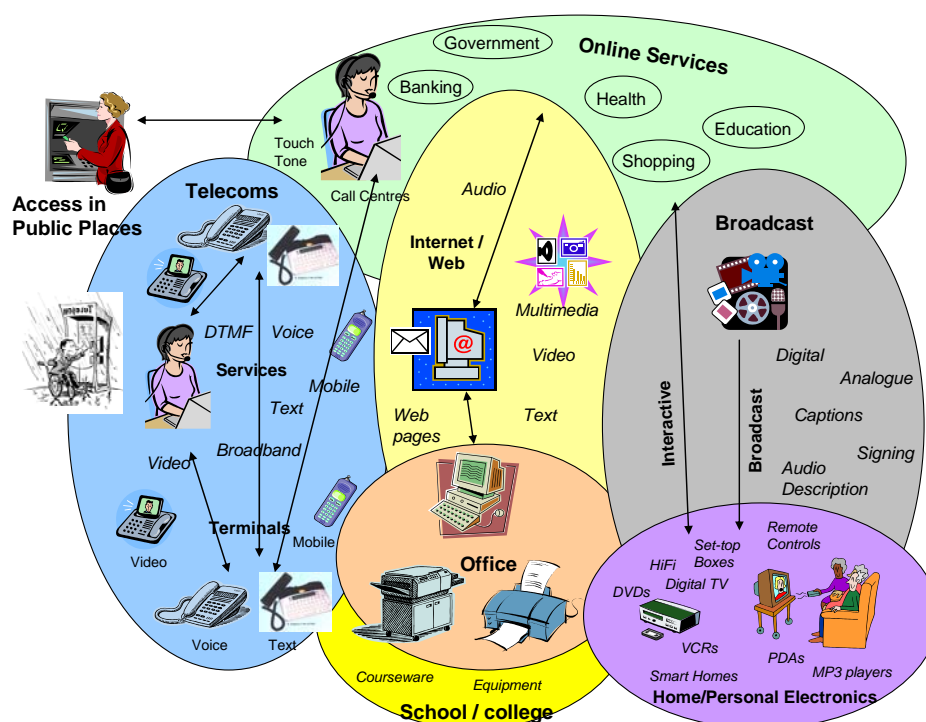
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<sup>9</sup> Communication on eAccessibility. COM(2005)425 final. Brussels 13.9.2005



visual content in TV broadcasts / videocassettes / DVDs; ensuring that ICT products and services are designed so that they are compatible with the assistive technologies that many people with visual impairments use (e.g. text-to-speech software and related products).

**Exhibit 1 The spectrum of relevant ICT technologies and services**



## Speech impairments

People with speech impairments may experience difficulties in using voice-based services, for example, the voice telephone and interactive voice services. eAccessibility solutions include provision of text telephone and text telephone relay services, and alternatives to speech input in interactive voice systems.

## Hearing impairments

People with hearing impairments may experience barriers to using voice-based and other audio-based services, content and features, for example: voice telephony; the sound content in TV broadcasts / videocassettes / DVDs; audio signals that indicate system status; interference on hearing aids caused by mobile phones. eAccessibility solutions include ensuring that audio outputs are adjustable in volume and quality; provision of visual or other (e.g. vibrating) output modes as alternatives to audio signals; telecommunications services that enable real-time communication in whatever medium is most suitable for the user (voice, text or video); provision of text telephones to provide an alternative to voice telephony (or videophones to enable communication by sign language for those who use this medium) and text telephone relay services that provide an operator service to enable users of text telephones to communicate with users of ordinary voice telephones; provision of text captions to enable deaf people to follow the audio component of TV / videos / DVDs; design of mobile phones to minimise interference on hearing aids; ensuring that ICT products and services are designed so that they are compatible with the assistive technologies that many people with hearing impairments use (e.g. hearing aids).

## Exhibit 2 eAccessibility issues arising with respect to particular impairments

ACTION	IMPAIRMENT																				
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
Locate equipment	1																				
Access equipment	2																				
Locate commands/devices	3																				
Identify command/devices	4																				
Use switches	5																				
Lift/hold devices/handset	6																				
Use dial	7																				
Use numeric keypad	8																				
Write on keyboard	9																				
Read with Braille bar	10																				
Read with Braille keyboard	11																				
Handle pointing device	12																				
Usage of touch screen	13																				
Read text on screen	14																				
Select objects on screen	15																				
Receive graphics/video info	16																				
Receive audio info	17																				
Understand speech info	18																				
Receive acoustic alert/signal	19																				
Receive visual alert/signal	20																				
Receive tactile alert/signal	21																				
Insert card/coins/media	22																				
Usage of speech input	23																				
Handle manuals/books	24																				
Read printed matter	25																				

Usually no problem    
  Limited problems    
  Difficult  
 Very difficult    
  Impossible    
 \* Depends on level of impairment

Source: COST 219 (1995)<sup>10</sup>

### Mobility impairments

People who use wheelchairs or who have other forms of mobility impairment may experience difficulties in gaining physical access to relevant services (e.g. public telephones, bank machines). People with dexterity impairments may experience difficulties with interfaces requiring fine manipulation (e.g. computer mouse, small keyboards or number pads). eAccessibility solutions include design of public telephones, bank machines, ticket machines and information kiosks so that they are accessible to wheelchair users; design of keypads, touch screens and other interface devices to cater for people with dexterity problems (e.g. larger and better spaced buttons, less sensitive keys); design of ICT products so that they are compatible with the assistive technologies that are commonly used by people with dexterity problems (e.g. alternative input devices).

### Cognitive impairments

People with cognitive impairments as well as people with age-related changes in memory, reaction speed or other areas may experience difficulties in understanding and using inappropriately designed or unnecessarily complex online services and ICT-based products and services. eAccessibility solutions include design of online services and other ICT-based

<sup>10</sup> Patrick R.W: Roe (Ed.) (1995): Telecommunications for all, p.22. A publication of the COST219 project "Future telecommunication and teleinformatics facilities for disabled and elderly people"

products and services so that they are understandable and usable by people with cognitive impairments, and accommodate age-related changes in information processing abilities.

### 1.1.2 The state-of-the-art

As indicated above, the majority of eAccessibility barriers that exist today can be relatively easily solved if the relevant stakeholders make appropriate efforts. The examples show that such solutions can be 'mainstream' ones that implement accessibility right from the start in the design of the everyday ICT products and services of the Information Society or they can be special 'assistive' solutions whereby people with disabilities must use 'add-ons' to the everyday products and services used by everyone else. For reasons of economic efficiency, equality and common sense, the priority must be to ensure that mainstreaming of eAccessibility is achieved wherever possible.

Unfortunately, the reality in Europe to date, as reported by user organisations and documented in various studies carried out prior to the MeAC study, has been that many of the key ICT products and services in everyday life have continued to present eAccessibility barriers to disabled and older people. Surveys have found that the majority of public and private web sites have not been designed in ways that meet the needs of people with visual impairments. The range and quality of provisions to ensure eAccessibility of telecoms services have been found to vary widely across the EU Member States so that many people with hearing or speech impairments have only had access to a much inferior service or even, in some cases, not been able to use basic telephone services at all. A similar situation has been reported in relation to TV accessibility, seriously affecting many people with hearing and visual impairments. Accessibility of bank machines and other kiosks in public places has also been identified as a major problem for people with visual impairments and for many wheelchair users. Very little attention seems yet to have been given to the needs of people with cognitive impairments.

### 1.1.3 The scale of the issue

The scale of the eAccessibility issue is enormous in terms of the numbers of Europeans that are affected. Data suggests that up to one-in-five of the working age population have such a degree of disability that eAccessibility provisions may be needed for them to effectively use ICTs and that, overall, up to 60% would be likely to benefit from eAccessibility provisions (Exhibit 3).<sup>11</sup> There are also many children with such disabilities and very many older people for whom eAccessibility is essential if they are to be able to avail of everyday ICTs in the same manner as everyone else.

This already high level of demand for eAccessibility solutions will increase substantially with the ageing of the population (Exhibit 4). Already there are more than 33 million Europeans aged 50 years or older with disabilities that are severe enough to pose direct eAccessibility challenges and this is projected to reach 46 million by 2050.<sup>12</sup> In addition, there are currently a further 69 million Europeans aged 50 years and older who have some degree of disability that needs to be taken into account in the design of ICT products and services, with this projected to grow to 94 million by 2050.

Apart from the implications for the large number of individuals concerned there are major socio-economic implications for Europe as a whole. For example, lack of attention to eAccessibility could substantially inhibit the achievement of the employment rate targets for older workers that have been established within European employment policy. In addition, eAccessibility is crucial

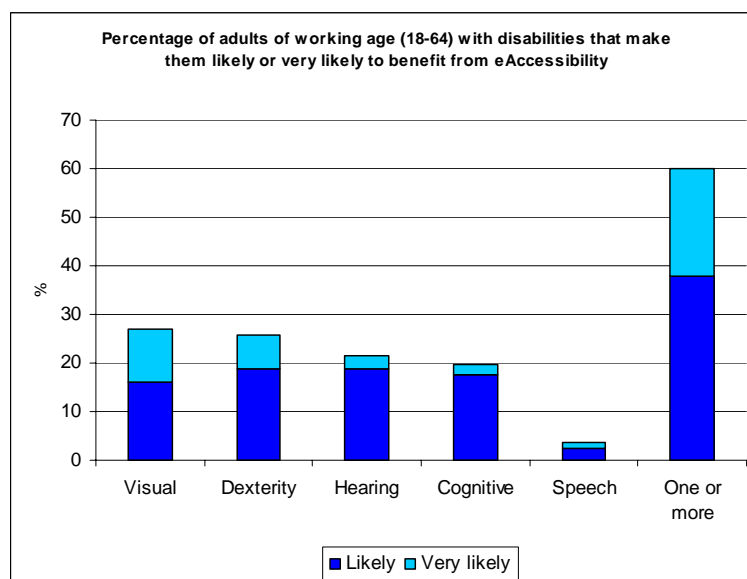
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<sup>11</sup> C.f. Forrester Research and Microsoft Corporation (2003): *The Wide Range of Abilities and Its Impacts on Computer Technology*, pp 7-9.

<sup>12</sup> C.f. empirica and WRC (2005): *Various Studies on Policy Implications of Demographic Changes in National and community Policies – LOT7: The Demographic Change – Impacts of New Technologies and Information Society*, p 54.

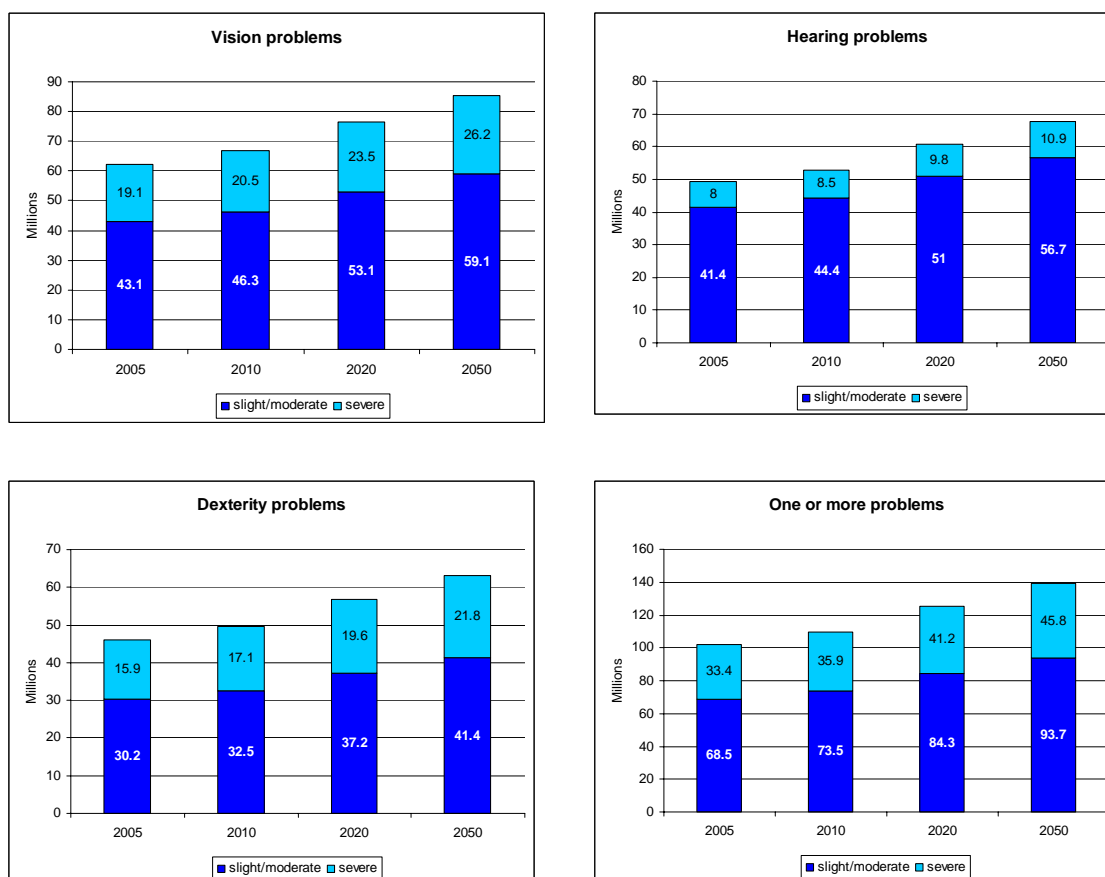
if the benefits promised by developments in eGovernment and eHealth are to be realised and reach those who are often the ones that could benefit the most.

**Exhibit 3 Percentage of adults of working age likely to benefit from eAccessibility**



Source: Forrester Research / Microsoft Corporation (2003)

**Exhibit 4 Projected growth in the numbers with particular disabilities (EU adults aged 50+)**



Source: empirica and WRC (2005)

(Own calculations based on data available from SeniorWatch, 2002 and demographic projections from Eurostat, 2005)

## 1.2 The policy context

Because of its social and economic importance, eAccessibility has been receiving increased policy attention in Europe and internationally in recent years. In Europe, the European Commission has stated that eAccessibility is “a social, ethical and political imperative”<sup>13</sup> as well as having a high economic and market importance.

The eAccessibility Communication of 2005 provides the immediate policy context for the MeAC study. With this Communication, the Commission highlighted the need for improving access to Information and Communication Technologies (ICTs) by people with disabilities. Three key approaches for EU-level policy intervention were identified: (1) the application of accessibility requirements in public procurement (utilising freedoms given to Member States in transposing the Public Procurement Directive), (2) the introduction of a product and service certification scheme, and (3) better use of existing legislation (e.g. in telecommunications and employment).

Depending on an evaluation of the status of, and progress in relation to eAccessibility in Europe, to be presented two years after the publication of the Communication, the Commission reserved the option to consider additional measures including new legislation if deemed necessary. The evidence-base and analysis presented in this report has been prepared as a key input to this.

eAccessibility is currently one of the priority themes within *i2010*, the European Commission's strategic policy framework laying out broad policy guidelines for the information society and the media in the years up to 2010. It promotes an open and competitive digital economy, research into information and communication technologies, as well as their application to improve social inclusion, public services and quality of life. eInclusion is one of the three main pillars of *i2010* and a Communication on eInclusion is expected later in 2007 that will, inter alia, follow-up on the eAccessibility Communication of 2005.

On the part of the Member States, at their meeting in Riga in June 2006 the Ministers agreed on reinforced efforts to improve levels of eAccessibility in Europe<sup>14</sup>. Aspects highlighted include full implementation of existing EU legislation as well as all other instruments available, from voluntary industry commitments to new legal provisions; with special attention to be given to the review of the electronic communications directives, strengthening the public procurement approach, fostering the application of common requirements or standards, including conformance demonstration, and efforts to mainstream accessibility and design for all.

## 1.3 The MeAC research approach and methods

### 1.3.1 Basic data gathering and analytic perspective

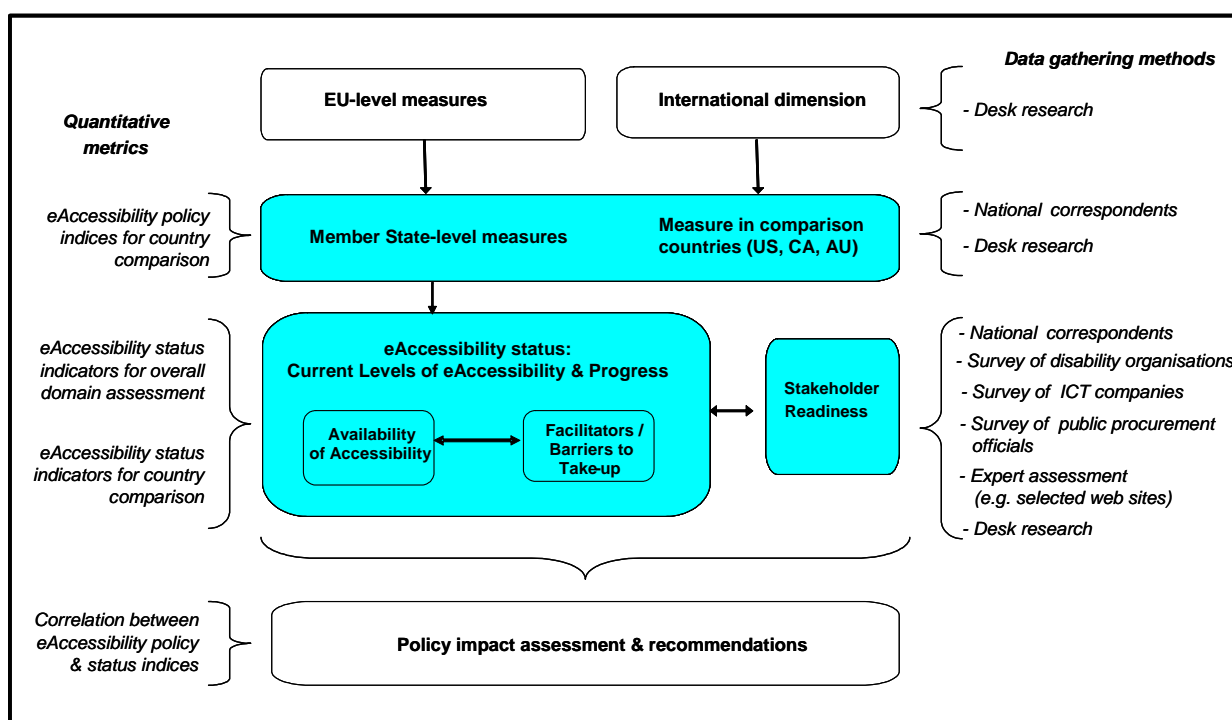
The basic data gathering and analytic perspective adopted by the MeAC study is indicated in Exhibit 5 overleaf.

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<sup>13</sup> Communication on eAccessibility. COM(2005)425 final. Brussels 13.9.2005

<sup>14</sup> Ministerial Declaration, 11 June 2006, Riga, Latvia

### Exhibit 5 Basic data gathering and analytic perspective



Source: MeAC 2007 ©

The main focus of the data gathering and hence of the empirical evidence-based generated by the MeAC study was on the shaded components in the schema. Thus, the focus has been on generating two main types of indicator - policy indicators and eAccessibility status indicators - that, taken together, enable an assessment to be made of the status of, and progress in relation to eAccessibility in Europe.

On the policy side, the main focus was on legislative/regulatory measures, that is, on 'hard' policy approaches as opposed to 'softer' approaches such as research. In this regard, extensive effort was directed towards assessing the current policy situation and progress in relation to eAccessibility across the EU Member States<sup>15</sup> and also in selected comparison countries (US, Canada and Australia)<sup>16</sup>. This covered the core themes addressed in the 2005 Communication - certification, public procurement and the broad range of other relevant legislative / regulatory approaches referred to in the Communication. A fuller listing of the policy themes that were addressed is provided in section 1.4.

Extensive effort was also directed towards assessing the current eAccessibility situation and progress in the EU Member States and in the comparison countries. The aspects of eAccessibility to be measured were selected to give a broad representation across ICT domains and disability groups, as well as to include dimensions that could be expected to be impacted upon by policy efforts in the Member States. A fuller listing of the eAccessibility dimensions that were addressed is provided in section 1.4.

<sup>15</sup> The 25 Member States at the end of 2006

<sup>16</sup> These were deemed to be the most useful countries against which to compare the EU situation

### 1.3.2 Data gathering methods

The data on these indicators has been gathered through a number of different methods.

For the policy indicators, the main methods were:

- policy survey conducted through national correspondents in each of the Member States and other countries
- supplemented by extensive desk research to develop as complete a picture as possible.

For the status indicators, a number of methods were used:

- data gathering on specific aspects of the eAccessibility status in each country by the team of national correspondents
- systematic assessment of the accessibility of a sample of key public and private websites in all 28 countries
- surveys of key stakeholder groups: user organisations, ICT industry, public procurement officials.

Details of the data gathering methods and instruments can be found in the Annex.

Overall, the dataset generated through these methods provides by far the largest and most representative information on the eAccessibility field in Europe and internationally that has been available anywhere in the world to date.

Considerable efforts were spent to ensure that the data generated by the research was of a high reliability and robustness, especially for key indicators to be used in policy impact assessment. Extensive validation and verification procedures were employed to ensure this for both the policy and the eAccessibility status indicators.

For the policy indicators, of course, the implementation of definitive rating systems and assessments of policy across a wide range of countries is a challenging task even when applied to a single policy domain. In the MeAC study the scope of the policy analysis was much broader than this, covering nine or more policy domains. Nevertheless, on the basis of the methods that were used and the validation/verification efforts that were employed, it can be taken that the overall patterns emerging from the policy assessment work are reliable and robust, and that they provide a sound basis for input to decision-making about future EU policy in the eAccessibility area<sup>17</sup>.

## 1.4 Analytic perspective

Against the background of the eAccessibility Communication, the evidence-base generated by the study was intended to be used to answer three core questions:

- what is the current eAccessibility status situation in Europe as a whole and across the Member States?
- how well-developed is current eAccessibility policy at EU-level and across the Member States?

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<sup>17</sup> It is possible and indeed likely, of course, that in an exercise like this the individual scores assigned to a given country in a given policy area might sometimes understate or overstate the actual situation in that country, because of lack of information and/or mis-interpretation of local nuances. The possibility of such occurrences does not detract in any significant way from the reliability and robustness of the overall results but does introduce a caution that the results are neither intended for or necessarily suitable for any type of 'naming and shaming' exercise

- what conclusions can be drawn in support of decision-making about possible future needs for reinforced or new policy measures at EU-level?

### 1.4.1 Policy assessment

For purposes of policy assessment a series of policy indicators were constructed based on the data gathered on eAccessibility policies across Europe and the comparison countries.

#### 1.4.1.1 Policy themes addressed

Indicators were developed for specific policy themes that were highlighted in the eAccessibility Communication of 2005 and/or that have currently a high importance on the policy agenda:

##### Sectoral policies

- Websites (public; commercial)
- Telecommunications (services; equipment)
- TV (services; equipment)

##### Horizontal policies (not linked to specific ICT sectors)

- Public procurement
- Equality / Anti-discrimination (Employment and Goods & Services).

The indicators on these themes are developed in a rigorous manner, based on systematically gathered information on the policy situations in the 28 countries and systematic assessment of this using transparent scoring systems developed to be appropriate to the characteristics of each policy theme.

The other theme highlighted in the Communication - eAccessibility certification - has a somewhat different set of characteristics that cross-cut both the policy and the eAccessibility status levels. It is therefore addressed in the analysis both as an element of policy (e.g. in reinforcing the effectiveness of policies on website accessibility) and as an element of eAccessibility status (the extent to which eAccessibility certification is currently being used with products and services, and the perceptions of stakeholders on its role and importance). A number of indicators are developed and applied in relation to these aspects.

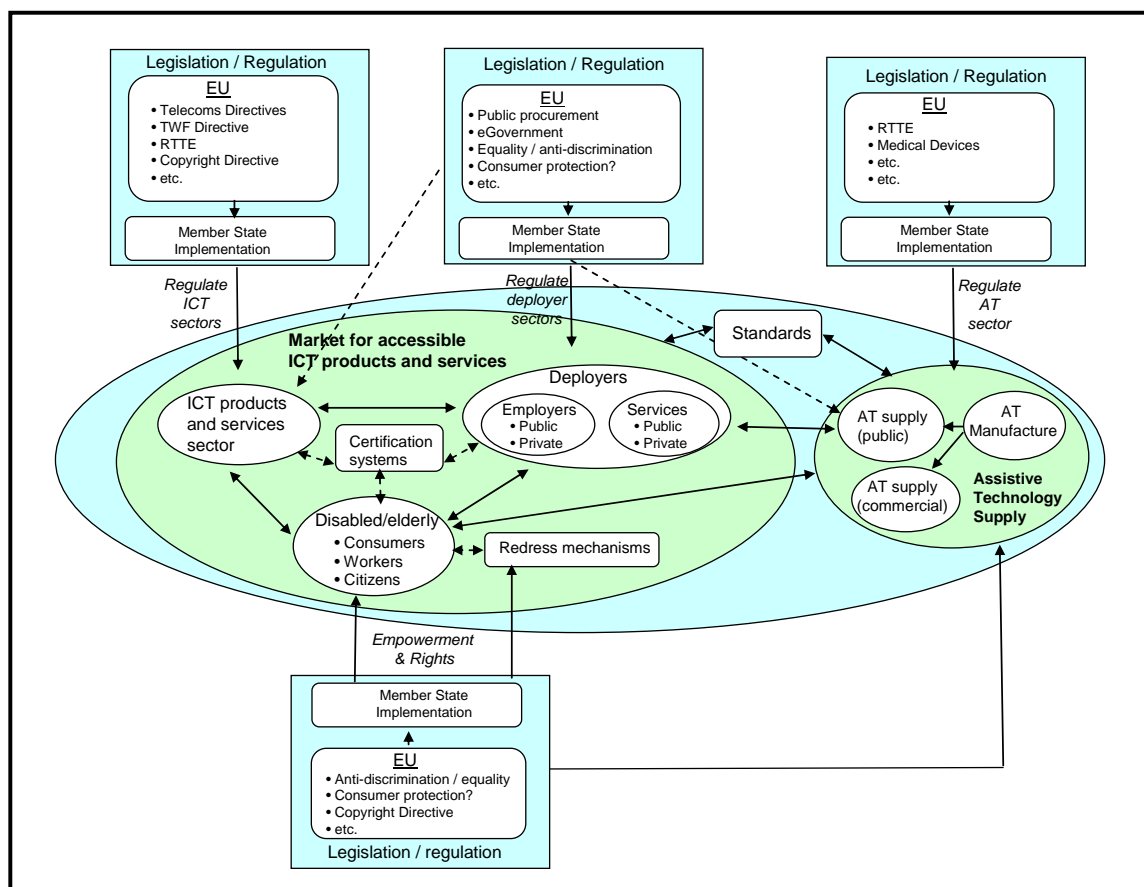
In addition, the study has also generated information on some other policy themes that are also addressed in the report, although more briefly than the other themes mentioned above. These include assistive technology services, copyright legislation (and related policies addressing accessible print / eBooks), cross-sectoral eAccessibility policies that encompass a range of sectors and/or types of measure, and eAccessibility in educational contexts.

These also need to be taken into account in the consideration of possible future policy development at the EU level.

Exhibit 6 presents a schematic modelling of some key features of the relevant policy space, indicating some of the more important mechanisms of influence of the various policy approaches, including those highlighted in the eAccessibility Communication of 2005.



## Exhibit 6 Schematic modelling of policy space and its relationship to eAccessibility market processes



### 1.4.1.2 Setting the 'bar' - the yardsticks for policy assessment

In interpreting the policy assessments that are presented in this report it is important to understand the level at which the yardsticks against which to measure policy performance in the countries were set. For purposes of this study, a pragmatic approach was taken with the yardstick for a given policy area generally set at the level that has been reached by 'best of breed' approaches that already can be found in one or more European or other country. This means that the assessments have been made relative to what can be considered to be policy approaches that are readily achievable across the Member States.

In fact, it could be argued that the 'bar' might have been set higher in each of the policy areas so as to represent the 'ideal' policy situation, one that covers all aspects of eAccessibility for all levels and types of disability and that would be of such a strength that it might be expected to ensure complete achievement of eAccessibility within a short timeframe. Although it was felt that imposition of such idealised yardsticks would be unrealistic and not very helpful at this point in time, nevertheless, the question of where to set the 'bar' is an important issue to be considered in future EU-level policy formulation.

## 1.4.2 eAccessibility status assessment

### 1.4.2.1 Dimensions addressed

The analysis in the report addresses three core aspects of the eAccessibility status situation:

- extent of accessibility of a range of ICT products and services in the Member States
- barriers to or facilitators of take-up of available eAccessibility solutions
- stakeholder readiness and response.

Particular attention is given to developing indicators on the extent of eAccessibility in five core domains that are crucial in everyday life for disabled people:

- telephony
- TV
- web
- computing
- self-service terminals.

Indicators are developed for each domain, again based on systematically generated data from 28 countries and systematic assessment of this using transparent scoring systems developed to be appropriate to the nature of the eAccessibility issues in each domain.

As well as examining the eAccessibility situation, the analysis also looks at factors that present barriers to or facilitate take-up of available solutions by disabled people who can benefit from them, including awareness, information and costs. In addition, the analysis also focuses not just on the current status quo but also on the extent to which there has been progress in relation to the experience of eAccessibility by people with disabilities in recent years. Here the perspective of users is presented and analysed, based on the results of a European-wide survey of user organisations.

### Stakeholder readiness and response

Finally, the analysis also addresses the important issue of stakeholder readiness to contribute to improving the eAccessibility situation. Based on representative surveys, the current situation is analysed in relation to attitudes and capacities of three key stakeholders:

- public procurers
- ICT industry
- user organisations.

### 1.4.2.2 Setting the 'bar' - the yardsticks for eAccessibility status assessment

As in the case of the policy assessments (see section 1.4.1.2), in interpreting the eAccessibility status assessments that are presented in this report it is important to understand the level at which the yardsticks against which to measure performance in the countries were set. In general, the range of possible indicators in this field is very wide and considerable complexity is added by the sheer range of ICT products and services of potential relevance and the wide range of disabilities and associated requirements that these raise.

Against this background, careful selection and focus was needed to keep the analysis to manageable proportions and produce results that are comparable across countries. To address this, a number of criteria were applied when selecting indicators for the eAccessibility status measurements, including measurability, policy linkage, suitability for benchmarking purposes and, not least, feasibility in relation to data gathering within the methodological scope of this

study. Again, a pragmatic approach was taken with the yardstick generally set with reference to 'best of breed' approaches that can be found today in one or more countries.

### 1.4.3 Assessment of policy impacts and possible need for additional measures

This part of the analysis addresses first the question of whether policy works (i.e. has measurable impacts on eAccessibility status) and what policies work best, by bringing together the data on the policy situation and the eAccessibility status situation, and examining their relationships. The analysis then moves on to an overall synthesis of the results of the different measurements and analyses. This provides a basis for making an assessment of what the overall evidence-base suggests in regard to the question of whether or not a need for further EU-level measures is indicated and, if so, what types of measure seem most relevant for consideration.

### 1.4.4 Key metrics used in the assessments and analysis

As described in section 1.3.2, a multi-method approach was adopted to gather the empirical evidence required for the purposes of this study. The data and information yielded by this approach are presented in various types of table and chart throughout the report. For instance, data gathered in relation to the perceptions of the current eAccessibility situation by different stakeholder groups (disability organisations, ICT companies, public procurement officials) are presented by means of pie charts and bar charts. Methodological details on the data gathering process (e.g. survey design and data gathering instruments) can be found in the Annex to the main report (section 3).

In addition to this, various comparative analyses across Europe (EU25) and selected comparison countries (AU, CA, USA) are presented in the report. These rely on three key metrics:

- the current eAccessibility policy situation in a given country measured in terms of indicators concerning different policy themes
- the current eAccessibility status situation in a given country measured in terms of indicators concerning different ICT domains
- impacts of eAccessibility-related policy on the status of eAccessibility measured in terms of correlation patterns between policy scores and status scores.

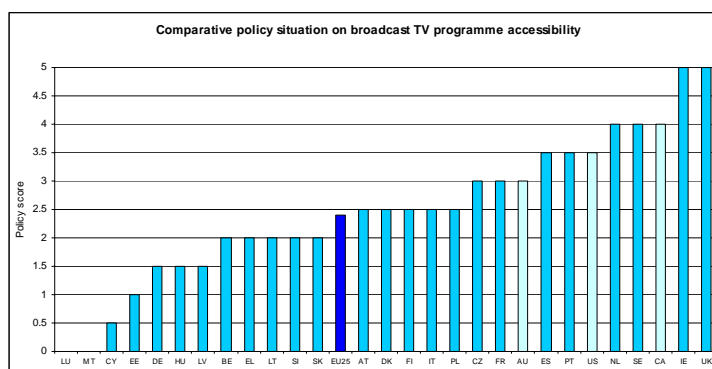
These metrics are explained in more detail in the following subsections.

#### Indicators reflecting the current eAccessibility policy situation in a given country

##### Indicator scoring system:

For each of the main sectoral and horizontal policy themes set out in section 1.4.1.1 a separate scoring system was developed to be appropriate to its particular characteristics. Details on the construction of each individual scoring system are presented in the relevant thematic chapters of the report. For each scoring system, individual country policy scores can range from 0 to 5 reflecting the strength and comprehensiveness of relevant policies that are in place in the country. The detailed policy situations underpinning the individual thematic policy scores assigned to a given country can be found in the MeAC policy inventory (available at: [http://ec.europa.eu/information\\_society/activities/einclusion/index\\_en.htm](http://ec.europa.eu/information_society/activities/einclusion/index_en.htm)).

Patterns across countries: The policy scores assigned to the individual countries by means of the scoring systems enable indicative



comparisons of the eAccessibility policy situations across Europe and the comparison countries to be made in relation to both individual policy themes and the overall policy situation. As an example, the chart above shows the comparative situation in relation to policies directed towards eAccessibility of TV broadcasting services. As can be seen, country scores can range from very low to very high, depending on the nature and strength of their policy approaches.

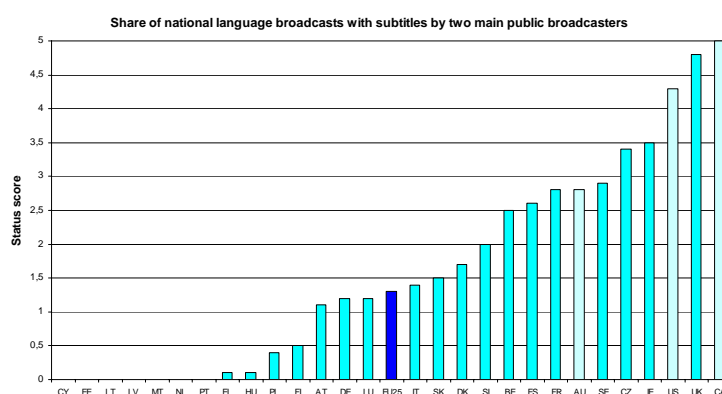
It should be noted that the main purpose of such comparative charts is to show the patterns that exist across Europe and the other countries, and not to provide judgemental benchmarking of any individual country. In this regard, as already noted earlier, the overall benchmarking picture presented in the charts can be taken to be sufficiently reliable and robust for purposes of EU-level policy-making, but it is possible that in some cases the score for an individual country might understate or overstate the policy strength in the country. In addition, the highest point on the scoring system does not necessarily represent the ideal policy situation but, instead, generally reflects the current 'best of breed' situation that can be found in Europe or internationally.

### Indicators reflecting the current status of eAccessibility achieved in a given country

**Indicator scoring system:** As in the case of the eAccessibility policy situation, a set of indicators was developed to reflect the status of eAccessibility (i.e. the tangible levels of eAccessibility available to disabled people in various ICT domains in each country). Again, separate scoring systems were developed for each of the ICT domains to be appropriate to their particular characteristics. Details on the construction of the individual scoring systems are presented in the relevant thematic chapters of the report. According to the scoring systems used, individual status scores can range from 0 to 5 reflecting the level of eAccessibility currently achieved in relation to a particular ICT domain in a given country. The detailed data set underpinning the individual eAccessibility status scores for each country can be found in the Annex to this report (Section 1), available at: [http://ec.europa.eu/information\\_society/activities/einclusion/index\\_en.htm](http://ec.europa.eu/information_society/activities/einclusion/index_en.htm).

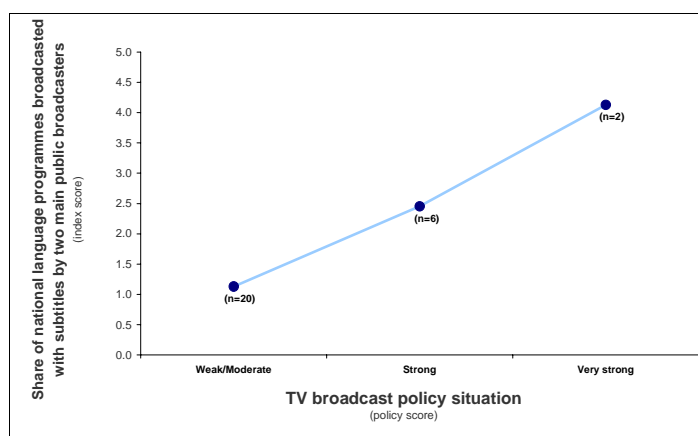
#### Patterns across countries:

The status scores assigned to the individual countries by means of the scoring systems enable comparison of the eAccessibility status situation across Europe and the three comparison countries. The chart opposite illustrates this in relation to eAccessibility of TV broadcasting services in terms of provision of national language programmes with subtitling (enabling access for people with hearing impairments) by the two main national public broadcasters. As can be seen, country scores can range from very high (up to 100% of national language programmes provided with subtitles) to very low (even with no national language programmes provided with subtitles).



### Impacts of policies

Finally, to examine what impacts eAccessibility-related policies may be having on the actual status of eAccessibility observed in the countries, the policy indicator scores are correlated with the status indicator scores. As illustrated in the chart opposite, for example, increasing policy strength is associated with substantially increased provisions of subtitling for hearing impaired people. For the



purposes of this type of analysis, the 28 countries are grouped into categories according to their policy scores and the graphs show the average eAccessibility status scores for each of the groups of countries (n = no. of countries falling in each of the categories).

## 1.5 Structure of this report and related documents

### Main Report

The remainder of this document presents the main outcomes of the analyses conducted in the framework of the overall study. It is structured into four main sections.

Section A presents the data and analysis in relation to specific ICT sectors:

- Telephony
- Television
- Web
- Computing
- Self-service terminals
- Other sectors and cross-sectoral eAccessibility approaches.

Section B presents the data and analysis on horizontal and cross-cutting themes:

- Public procurement
- Certification
- Goods and services equality
- Employment equality.

Section C presents the data and analysis on stakeholder readiness and response.

Section D presents the overall synthesis and conclusions.

### Annex

Data underpinning the eAccessibility status scores as reported in the main report as well as methodological details on the data gathering process are presented in a dedicated methodological Annex which is available at:

[http://ec.europa.eu/information\\_society/activities/einclusion/index\\_en.htm](http://ec.europa.eu/information_society/activities/einclusion/index_en.htm)

### Policy Inventory

A comprehensive inventory of eAccessibility-related policies identified in the 28 countries covered by this study is presented in a further document. This information underpins the eAccessibility policy scores reported in the main report. The policy inventory is available at:

[http://ec.europa.eu/information\\_society/activities/einclusion/index\\_en.htm](http://ec.europa.eu/information_society/activities/einclusion/index_en.htm)

### Executive summary

An executive summary of the main report summarising the aims and objectives of the overall study as well as key findings is available as a dedicated document at:

[http://ec.europa.eu/information\\_society/activities/einclusion/index\\_en.htm](http://ec.europa.eu/information_society/activities/einclusion/index_en.htm)

# Section A

## Data and Analysis on Specific ICT Domains

## 2 Telephony

Accessibility of telephony is a crucial issue for people with disabilities in order to be able to participate in the social and economic life of society. It is therefore essential that telephony services and equipment take into account the accessibility requirements of people with hearing, speech, visual, mobility, dexterity and other disabilities. This Chapter presents the data and analysis in relation to the telephony theme, organised into three main sections:

- policy situation
- eAccessibility status
- policy impacts and implications.

### 2.1 Policy situation

#### 2.1.1 EU-level context

Historically, eAccessibility provisions for disabled users, where offered, were part of the public service remit of the (then) monopoly public telephone operators. Many operators gave some attention to the special needs of disabled users or were, at least in principle, receptive to the idea that provisions for these groups was part of their public remit. In practice, however, provisions were typically very limited in many European countries.

With the liberalisation of the telecommunications market in the 1990s, concerns were raised that the existing provisions, limited as they were, as well as the more general receptivity to the idea of meeting the needs of disabled users, would reduce or disappear. In addition, in the European context the introduction of a common regulatory framework to support liberalisation and at the same time harmonisation of the European telecommunications market, whilst avoiding market distortion, raised the concerns that this might even disallow the imposition of regulatory requirements on accessibility at the Member State level. These considerations led to the inclusion of references to provisions for disabled users in the Directives of the EU's Regulatory Framework<sup>18</sup>. The Framework Directive requires that national regulatory authorities promote equal choice, price and quality and access to universal service for all users, including disabled users. The Universal Service Directive addresses a number of relevant themes, such as access and affordability for all, where appropriate; access to operator and directory services; access to emergency calls; availability/access to public payphones; and special tariffing. Some can be interpreted as compulsory provisions and others as being non-compulsory, to be left to the discretion of the national regulators to determine.

Although the strength and clarity of the provisions and references in these Directives to meeting the needs of disabled users has been criticised<sup>19</sup>, the underlying intent of the EU approach can be considered to be one of trying to ensure that disabled people have equality with other consumers and citizens as regards access to basic telephony services, including considerations of choice, costs and quality. The importance of such a goal has been given a renewed impetus through the publication of the Commission's Communication on eAccessibility<sup>20</sup>, by responses

<sup>18</sup> Directive 2002/22/EC on universal service and users' rights relating to electronic communications networks and services. ("Universal Service Directive"); Directive 2002/21/EC on a common regulatory framework for electronic communications networks and services. ("Framework Directive")

<sup>19</sup> In particular, it has been suggested that from an eAccessibility policy point of view, the current provisions in the regulatory framework are 'legacy' provisions from a time when liberalisation and avoidance of market distortion were the key concerns and eAccessibility did not have the high policy priority that it has come to have today

<sup>20</sup> Communication from the Commission to the Council, the European Parliament and the European Economic and Social Committee and the Committee of the Regions - eAccessibility. COM(2005) 425 final

to this by the European Economic and Social Committee<sup>21</sup> and others, and in the initial proposals from the Commission in relation to changes in the regulatory framework to address the concerns of disabled users<sup>22</sup>.

The Directives mentioned above refer to the fixed telecommunications services sector. In addition to this, there are also some (latent) EU-level provisions on accessibility of telecommunications equipment, addressed in a clause in the Radio and Telecommunications Terminal Equipment (R&TTE) Directive<sup>23</sup>. This enables the EU to introduce accessibility requirements in relation to telecommunications equipment, if deemed to be needed, but has not yet been invoked.

The available evidence prior to the commencement of the MeAC study has suggested that the current EU-level measures have not had the necessary impact to date<sup>24</sup>, with widely varying attention and efforts across the Member States in relation to accessible telecommunications, lack of essential provisions in many countries, and important gaps in what is being addressed. The fact that the current EU-level accessibility provisions in relation to telecommunications services are limited to fixed (voice) telephony has also been raised as a central issue, given the importance of mobile telecommunications, as well as issues of broadband access, end-to-end text communications across different networks and between different terminals, and so on.

## 2.1.2 Policy situation in the Member States and other countries

The MeAC assessment and analysis of the policy situation in the Member States and other countries gives separate consideration to policies addressing (or 'speaking to') the fixed telecommunications services sector, the mobile telecommunications services sector, and the telecommunications equipment sector, respectively. In fact, the vast bulk of current policy attention has focused on the (fixed) services side, with little or no direct focus on the equipment sector to date in Europe.

### 2.1.2.1 Fixed telecommunications services

The main focus of the policy survey was on policies in relation to fixed telephony services as these are what currently fall within the scope of the EU-level eAccessibility measures.

#### Policy assessment dimensions and indicator scoring system

Two core dimensions were used in the assessment of the policy situation in this field:

- general strength of the legislative/regulatory framework addressing accessibility of fixed telecommunications services
- the specific aspects of eAccessibility covered in legislation/regulations or other relevant policies.

Details of the scoring system are presented in the following table (Exhibit 7). The detailed policy situations underpinning the scores for each country can be found in the MeAC policy inventory<sup>25</sup>.

<sup>21</sup> Opinion of the European Economic and Social Committee on the Communication from the Commission to the Council, the European Parliament and the European Economic and Social Committee and the Committee of the Regions - eAccessibility. (2006/C 110/05)

<sup>22</sup> Commission Staff Working Document on proposed regulatory changes. SEC (2006) 816.

<sup>23</sup> Radio & Telecommunications Terminal Equipment (R&TTE) - Directive 1999/5/EC.

<sup>24</sup> COCOM (2006) Electronic Communications Package: implementation of the provisions related to disabled users in the Member States. INCOM06-02 FINAL. Brussels, 12 September 2006; COCOM (2004) Report from the inclusive communications subgroup. COCOM04-08 of 27 January 2004; <http://www.tiresias.org/cost219ter/pubs.htm>.

<sup>25</sup> Available at: [http://ec.europa.eu/information\\_society/activities/einclusion/index\\_en.htm](http://ec.europa.eu/information_society/activities/einclusion/index_en.htm)



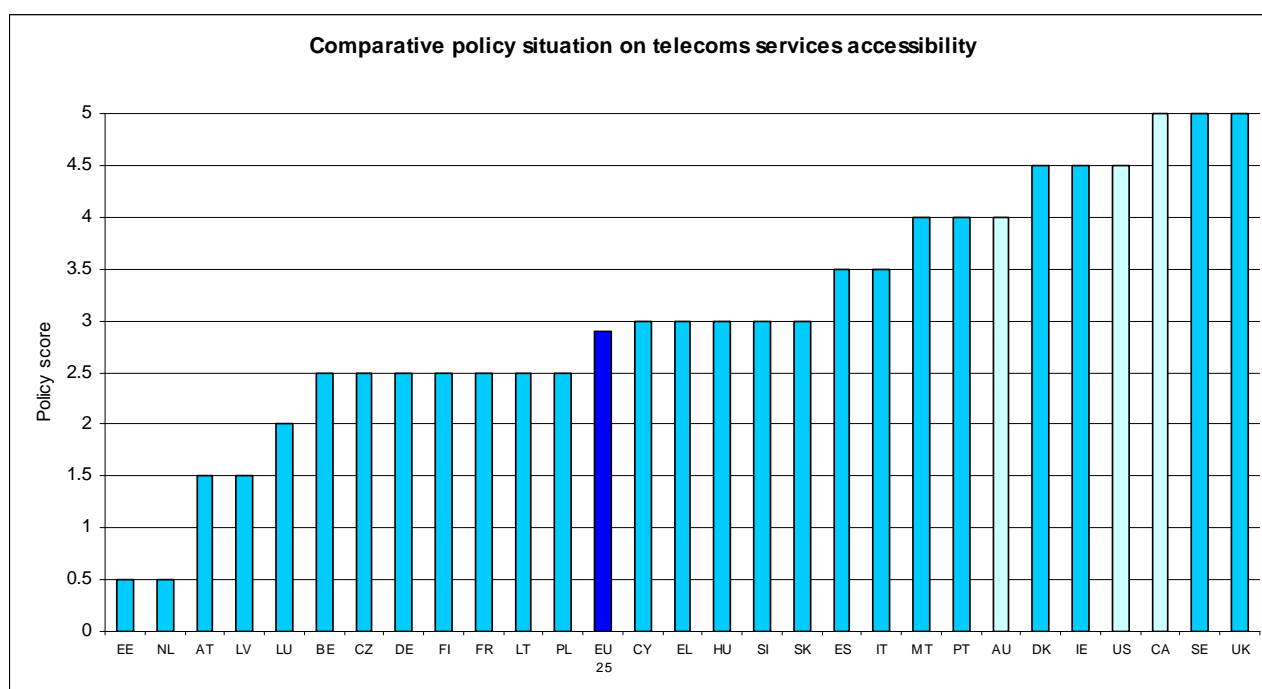
### Exhibit 7 Scoring system: (Fixed) Telecommunications Services policy

Dimension	Scoring for Sub-components	Potential score
Nature and scope of the attention to eAccessibility in national telecommunications legislation / regulations	0 = no reference to disabled in laws/regulations 0.5 = reference to disabled in laws/regulations, but only very general / restricted to general affordability (social tariffs) 1 = reference to provisions for disabled, but restricted scope/focus (e.g. focus only on payphones) 1.5 = reference to provisions for disabled has (at least in principle) a broad scope & specific obligations have been imposed for at least one theme 2 = wide scope / strong statement of provisions for disabled & specific obligations imposed for more than one theme	2
Specific provisions covered in telecoms or other legislation/regulations (6 items): - Accessible terminal equipment (provision / financing) - Tariffs (financial support for accessibility-related usage costs) - Payphones accessibility - Text relay service - Directory service accessibility - Emergency service accessibility	For each: 0 = not covered 0.5 = covered	3
Total possible score		5

### Comparative policy situation

Exhibits 8 and 9 present the comparative policy situation across countries and for the EU as a whole.

### Exhibit 8 Comparative policy situation across Europe and other countries - fixed telecoms services



Source: MeAC Policy Survey, 2007 ©

### Exhibit 9 Classification of countries in terms of strength of eAccessibility policy - fixed telecoms services<sup>26</sup>

Policy strength	Number of EU25 countries	EU 25 Average	Other countries
Very strong	4		US, CA
Strong	4		AU
Moderate	12	EU25	
Weak	3		
Very weak	2		

Source: MeAC Policy Survey, 2007 ©

By way of example, the UK<sup>27</sup> and Sweden<sup>28</sup> are considered to be very strong because their telecommunications legislation/regulations, and other relevant social legislation/regulations, are well-developed and impose requirements that address all of the six aspects (provision / financing of accessible terminal equipment, financial supports for accessibility-related usage costs, payphone accessibility, text relay services, accessible directory services, and accessible emergency services). Details of the policy situations in these and all the other countries can be found in the MeAC policy inventory<sup>29</sup>.

More generally, some of the main patterns that can be observed include:

- the strength of legislative/regulatory policy on accessible telecommunications varies widely across the Member States; 12 are rated as 'moderate', 8 as 'strong' or 'very strong', and 5 as 'weak' or 'very weak' on the MeAC overall indicator
- the 'average' policy situation across the EU25 as a whole is rated as 'moderate'; this compares unfavourably with the reference countries (US, CA and AU); in addition, only a minority of EU countries are at the same policy level as these
- most (but not all) countries have some specific reference to addressing needs of disabled people in telecommunications services law / regulations and indicate responsibilities for the telecoms sector in this regard
- in most countries the approach is through imposing obligations on one or more telecommunications operators, although often a general statement of requirements in the relevant laws has not yet actually been implemented as a specific obligation on one or more named operators; in a few countries a different approach is taken (e.g. in Sweden the approach is through public procurement of the required services, in Finland the state lottery fund pays for a number of the provisions)
- the clarity / strength of the provisions addressing the fixed telecommunication services sector vary; some are general/vague but the majority make reference to at least one or more concrete themes
- in a number of countries, policy provisions are quite recent and have not necessarily been implemented yet in practice
- approaches are typically not very coherent or complete - they are generally not underpinned by a clear statement of a requirement for equivalent access for disabled users (in terms of functionality, costs and choice) as for other users, supported by specification and implementation of the concrete provisions that must be made to ensure this.

<sup>26</sup> 'Policy strength' is based on the policy score attained by a country according to the scoring system in Exhibit 7. A score of 4.5 or 5 is considered to be 'very strong', 3.5 or 4 to be 'strong', 2.5 or 3 to be 'moderate', 1.5 or 2 to be 'weak', and 1 or lower to be 'very weak'

<sup>27</sup> Communications Act (2003) and associated universal service obligations; Disability Discrimination Act (1995); funding for special equipment under assistive technology services

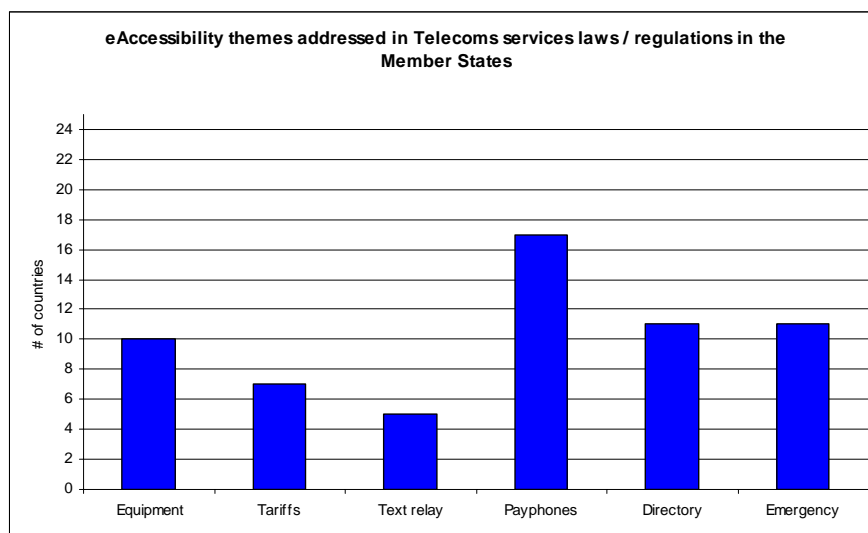
<sup>28</sup> Electronic Communications Act (2003) and other relevant ordinances; funding for special equipment under assistive technology services

<sup>29</sup> Available at: [http://ec.europa.eu/information\\_society/activities/einclusion/index\\_en.htm](http://ec.europa.eu/information_society/activities/einclusion/index_en.htm)

## Specific aspects of accessibility addressed in fixed telecommunications services policy

Exhibit 10 presents data on the patterns across the Member States in terms of the specific aspects of eAccessibility that are addressed in their fixed telecoms laws/regulations<sup>30</sup>.

### Exhibit 10 Coverage of specific themes in Member States laws/regulations



Source: MeAC Policy Survey, 2007 ©

Some of the main patterns that can be observed include:

- there is wide variability across the Member States as regards the specific themes covered in legislation/regulations addressing the fixed telecoms services sector
- accessibility of payphones is the most frequently occurring theme, being mentioned in the laws/regulations of about two-thirds of the Member States; wheelchair access is the most commonly mentioned in this regard, but sometimes also text telephones, handset volume, provisions for visually impaired and so on
- just under one-half of Member States mention accessibility of directory services in their laws/regulations and a similar number mention accessible emergency numbers
- two-in-five address provision/pricing of accessible/special terminal equipment in their telecoms laws / regulations; social sector supports are also available in a number of countries (through assistive technology services)
- just over one-quarter of countries address equivalent tariffs as a general principle (e.g. to ensure that text telephone users do not have greater costs than voice telephone users because their calls take longer)<sup>31</sup>, and a number of others address the tariff issue in relation to ensuring that disabled users do not have higher costs because they must call directory enquiries as they cannot use a paper directory
- only one-in-five countries seem to explicitly require text telephone relay services in their telecoms laws / regulations.

### 2.1.2.2 Mobile telecommunications services

There is a lot less policy attention being given to accessibility of mobile telecom services across the Member States. In fact, the MeAC policy survey identified just a small number of countries

<sup>30</sup> The data here is intended to present an indicative view and should not be interpreted as a definitive legal interpretation of the coverage of the various legislative texts and regulations

<sup>31</sup> Laws/regulations in the telecommunications area and/or from the social sector in some countries also address more general affordability of basic telecommunications for low income disabled and other users (e.g. subsidised line rental and/or tariffs - 'social tariffs'), but this is not the focus of this study as it is not directly linked to accessibility, per se

where direct policy attention to accessibility issues for this sector was found. In ES<sup>32</sup>, legislation has provided the basis for a decree that will require mobile operators to make available accessible mobile handsets, such as phones that provide talking output of text messages, menus and so on. In the UK<sup>33</sup>, the equality legislation makes direct reference to the telecommunications sector and includes mobile operators within its scope, and some provisions within the mainstream telecommunications legislation also have relevance; these have been a stimulus for mobile industry initiatives on accessibility. More generally, 'social tariffs' for mobile telephony are addressed in some countries, either in policy or in voluntary provisions by operators and in some countries operators have taken voluntary initiatives to address accessibility of mobile services. In one case (AT), recent policy has implemented a requirement to provide personalised price information through voice messaging for blind or visually impaired users (if requested) for purposes of international roaming.

As regards the comparison countries, both the US and AU have policy provisions that directly address accessibility of mobile telecommunications services. In the US<sup>34</sup>, there are quite strong provisions for accessibility of mobile telephony in the legislation and regulations and in the AU<sup>35</sup> there are requirements in relation to provision of information about accessibility of handsets offered by the mobile operators.

### 2.1.2.3 Telecommunications equipment sector

None of the Member States appear to have laws that directly address eAccessibility issues for the telecommunications equipment sector. Internationally, only the US appears to have such laws/regulations<sup>36</sup>.

## 2.2 eAccessibility status

Utilising standard telephone services can pose a variety of accessibility challenges to different disability groups.

To begin with, many people with disabilities need or would benefit from the inclusion of a variety of accessibility features in standard telephone handsets. Which feature or combination of features is needed will vary from individual to individual, depending on type and severity of their impairments such as visual, hearing and dexterity. At least in principle, a range of eAccessibility solutions are now available to address the needs of disabled telephone users<sup>37</sup>.

However, a key issue is whether these are actually available to people with disabilities in terms of products that are offered on the market, and if so, whether these are available to the same extent and under the same conditions when compared with average standard products, e.g. when it comes to choice and purchase costs. Also, availability of information to disabled consumers on which of the products that are available on the market actually do provide required accessibility features is a precondition for being able to use telephone services on an equal footing with non-disabled consumers.

Whilst the needs of some disabled people in relation to voice telephony can be met by accessibility features included within standard handsets, some people (especially those with hearing and speech impairments), need to be able to communicate in a medium other than

<sup>32</sup> 51/2003 Act on Equal Opportunities, Non-Discrimination and Universal Accessibility of People with Disabilities and associated draft decree

<sup>33</sup> Communications Act (2003), Disability Discrimination Act (1995)

<sup>34</sup> Telecoms Act (1996) and various FCC regulations

<sup>35</sup> ACIF C625:2005 - mandatory industry code

<sup>36</sup> Hearing Aid Compatibility Act (1988); Section 255 of the Telecoms Act (1996)

<sup>37</sup> An extensive list of design features addressing the user requirements of people with disabilities is, for instance, available at the RNIB Scientific Research Unit's (SRU) web site: <http://www.tiresias.org/guidelines/pots.htm>

voice. For them, interactive text communication (or sometimes video communication) offering the same set of features in terms of conversationality as voice does for hearing people (e.g. information flows in real time, possibility to interrupt at any stage in the conversation) is necessary if they are to be able to have the equivalent to a voice conversation over the telephone. Therefore store-and-forward text communications such as email or SMS, although useful, cannot be regarded as a full equivalent to voice telephony, despite being popular among people with disabilities as well. Also, access to common telephony services such as emergency numbers is a crucial issue for those who rely on text telephony for the purpose of interpersonal communication. In addition, people who rely on sign language as their first language may need or prefer signing with help of video telephony. In both cases, the availability of a relay service enables communication with voice telephony users.

Another key theme concerns the availability of public telephone facilities that are accessible to people with disabilities (e.g. accessible to wheelchair users, provision of text telephones, and so on). Public payphones will continue to play an important role in the foreseeable future for people who do not possess a mobile phone - for whatever reason - or those who do not have a fixed-line phone at home.

Against this general background, in the following sections the current status of eAccessibility in the telephony domain is presented in relation to mainstream telephony equipment and access to standard telephony services by people who rely upon text telephony and video telephony.

## 2.2.1 Mainstream telephony equipment

### 2.2.1.1 Landline telephone handsets

The MeAC indicators (Exhibit 11) suggest that availability of accessible landline telephone handsets to people with disabilities has only progressed to a rather low extent during the last five to ten years in the European Member States (Exhibit 12). A clear majority of user organisations (86%) report no or just some progress at most having happened over that time span. In addition, they report that handsets with suitable accessibility features tend to be more expensive when compared with standard models, with some 40% reporting that accessible handsets are even a lot more expensive.

#### **Exhibit 11 eAccessibility indicators on mainstream land line telephone hand sets to people with disabilities**

- 
- Progress in the availability of accessible handsets during the last 5 to 10 years as perceived by disability organisations
  - End user costs of accessible landline handsets when compared with standard handsets as perceived by disability organisations
  - Availability of public telephone booths which are accessible to wheelchair users as estimated by disability organisations
  - Offering of landline handsets that are explicitly labelled as being hearing-aid compatible on the web sites of the two main landline operators in the country
  - Provision of any other eAccessibility related customer information on the web sites of the two leading landline operators in the country
  - Factors that have contributed to progress in the availability of accessible landline handsets (if any) as perceived by disability organisations
  - Barriers to having an accessible landline handset as perceived by disability organisations
  - Barriers to making own products accessible as perceived by companies engaged in manufacturing of telecommunications equipment
- 

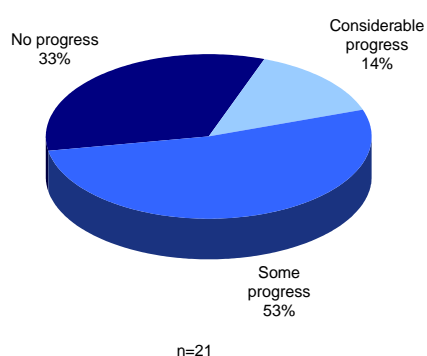
Where any progress is perceived, this tends to be attributed more to general technological progress rather than market forces, actions taken by industry/providers or dedicated policy intervention. Clearly the main barrier towards wider availing of accessible landline telephones as

perceived by the disability organisations concerns lacking market information (Exhibit 13). The majority considers this factor as representing a main barrier, while general availability of suitable models and high purchase costs, although important, are considered as a main barrier to somewhat lesser extent.

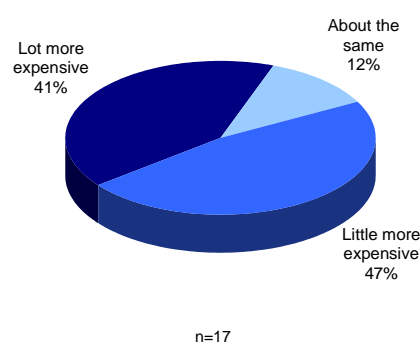
The perception of the disability organisations is supported by the finding that, in most Member States, customers with disabilities have to rely on the main landline telephony operator when looking for an accessible mainstream telephone handset. Oftentimes, this is the former public telecoms provider looking back to a certain history of addressing disadvantaged customer groups as part of its former remit. For instance, while in 13 Member States the main landline operator does offer at least some product-related information directed towards people with disabilities via its online sales channel, the second largest market player does so in only 2 countries (Exhibit 14). When it comes to models that are explicitly indicated as being hearing-aid compatible a similar pattern emerges, with a ratio of 14 to 1 respectively.

### Exhibit 12 eAccessibility of land line telephone hand sets as perceived by European user organisations

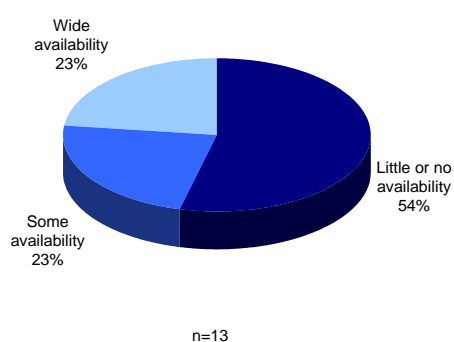
Progress in the availability of accessible land line telephones during the last 5 to 10 years



Estimated costs of accessible land line telephones when compared to standard models



Availability of public telephone booth accessible to wheel chair users

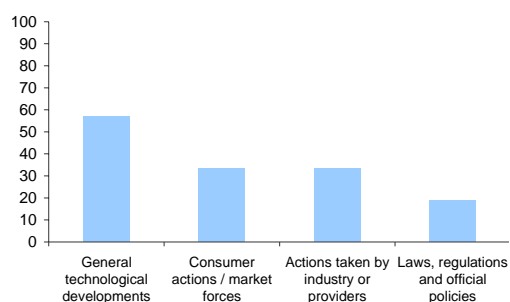


Source: MeAC Survey of Disability Organisations, 2007 © (c.f. Annex, section 3).

Overall, the landline handset market can be considered to be a relatively mature one today, and a number of accessible solutions seem to have in principle become available, for instance, models which provide additional amplification, or which are hearing aid compatible as well as phones with additional relevant features such as tone controls and connections for a headset or inductive neck loop (small induction loop worn around the neck of the hearing aid user). However, our survey data suggest that levels of provision of such solutions seems to vary a lot across the European Union.

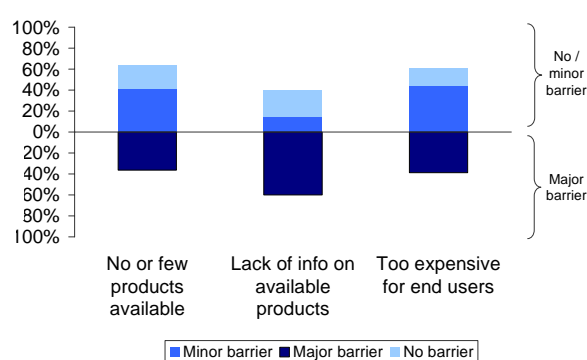
### Exhibit 13 Barriers and facilitators towards eAccessibility of landline handsets as perceived by European disability organisations

Factors contributing to progress in relation to accessible land line telephones



n=21

Main barriers towards wider deployment of accessible land line telephones



n=18

Source: MeAC Survey of Disability Organisations, 2007 © (c.f. Annex, section 3).

### Exhibit 14 Online provision of customer information relevant to people with disabilities by the top main land line operators according to country

	Online provision of information on hand sets that are hearing aid compatible by 1 <sup>st</sup> main land line telephony operators	Online provision of any other customer information directed towards people with disabilities by 1 <sup>st</sup> main land line telephony operators	Online provision of information on hand sets that are hearing aid compatible by 2 <sup>nd</sup> main land line telephony operators	Online provision of any other customer information directed towards people with disabilities by 2 <sup>nd</sup> main land line telephony operators
<b>EU (# of countries)</b>	14	13	1 <sup>38</sup>	2
<b>USA</b>	✓	✓	-	✓
<b>CA</b>	✓	✓	-	-
<b>AU</b>	✓	✓	✓	✓

: Source: MeAC National Correspondents Investigation, 2007 © (c.f. Annex, section 1).

When it comes to the availability of public payphones that are accessible to people with disabilities a similar picture emerges. For instance, more than half (54%) of the responding organisations report little or no availability of public phone booths in their country that are accessible to wheelchair users, while almost another quarter (23%) report only some (and not enough) availability.

<sup>38</sup> Note: in six countries the second main operator does not sell any hand sets at all and for two countries data are not available.

### 2.2.1.2 Mobile telephones

When it comes to mobile telephony a somewhat mixed picture emerges across different disability groups. With regard to hearing impaired users, our indicators suggest that at least some progress is reported to have been achieved during recent years in relation to the availability of accessible mainstream mobile phones (Exhibit 16). Explanatory statements provided by the disability organisations suggest, for instance, that the quality of some hearing aids seems to have improved to a certain extent. In particular, digital hearing aids have become available that seem to have better capabilities to cope with interferences. Over the past decade, efforts have been made by the hearing aid industry in meeting the challenge – partly by careful wiring, internal metallic screens and avoidance of unnecessary apertures through which radio signals could gain access – but especially through the move to digital processing. This, coupled with the ongoing migration of mobile communications towards 3G technology (which results in lower tonal interference), means that the problem seems to gradually lessening. Nevertheless, for many who rely on a hearing-aid for communication, interference seems to have produced a barrier to using a mobile phone in the regular way.

#### Exhibit 15 eAccessibility indicators on mobile telephones to people with disabilities

- Progress in the availability of mobile phones with good inductive coupling during the last 5 to 10 years as perceived by disability organisations
- Progress in the availability of mobile phones with no or minimal interference for hearing-aid users during the last 5 to 10 years as perceived by disability organisations
- Progress in the availability of mobile phones with voice output options during the last 5 to 10 years as perceived by disability organisations
- Progress in the availability of mobile phones with good adjustable displays during the last 5 to 10 years as perceived by disability organisations
- Progress in the availability of mobile phones with accessibility features for dexterity impaired during the last 5 to 10 years as perceived by disability organisations
- End user costs of mobile phones that are hearing-aid compatible when compared with standard handsets as perceived by disability organisations
- End user costs of mobile phones that provide good accessibility to visually impaired people when compared with standard handsets as perceived by disability organisations
- End user costs of mobile phones that provide good accessibility to dexterity impaired people when compared with standard handsets as perceived by disability organisations
- Offering of mobile telephones that are explicitly labelled as being hearing-aid compatible on the web sites of the two main mobile operators in the country
- Provision of any other eAccessibility related customer information on the web sites of the two leading mobile operators in the country
- Factors that have contributed to progress in relation to accessibility of mobile phones to hearing impaired users (if any) as perceived by disability organisations
- Main barriers to having a mobile phone that is compatible with hearing aids as perceived by disability organisations
- Factors contributing to progress in relation to accessibility of mobile phones to visual impaired users (if any) as perceived by disability organisations
- Main barriers to having a mobile phone that is accessible to people with visual impairments as perceived by disability organisations
- Factors contributing to progress in relation to accessibility of mobile phones to dexterity impaired users (if any) as perceived by disability organisations
- Main barriers to having a mobile phone that is accessible to people with dexterity impairments as perceived by disability organisations

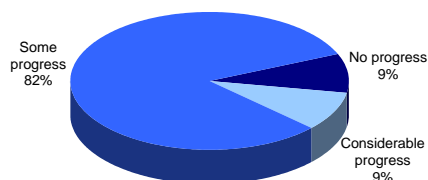
This anecdotal evidence is supported by the fact that general technological progress is perceived by the overwhelming majority of disability organisations (92%) as a key driver of progress in the field (Exhibit 17). Despite this, only a minority of the disability organisations (Exhibit 16) report considerable progress in relation to the availability of models that provide good inductive coupling with hearing aids (9%), and in relation to availability of models with no or minimal interference with hearing aids as well (23%). This outcome points in the direction



that technological solutions that are in principle available do not seem to have spread to a sufficient extent.

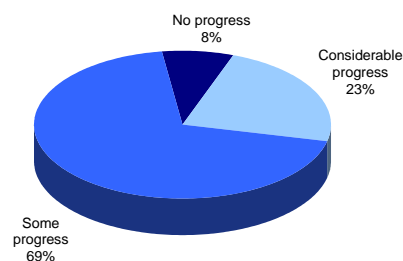
**Exhibit 16 eAccessibility of mobile telephones as perceived by European disability organisations**

Progress in the availability of mobile phones of good inductive coupling with hearing aids



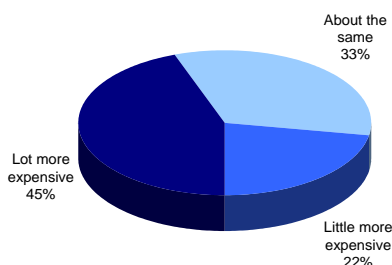
n=11

Progress in the availability of mobile phones with no or minimal interferences with hearing aids



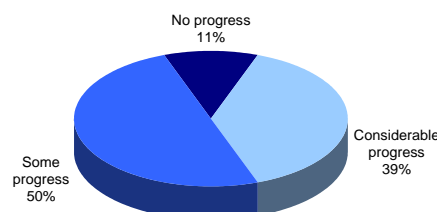
n=13

Costs of hearing aid compatible phones when compared to standard models



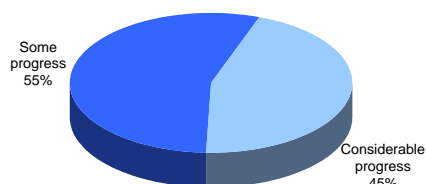
n=9

Progress in the availability of mobile phones with good adjustability of visual displays



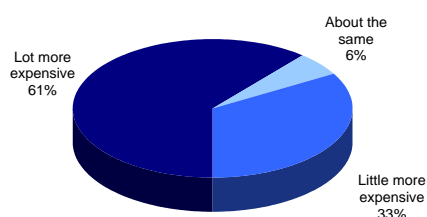
n=18

Progress in the availability of mobile phones with voice output options



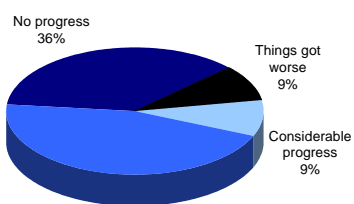
n=20

Costs of mobile phones accessible to visual impaired when compared to standard models



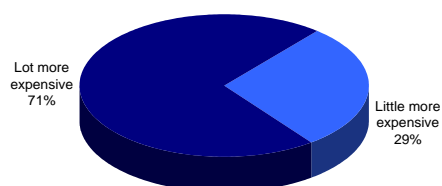
n=18

Progress in the availability of mobile phones with accessibility features for dexterity impaired



n=11

Costs of mobile phones accessible to dexterity impaired when compared with standard models



n=7

Source: MeAC Survey of Disability Organisations, 2007 © (c.f. Annex, section 3).

As in the case of landline telephony, models that provide good levels of accessibility tend to be more expensive when compared with standard models. Nearly one half (45%) of the disability organisations report that models with good hearing-aid compatibility are even a lot more expensive, while about one-fifth (22%) state that they are at least a little more expensive. This outcome is supported by the fact that the majority of the user organisations (64%) consider high costs as a major barrier to wider availing of such models. However, other factors, including lacking availability of suitable models (62%) and lacking information on models that are actually available on the market (58%), rank at the same level of importance.

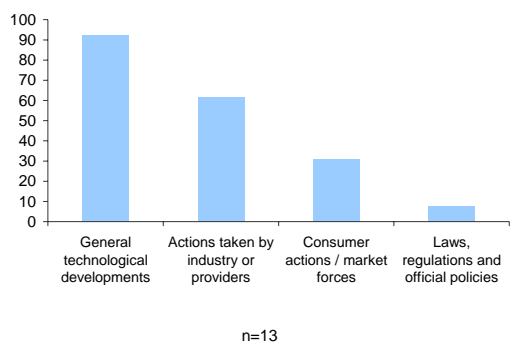
In relation to people with visual impairments, a similar pattern emerges (Exhibit 16). All disability organisations have observed at least some progress during the last 5 to 10 years in relation to voice output for menus and/or text messages, and a majority reports considerable or at least some progress (39% and 50% respectively) in relation to the availability of models with good adjustability of visual displays (e.g. font size, colours). Again, general technological progress was mentioned by most organisations (75%) as a key factor driving eAccessibility-related developments in the field (Exhibit 17). According to explanatory statements received from the user organisations, for instance, the emergence of the “smart phone” segment seems to have opened up possibilities to increase accessibility of mobile telephones by the utilisation of appropriate software.

However, when compared with other factors such as availability of suitable products on the market and related product information, high purchase costs seems to act as the strongest barrier towards wider availing of mobile phones that are accessible to people with visual impairments. The latter factor is mentioned by 68% of the disability organisations as a main barrier, while the former factors are reported as a main barrier only by 29% and 37% respectively (Exhibit 17). In line with this finding, explanatory commentaries that were given highlight the mainstreaming of accessibility features across different price ranges as an issue that would deserve priority attention.

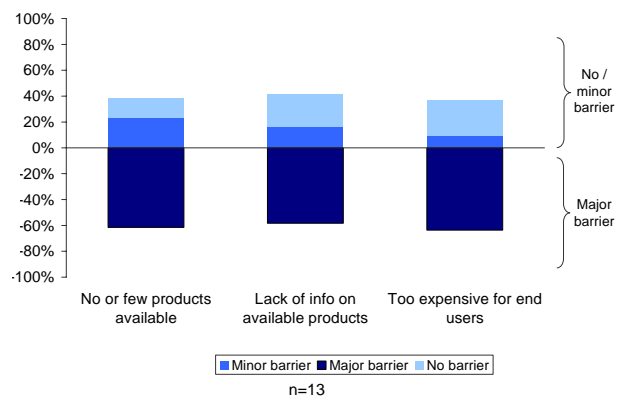
Progress in relation to accessibility of mobile phones to people with dexterity impairments is again assessed by the disability organisations as having occurred only to a rather limited extent over the last 5 to 10 years (Exhibit 16). A majority states that there has been only some progress (46%) or no progress at all (36%) in the field, while some organisations (9%) state that things have even got worse. Again, explanatory comments received suggest that new technological developments (e.g. again smart phone technology) have in principle opened up new possibilities to design mobile phones that are more accessible to people with dexterity problems. However, models that do actually provide adequate levels of accessibility are assessed as being a lot more expensive (71%) when compared with mainstream standard models although, when it comes to factors that act as main barriers towards wider deployment of mobile phones that are accessible to people with dexterity impairments, purchase costs (58%) do not rank highest according to the disability organisations. Here, lacking availability of suitable products on the market (78%) and lacking market information (78%) have been mentioned even more often as a main barrier. This finding corresponds with the fact that actions taken by industry/providers were not at all mentioned when it comes to factors perceived by user organisations as having contributed to progress in the field (Exhibit 17). All in all, these findings point in the direction that people with dexterity impairments may have been least addressed by mainstream market players up to now when compared with other types of impairments.

### Exhibit 17 Barriers and facilitators towards wider utilisation of accessible mobile telephones as perceived by European disability organisations

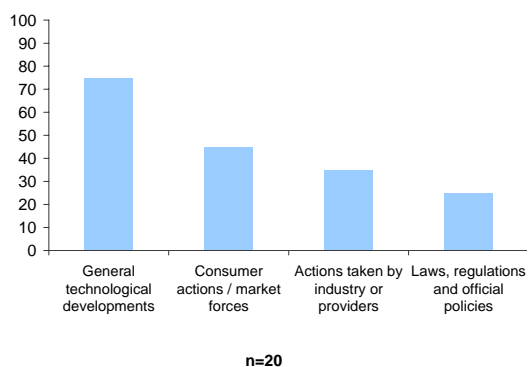
Factors contributing to progress in relation to accessible mobile phones for hearing impaired



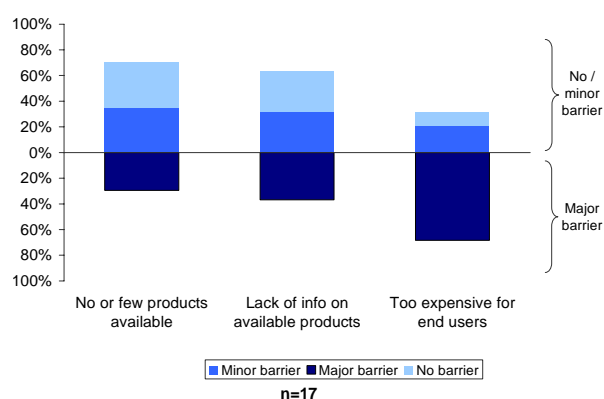
Main barriers towards wider deployment of hearing aid compatible mobile phones



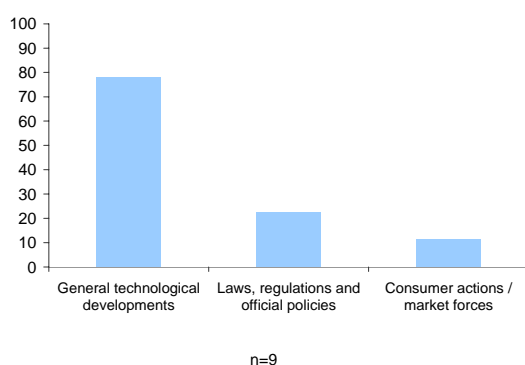
Factors contributing to progress in relation to accessible mobile phones for visually impaired



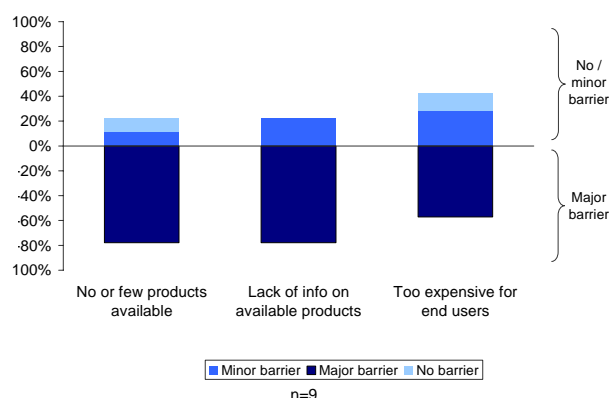
Main barriers towards wider deployment of mobile phones accessible to visually impaired



Factors contributing to progress in relation to accessible mobile phones for dexterity impaired



Main barriers towards wider deployment of mobile phones accessible to dexterity impaired



Source: MeAC Survey of Disability Organisations, 2007 © (c.f. Annex, section 3).

The MeAC indicators also suggest that in general there is only limited attention being given by mainstream vendors to the needs of mobile telephony users with disabilities. For instance, only in seven EU Member States do the main mobile operators offer any disability-related product information via their online sales channels, and only in five countries does the second largest market player do so as well (Exhibit 18). The corresponding figures for models offered on the main operator's web sites that are explicitly stated as being hearing-aid compatible are even lower, i.e. five and four operators respectively. Although this may not necessarily mean that none of the models they have on offer are compatible with hearing aids, it points to the fact that hearing aid users – and people with disabilities in general – face disadvantages in terms of a lack of market transparency and choice.

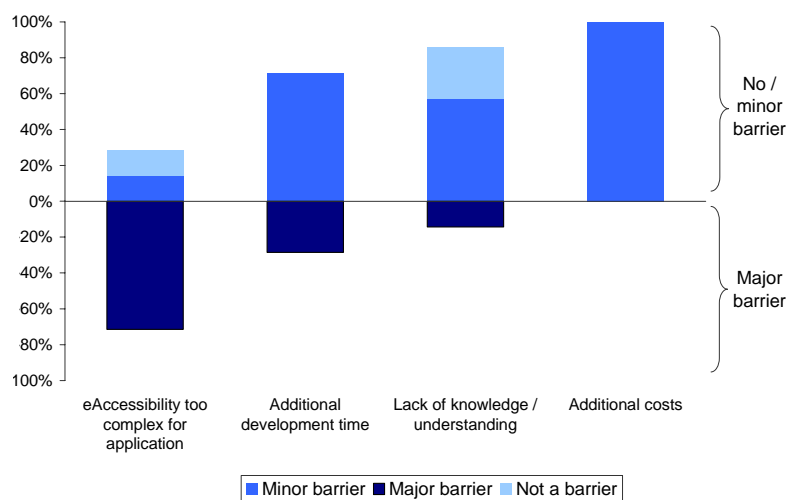
Turning to factors reported by telecommunications equipment manufacturers to pose barriers towards practically addressing eAccessibility, a clear hierarchical pattern emerges from the MeAC data (Exhibit 19). The majority (71%) of enterprises engaged in the manufacturing of such equipment perceive the complexity of eAccessibility requirements as a main barrier to making their products accessible to people with disabilities rather than additional development time (29%), lacking knowledge about eAccessibility (14%) and additional costs that would be involved (0%)

#### **Exhibit 18 Online provision of customer information for people with disabilities by the two main mobile telephony operators according to country**

	Online provision of information on handsets that are hearing-aid compatible by 1 <sup>st</sup> main mobile telephony operator in the country	Online provision of any other customer info. directed towards people with disabilities by 1 <sup>st</sup> main mobile telephony operator in the country	Online provision of information on handsets that are hearing-aid compatible by 2 <sup>nd</sup> main mobile telephony operator in the country	Online provision of any other customer info. directed towards people with disabilities by 2 <sup>nd</sup> main mobile telephony operator in the country
<b>EU (# of countries)</b>	5	7	4	5
<b>USA</b>	✓	✓	✓	✓
<b>CA</b>	-	✓	-	✓
<b>AU</b>	✓	✓	-	✓

*Source: MeAC National Correspondents Investigation, 2007 © (c.f. Annex, section 1)*

### Exhibit 19 Main barriers to eAccessibility as perceived by companies engaged in manufacturing telecommunications equipment



n=7

Source: MeAC Survey of ICT Companies, 2007 © (c.f. Annex, section 3).

#### 2.2.2 Relay services for text telephone and video telephone users

In about one half (12) of the 25 Member States included in the investigation people with disabilities who rely upon interactive text communication (text telephony) for purposes of interpersonal communication have no possibility to communicate with ordinary voice telephony users due to lacking availability of a text relay service (Exhibit 21). In most of the countries where a relay service is available it is operated as a fully up-and-running service offering (10), although in one-quarter on a pilot basis (3) (Annex, section 1). Also, the majority of the text relay services are accessible 24 hours, seven days a week (9) and at no extra services costs (11) beyond the immediate costs for the telephone line.

When it comes to direct access to emergency services, text telephone users tend to be even more restricted. Today, such services can be accessed directly by text telephone users only in seven EU Member States (Exhibit 22).

As regards progress in the availability of text telephones as perceived by the disability organisations a mixed picture emerges from the MeAC data (Exhibit 23). While equal shares of the responding organisations report some (37%) or no (36%) progress at all having happened during the last 5 to 10 years, a minority states that things have even got worse (19%). Beyond this, a small minority (9%) reports considerable progress.

Where any progress is stated, this is rather equally assigned to diverse factors including general technological developments (41%), legislation and policy (33%) as well as consumer actions (33%), whereby actions taken by industry are viewed as having played a smaller role (8%) (Exhibit 24).

As regards key factors hindering a wider deployment of text telephones, more than half (60%) of the disability organisations report lacking product information as a main barrier, while smaller, but still substantial numbers report lacking availability of products (33%) and purchasing costs (40%). (Exhibit 24)

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## Exhibit 20 eAccessibility indicators on mainstream telephony to users of text telephones and video telephones

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- Availability of text relay service
  - 24h/7d availability of text relay service
  - Availability of text relay service without additional service costs beyond the immediate call connection costs
  - Availability of video relay service
  - 24h/7d availability of video relay service
  - Availability of video relay service without additional service costs beyond the immediate call connection costs
  - Direct accessibility of emergency service to text telephone users
  - Progress in the availability of text telephones during the last 5 to 10 years as perceived by disability organisations
  - Factors that have contributed to progress in the availability of text telephones (if any) as perceived by disability organisations
  - Barriers to having a text telephone as perceived by disability organisations
  - Progress in the availability of video telephones during the last 5 to 10 years as perceived by disability organisations
  - Factors that have contributed to progress in the availability of video telephones (if any) as perceived by disability organisations
  - Barriers to having a video telephone as perceived by disability organisations
- 

To people preferring or needing video telephony for interpersonal communication (e.g. for signing or lip reading) access to an equivalent to mainstream voice telephony is even more restricted. Across the European Union, a video relay service is only available in seven Member States and most of these are currently operated on a pilot basis (4) and at confined services hours (Exhibit 25 and Annex, section 1).

When it comes to the availability of video telephones, the majority of user organisations (64%) report no progress having occurred over the last five to 10 years, and none report considerable progress (Exhibit 23). Clearly, high purchasing costs are perceived as a key barrier towards wider utilisation of such terminals among disabled people who would benefit. Unanimously, all organisations consider this factor as a main barrier, followed by lacking market availability of terminals that are suitable for signing and lip reading (77%) and lacking product information (55%).

In general, the feedback received from the European disability organisations is supported by the outcomes of an exploratory review of video telephones that are available on the market today. In essence, video technology is capable of providing a much needed telecommunication channel for deaf and hard of hearing people. In practice, however, only some videophones that are on the market seem to be suitable to fulfil this need. For instance, only few videophones are incorporating non-audio alarms and this suggests that the industry has largely not considered the deaf and hard-of-hearing consumer base. A non-audio alarm is a small adjustment but one that makes a big difference for users with disabilities. Beyond this, there are various other design aspects that would need to be kept in mind when creating a 'deaf aware' videophone. These include, for instance, a sufficiently large screen size, a lens angle suitable to capture the whole of the signing space utilised by sign language users, video codecs capable of coping with low bandwidth capacities, open connectivity (some videophones operate in a closed network and cannot connect to videophones outside this network) and intuitive interfaces that are suitable to support those sign language users who have difficulties with written instructions (e.g. some of those who use national sign language as their first language).

### Exhibit 21 Availability of a text relay service, service hours and additional service fees according to country

	Text relay service available	24hour/7day availability of text relay service	No additional service fee beyond the immediate telephone line connection costs
EU (# of countries)	13	9	11
USA	✓	✓	✓
CA	✓	✓	✓
AU	✓	✓	✓

Source: MeAC National Correspondents Investigation, 2007 © (c.f. Annex, section 1).

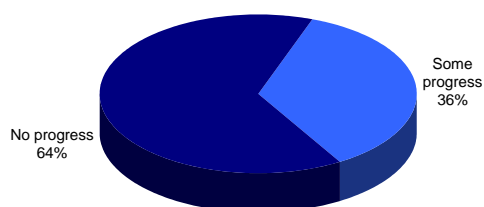
### Exhibit 22 Direct access to emergency service numbers to text telephone users according to country

	Direct access to emergency no to text telephone users
EU (# of countries)	7
USA	✓
CA	✓
AU	✓

Source: MeAC National Correspondents Investigation, 2007 © (c.f. Annex, section 1).

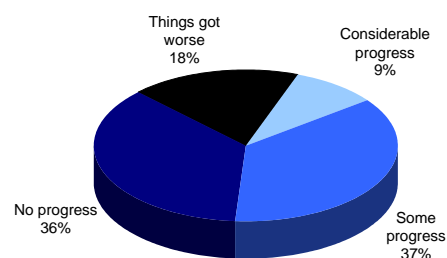
### Exhibit 23 eAccessibility of mainstream telephony to users of text telephones and video telephones as perceived by European disability organisations

Progress in the availability of video telephones



n=14

Progress in the availability of text telephones

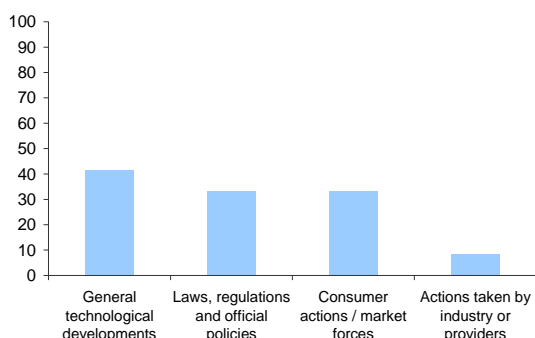


n=11

Source: MeAC Survey of Disability Organisations, 2007 © (c.f. Annex, section 3).

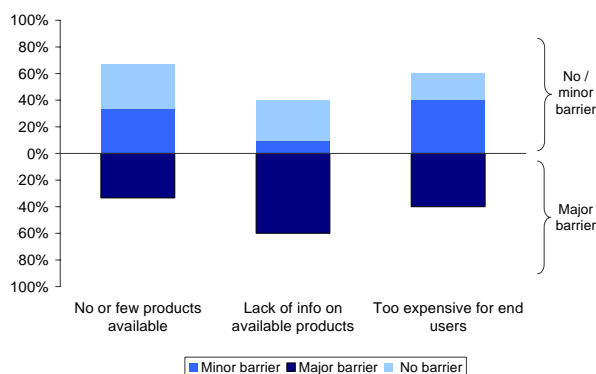
**Exhibit 24 Barriers and facilitators to the wider deployment of text telephones and video telephones among those who could benefit**

Factors contributing to progress in relation to text telephones



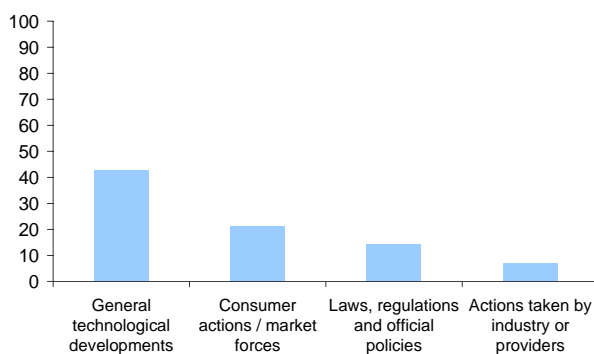
n=12

Main barriers towards wider deployment of text telephones



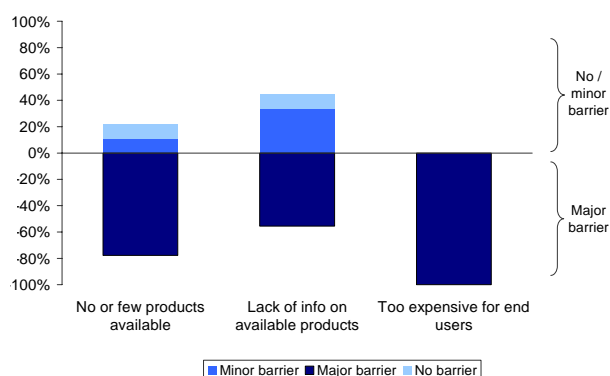
n=9

Factors contributing to progress in relation to video telephony



n=14

Main barriers towards wider deployment of video telephones



n=10

Source: MeAC Survey of Disability Organisations, 2007 © (c.f. Annex, section 3).

**Exhibit 25 Availability of a video relay service, service hours and additional service fees according to country**

	Video relay service available	24hour/7day availability of text relay service	No additional service fee beyond the immediate telephone line connection costs
<b>EU countries</b>	7	-	5
<b>USA</b>	✓	✓	✓
<b>CA</b>	✓	-	-
<b>AU</b>	-	-	-

Source: MeAC National Correspondents Investigation, 2007 © (c.f. Annex, section 1).



### 2.2.3 Comparative eAccessibility status situation

For the purposes of a comparative analysis of the eAccessibility status across the EU and the three comparison countries, two indices are utilised as set out in the table below (Exhibit 26). These address:

- provision of eAccessibility-related product information by the two main landline/mobile telephony operators<sup>39</sup> through their online sales channels (company web sites)
- availability of a text relay service.

**Exhibit 26 Scoring system: telephony eAccessibility status indices**

Index name	Scoring for Sub-components	Potential score
Online provision of accessibility-related product information by main national telephony operators	1 <sup>st</sup> mobile telephony operator in the country: - offering of models on web site that are explicitly labelled as hearing aid compatible [1] - provision of any other product related customer information dedicated to people with disabilities on web site [1]	2
	2 <sup>nd</sup> mobile telephony operator in the country: - offering of models on web site that are explicitly labelled as hearing aid compatible [1] - provision of any other product related customer information dedicated to people with disabilities on web site [1]	2
	1 <sup>st</sup> fixed telephony operator in the country: - offering of models on web site that are explicitly labelled as hearing aid compatible [1] - provision of any other product related customer information dedicated to people with disabilities on web site [1]	2
	2 <sup>nd</sup> fixed telephony operator in the country: - offering of models on web site that are explicitly labelled as hearing aid compatible [1] - provision of any other product related customer information dedicated to people with disabilities on web site [1]	2
	Total possible score	8
National availability of text relay service	Availability of a text-relay service in the country: - in terms of a pilot implementation [1] - in terms of a regular service [2]	2
	If pilot service, service hours of the text-relay service: - 24h a day, 7 days per week [2] - less than 24h/7d [1]	2
	If regular service, service hours of the text-relay service: - 24h a day, 7 days per week [4] - less than 24h/7d [2]	4
	Total possible score	6

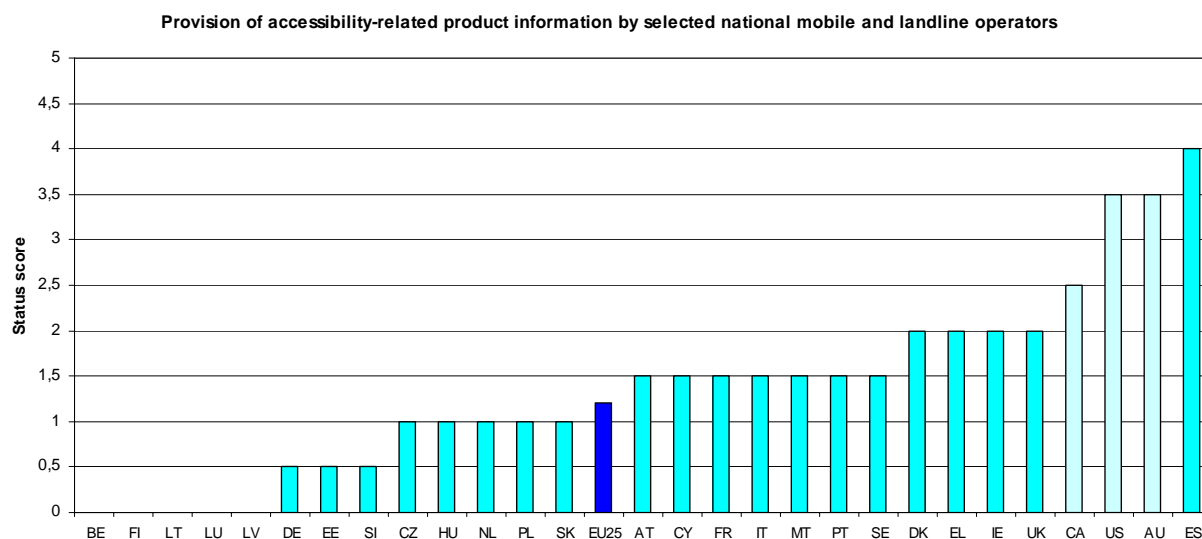
Note: For the analysis presented below the overall index values are standardized to a maximum value of 5 in order to allow comparison across domains and with policy scores. For details on the computation of the index values see also Annex, section 4

The evidence shows (Exhibit 27) that levels of provision of eAccessibility-related product information by the main operators tends to be rather low across the EU and the situation within the EU, as a whole, compares unfavourably with the situation in the three comparison countries. Only one EU country outreaches the index values achieved by the three comparison countries.

<sup>39</sup> For each country the two main landline operators and the two main mobile telephony operators have been identified according to available business statistics (c.f. Annex, section 10)

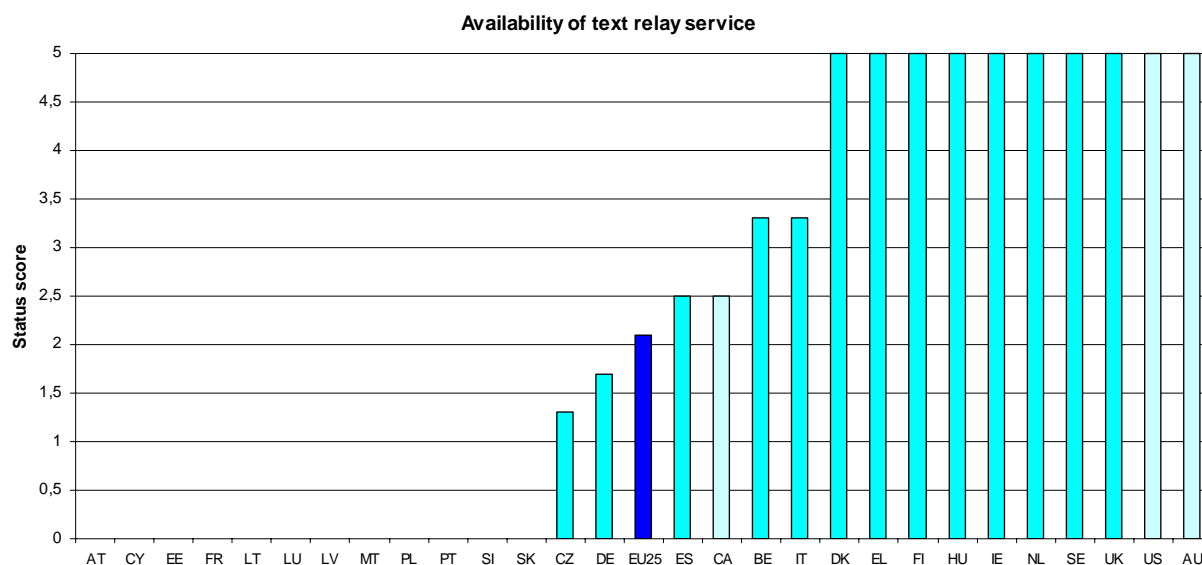
When it comes to the provision of text relay services, a very mixed picture emerges (Exhibit 28). While some countries show a maximum level of provision, in other countries no service is provided at all.

### Exhibit 27 Provision of accessibility-related product information by selected national mobile and landline operators



Source: MeAC National Correspondents Investigation, 2007 © (c.f. Annex, section 1).

### Exhibit 28 Availability of text relay service



Source: MeAC National Correspondents Investigation, 2007 © (c.f. Annex, section 1).

## 2.3 Policy impacts and implications

The policy assessment in this section brings together the evidence from the policy side and the eAccessibility status side in order to first assess whether impacts of policy can be detected.

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Some key implications of the evidence-base for possible future policy making at EU level are then identified.

### **2.3.1 Impacts of policies**

The analysis here focuses on two different levels - impacts of EU-level policy and impacts of policies at the country level.

#### **2.3.1.1 EU policy impacts**

Assessment of the nature and extent of EU policy impacts in the telecommunications accessibility domain primarily concerns the impacts that are being achieved through influencing the (fixed) telecommunications legislation and regulations in the Member States. The main mechanism for this is the national transpositions of the EU's telecommunications regulatory package. On the basis of the data gathered by the MeAC study and presented in Section 2.1, the assessment includes both positive and negative aspects.

On the positive side, the evidence from MeAC indicates that in relation to fixed telephony services, at least, some reference to accessibility issues has been made in the transpositions of the EU telecoms directives in almost all countries (although there are a few exceptions). On the negative side, however, in some cases the accessibility themes that are mentioned have not yet been followed-up and implemented in practice.

Overall, the impact of EU policy across Europe as a whole has not been sufficient to bring the 'average' policy situation on accessibility of fixed telephony services to the same level as that in the comparison countries (US, Australia and Canada). Only a small number of Member States compare favourably with these reference countries and the majority compare unfavourably.

Of equal importance is the fact that the situation across the Member States is quite uneven in terms of the strength of requirements implemented in national transpositions of the EU measures and, also, in the dimensions of telecoms accessibility that are addressed. The result is a patchwork of provisions, with differing mixes of accessibility issues being addressed and many gaps.

It must be concluded, therefore, that the current EU provisions do not appear to be sufficiently driving consistency, coherence and completeness in the approaches to eAccessibility of fixed telecommunications services across the Member States. In addition, the absence of EU-level provisions in relation to accessibility of mobile telecommunications services and also in relation to the (fixed and mobile) telecommunications equipment sectors is reflected in the fact that very few Member States have implemented any policies in these areas.

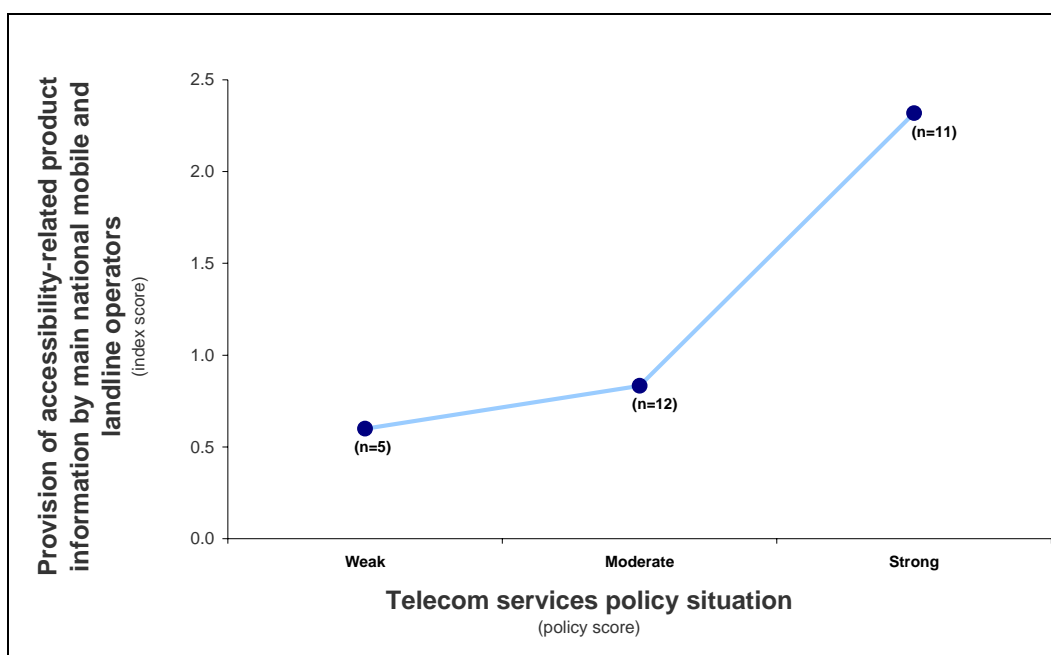
#### **2.3.1.2 Impacts of policies at the country level**

Overall, the assessment of the eAccessibility status in relation to telecommunications provides clear evidence that there is not enough impact yet being achieved by existing policies in the Member States. The evidence presented in section 2.2 indicates a substantial lack of availability of key accessibility provisions and a range of factors (e.g. lack of awareness, lack of information and high costs) that act as barriers to take-up of solutions that are available, as well as a perception of limited and slow progress overall.

Despite this relatively negative picture, however, the evidence does show that when policy in this field is well-developed and effectively implemented it has strong positive impacts on the eAccessibility status in a country. Such impacts can be identified, for example, in levels of

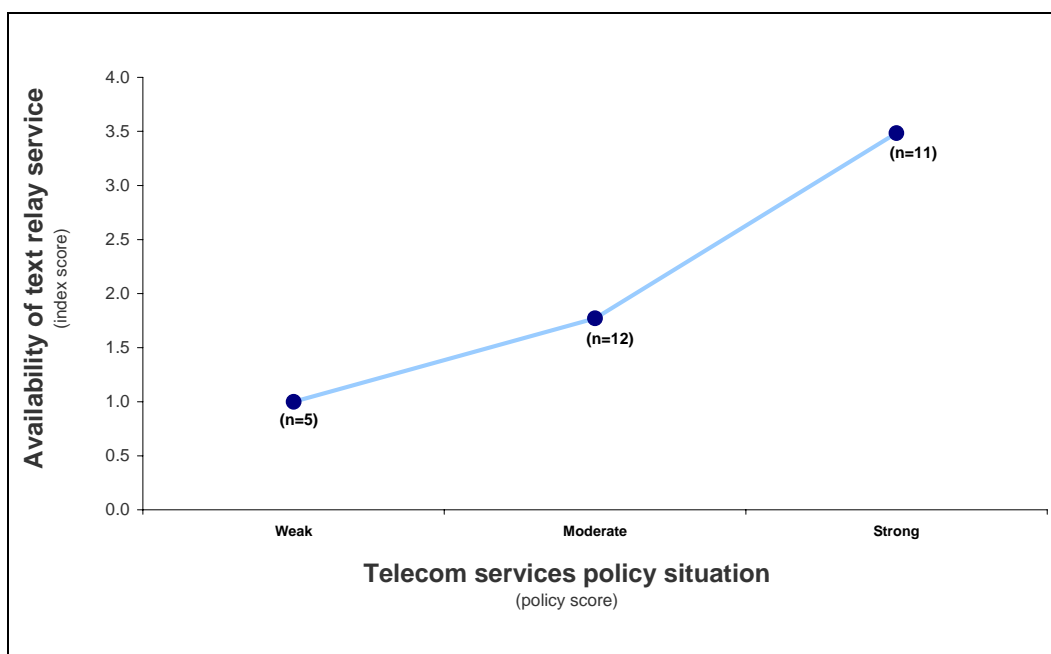
industry attentiveness (Exhibit 29) and in the tangible levels of eAccessibility in the country (Exhibits 30)<sup>40</sup>.

**Exhibit 29 Impact of telecommunications policy on telecoms operators attentiveness to eAccessibility**



Source: MeAC 2007 ©

**Exhibit 30 Impact of telecommunications policy on availability of text relay services**



Source: MeAC 2007 ©

<sup>40</sup>. In Exhibits 29 and 30, the 28 countries are grouped into categories according to their policy scores (see Exhibits 15 and 16 for details) and the graphs show the average eAccessibility status scores for each group of countries. (n = no. of countries)

### 2.3.2 Implications for future EU policy

Overall, the evidence and analysis in relation to telecommunications accessibility indicates a number of important challenges that warrant attention at the EU-level. These include:

- the eAccessibility policy and status disparities across the Member States and Europe's lower average policy strength and eAccessibility status in comparison to the reference countries
- the fact that very few countries have the necessary set of measures in place to ensure anything close to real service equivalence for disabled users today (even if only in relation to fixed telecommunications services), in terms of service quality, costs and choice
- the lack of provision of accessibility for key services, such as emergency numbers, in many countries
- the much lower levels of attention to accessibility of mobile telephony in comparison to fixed telephony and the absence of almost any direct policy attention addressing the equipment sector.

Even if it can be expected that, if left alone, some moderate improvements in eAccessibility policy strength might be expected over time in some countries (especially in those where the laws/regulations are very recent and have not yet been fully implemented in practice), overall the evidence indicates that sufficient progress is unlikely to be achieved without (further) EU-level intervention. In addition, the absence of EU-level provisions in relation to accessibility of mobile telecommunications services and also in relation to the (fixed and mobile) telecommunications equipment sectors<sup>41</sup> is reflected in the fact that very few Member States have implemented any policies in these areas.

The challenges that are presented suggest a need to consider (some combination of) possible measures at EU level, including:

- revision and strengthening of the eAccessibility dimension of the EU telecommunications regulatory package
- introduction of measures to address the accessibility of telecommunications equipment (as well as services) and, in relation to services, to widen the scope to include mobile services and beyond
- wider, multi-sectoral measures to help ensure coherence across all relevant policy sectors - telecommunications services, telecommunications equipment, and social policy
- measures that address affordability as a dedicated issue (including encouragement of mainstreaming of eAccessibility features so that they are provided as standard in popular products and services, and clarification of the role of social policy in relation to issues of affordability and equipment provision)
- accompanying measures to reach, mobilise and increase the capacity of the various stakeholders (industry, users, policy) in this field.

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<sup>41</sup> There are (latent) provisions in the Radio & Telecommunications Terminal Equipment (R&TTE) - Directive 1999/5/EC, but these have yet to be invoked.

## 3 Television

Accessibility of TV broadcasts is another crucial issue for people with disabilities in order to participate in the social, cultural and economic life of society. It is therefore essential that TV services and equipment take into account the accessibility requirements of people with hearing, visual and other disabilities. This Chapter presents the data and analysis in relation to the television theme, again organised into three main sections:

- policy situation
- eAccessibility status
- policy impacts and implications.

### 3.1 Policy situation

#### 3.1.1 EU-level context

Historically, accessibility provisions for disabled users, where offered, were part of the public service remit of the (then) monopoly public TV broadcasters. Although little systematic data has been available to date, it has been generally the view that levels of provision in relation to key accessibility services (text captioning/subtitling and/or signing of the audio content for people with hearing impairments; audio description of the visual content for people with visual impairments) have been very variable and generally quite limited across Europe. Although there have been no EU measures of direct relevance in this field to date, the political agreement on the new Audiovisual Services Directive (amending the Television Without Frontiers - TVWF - Directive) includes accessibility within its scope<sup>42</sup>. The text recognises that "*the right of persons with a disability and the elderly to participate and integrate in the social and cultural life of the Community is inextricably linked to the provision of accessible audiovisual media services*" and notes that "*the accessibility of audiovisual media services includes, but is not restricted to, sign language, subtitling, audio-description and easily understandable menu navigation*". In addition, it includes a clause stating that "*Member States shall encourage media service providers under their jurisdiction to ensure that their services are gradually made accessible to people with a visual or hearing disability*".

#### 3.1.2 Policy situation in the Member States and other countries

The MeAC assessment and analysis of the policy situation in relation to television gives separate consideration to three themes: accessibility of TV broadcast programming, accessibility features in TV equipment, and new issues arising with Digital TV.

##### 3.1.2.1 Accessibility of TV broadcast programming

Two core dimensions were used in the assessment of the policy situation in this field:

- general strength of the legislative/regulatory framework addressing accessibility of TV services
- the specific aspects of eAccessibility covered in legislation/regulations or other relevant policies.

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<sup>42</sup> [http://ec.europa.eu/avpolicy/docs/reg/modernisation/proposal\\_2005/avmsd\\_cons\\_may07\\_en.pdf](http://ec.europa.eu/avpolicy/docs/reg/modernisation/proposal_2005/avmsd_cons_may07_en.pdf).

Details of the scoring system are presented in the following table (Exhibit 31). The detailed policy situations underpinning the scores for each country can be found in the MeAC policy inventory<sup>43</sup>.

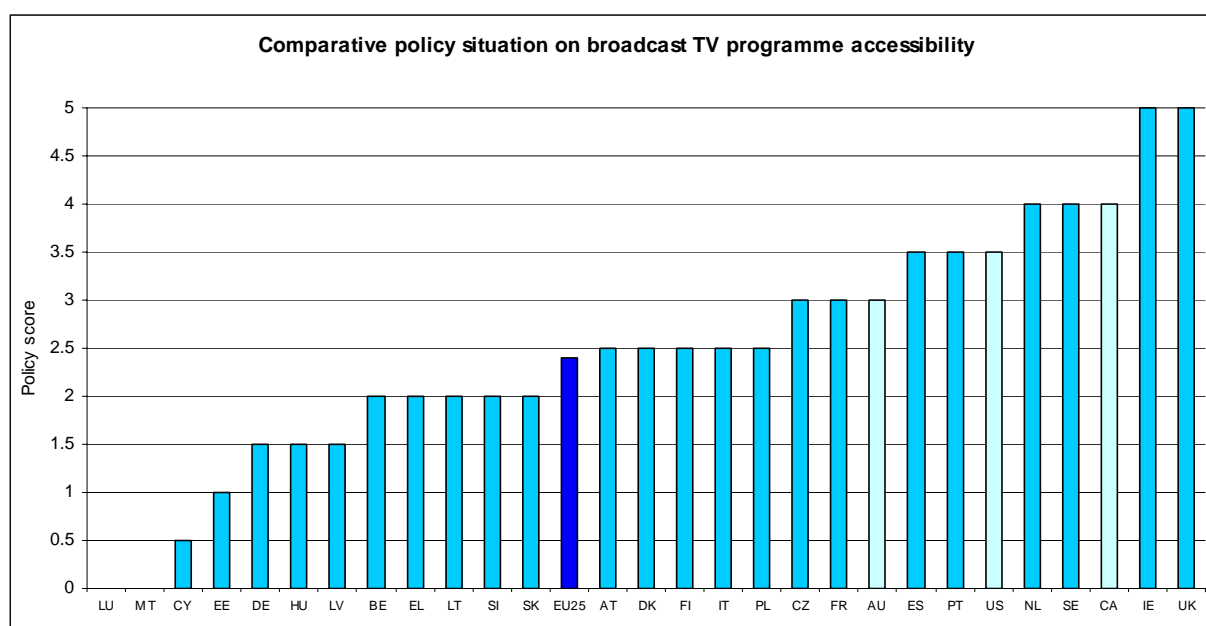
**Exhibit 31 Scoring system: Television services policy**

Dimension	Scoring for Sub-components	Potential score
Form of accessibility requirement on public service broadcasters	0 = no requirement or assumed role 0.5 = only a voluntary/assumed public service role 1 = required by law/regulations or license/contract	1
Form of accessibility requirement on other (commercial) broadcasters	0 = no requirement 0.5 = loosely defined obligations / expectations 1 = required by law/regulations or license/contract	1
Subtitling requirements	0 = none 0.5 = public broadcasters only 1 = public and other broadcasters	1
Sign language requirements	0 = none 0.5 = public broadcasters only 1 = public and other broadcasters	1
Audio description requirements	0 = none 0.5 = public broadcasters only 1 = public and other broadcasters	1
Total possible score		5

### Comparative policy situation

Exhibits 32 and 33 present the comparative policy situation across countries and for the EU as a whole.

**Exhibit 32 Comparative television services accessibility policy situation across Europe and other countries**



Source: MeAC Policy Survey, 2007 ©

<sup>43</sup> Available at: [http://ec.europa.eu/information\\_society/activities/einclusion/index\\_en.htm](http://ec.europa.eu/information_society/activities/einclusion/index_en.htm)

**Exhibit 33 Classification of countries in terms of policy strength on TV broadcast accessibility<sup>44</sup>**

Policy strength	Number of EU25 countries	EU 25 Average	Other countries
Very Strong	2		
Strong	4		CA, US
Moderate	7		AU
Weak	8	EU25	
Very Weak	4		

Source: MeAC Policy Survey, 2007 ©

By way of example, the UK<sup>45</sup> and Ireland<sup>46</sup> are considered to be very strong because their TV broadcast legislation/regulations impose requirements that address both public and commercial broadcasters and include specific requirements in relation to each of the three accessibility themes (text captions, signing, audio description) for both sectors. Details of the policy situations in these and all the other countries can be found in the MeAC policy inventory<sup>47</sup>.

More generally, the strength of legislative/regulatory policy relating to accessible TV broadcasts varies widely across the Member States: 6 are rated as being 'strong' or 'very strong', 7 as 'moderate' and 12 as 'weak' or 'very weak'. Overall, the 'average' policy situation across the EU25 as a whole is rated as 'weak-to-moderate'; this compares unfavorably with the reference countries (US, CA and AU); and only a minority of EU countries are at the same level as these.

**Specific aspects of accessibility addressed in TV services policy**

Exhibit 34 presents data on the patterns across the Member States in terms of the specific aspects of accessibility that are addressed in their TV services policies.

Some important patterns that can be observed include:

- the majority (but not all) of Member States have some level of policy addressing accessibility of public TV broadcasts, typically referring to the main public broadcaster; sometimes this is not specifically enshrined in legislation/regulations but taken up as (an assumed) public broadcaster responsibility
- fewer than one-half of countries have public policies on accessibility that address commercial broadcasters and, where they exist, they are often very limited or loosely stated
- captioning (subtitling) for hearing-impaired is the most common theme addressed, being found in more than eighty per cent of countries; however, the extent to which there are defined targets in percentages / hours of programming, and the level of such requirements, varies considerably
- provision of some signing of programming is also a common requirement, although only a few countries have specified targets in terms of the type / amount of programming to be covered
- less than one-third of countries give any direct attention in their policies to audio description and, where such provisions are addressed, they are often very limited and/or provided on a voluntary basis as part of the public broadcaster role; only a few countries have specified targets in terms of percentage / hours of programming.

<sup>44</sup> 'Policy strength' is based on the policy score attained by a country according to the scoring system in Exhibit X. A score of 4.5 or 5 is considered to be 'very strong', 3.5 or 4 to be 'strong', 2.5 or 3 to be 'moderate', 1.5 or 2 to be 'weak', and 1 or lower to be 'very weak'

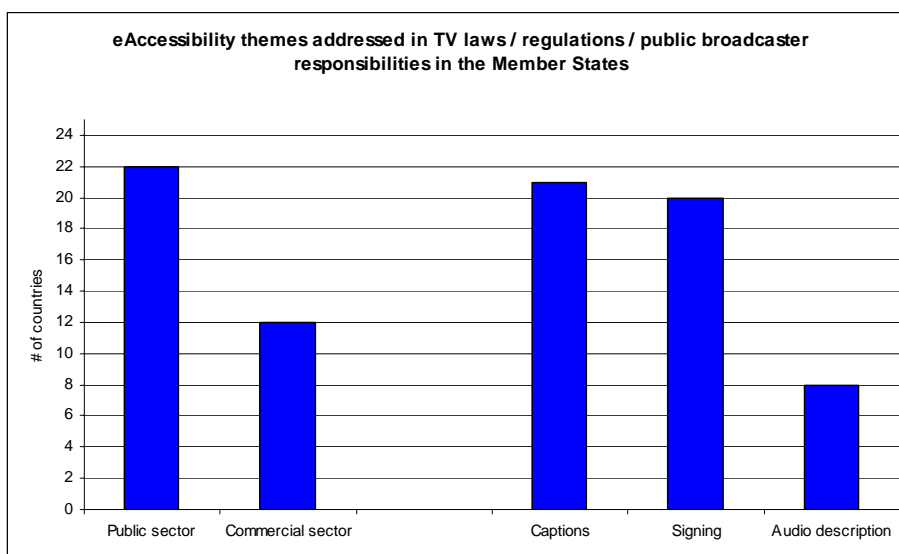
<sup>45</sup> Communications Act (2003) and regulator's (Ofcom) Code on Television Access Services

<sup>46</sup> Broadcasting Act (2001) and regulator's (BCI) Access Rules

<sup>47</sup> MeAC eAccessibility Policy Inventory



### Exhibit 34 Dimensions addressed in TV broadcast laws / regulations / public broadcaster responsibilities



Source: MeAC Policy Survey, 2007 © (c.f. MeAC Policy Inventory).

#### 3.1.3 Accessibility of end-user TV equipment

In comparison to the broadcast services area, very few countries have laws/regulations that directly address accessibility of end-user TV equipment (TV sets, set-top boxes, remote controls, recording equipment such as VCRs and so on). In fact, only one EU country (UK) and one other country (US) appear to have addressed any aspects of this theme. In the US, there is a law that imposes obligations on manufacturers or importers of TV sets to ensure that they have built-in caption decoding features<sup>48</sup>. In the UK, legislation imposes some obligations in relation to the development of accessible digital TV equipment<sup>49</sup>.

#### 3.1.4 New issues arising with the roll-out of digital TV

The introduction of digital TV introduces both new opportunities (e.g. in principle it should be easier and cheaper to implement accessibility features such as captions and audio description) and new challenges (e.g. accessibility barriers that can be presented by electronic programme guides).

On the basis of the MeAC survey, only four of the Member States appear to be actively addressing the new challenges in a policy context, mainly through establishment of working groups / studies to examine the issues. Eight Member States have measures addressing exploitation of the positive opportunities, such as development and implementation of automatic media translation (e.g. text-to-speech and vice versa) as well as imposing higher targets and/or quality standards for subtitling and/or audio description in the digital environment.

### 3.2 eAccessibility status

To ensure that people with disabilities can access and enjoy TV broadcast programmes in the same manner as everyone else, a variety of accessibility provisions need to be made available. These include subtitling and sign language interpretation for people with hearing impairments

<sup>48</sup> Television Decoder Circuitry Act (1990) and updated regulator's (FCC) rules.

<sup>49</sup> Communications Act, 2003.

and audio description for people with visual impairments. Subtitling provides an on-screen text based representation of what is being said in a broadcast programme, and sometimes includes descriptions of background sounds. It can be visible continuously (open subtitles) or the user can select to include with the picture as desired (closed subtitles). Signed TV programmes provide a real-time signed interpretation of the spoken content, which is a key requirement for those who depend on sign language. Audio description involves provision of an additional narration track for blind and visually impaired viewers, where the description narrator talks through the presentation, describing what is happening on the screen during the natural pauses in the audio (and sometimes during dialogue if deemed necessary). Beyond the availability of such access services that are broadcast together with TV programmes, the end user needs to have terminal equipment (e.g. TV sets, receivers) available that support the reception of such services.

The MeAC data on the indicators listed in Exhibit 35 suggest that people with disabilities who rely on access services when watching TV programmes face considerable barriers to access and enjoyment of TV content across Europe.

### **Exhibit 35 eAccessibility indicators on TV service accessibility**

- 
- Provision of TV content provided with access services (subtitling, sign language interpretation, audio description) by two main public broadcasters in the country in 2006
  - Provision of TV content provided with access services in 2006 (subtitling, sign language interpretation, audio description) by two main commercial broadcasters in the country in 2006
  - Progress in the availability of TV programmes with subtitling/signing over the last 5 to 10 years as perceived by disability organisations
  - Progress in the availability of TV programmes with audio description over the last 5 to 10 years as perceived by disability organisations
  - Main barriers to having TV equipment required for utilising subtitling/signing as perceived by disability organisations
  - Main barriers to having TV equipment required for utilising audio description as perceived by disability organisations
  - Factors that have contributed to progress in relation to TV broadcasts for hearing impaired
  - Factors that have contributed to progress in relation to TV broadcasts for visually impaired
- 

Although some programmes with subtitling are available from the main broadcasting stations in many European Member States, the amount of content actually broadcasted with subtitles varies considerably, ranging from almost all programmes in a few countries to merely a single news programme per day in others (Annex, section 1). In addition, although subtitling of programmes in foreign languages is relatively common, there is often considerably less subtitling of national language programming. Where this is the case, people who rely on subtitling (e.g. deaf people) face a very unequal situation as regards access to national language programmes. While some national language programmes with subtitling are available from public broadcasters in 19 Member States, the same holds only for 10 countries when it comes to commercial broadcasters (Exhibit 36 and Exhibit 37).

The data also suggests that in the European Union public broadcasters tend to provide considerably larger volumes of programmes with subtitles when compared with commercial channels. The average share of national language programmes broadcasted in the EU Member States with subtitles in 2006 by the two main public channels reaches for instance between 27% and 31%, respectively, while the share for the two main commercial broadcasters amounts to only 9% and 7% respectively (Exhibit 38).

**Exhibit 36 Provision of TV programmes with access services by the two main public broadcasters**

	1 <sup>st</sup> main public broadcaster			2 <sup>nd</sup> main public broadcaster <sup>50</sup>		
	Subtitling of national language programmes	sign language interpretation	audio description	Subtitling of national language programmes	sign language interpretation	audio description
<b>EU (#of countries)</b>	19	16	3	16	15	5
<b>USA<sup>51</sup></b>	✓	-	✓	n.a.	n.a.	n.a.
<b>CA</b>	✓	-	✓	✓	-	✓
<b>AU</b>	✓	-	-	✓	-	-

Note: For some broadcasters no clear evidence on the share of their overall programme in national language that has been broadcasted with access services (subtitling, signing, audio description) is available in terms of percentages. In this table, positive entries are included only for those broadcasters for which such evidence is available.

Source: MeAC National Correspondents Investigation, 2007 © (c.f. Annex, section 1).

**Exhibit 37 Provision of TV programmes with access services by the two main commercial broadcasters**

	1 <sup>st</sup> main commercial broadcaster			2 <sup>nd</sup> main commercial broadcaster		
	Subtitling of national language programmes	sign language interpretation	audio description	Subtitling of national language programme	sign language interpretation	audio description
<b>EU (#of countries)</b>	10	6	1	8	5	1
<b>USA</b>	✓	-	-	✓	-	-
<b>CA</b>	✓	-	✓	✓	-	✓
<b>AU</b>	✓	-	-	✓	-	-

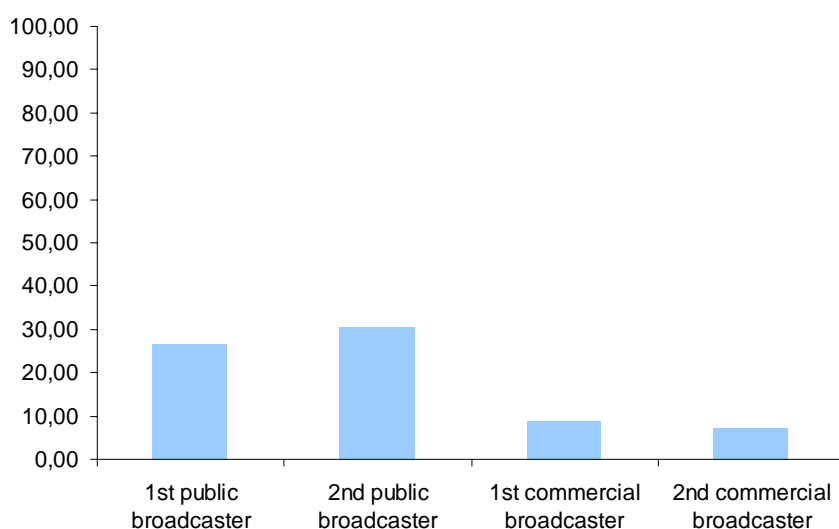
Note: For some broadcasters no clear evidence on the share of their overall programme in national language that has been broadcasted with access services (subtitling, signing, audio description) is available in terms of percentages. In this table, positive entries are included only for those broadcasters for which such evidence is available.

Source: MeAC National Correspondents Investigation, 2007 © (c.f. Annex, section 1).

<sup>50</sup> Note: In three Member States there is only one public broadcaster that broadcasts a nation wide free on air programme (cf. Annex, section 1).

<sup>51</sup> Data provided refer to the Public Broadcasting Service (PBS). All public television organizations are linked nationally through three national organizations: the Corporation for Public Broadcasting (CPB), created by Congress in 1967 to channel federal government funding to stations and independent producers; the Public Broadcasting Service (PBS), formed in 1969 and which today distributes programming and operates the satellite system linking all public TV stations; and the Association of Public Television Stations (APTS), which helps member public TV stations with research and planning.

**Exhibit 38 Average % of national language programmes broadcasted in 2006 with subtitles in the EU Member States by the two main public and commercial broadcasters**



Source: MeAC Survey of ICT Companies, 2007 © (c.f. Annex, section 3).

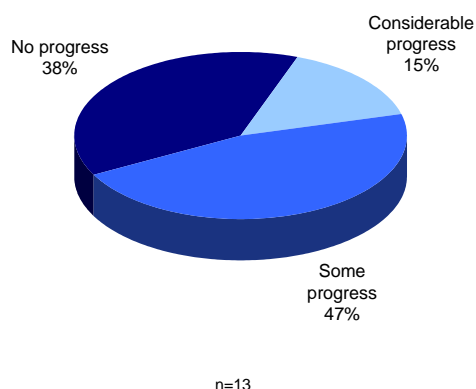
When compared with users who rely on subtitling, those preferring their national sign language have considerably lower access to TV content. Although some signed content is available in many Member States, the amount of signing currently broadcasted is much lower when compared with subtitling, not exceeding 5% of the overall programme in any of the Member States (Annex, section 1). As in the case of subtitling, levels of provision differ considerably between public and commercial broadcasters - some programmes with sign language interpretation are available from the main public broadcaster in 16 Member States but from the main commercial broadcaster only in 6 Member States (Exhibit 36 and Exhibit 37).

TV programmes broadcast with audio description are rarely available in the European Union (and beyond). Only in five Member States do the two main public broadcasters provide any TV content with audio description, while the same holds only for one country when it comes to commercial broadcasting. Also, volumes of programmes broadcast with audio description are much lower when compared with subtitling (cf. Annex, section 1).

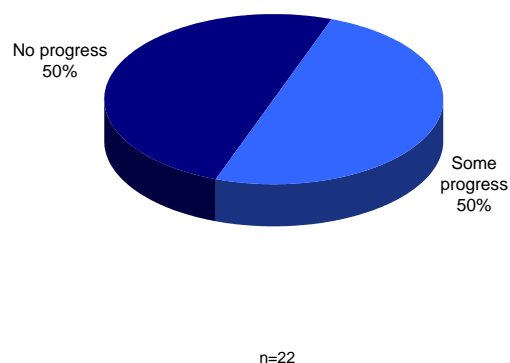
Against this background, it does not come as a surprise that the responding disability organisations report less progress having happened over the last 5 to 10 years in relation to audio description when compared with subtitling (Exhibit 39). While at least 15% of the responding organisations report considerable progress in relation to subtitling, none do so in relation to audio description. As regards the latter, one half of the user organisations report moderate progress at best, while the other half report no progress at all having happened during that time span.

### Exhibit 39 eAccessibility of broadcasting programmes as perceived by European disability organisations

Progress in the availability of subtitling/signing of TV programmes



Progress in the availability of audio description of TV programmes

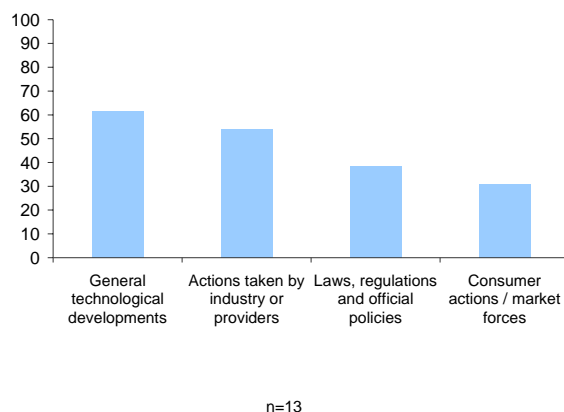


Source: MeAC Survey of Disability Organisations, 2007 © (c.f. Annex, section 3).

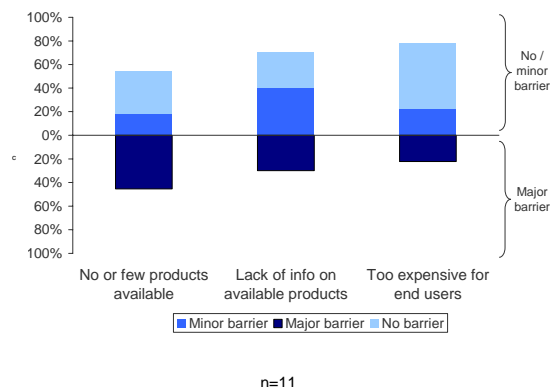
When it comes to factors driving progress in relation to accessibility of TV programmes to people with hearing impairments, technological developments are assessed as a main driver by a large share (some 61%) of the responding disability organisations (Exhibit 40). This assessment is supported by explanatory comments referring for instance to the availability of subtitling in live broadcasts enabled by new speech to text technology. When it comes to access services directed to people with visual impairments, progress seems less dynamic. Neither technology developments nor any other factors are assessed as being key drivers by the majority of user organisations. Rather, barriers are highlighted by the user organisations. In addition, when it comes to the wider utilisation of TV equipment supporting audio descriptions among those who could benefit, high purchase costs and lacking availability of suitable products are perceived as main barriers by a majority (71% and 63 % respectively).

## Exhibit 40 Barriers and facilitators to eAccessibility of TV equipment accessible to people with disabilities as perceived by European disability organisations

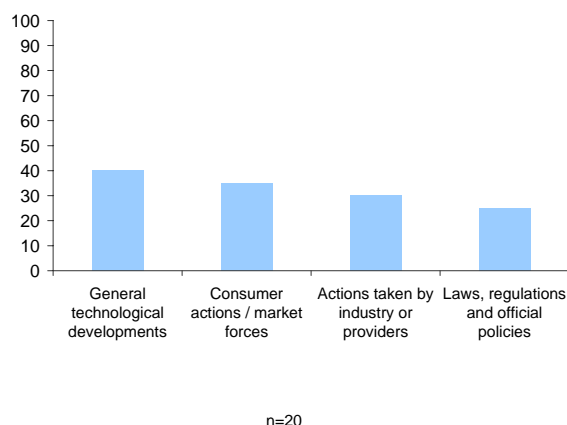
Factors contributing to progress in relation to TV broadcast for hearing impaired



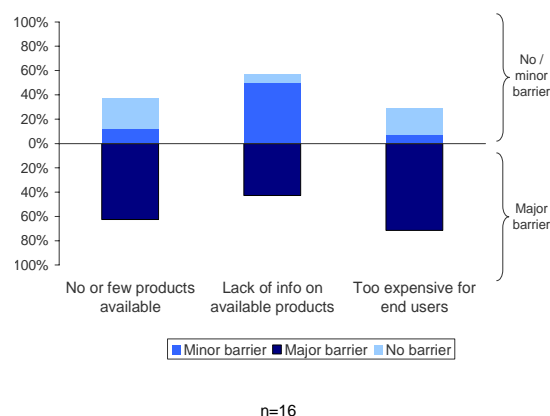
Main barriers towards wider deployment of TV equipment required for utilising access services for hearing impaired



Factors contributing to progress in relation to TV broadcast for visually impaired



Main barriers towards wider deployment of TV sets supporting audio description for visually impaired



Source: MeAC Survey of Disability Organisations, 2007 © (c.f. Annex, section 3).

### 3.2.1 Comparative eAccessibility situation

The comparative analysis relies on two indices that have been developed for the purposes of this study (Exhibit 42). These address the following two measurement dimensions:

- The average share of national language programmes broadcasted with subtitles by the two main public broadcasters<sup>52</sup>
- The average share of national language programmes broadcasted with subtitles by the two main commercial broadcasters<sup>53</sup>.

<sup>52</sup> For each country, the main public broadcasters have been identified for each country according to available media statistics (c.f. Annex, section 12)

<sup>53</sup> For each country, the main commercial broadcasters have been identified for each country according to available media statistics (c.f. Annex, section 10)

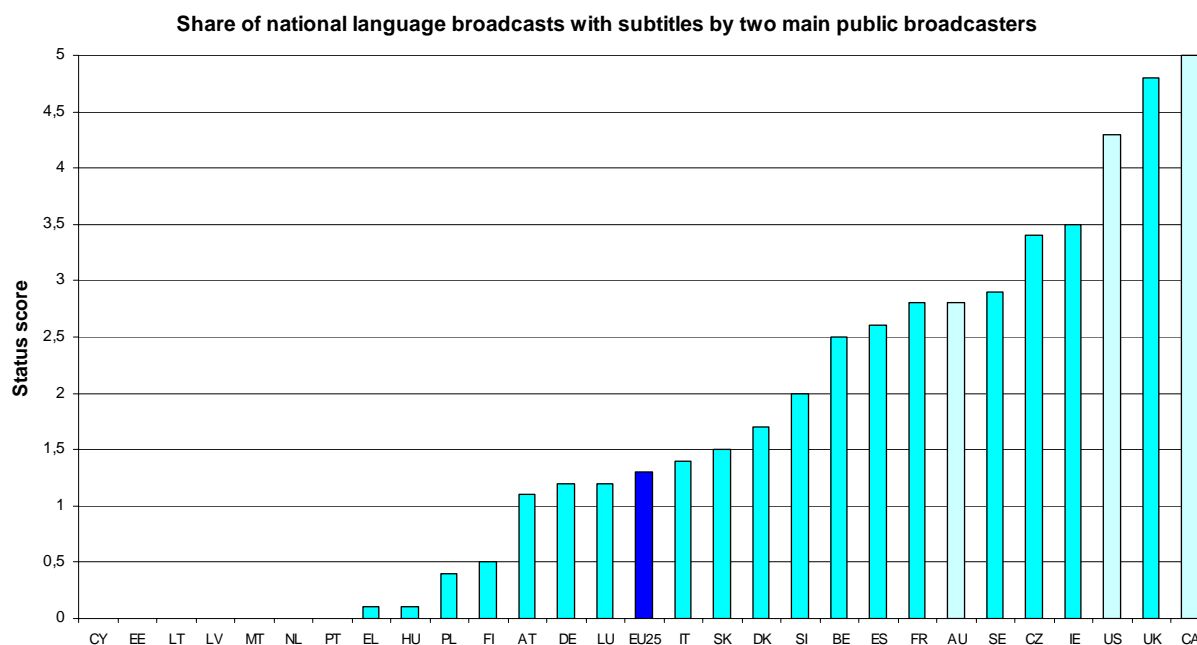
### Exhibit 41 Scoring system: television eAccessibility status indices

Index name	Scoring for Sub-components	Potential score
1) Share of national language programmes broadcasted with subtitles by two main public broadcasters	Share of overall national language programme broadcasted with subtitles in 2006 by the two main public broadcasters	0% -100%
	Total possible score	100%
2) Share of national language programmes broadcasted with subtitles by two main commercial broadcasters	Share of overall national language programme broadcasted with subtitles in 2006 by the two main commercial broadcasters	0% -100%
	Total possible score	100 %

Note: Index values are standardized to a maximum value of 5 in order to allow comparison across domains and with policy scores. For details on the computation of the index values cf. Annex, section 4.

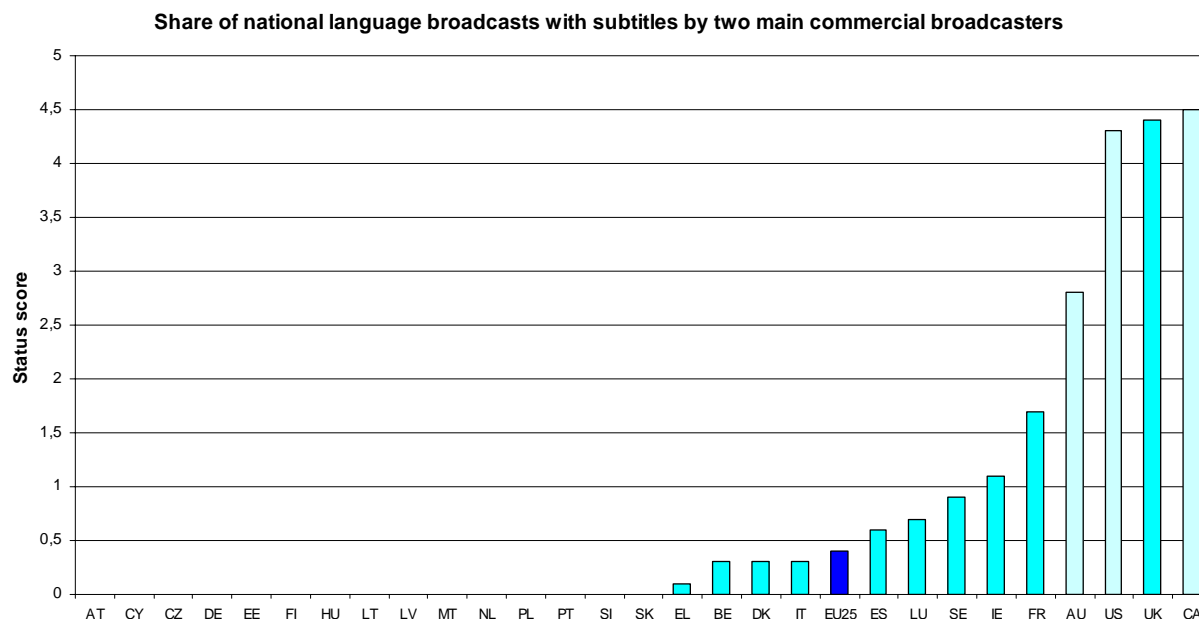
In relation to public TV broadcasting, a very mixed picture emerges across the countries included in the investigation, with a few countries showing close to 100% provision and others where no subtitling of national language programmes is provided at all. On average, the EU compares poorly with the comparison countries. When looking at commercial broadcasters, levels of provision tend to be considerably lower, with only three countries reaching provision level that are comparatively close to the optimum. (Exhibit 42 and 43) When looking at the EU as a whole, again, the situation compares very unfavorably with the comparison countries.

### Exhibit 42 Share of national language broadcasts with subtitles by two main public broadcasters



Source: MeAC National Correspondents Investigation, 2007 © (c.f. Annex, section 1).

### Exhibit 43 Share of national language broadcasts with subtitles by two main commercial broadcasters



Source: MeAC National Correspondents Investigation, 2007 © (c.f. Annex, section 1).

## 3.3 Policy impacts and implications

The policy assessment in this section brings together the evidence from the policy side and the eAccessibility status side in order to first assess whether impacts of policy can be detected. Some key implications of the evidence-base for possible future EU-level policy making are then identified.

### 3.3.1 Impacts of policies

#### 3.3.1.1 EU policy impacts

Although there have been no EU measures of direct relevance in this field to date, the political agreement on the new Audiovisual Services Directive (amending the Television Without Frontiers - TVWF - Directive) includes accessibility within its scope<sup>54</sup>. On the positive side, the inclusion of accessibility within the Directive can be expected to encourage more and better Member State activity on accessibility of TV broadcasts. On the negative side, the new provisions in the Directive do not seem to require the imposition of mandatory obligations nor do they establish specific targets or indicate a sense of urgency for action.

#### 3.3.1.2 Impacts of policies at country level

Overall, the information presented in section 3.2 on the eAccessibility status in relation to TV broadcasts provides clear evidence that there is not enough impact yet being achieved by existing policies in the Member States. Nowhere near full coverage of programming with access services is provided, even in the case of the most common provision, subtitling.

<sup>54</sup> [http://ec.europa.eu/avpolicy/docs/reg/modernisation/proposal\\_2005/avmsd\\_cons\\_may07\\_en.pdf](http://ec.europa.eu/avpolicy/docs/reg/modernisation/proposal_2005/avmsd_cons_may07_en.pdf).

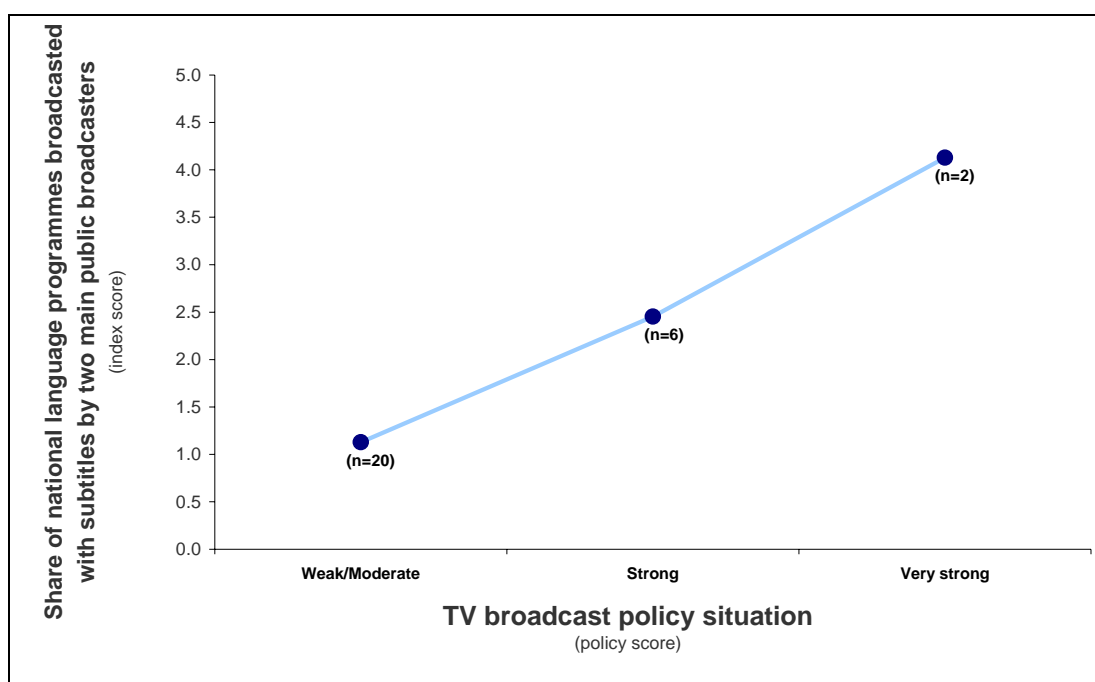


However, the evidence does show that when policy in this field is well-developed and effectively implemented it has strong positive impacts on the eAccessibility status in a country. Such impacts can be identified on the tangible accessibility provisions by both public (Exhibit 44) and commercial broadcasters (Exhibit 45)<sup>55</sup>.

For public broadcasters, it is clear that increasing policy strength leads to substantially increased provisions of subtitling for hearing impaired people (Exhibit 44). Apart from subtitling, the evidence also shows that audio description is beginning to appear in countries where it is specifically included in broadcasting policy and that higher levels are being provided where higher targets are set. The situation for signing is more variable and, in fact, is not a policy theme in the three reference countries (US, CA, AU) and thus seems not to be provided to any significant extent in these.

For commercial broadcasters, likelihood of providing accessibility services and amount of provision is also strongly linked to presence and strength of laws/regulations (Exhibit 45). In this regard current policy and provision, where they exist, focus mainly on subtitling and the evidence generally indicates little or no provision by commercial broadcasters without laws / regulations / licensing that require it. The few exemplar countries, in policy terms, show a lot more provision than other countries.

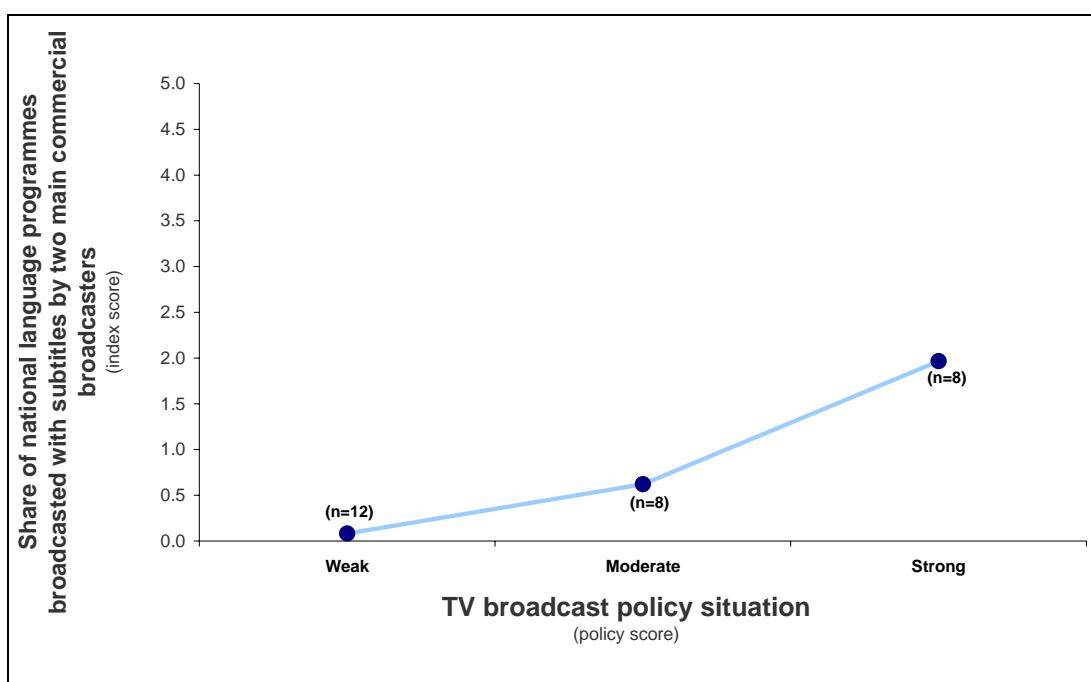
**Exhibit 44 Impact of TV policy on provision of accessibility by public broadcasters**



Source: MeAC 2007 ©

<sup>55</sup> In Exhibits 44 and 45, the 28 countries are grouped into categories according to their policy scores (see Exhibits 32 and 33 for details) and the graphs show the average eAccessibility status scores for each group of countries. (n = no. of countries)

### Exhibit 45 Impact of TV policy on provision of accessibility by commercial broadcasters



Source: MeAC 2007 ©

### 3.3.2 Implications for future EU policy

The evidence and analysis in relation to TV accessibility indicates a number of important challenges that warrant attention at the EU-level. These include:

- the eAccessibility policy and status disparities across the Member States and Europe's lower average policy strength and eAccessibility status in comparison to the reference countries
- the fact that very few countries have the necessary set of measures in place to ensure anything close to real service equivalence for disabled users today, both in terms of service access and of costs of access; the situation for both hearing impaired and visually impaired, and especially the latter, is generally very under-developed
- the fact that very few countries directly and strongly address commercial broadcasters in their laws/regulations and the tendency for lack of response by commercial broadcasters in the absence of such policy provisions in a country.

Even if it can be expected that, over time, the introduction of accessibility in the new Audiovisual Services Directive will make a contribution to progressing this field, the evidence from MeAC would suggest that (further) EU-level measures will be needed if sufficient accessibility of TV services is to be achieved across Europe within any reasonable timeframe. The current absence of EU-level measures directly addressing the TV equipment sector and the new opportunities and challenges posed by digital TV also needs to be taken into account in this regard. The challenges that are presented suggest a need to consider (some combination of) possible measures at EU level, including:

- strengthening of the eAccessibility dimension of EU policies on TV services, including appropriate measures to address both public and commercial broadcasters
- introduction of measures to address accessibility of TV equipment (as well as services)
- introduction of measures to address new issues posed by digital TV

- wider, multi-sectoral measures to help ensure coherence across all relevant policy sectors - TV services, TV equipment and, where relevant, the social policy sector which continues to play an important role in relation to affordability and equipment provision in some countries
- accompanying measures to reach, mobilise and increase the capacity of the various stakeholders (industry, users, policy) in this field.

## 4 The World Wide Web

Accessibility of the World-Wide-Web is another crucial issue for people with disabilities. The pervasive role of the Web as a source of information, as a mode of accessing and delivering services, as a social environment and as an entertainment medium makes it essential that Web services are designed so that they take into account the needs of people with visual and other disabilities. This Chapter presents the data and analysis in relation to the Web theme, again organised into three main sections:

- policy situation
- eAccessibility status
- policy impacts and implications.

### 4.1 Policy situation

#### 4.1.1 EU-level context

Accessibility of public websites has had high EU-level policy visibility and attention for over five years now<sup>56</sup>. More recently, the Commission Communication on eAccessibility in 2005<sup>57</sup> again drew attention to the importance of EU-level policies in this field and the Ministerial Declaration on eInclusion at Riga in 2006 set as one of its priorities the promotion of inclusive eGovernment by ensuring accessibility of all public web sites by 2010.<sup>58</sup> However, the available evidence to date has suggested that the tangible achievements in this context have been very modest in terms of the proportion of public websites in Europe that are accessible and in the levels of accessibility being achieved in different Member States.<sup>59</sup>

As regards commercial websites, there is not currently any direct EU-level policy that addresses this sector. In practice, the available evidence to date has suggested that levels of accessibility of commercial websites across Europe have tended to be very low, and considerably lower than (the already relatively poor) situation for public websites.<sup>60</sup>

#### 4.1.2 Policy situation in the Member States and other countries

The MeAC assessment of the policy situation at the country level gives separate consideration to policies addressing public websites and policies addressing other (commercial) websites.

##### 4.1.2.1 Public websites

#### Policy assessment dimensions and indicator scoring system

Two core dimensions were used in the assessment of the policy situation in this field:

- general strength of the legislative/regulatory framework addressing accessibility of public websites

<sup>56</sup> COM (2001) 529 Communication from the Commission eEurope 2002: Accessibility of Public Web Sites and their Content; Council Resolution on "eAccessibility" - improving the access of people with disabilities to the Knowledge Based Society, 2-3 December, 2002, 14892/02; EP Resolution on eEurope 2002: Accessibility of Public Web Sites and their Content (2002 (0325))

<sup>57</sup> [http://eurlex.europa.eu/smartapi/cgi/sga\\_doc?smartapi!celexplus!prod!DocNumber&lg=en&type\\_doc=COMfinal&an\\_doc=2005&nu\\_do c=425](http://eurlex.europa.eu/smartapi/cgi/sga_doc?smartapi!celexplus!prod!DocNumber&lg=en&type_doc=COMfinal&an_doc=2005&nu_do c=425)

<sup>58</sup> [http://ec.europa.eu/information\\_society/events/ict\\_riga\\_2006/doc/declaration\\_riga.pdf](http://ec.europa.eu/information_society/events/ict_riga_2006/doc/declaration_riga.pdf).

<sup>59</sup> UK Cabinet Office (2005) eAccessibility of public sector services in the European Union

<sup>60</sup> Nomensa (2006) United Nations Global Audit of Web Accessibility.

- the extent to which implementation support activities are included within the policy approaches.

In addition, the scoring system also includes a supplementary aspect concerning whether or not the laws/regulations and/or implementation support actions are located within the eGovernment field or in some other policy field. In general, it can be expected that policies on public website accessibility that are closer to the eGovernment domain will be more effective / efficient (principle of sectoral responsibility).

Details of the scoring system are presented in the following table (Exhibit 46). The detailed policy situations underpinning the scores for each country can be found in the MeAC policy inventory<sup>61</sup>.

#### Exhibit 46 Scoring system: Public website policy

Dimension	Scoring for Sub-components	Potential score
Legislation / regulation addressing public website accessibility	0 = no relevant legislation / regulation 0.5 = nothing direct, but could be inferred (e.g. from equality law) 1 = clear expectation of accessibility, but not very strong/direct 1.5 = strong expectation, but not clearly mandatory 2 = strong mandatory requirement	2
	Supplementary: 0 = not located within the eGovernment domain 0.5 = located within the eGovernment domain	0.5
Implementation support actions (such as guidelines/standards, monitoring/reporting, certification, sanctions)	0 = none 0.5 = some activity, but limited/weak 1 = one relatively strong support action 1.5 = more than one support action, only one strong 2 = two or more strong support actions	2
	Supplementary: 0 = not located within the eGovernment domain 0.5 = located within the eGovernment domain	0.5
Total possible score		5

#### Comparative policy situation

Exhibits 47 and 48 present the comparative policy situation across countries and for the EU as a whole.

By way of example, IT<sup>62</sup> is considered to be very strong because the public web accessibility legislation imposes strong mandatory requirements and this is formally linked to strong supportive implementation mechanisms, including guidelines, certification and sanctions. Details of the policy situations in this and all the other countries can be found in the MeAC policy inventory<sup>63</sup>.

<sup>61</sup> Available at: [http://ec.europa.eu/information\\_society/activities/einclusion/index\\_en.htm](http://ec.europa.eu/information_society/activities/einclusion/index_en.htm)

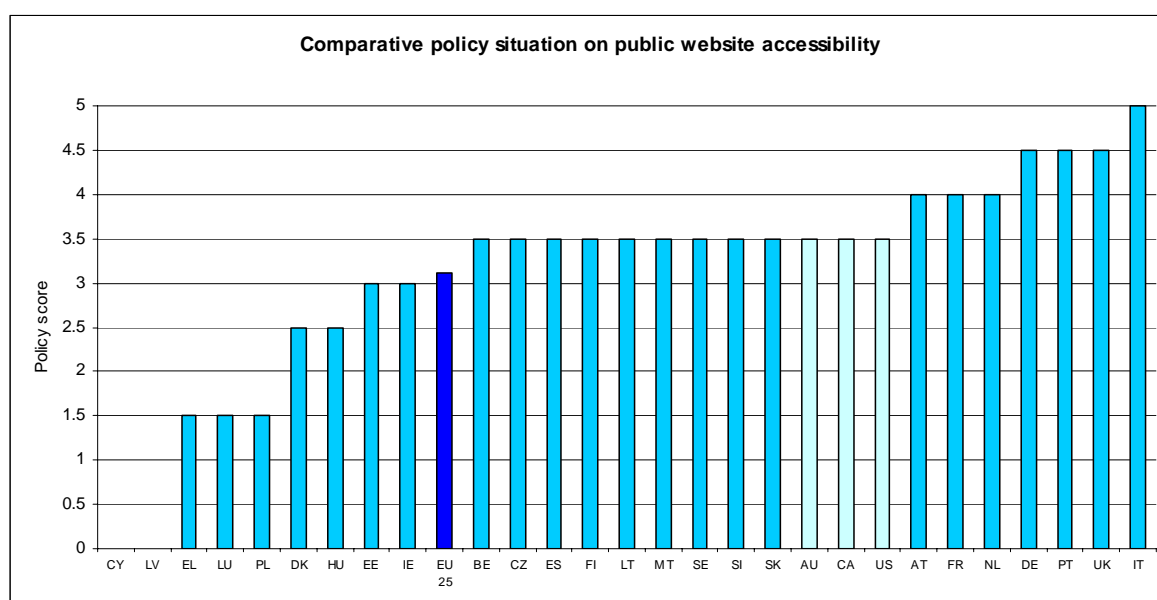
<sup>62</sup> Law n. 4, January 9, 2004 - Provisions to support the access of the disabled to information technologies; Decree of the President of the Republic, March 1st 2005, No. 75 - Implementation Regulations for Law 4/2004 to promote the access of the disabled to information technologies; Ministerial Decree, July 8 2005, containing the Technical Rules of Law 4/2004.

<sup>63</sup> Available at: [http://ec.europa.eu/information\\_society/activities/einclusion/index\\_en.htm](http://ec.europa.eu/information_society/activities/einclusion/index_en.htm)

More generally, important patterns emerging include:

- the issue is on the policy agenda in almost all Member States
- the data presents a relatively strong picture (at least in terms of policy intent) across the Member States - 16 Member States have strong or very strong policy approaches; in four the policy approach is moderate; and in five weak or very weak
- the EU situation overall is moderate-to-strong, just a little lower than the comparison countries
- most Member States have some form of legislation/ regulation (of varying strength) in this area, mostly falling within the eGovernment arena; in some countries disability and/or equality policies also address public web site accessibility, and in a few cases provide the only legal basis
- more generally, there appears to be some variability across countries in the extent to which laws/regulations apply across the public sector as a whole, or are limited to central government or in other ways
- the majority of countries also have implemented some sort of supportive implementation activities or action programmes (e.g. guidelines/standards, sanctions, monitoring/reporting and/or certification), again with substantially varying approaches and strength across countries.

**Exhibit 47 Comparative policy situation on public website accessibility**



Source: MeAC Policy Survey, 2007 ©

**Exhibit 48 Classification of countries in terms of policy strength on public website accessibility<sup>64</sup>**

Policy strength	Number of EU25 countries	EU 25 Average	Other countries
Very Strong	4	EU25	AU, CA, US
Strong	12		
Moderate	4		
Weak	3		
Very Weak	2		

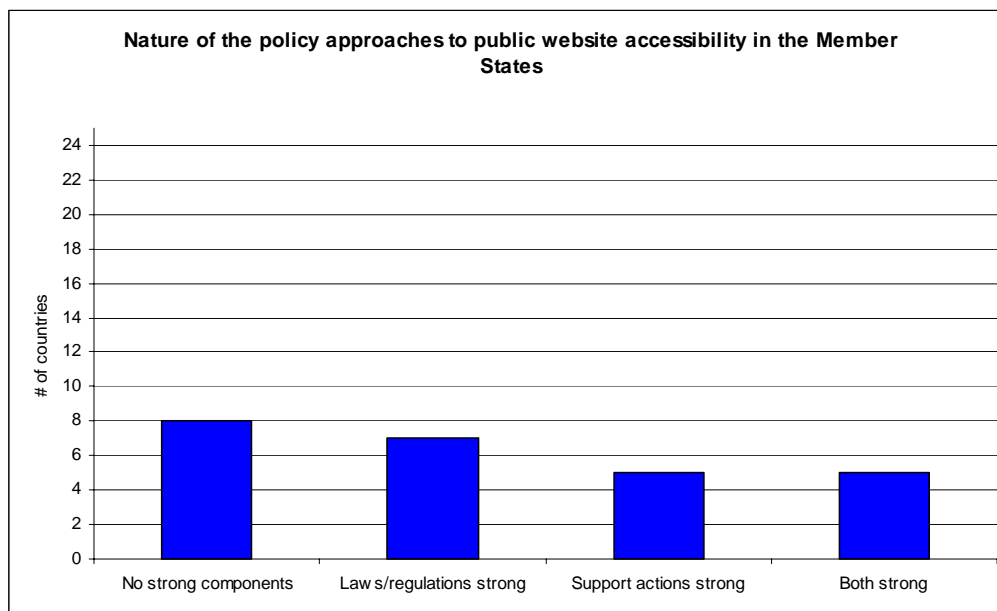
Source: MeAC Policy Survey, 2007 ©

<sup>64</sup> 'Policy strength' is based on the policy score attained by a country according to the scoring system in Exhibit X. A score of 4.5 or 5 is considered to be 'very strong', 3.5 or 4 to be 'strong', 2.5 or 3 to be 'moderate', 1.5 or 2 to be 'weak', and 1 or lower to be 'very weak'

## Specific aspects of the policy approaches in the Member States

Exhibit 49 presents a profile of the policy approaches in the Member States in terms of the strengths of the two main components - laws/regulations and implementation support actions. In each case, the component was deemed to be strong if it attained a score of 2 or 2.5 on the scoring system for that component (see Exhibit 46).

### Exhibit 49 Nature of the policy approaches to public website accessibility in the Member States



Source: MeAC Policy Survey, 2007 ©.

Overall, only five Member States are judged to have both strong laws/regulations and strong support actions; seven have strong laws/regulations but weaker support actions; five have strong support actions but weaker laws/regulations; and in eight cases neither approach is very well developed.

### 4.1.3 Other (commercial) websites

#### Policy assessment dimensions and indicator scoring system

Two core dimensions were used in the assessment of the policy situation in this field:

- the extent to which laws/regulations are in place that impose positive duties on website providers in relation to accessibility
- the extent to which laws/regulations are in place that give people with disabilities a right of redress if they feel that they are discriminated against because of inaccessible websites.

These are based mainly on the equality/antidiscrimination perspective (addressed in detail in Chapter 10) as this is the main policy vehicle addressing commercial website accessibility at present.

Details of the scoring system are presented in the following table (Exhibit 50). The detailed policy situations underpinning the scores for each country can be found in the MeAC policy inventory<sup>65</sup>.

<sup>65</sup> Available at: [http://ec.europa.eu/information\\_society/activities/einclusion/index\\_en.htm](http://ec.europa.eu/information_society/activities/einclusion/index_en.htm)

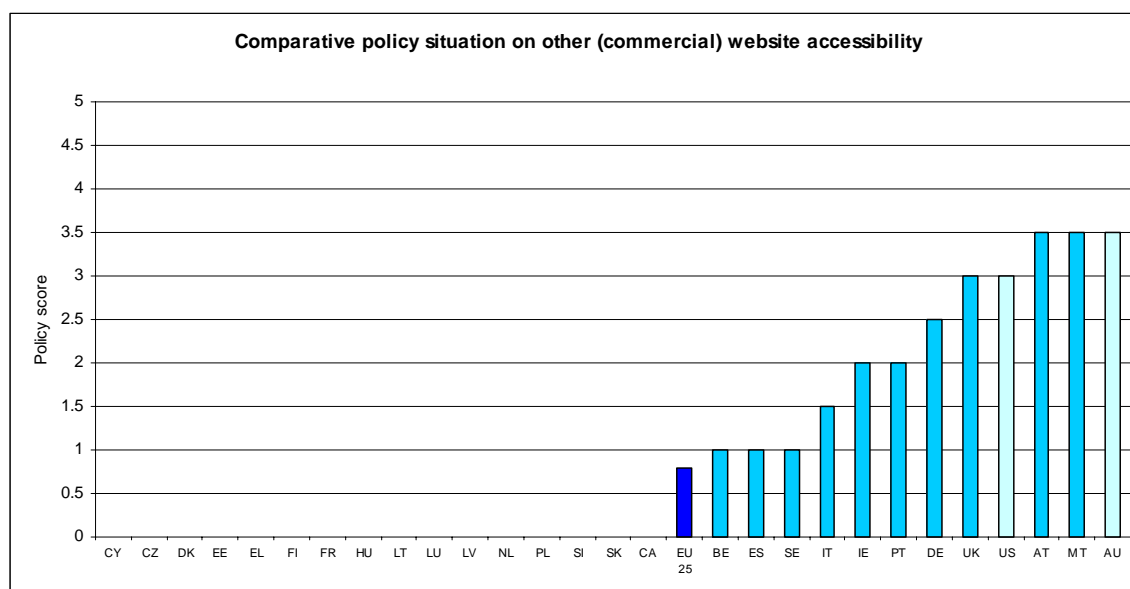
### Exhibit 50 Scoring system: Commercial website policy

Dimension	Scoring for Sub-components	Potential score
Legislation imposing or resulting in direct positive duties or that lead to remedial actions / proactive (anticipatory) accommodations	0 = none 0.5 = very weak mention of commercial sites in other law 1 = some indications of remedial action / proactivity emerging from anti-discrimination approaches 1.5 = clear evidence of remedial actions / proactivity emerging 2 = proactive programme targeting private sector 2.5 = positive duty laws of some sort 3 = strong positive duty laws	3
Equality / anti-discrimination laws providing rights of redress	0 = none 0.5 = law with some potential relevance, but not clear 1 = clear laws on goods and services, no reference to / activity on commercial web sites 1.5 = laws on goods and services / some provisions / activity on commercial web sites 2 = laws on goods and services, strong provisions / activity on commercial web sites	2
Total possible score		5

### Comparative policy situation

Exhibits 51 and 52 present the comparative policy situation across countries and for the EU as a whole.

#### Exhibit 51 Comparative policy situation on other (commercial) website accessibility



Source: MeAC Policy Survey, 2007 ©



**Exhibit 52 Classification of countries on policy strength on commercial website accessibility<sup>66</sup>**

Policy strength	Number of EU25 countries	EU 25 Average	Other countries
Very Strong	0		
Strong	2		AU
Moderate	2		US
Weak	3		
Very Weak	18	EU25	CA

Source: MeAC Policy Survey, 2007 ©

By way of example, AT<sup>67</sup> and MT<sup>68</sup> are considered to be strong because their equality/anti-discrimination legislation and associated redress mechanisms have clear relevance for accessibility of commercial websites and have already been invoked in relation to this. Details of the policy situations in these and all the other countries can be found in the MeAC policy inventory<sup>69</sup>.

More generally, important patterns emerging include:

- just two Member States are considered (relatively) strong (although here it could be argued that the benchmark has been set quite low because of the absence of strong direct obligations on the private sector in any country); two are considered moderate; the majority are considered weak and, in the main, very weak
- one of the comparison countries (AU) is considered to be strong (with same caveats as for the EU Member States), one considered moderate (US)<sup>70</sup> and one very weak (CA)
- just under one-quarter of countries (6) have anti-discrimination laws that, at least in principle, provide disabled people with a right to seek redress if they feel they are being discriminated against because a (private) service provider's web site is inaccessible;
  - typically website accessibility is not specifically mentioned and the law has yet to be tested by way of claims being made in this regard;
  - in a few countries there is specific reference to web site accessibility in the law or in support documentation (e.g. guides or codes of practice) and cases on private website accessibility have been (successfully) taken
- no country has imposed a strong, direct positive duty that requires (private) service providers' to ensure that their websites are accessible; however, in 6 countries some elements of a positive duty can be detected; these vary considerably, including:
  - provisions linked to consumer protection legislation
  - an obligation to enter negotiations with disability organisations (on request)
  - a (relatively soft) reference to the private sector in a law mainly focused on the public sector (lends authority to the notion that accessibility is a right and something to be seen as part of overall service quality)
  - government agency initiatives:
    - policy of entering into discussions with private companies (in part linked to equality legislation) on website accessibility
    - launching initiatives targeting specific sectors (banking, online shopping, ...)
  - interpretation of anti-discrimination legislation by courts/business sector as being something that should be proactively addressed by them.

<sup>66</sup> 'Policy strength' is based on the policy score attained by a country according to the scoring system in Exhibit X. A score of 4.5 or 5 is considered to be 'very strong', 3.5 or 4 to be 'strong', 2.5 or 3 to be 'moderate', 1.5 or 2 to be 'weak', and 1 or lower to be 'very weak'

<sup>67</sup> Disabled Persons Equal Opportunity Act (2005) and Consumer Protection Act (2006).

<sup>68</sup> Equal Opportunities (Persons with Disabilities) Act (2000) and associated activities of the Equal Opportunities Compliance Unit

<sup>69</sup> MeAC eAccessibility Policy Inventory

<sup>70</sup> in fact, a very recent verdict in California may serve to increase the policy rating for the US from now on.

## 4.2 eAccessibility status

Web accessibility concerns making static and dynamic web content (including multimedia content and interactive online services) accessible to people with disabilities. User groups concerned include people with visual impairments as well as other disabilities that may pose challenges to accessing and using websites and/or particular types of online content. A widely acknowledged yardstick for the degree of accessibility of a website is provided by the Web Content Accessibility Guidelines (WCAG 1.0), published by the Web Accessibility Initiative (WAI) of the W3C<sup>71</sup>. The guidelines define the achieved level of accessibility of a given website according to a number of checkpoints, grouped into three priority levels<sup>72</sup> with the so-called “Level A” indicating the most basic level of accessibility.

Web accessibility testing within MeAC was conducted using a defined sampling framework to ensure that important websites for citizens were included and that the same types of sites in each country were compared. Websites to be tested in EU25 Member States and selected other countries (AU, CA and US) were classified into two domains: governmental websites, including the main web portal of the national government and the website of the national parliament as well as of several national ministries (social affairs, health, education, employment/labour, as applicable); private / sectoral websites, including the website of the main national daily newspaper, the main free-on-air broadcasting TV channel, the main national retail bank, the main national railway service and the main national operator for mobile and fixed-line telecommunication. The tests were conducted in July 2007, involving approximately 12 sites per country and 336 URLs in total.

The testing included both automated testing and follow-up manual testing (see Annex, section 2.3 for details). The following pass and failure criteria (at WCAG Level A) were used:

- Pass Level A – Website passes the test for all Priority 1 checkpoints, including a range of checkpoints to be assessed manually.
- Pass Level A Automated – Website passes test for all Priority 1 checkpoints that can be tested automatically.
- Marginal Fail – Website fails certain Priority 1 checkpoints, but the number of checkpoints failed or of failure instances is below specific quantitative thresholds.
- Fail – Website fails multiple Priority 1 checkpoints.

Exhibit 53 presents the indicators that are used in the analyses presented below.

### Exhibit 53 MeAC indicators for the accessibility of websites

- 
- Share of selected governmental and private/sectoral web sites in 28 countries that provide a basic level of accessibility according to WCAG 1.0 Level A check points.
  - Share of web sites that are labelled as being accessible according to WCAG 1.0 Level A check points.
  - Progress in the availability of accessible web content from commercial web sites during the last 5 to 10 years as perceived by disability organisations
  - Progress in the availability of accessible web content from public web sites during the last 5 to 10 years as perceived by disability organisations
  - Progress in the availability of multimedia content with subtitling/signing from commercial web sites during the last 5 to 10 years as perceived by disability organisations
  - Progress in the availability of multimedia content with subtitling/signing from public web sites during the last 5 to 10 years as perceived by disability organisations
  - Factors driving positive developments in the field of web accessibility (if any) as perceived by disability organisations
  - Barriers to eAccessibility as perceived by companies engaged in the design of websites
  - Facilitators to eAccessibility as perceived by companies engaged in the design of websites
- 

<sup>71</sup> W3C Web Accessibility Initiative, <http://www.w3.org/WAI/>.

<sup>72</sup> Cf. the guidelines document, section 4, <http://www.w3.org/TR/WCAG10/>.

The results show that only a small share of websites provides a basic level of eAccessibility according to WCAG 1.0 guidelines. Of all websites checked, only about 3% passed the full range of level-A automated and manual checkpoints (Exhibit 54) and 8% passed the automated test but failed those checkpoints that can only be tested manually.

It is interesting to note that the standard label provided by the W3C in order to mark compliance with WCAG is not used to a large extent by the web sites included in the testing exercise. The label was missing on all websites passing the full test (Exhibit 55). At the same time, 20% of the websites with marginal failures and 5% of the websites with full failures used the logo without meeting the necessary criteria. This indicates that current labelling practice does not seem to provide credible guidance to users with disabilities.

**Exhibit 54 – Percentage of web sites that passed level-A check points**

All web sites		Governmental web sites		Private / sectoral web sites	
Pass level-A automatic <u>and</u> manual checkpoints	Pass level-A automatic check points only	Pass level-A automatic <u>and</u> manual checkpoints	Pass level-A automatic check points only	Pass level-A automatic <u>and</u> manual checkpoints	Pass level-A automatic check points only
2.6 %	8.2 %	5.3 %	12.5 %	0 %	3.9 %

Source: MeAC 2007©

**Exhibit 55 Use of label to mark the accessibility of a website**

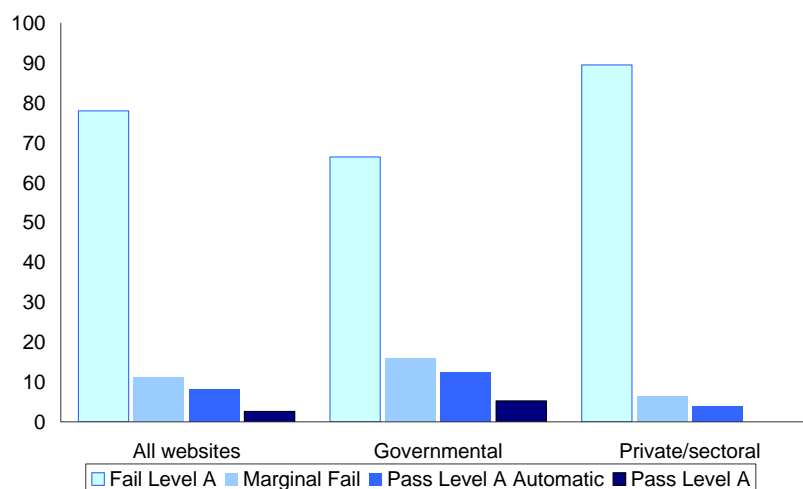
		Result of accessibility test			
		Fail Level A	Marginal Fail	Pass Level A Automatic	Pass Level A
Accessibility label	No	95%	80%	64%	100%
	Yes	5%	20%	36%	0%

Source: MeAC 2007 ©

When looking separately at the results of the website accessibility test of the governmental and public/private websites, results from the public domain are somewhat better, but still cannot be called good in absolute terms (Exhibit 54). For these sites, 5% reached full Level A accessibility while a further 13% passed the automated test. More than 85% failed or marginally failed. Although a direct longitudinal comparison with earlier findings is difficult due to methodological considerations, these results seem to indicate that the situation may have improved slightly when compared to the web accessibility test carried out in 2005 under the UK Presidency of the EU. In that test, 3% of the governmental websites tested passed both the automated and the manual checks, while a further 10% passed only the automated checks<sup>73</sup>. Among the different types of governmental websites tested in the MeAC survey, web presences of national ministries showed the best performance, followed by the sites of national parliaments and the national government portals (Exhibit 57).

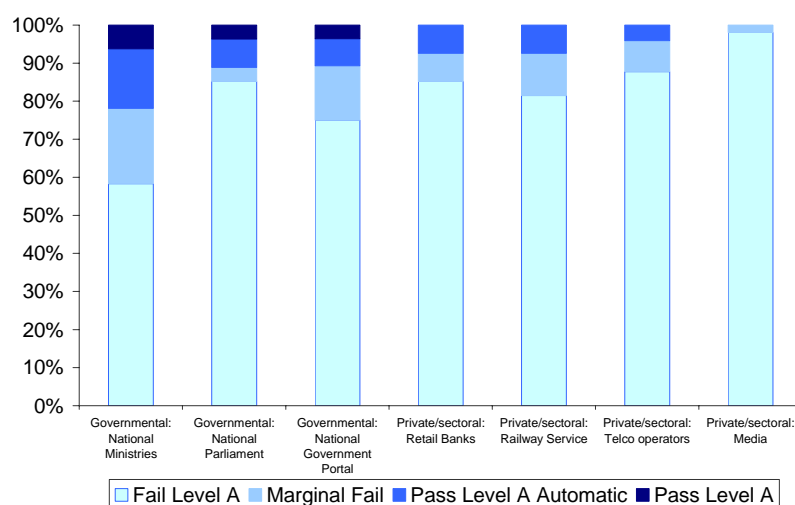
<sup>73</sup> Cf. UK Presidency of the EU 2005: eAccessibility of public sector services in the European Union. London 2005.

### Exhibit 56 Web accessibility check: overall results



Source: MeAC 2007 ©

### Exhibit 57 Accessibility of different governmental and private/sectoral websites



Source: MeAC 2007 ©

In the private/sectoral domain the level of web accessibility is lower than in the public domain. Not a single website reached full level-A accessibility and less than 4% passed the automated test for Level A accessibility. The vast majority (about 96%) failed or marginally failed. More generally, in the MeAC study, comparatively better performance was found among the websites of retail banks and railway services, followed by the websites of telecommunication operators. Differences, however, were only marginal.

Finally, outcomes of the testing exercise differ considerably across countries. (Exhibit 58). Only in three EU Member States did between 26% and 50% of all websites tested reach level-A accessibility, in 13 countries between 1% to 25% of the tested sites reached level-A, while in nine Member States not a single website tested reached basic accessibility.

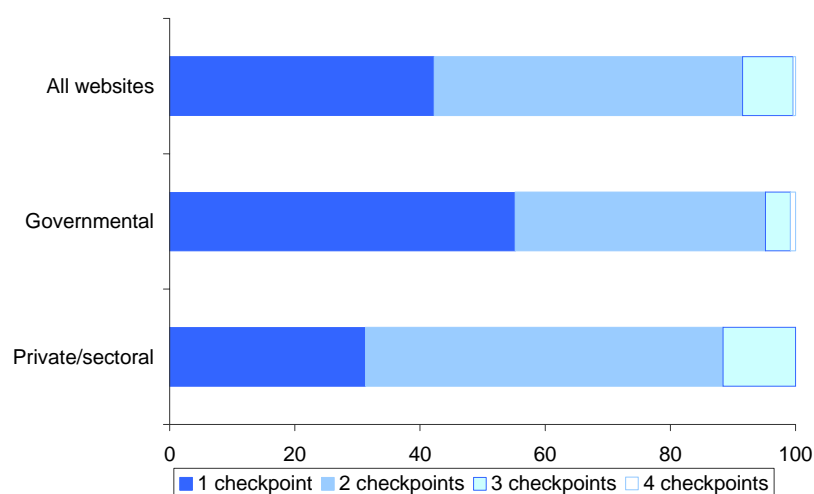
**Exhibit 58 Levels of basic web accessibility in the EU25 and other countries for all websites, governmental websites and private/sectoral websites**

Share of websites reaching basic accessibility	EU25 (no. of countries)			Other countries		
	All websites	Governmental websites	Private / sectoral websites	All websites	Governmental websites	Private / sectoral websites
>50 %	--	2	--	--	--	--
26 - 50%	3	4	2	--	--	--
1 - 25%	13	9	2	US, CA, AU	US, CA	AU
0%	9	10	21	--	AU	US, CA

Source: MeAC 2007 ©

Further to the levels of web accessibility reached in the different domains and countries, a deeper understanding of the web accessibility situation can also be gained by looking at the relative failure intensity and the technical reasons for failures the testing identified. Exhibit 59 below shows the average number of WCAG Level A checkpoints failed for all websites and for the two domains.

**Exhibit 59 Web accessibility failure intensity: number of checkpoints failed**



Source: MeAC 2007 ©

It can be seen that the majority of websites (~90%) failed either one or two checkpoints, while none failed more than four. In the government domain more than half of the websites failed just one checkpoint, compared to about 30% in the private domain. The share of websites failing 3 or 4 checkpoints is quite low, varying between 10% and below 1%. This could indicate that a part of the websites included in this test may only be a relatively short distance away from reaching at least basic accessibility. This step could be achieved if all instances of a single checkpoint failure were remedied for a given website.

The three most frequent checkpoints (CPs) failed are 1.1, 6.3 and 6.2 (in order of frequency of occurrence) with CP 1.1 being by far the most frequent one<sup>74</sup> (Exhibit 60). It refers to the use of

<sup>74</sup> Cf. <http://www.w3.org/TR/WCAG10/full-checklist.html> for a list of checkpoints and a technical description of their meaning.

text equivalents for all non-textual content elements (such as images). This includes, among other things, the so-called alt-tags.

#### Exhibit 60 Web accessibility failure intensity: type of checkpoints failed

Checkpoint	Description
1.1	<b>Text equivalent for every non-text element (such as images)</b> This allows users with visual impairments to understand what is being presented, e.g. if using a text-only browser or a screen reader.
6.3	<b>Ensure that pages are usable when scripts, applets etc. (such as JavaScript) are turned off or not supported</b> This applies again to users of text-only browsers and screen readers, but also to those using older browser versions or browsers with high security settings prohibiting the use of scripting. Pages should remain usable if scripts, applets etc. cannot be used for those reasons.
6.2	<b>Ensure that equivalent for dynamic content are updated when the dynamic content changes</b> Applies to the same users as 6.3. Whenever the content of a page is changed by use of a script or applet (i.e. dynamically), the equivalent (e.g. descriptive texts) must also be updated.

Source: MeAC 2007 ©

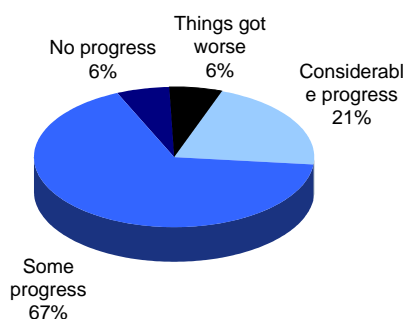
The other two checkpoints in question (6.3 and 6.2) refer to the use of scripting technologies and dynamic content. They are of concern for websites providing more than static content, e.g. interactive online services. These findings seem to indicate that apart from accessibility issues raised by images and other non-text elements, another main reason for the inaccessibility of a website is to be found in its interactive features.

The web accessibility check conducted by the MeAC project clearly shows that current accessibility levels in this field leave considerable room for improvement and, overall, these findings are in line with the levels of progress in web accessibility perceived by the disability organisations. The majority reports rather moderate progress in relation to the accessibility of public and other web sites for people with visual impairments using screen readers (Exhibit 61). At the same time, the majority reports no progress at all in relation to the accessibility of multimedia content for people with hearing impairments by means of subtitling or signing.

These findings indicate that multimedia web content is lagging behind in terms of accessibility when compared to the (still very poor) situation for static web content (i.e. text, images etc.). Although the evidence base available here does not allow for an analysis of the reasons behind these findings it is still possible to shed some light on them from a historical and technological angle. Of the three basic types of web content (static, multimedia and interactive content), static text and images are by far the oldest in terms of the history of the internet. Multimedia content entered the stage at a comparatively late point in time and for this reason accessibility might not be as advanced as for the first type of content. At the same time accessibility of static web content can be achieved with rather low technical effort (e.g. by adapting the programming as in the case of scalable font-sizes or by minor editorial work as in the case of descriptions of non-textual content), when compared for instance with the generation of sub-titles or a sign-language interpretation.

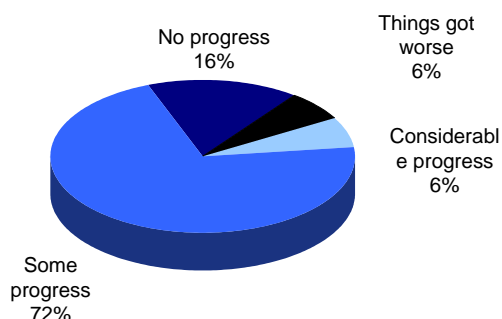
**Exhibit 61 Progress in relation to web accessibility over the last 5 to 10 years as perceived by European disability organisations**

Perceived progress in the accessibility of web content/services: public sites



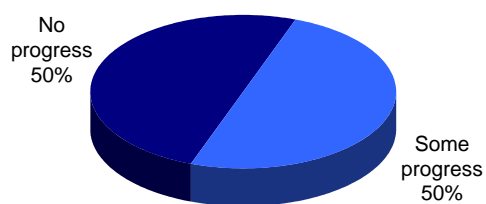
n=33

Perceived progress in the accessibility of web content/services: other sites



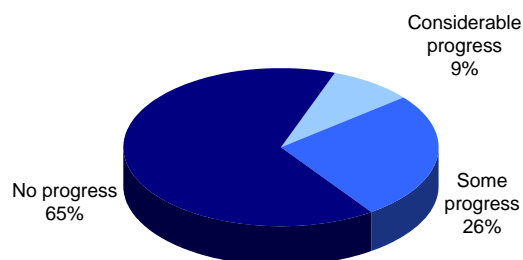
n=31

Perceived progress in the accessibility of multimedia content with subtitling/signing: public sites



n=22

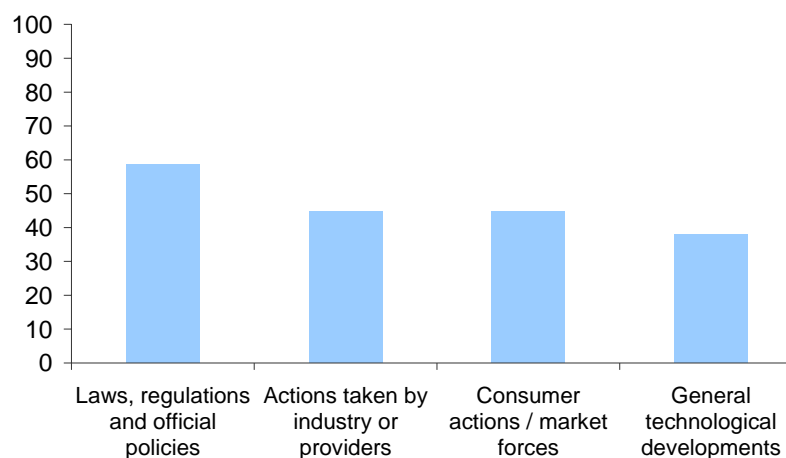
Perceived progress in the accessibility of multimedia content with subtitling/signing: other sites



n=23

Source: MeAC Survey of Disability Organisations, 2007 © (c.f. Annex, section 3).

### Exhibit 62 Factors contributing to progress in relation to accessible web content / services as perceived by disability organisations

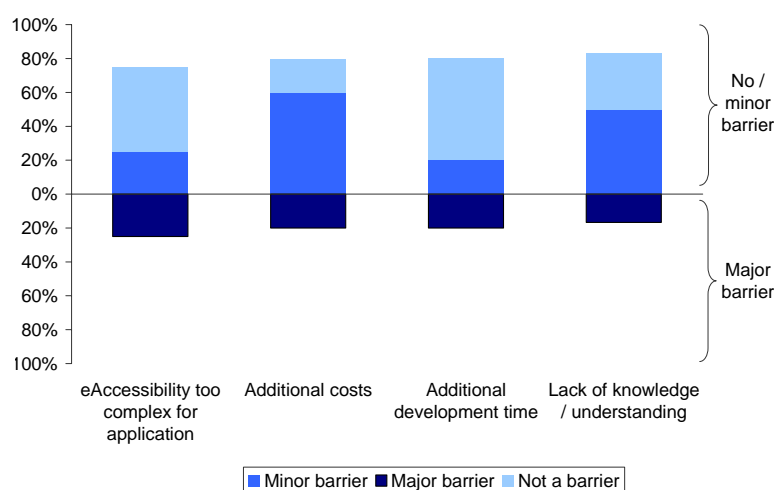


n=29

Source: MeAC Survey of Disability Organisations, 2007 © (c.f. Annex, section 3).

When it comes to factors contributing to what progress there has been in the field of web accessibility according to disability organisations, laws and regulations that have a bearing on this domain are seen to have been an important factor by about two-thirds of the disability organisations participating in the survey (Exhibit 62), which fits with the quite strong (formal) policy situation outlined in section 4.1. This is followed by industry/provider action and market forces (about 45%) and general technological developments (about 40%). More generally, the disability organisations seem to regard web accessibility as a comparatively important component of the spectrum of eAccessibility issues, as indicated by the fact that about half of the organisations have dedicated web accessibility expertise available in terms of employed staff, more than in relation to any other ICT domain (c.f. Chapter 12). This may also reflect the comparatively high attention that the web accessibility theme seems to have received in the public debate when compared with other accessibility themes.

### Exhibit 63 Barriers to eAccessibility perceived by companies engaged in web design



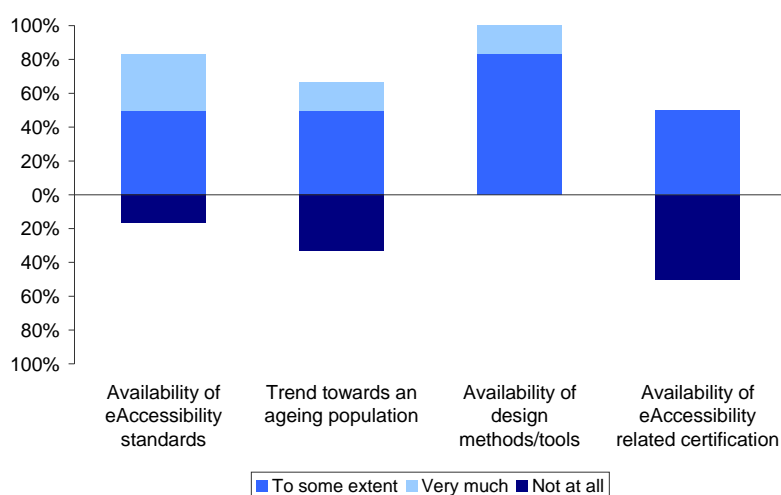
n=6

Source: MeAC Survey of ICT Companies, 2007 © (c.f. Annex, section 3).



Aside from the organisations owning the websites, companies engaging in web design and/or development are key players in relation to eAccessibility. In relation to these, the MeAC data suggests that, from the point of view of web designers, there seem to be no major barriers to making websites accessible (Exhibit 63) - about 75% say that neither complexity, nor cost, nor time, nor a lack of knowledge seriously hamper the implementation of web accessibility measures from their side. This might indicate that reasons for the relatively slow uptake of web accessibility must be found in other places, e.g. within the organisations running the websites.

#### Exhibit 64 Factors facilitating eAccessibility perceived by companies engaging in web design



*n*=6

Source: MeAC Survey of ICT Companies, 2007 © (c.f. Annex, section 3).

At the same time, in the view of web designers, major facilitators of web accessibility are the availability of proper design methods and tools as well as of eAccessibility standards (Exhibit 64). This can be seen as a rather clear pointer to the W3C's WCAG that provide the major and global source for web accessibility standards. The universal trend towards an ageing population is also seen as a facilitator by a majority of web designers and about one-half of the survey respondents attribute some importance to the availability of web accessibility certification.

#### 4.2.1 Comparative eAccessibility situation

For purposes of comparative analysis across countries, it was decided to focus on the level of accessibility achieved by conforming with the automatic check points of WCAG 1.0 Level A only. In view of the low number of web sites that have actually passed both the manual and the automatic check points, this approach allows the indicators to reflect at least some variance in relation to levels of eAccessibility achieved across countries. To this end two indices are used reflecting:

- the share of selected governmental web sites that achieve level-A accessibility according to the automatic check points of WCAG 1.0
- the share of selected private/sectoral fields websites that achieve level-A accessibility according to the automatic check points of WCAG 1.0.

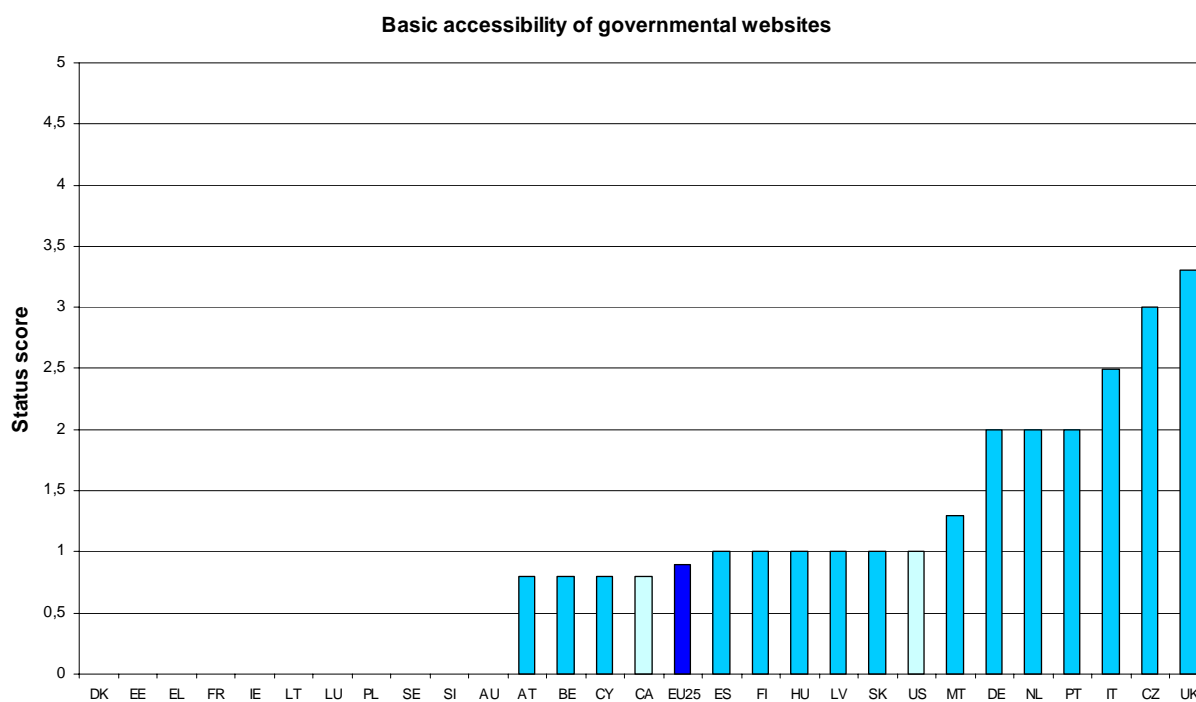
### Exhibit 65 Scoring system: Web eAccessibility status indices

Index name	Scoring for Sub-components	Possible scores
1) Basic accessibility of governmental websites (WCAG Level A automatic checkpoints only)	Share of governmental websites included in the test which are accessible according to Web Content Accessibility Guidelines, Level A [Score = % of websites passing automatic test]	0% - 100%
	Total possible score	100
2) Basic accessibility of private/sectoral websites (WCAG Level A automatic checkpoints only)	Share of private/sectoral websites included in the test which are accessible according to Web Content Accessibility Guidelines, Level A [Score = % of websites passing automatic test]	0% -100%
	Total possible score	100

Note: Index values are standardized to a maximum value of 5 in order to allow comparison across domains and with policy scores. For details on the computation of the overall index scores see Annex, section 4.

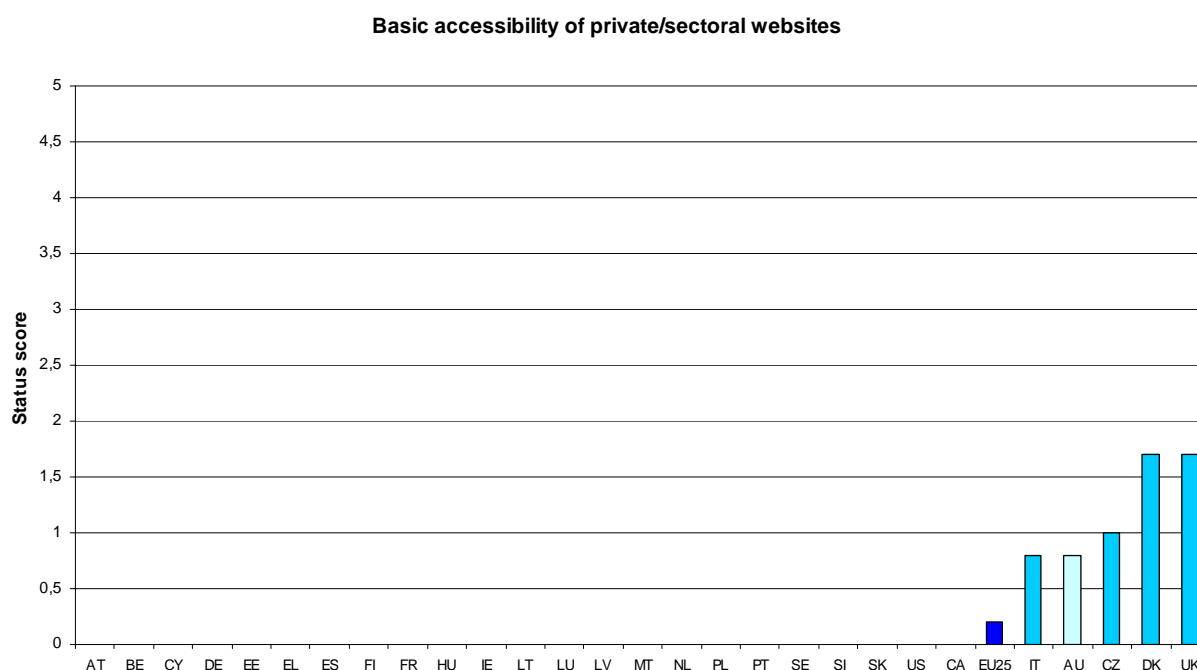
As already noted earlier, levels of eAccessibility achieved across all countries included in the investigation are very low (Exhibit 66 and 67). More generally, it is interesting to note that some EU Member States compare very favorably with the comparison countries (CA, US, AU).

### Exhibit 66 Basic accessibility of governmental websites



Source: MeAC Web Site Check, 2007 © (c.f. Annex, section 2).

## Exhibit 67 Basic accessibility of private/sectoral websites



Source: MeAC Web Site Check, 2007 © (c.f. Annex, section 2).

### 4.3 Policy impacts and implications

The policy assessment in this section brings together the evidence from the policy side and the eAccessibility status side in order to first assess whether impacts of policy can be detected. Some key implications of the evidence-base for possible future EU-level policy making are then identified.

#### 4.3.1 Impacts of policies

##### 4.3.1.1 EU policy impacts

###### Public websites

In relation to public websites, the assessment indicates both positive and negative aspects. On the positive side, there is clear evidence that EU-level policy initiatives are being taken up in the policies of the Member States. Almost all countries have policies in place, in many cases directly triggered by EU-level initiatives such as the Ministerial Resolutions and eEurope. On the negative side there are still a few notable gaps, with little happening in a few countries. In addition, there is quite wide variability in the nature and strength of approaches across countries.

###### Other (commercial) websites

There is no direct EU-level policy currently in place. The absence of leadership from the EU can be detected in the low levels of policy activity across the Member States as well as in the diversity of approaches amongst the countries where there is at least some relevant activity.

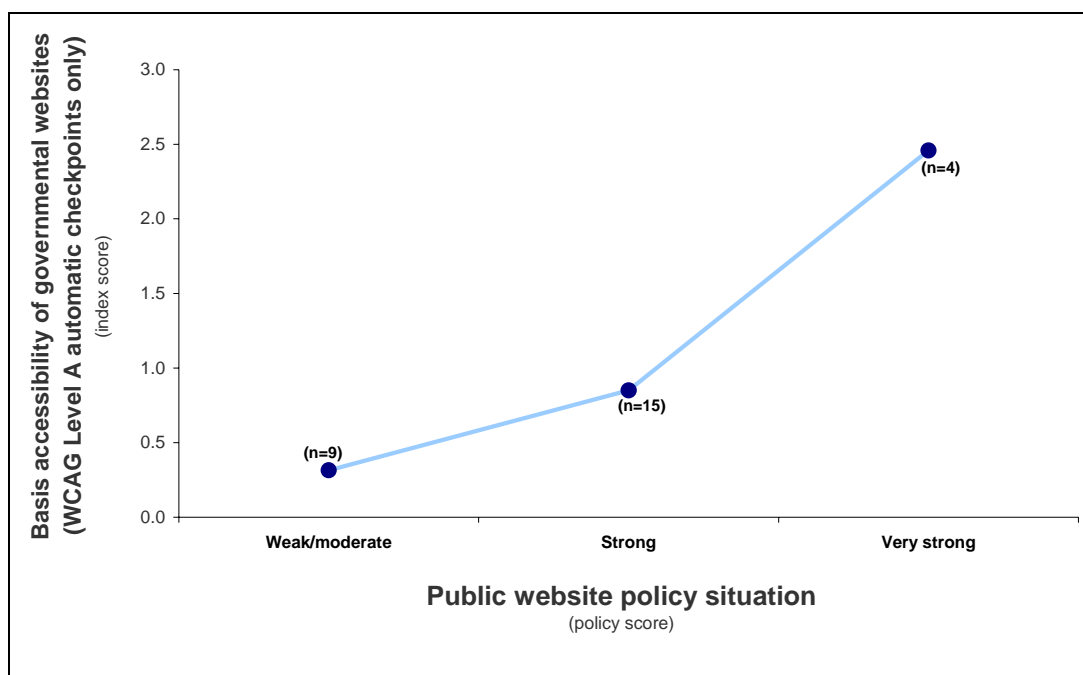
##### 4.3.1.2 Impacts of policies at the country level

###### Public websites

Overall, the assessment of the eAccessibility status in relation to public websites provides clear evidence that there is not enough impact yet being achieved by existing policies in the Member States. The evidence presented in section 4.2 indicates that there remains a lot of work to be done to reach a stage where all core government websites in Europe are accessible.

Despite this relatively negative picture overall, however, the evidence does show that when policy in this field is well-developed and effectively implemented it has strong positive impacts on levels of public website accessibility in a country. Exhibit 68 shows that it is the countries where policy is strong or very strong that are showing impacts in terms of achieving accessibility, and that the achievements are much greater where the policy is strongest<sup>75</sup>.

#### Exhibit 68 Impact of public website policy on extent of accessibility of key government websites

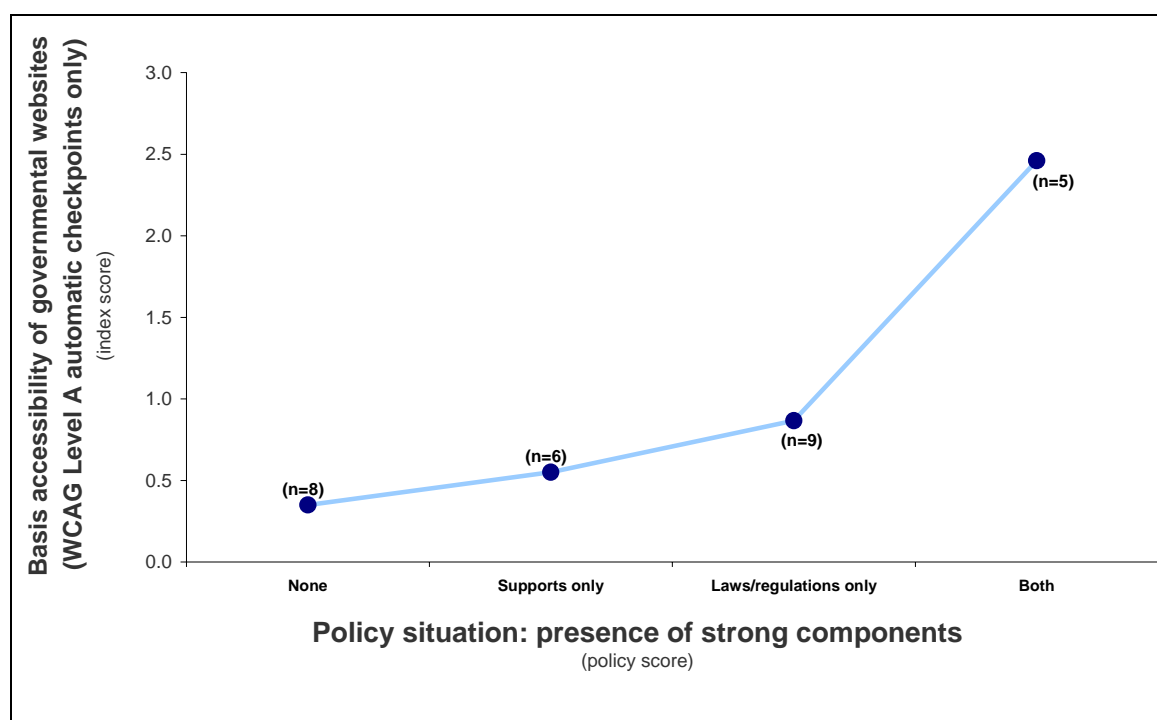


Source: MeAC 2007 ©

Exhibit 69 looks more closely at what aspects of policy are most effective in achieving good accessibility results in this area. Here it can be clearly seen that strong laws/regulations that are followed-up with strong supportive implementation actions are considerably more effective. Even apparently strong laws, without accompanying support actions, are sometimes not (at least yet) having effective impacts.

<sup>75</sup> In Exhibits 68 and 69, the 28 countries are grouped into categories according to their policy scores (see Exhibits 47 and 51 for details) and the graphs show the average eAccessibility status scores for each group of countries. (n = no. of countries)

### Exhibit 69 Impact of policy components on extent of accessibility of key government websites



Source: MeAC 2007 ©

In this context, as will be shown in Chapter 9, the inclusion of formal certification schemes linked to the policy approach in this field seems to considerably enhance effectiveness.

#### Other (commercial) websites

The very limited policy attention directed to this area is reflected in very low levels of accessibility. However, there is evidence that in a number of countries with relevant anti-discrimination measures in place, cases have been taken and agreements on improved accessibility been reached with particular businesses. More generally, proactive interpretation of positive duty seems to have had impact in some sectors in a few countries, such as Australia.

#### 4.3.2 Implications for future EU policy

The evidence and analysis in relation to the website area identifies a number of key challenges for the EU:

- the extent of accessibility of public websites is still quite low, despite a lot of policy attention
  - many Member States have not yet in place the necessary mix of legislation and practical support actions
- the extent of accessibility of commercial websites is still very low
  - the lack of leadership from the EU-level is not helpful in encouraging greater attention and coherence across the Member States.

These challenges suggest a need to consider (some combination) of measures at different levels:

- public websites:
  - accompanying measures to help Member States put the most effective policy approaches in place (linked with wider inclusive eGovernment activity), including use of certification
- private websites:
  - examination of the scope for introduction of horizontal measures in the equality/anti-discrimination and/or other fields.

## 5 Computing

Accessibility of computers in all their forms - desk-top models, laptops and other portable computing devices - is also essential for people with disabilities. Apart from being crucial tools in their own right, they remain the most important modes of access to online services. For people with visual, dexterity and other impairments, built-in accessibility features in standard hardware and software are of great importance, as well as, where necessary, specifically designed assistive technology add-ons.

The data and analysis in relation to the computing theme is presented in this section, again organised into three main sections:

- policy situation
- eAccessibility status
- policy impacts and implications.

### 5.1 Policy situation

#### 5.1.1 EU-level context

There are currently no EU-level measures that directly address the imposition of accessibility obligations on the computer hardware or software industries. However, the EU-level policies in relation to accessibility in public procurement do have implications for this sector and are thus considered in some detail in Chapter 8. Policies in relation to assistive technology are also important and are addressed in more detail in Chapter 7.

#### 5.1.2 Policy situation in the Member States and other countries

Likewise, no clear examples of direct legislation / regulations imposing accessibility obligations on the computer hardware or software industries were found across the Member States or the other comparison countries.

However, as already noted above, some horizontal measures, especially public procurement, have strong relevance for encouraging eAccessibility efforts at national level in these sectors. The public procurement theme is addressed in detail in Chapter 8. In addition, policies in relation to assistive technology are also important and are addressed in more detail in Chapter 7. In almost all European Member States some kind of public assistive technology delivery scheme is available, although actual technology and information provision seems to vary considerably from country to country.<sup>76</sup>

### 5.2 eAccessibility status

Historically, efforts directed towards making computer technology accessible to people with disabilities first focused on the development of adaptive devices and software – 'assistive technology' - enabling people with disabilities to utilise standard hardware, operating systems and software applications (e.g. screen reader software, magnification software, scanners used with Optical Character Recognition (OCR) software, speech recognition software, adapted keyboards, mice and switches and the like). When text screen readers became obsolete due to the spreading of graphical user interfaces, graphical screen readers were developed. Later,

---

<sup>76</sup> DG Employment and Social Affairs (2003) Access to Assistive Technology in the European Union

accessibility features began to be incorporated in standard products (e.g. speech output and magnification features within mainstream operating systems).

Today, a wide range of solutions to accessibility problems exist in terms of both specific adaptive technologies and solutions that have been incorporated into mainstream products<sup>77</sup>. A key issue therefore concerns the extent to which disabled people are gaining access to these. The MeAC indicators in this field are listed in Exhibit 70.

### **Exhibit 70 EAccessibility indicators on computer hardware and software**

- 
- Progress in the availability of PCs with in-built accessibility features as perceived by disability organisations
  - Progress in the availability of software with in-built accessibility features as perceived by disability organisations
  - Progress in the availability of assistive devices and software as perceived by disability organisations
  - Provision of information about product accessibility provided by main hardware and software manufacturers on their websites in national language
  - Barriers towards the wider utilisation of accessible hardware and software as perceived by disability organisations
  - Barriers to eAccessibility as perceived by companies engaged in the manufacturing of computers and in software development
  - Facilitators of eAccessibility as perceived by companies engaged in the manufacturing of computers and in software development
- 

In relation to the availability of assistive computer devices and software, the overwhelming majority of disability organisations reports at least some progress (63%) or even considerable progress (23%) having happened over the last 5 to 10 years (Exhibit 71). Similar patterns emerge from the data on progress perceived in relation to accessibility solutions that are built into mainstream hardware and software products. Here again the majority of user organisations report at least some progress (63% and 73% respectively) or even considerable progress (26% and 23% respectively). Explanatory comments received in this context suggest for instance that there has been an increase in the inclusion of speech output and magnification features within mainstream operating systems and that there is a variety of adaptive devices available on national assistive technology markets. General technological developments are regarded as key factors that have contributed to progress achieved in the field by most of the disability organisations (75%), followed by laws and regulation (57%), specific actions taken by industry (53%) and consumer actions (50%).

A key barrier to the wider deployment of accessible computer technology identified by the disability organisations concerns the high end user costs that tend to be involved when purchasing accessible computer technology (Exhibit 72). Many more respondents (73%) reported high purchase costs to be a main barrier rather than general availability of products on the market (27%). Also, lacking availability of information on products that are, at least in principle, available is perceived as a hindering factor by the majority of organisations, either as a major (39%) or minor (34%) factor.

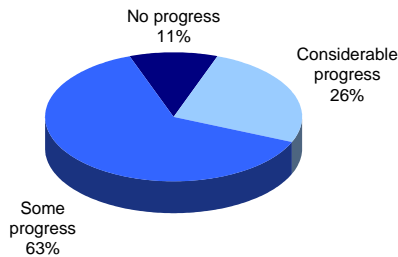
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<sup>77</sup> A comprehensive overview is for instance provided at: [www.abilityhub.com](http://www.abilityhub.com)



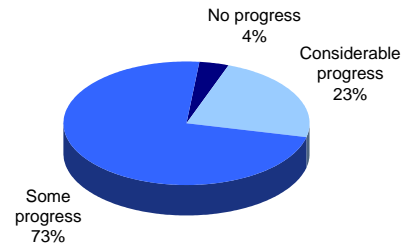
**Exhibit 71 eAccessibility of computer hardware and software as perceived by European disability organisations**

Progress in the availability of PCs with built-in accessibility features



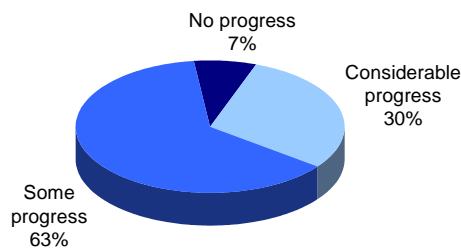
n=27

Progress in the availability of software with built-in accessibility features



n=26

Progress in the availability of assistive devices and software

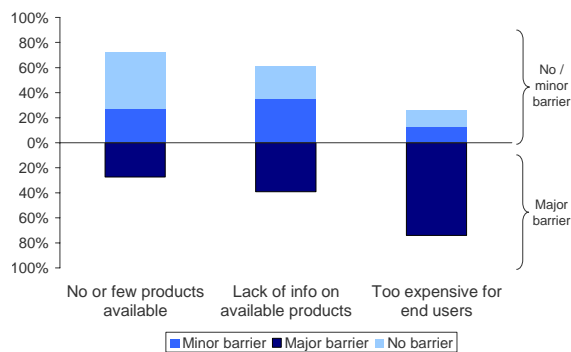


n=27

Source: MeAC Survey of Disability Organisations, 2007 © (c.f. Annex, section 3).

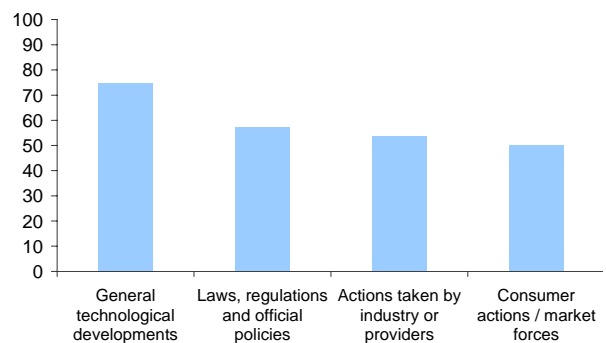
**Exhibit 72 Barriers and facilitators to accessibility of Computer hardware and software as perceived by European disability organisations**

Main barriers towards wider deployment of accessible hard- and software



n=23

Factors contributing to progress in relation to accessible computers



n=28

Source: MeAC Survey of Disability Organisations, 2007 © (c.f. Annex, section 3).

With regard to the latter, our indicators suggest that the level of eAccessibility-related product information available from mainstream market players tends to be higher for software products when compared with hardware (Exhibit 73 and Exhibit 74). Also, there is considerable variance across countries when it comes to provision of eAccessibility-related product information via the national web sites of major market players included in the investigation (three hardware manufacturers and three software developers; for details c.f. Annex, section 10). None of the three hardware providers make such information available in national language in more than 10 European Member States, while one of them doesn't offer any eAccessibility-related product information over the web. When it comes to software, customers with disabilities are served with such information by the three providers included in the investigation in 19, 13 and 3 countries respectively. Overall, customers with disabilities who are able to rely on information available in English language seem to be better served when compared with those who have to or wish to rely on information available in other languages (cf. Annex, section 1).

When it comes to factors that act as barriers to making mainstream products accessible to computer users with disabilities, the MeAC data suggest that hardware manufacturers consider the complexity of addressing eAccessibility issues in practice to be more important than a general lack of knowledge and understanding of the issues involved (Exhibit 75). For software providers, additional development time seems to represent a key barrier.

**Exhibit 73 Availability of information for customers with disabilities in national language on web sites of selected hardware manufacturers<sup>78</sup>**

	Hardware manufacturer 1		Hardware manufacturer 2		Hardware manufacturer 3	
	Info on products' accessibility features	Other info to disabled customers	Info on products' accessibility features	Other info to disabled customers	Info on products' accessibility features	Other info to disabled customers
EU (# of countries)	10	7	4	4	-	-
USA	✓	✓	✓	✓	-	-
CA	✓	✓	-	-	-	-
AU	✓	✓	✓	-	-	-

Source: MeAC National Correspondents Investigation, 2007 © (c.f. Annex, section 1).

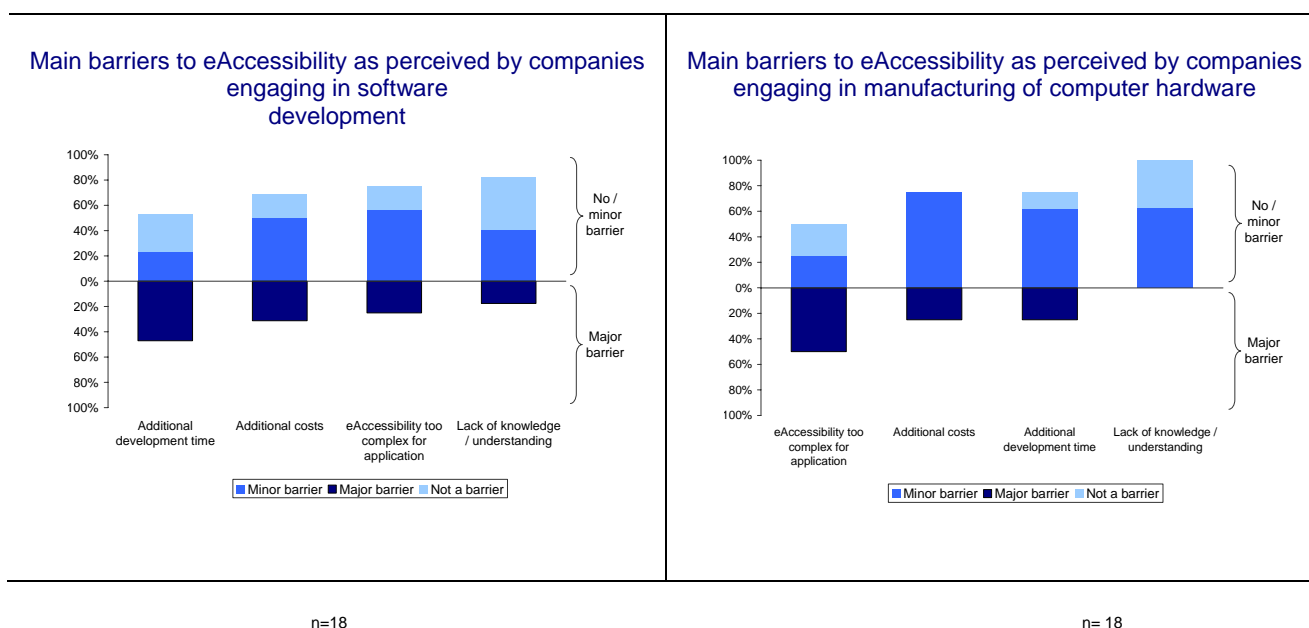
<sup>78</sup> For the purpose of this study three major hardware manufacturers have been identified from existing market statistics (see Annex, section 10)

**Exhibit 74 Availability of information for customers with disabilities in national language on web sites of selected software manufacturers<sup>79</sup>**

	Software manufacturer 1		Software manufacturer 2		Software manufacturer 3	
	Info on products' accessibility features	Other info to disabled customers	Info on products' accessibility features	Other info to disabled customers	Info on products' accessibility features	Other info to disabled customers
EU countries	19	15	13	11	3	2
USA	✓	✓	✓	✓	-	-
CA	✓	✓	✓	✓	-	-
AU	✓	✓	✓	✓	-	-

Source: MeAC National Correspondents Investigation, 2007 © (c.f. Annex, section 1).

**Exhibit 75 Barrier to making own products accessible to people with disabilities as perceived by ICT companies**



Source: MeAC Survey of ICT Companies, 2007 © (c.f. Annex, section 3).

<sup>79</sup> For the purpose of this study three major software developers have been identified from existing market statistics (see Annex, section 10)

## 5.2.1 Comparative eAccessibility situation

With respect to the computing domain, the comparative analysis relies on an index addressing the following core dimensions (Exhibit 76):

- Availability of information in national language on the accessibility of own products and of general information directed towards customers with disabilities on national web sites maintained by three major hardware manufactures<sup>80</sup>
- Availability of information in national language on the accessibility of own products and of general information directed towards customers with disabilities on national web sites maintained by three major software developers<sup>81</sup>.

### Exhibit 76 Scoring system: computer domain

Index name	Scoring for Sub-components	Potential score
Provision of accessibility-related information by selected hard- and software manufacturers via their national website	Provision of accessibility-related information via national website by - software manufacturer 1 [Score: no information = 0, one type of information = 1, two types of information = 2] - by software manufacturer 2 [Score: no information = 0, one type of information = 1, two types of information = 2] - by software manufacturer 3 [Score: no information = 0, one type of information = 1, two types of information = 2]	6
	Provision of accessibility-related information via national website by - hardware manufacturer 1 [Score: no information = 0, one type of information = 1, two types of information = 2] - by hardware manufacturer 2 [Score: no information = 0, one type of information = 1, two types of information = 2] - by hardware manufacturer 3 [Score: no information = 0, one type of information = 1, two types of information = 2]	6
	Types of information: I. Info on dedicated accessibility features of own products II: Any other info dedicated to disabled customers	
	Total possible score	12

Note: For the purposes of the comparative analysis index values are standardized to a maximum value of 5 in order to allow comparison across domains and with policy scores. For details on the computation of the index scores cf. Annex, section 4.

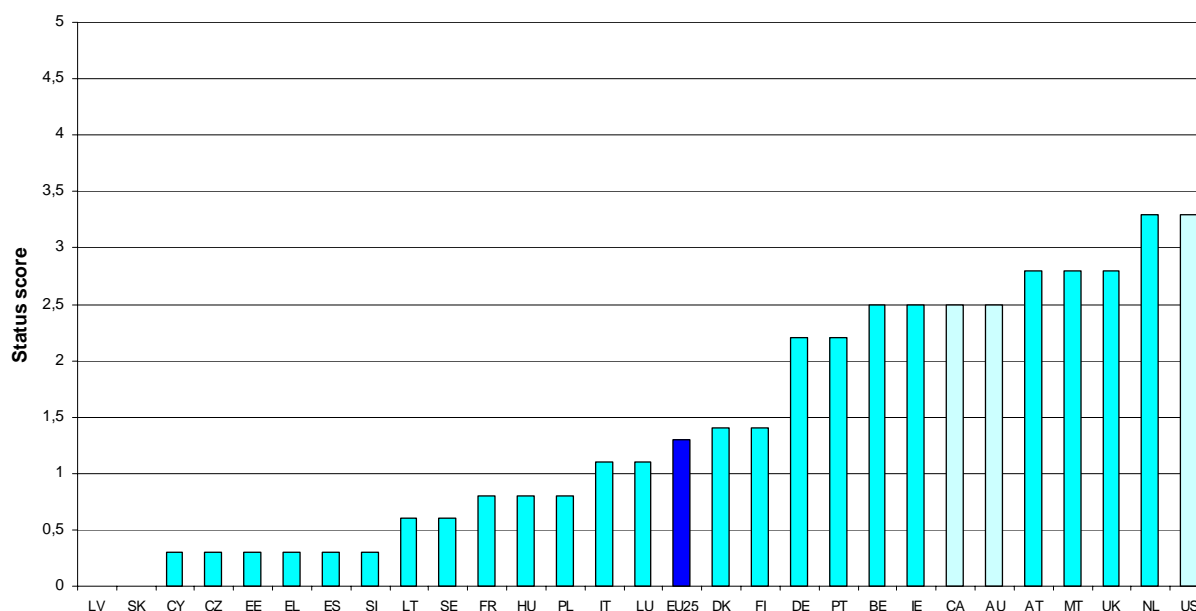
The evidence shows that customers with disabilities have relatively low levels of eAccessibility-related information available from mainstream market players when it comes to information provision through national web sites. For many (potential) customers with disabilities this may mean that they do not have eAccessibility-related information available in their native language, although relevant information may well be available at a central company web site being maintained in English language. All in all, some EU countries compare quite favorably with the three comparison countries but, on average, the EU countries overall clearly show lower levels of information provision.

<sup>80</sup> For the purpose of this study three major hardware manufacturers have been identified from existing market statistics (see Annex, section 10)

<sup>81</sup> For the purpose of this study three major software developers have been identified from existing market statistics (see Annex, section 10)

## Exhibit 77 Hard- and software manufacturers provision of accessibility information

### Hard- and software manufacturers provision of accessibility information



Source: MeAC National Correspondents Investigation, 2007 © (c.f. Annex, section 1).

## 5.3 Policy impacts and implications

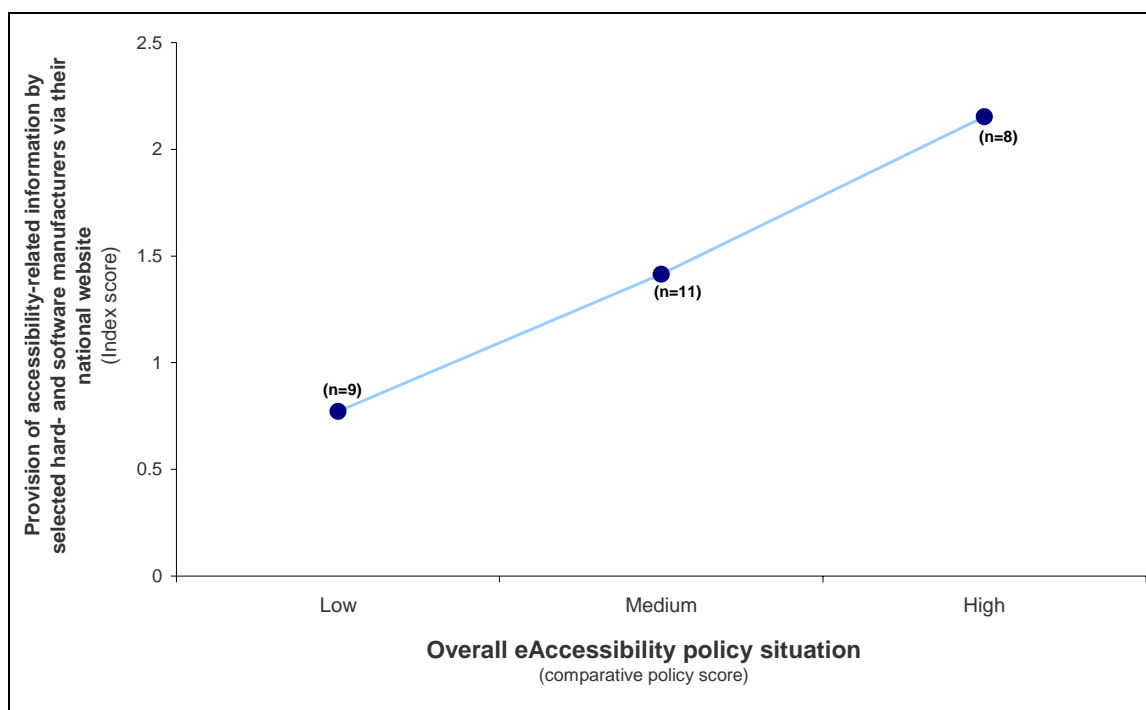
### 5.3.1 Impacts of existing policies

Disability organisations report progress in the status of accessibility of computer hardware and software over the past number of years, including more built-in accessibility features in mainstream products and more and better assistive technologies available. Although general technological developments are seen as being the main factor of influence, public policy is also seen as having made a contribution in this field.

Although there has not (yet) been any direct legislative or regulatory measures directly addressing the computer hardware and software sectors in this area, it is likely that both specific approaches (such as federal public procurement regulations in the US) as well as the more generally increasing visibility of eAccessibility in public policy have contributed to this. Indeed, with regard to the latter, the evidence from MeAC does suggest that the extent to which ICT hardware and software providers give visible attention to accessibility issues (on their websites) is positively linked to the overall eAccessibility policy score in a country (Exhibit 78)<sup>82</sup>.

<sup>82</sup> In Exhibit 78, the 28 countries are grouped into categories according to their overall average policy scores across the various fields (see Chapter 13 for details) and the graph shows the average eAccessibility status scores for each group of countries; for the comparative policy situation, countries with an average score of 1.2 or less are included in the 'low' group, those between 1.2 and 1.9 are included in the 'medium' group, and those scoring 2 or above are included in the 'high' group. (n = no. of countries)

### Exhibit 78 Association between overall eAccessibility policy strength and attention to accessibility by ICT hardware and software industries.



Source: MeAC, 2007 ©

### 5.3.2 Implications for future EU policy

Although progress in the accessibility of computer hardware and software has been noted, there remain important dimensions that warrant further policy attention. One aspect of this concerns policy support for and encouragement of RTD on new and better assistive technologies and, especially, on the mainstreaming of accessibility solutions within standard computer hardware and software. In particular when it comes to computer software, explanatory commentaries received in the framework of the ICT industry survey (which will be discussed in more detail later in Chapter 12) suggest that there seems to be a need to facilitate a commonly shared understanding of what accessibility actually means in relation to specific user groups and applications.

Another aspect concerns policy support for and encouragement of take-up of available accessibility solutions. One dimension of this concerns the need to ensure that disabled people have information about available solutions. Another dimension concerns the affordability of available solutions for disabled people, who on average tend to have relatively low incomes. Relevant policy approaches include those addressing the direct (public) provision of accessible ICTs and related assistive technologies (through assistive technology service delivery systems) and/or those addressing (public) financial support towards the (end-user) costs of purchasing accessible ICTs and related assistive technologies.

Policy options to be considered at the EU-level include:

- introduction of measures that encourage greater efforts by industry to mainstream accessibility as a standard feature of computer hardware and software and to better communicate achievements to disabled customers across the EU

- development and implementation of consumer support measures to increase awareness and information on available accessibility solutions, targeting both the demand (user) and supply sides
- development and implementation of appropriate EU-level initiatives to encourage the development of (public) assistive technology service delivery systems in the Member States and/or other approaches to subsidising end-user costs (e.g. through social policy).

## 6 Self-service terminals

The increasing deployment of self-service terminals for banking, ticket dispensing and various other purposes makes this another key eAccessibility theme for people with disabilities, for example those with visual impairments, who use wheelchairs or who have various other disabilities. This section presents data and analysis in relation to accessibility of self-service terminals, with the material again organised in three main sections:

- policy situation
- eAccessibility status
- policy impacts and implications.

### 6.1 Policy situation

#### 6.1.1 EU-level context

There are currently no EU-level measures that directly address this domain although, similar to the situation for the computing sector, EU-level public procurement policies have relevance for this domain and are addressed in more detail in Chapter 8. More generally, eGovernment policies also have potential relevance for this domain, for example, in relation to multi-channel delivery of information and services.

#### 6.1.2 Policy situation in the Member States and other countries

In a few EU countries<sup>83</sup> the MeAC policy survey found some reference to public kiosk accessibility in laws/regulations or other policies. However, none seem yet to have reached a point where tangible measures have so far been put in place to directly address this theme. Nevertheless, horizontal measures, especially in relation to public procurement, and also on equality/anti-discrimination in access to goods and services, have potential to have strong relevance. These are discussed in more detail in Chapters 8 and 10, respectively. As mentioned earlier, eGovernment policies also have a potentially important role to play.

In the US, the equality legislation<sup>84</sup> includes automated teller machines (ATMs) within its scope, and has implemented specific guidelines/standards for this. The topic has also been given some policy and industry attention in Australia<sup>85,86</sup> and Canada<sup>87</sup>.

### 6.2 eAccessibility status

The utilisation of standard self-service terminals can pose various accessibility challenges to different disability groups. Solutions include, for instance, features of the built environment (e.g. ramps or elevators), keypads placed within reach of wheelchair users and buttons big enough to be used by people with dexterity impairments. Measures facilitating access for visual impaired

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<sup>83</sup> CZ, ES, LU, MT and PT

<sup>84</sup> Americans with Disabilities Act (1990)

<sup>85</sup> Human Rights and Equal Opportunities Commission (2000) Accessibility of Electronic Commerce and New Service and Information Technologies for Older Australians and People With a Disability. [http://www.hreoc.gov.au/disability\\_rights/inquiries/ecom/ecomrep.htm](http://www.hreoc.gov.au/disability_rights/inquiries/ecom/ecomrep.htm)

<sup>86</sup> Australian Banking Industry E-Commerce Industry Action Plan (2001), <http://www.bankers.asn.au/Default.aspx?ArticleID=303>; this was developed as a response to the HREOC report, including the interpretation that accessibility barriers may conflict with State and Federal Government anti-discrimination laws such as the Disability Discrimination Act 1992 which is the primary motivator for businesses to ensure their products and services are widely available and accessible to all people, including older people and people with disabilities.

<sup>87</sup> Canadian Standards Association (2006) Barrier-Free Design for Automated Banking Machines. <http://www.csa-intl.org/onlinestore/GetCatalogItemDetails.asp?mat=00000000002012075&Parent=1070>



people include Braille labels on the terminal and its buttons as well as voice output either via a speaker or a headphone (for privacy reasons).

In the banking sector, ATMs which are designed to meet the needs of people with visual impairments are now being manufactured. Usually referred to as “talking” ATMs, such machines have a voice output option via headphones and/or external loudspeaker. Typically, a blind or visually impaired user can activate the talking option by pressing any key on the keypad. When the headphone plug is inserted into the socket on the machine, the external speaker is deactivated, thereby ensuring the user's privacy. Such machines use an automated voice to give instructions about the exact location of items such as the numbers on the keypad, the cash dispenser and all other devices on the machine. It also talks through each stage of the process, whether a user wants to check a balance or withdraw cash.

#### **Exhibit 79 – eAccessibility indicators on automatic self-service terminals**

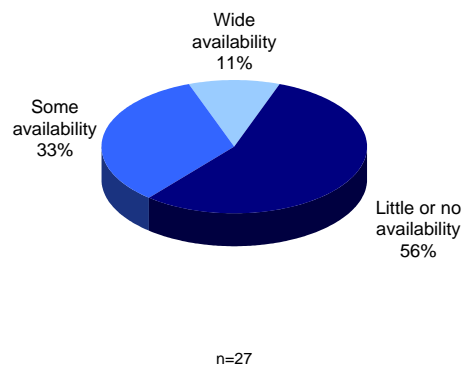
- 
- Levels of availability of accessible ATMs as estimated by disability organisations
  - Levels of availability of other types of accessible self-services terminals as estimated by disability organisations
  - Progress in the availability of accessible ATMs during the last 5 to 10 years as perceived by disability organisations
  - Progress in the availability of other types of accessible self-service terminals during the last 5 to 10 years as perceived by disability organisations
  - Factors driving positive developments in the field of accessible self-service terminals (if any) as perceived by disability organisations
  - Deployment of talking ATMs by the two main national retail banks in the country
  - Share of talking ATMs deployed by main national retail banks in the country
  - Deployment of talking ATMs by any other retail bank in the country
  - Provision of headphones for accessible ATMs by two main national retail banks to their customers
  - Planned deployment of accessible ATMs in the future by two main national retail banks
  - Provision of customer information about the location of accessible ATMs implemented by two main national retail banks in the country
  - Implementation of dedicated disability policy by two main national retail banks in the country
- 

Our indicators suggest that the level of availability of accessible self-service terminals in Europe is very low (Exhibit 80 and 81). The overwhelming majority of disability organisations report little or no availability of accessible self service terminals (74% and 26% respectively), whereas the situation seems to be slightly better for ATMs in particular (56% and 33% respectively). Against this background it does not come as a surprise that the majority of organisations report no or at most just some progress having happened over the last 5 to 10 years. When it comes to self-service terminals other than ATMs some organisations (17%) perceive the situation as even having gotten worse during that time span.

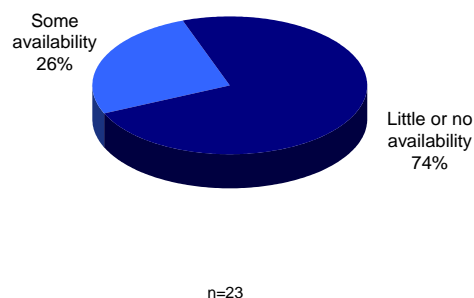
Even with respect to talking ATMs, however, the actual implementation level is rather low (Exhibits 82 and 83). Only in six Member States has one of the two leading retail banks installed any such machines at all. In many cases, only a few accessible machines have been deployed and the installed base is still far from reaching 100%. Across the EU countries, as a whole, on average just 8% of the ATMs installed by the two main national retail banks provide talking capabilities to customers with disabilities (Exhibit 83).

**Exhibit 80 Availability of accessible self-service terminals as perceived by disability organisations**

Estimated availability of accessible ATMs



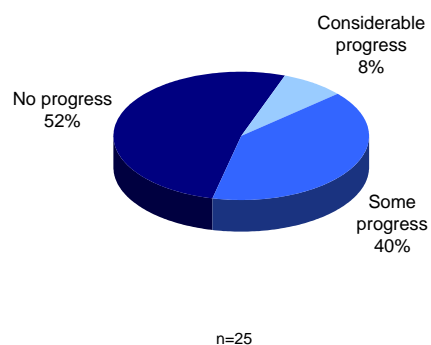
Estimated availability of other types of accessible self-service terminals



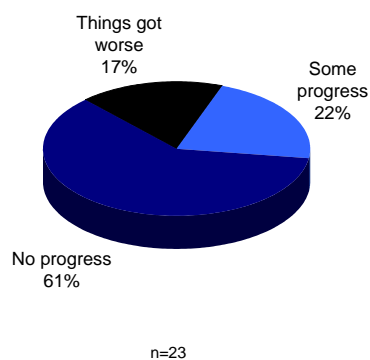
Source: MeAC Survey of Disability Organisations, 2007 © (c.f. Annex, section 3).

**Exhibit 81 Progress in the availability of accessible self-service terminals as perceived by disability organisations**

Perceived progress in the accessibility of ATMs



Perceived progress in the accessibility of other self-service terminals



Source: MeAC Survey of Disability Organisations, 2007 © (c.f. Annex, section 3).

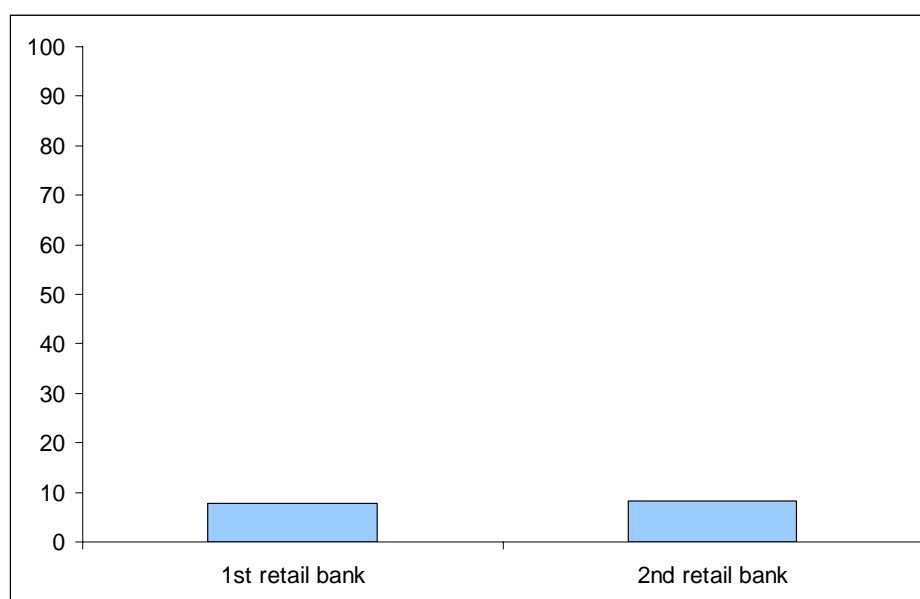
### Exhibit 82 Deployment of 'talking' ATMs by main national retail banks

	1 <sup>st</sup> main retail bank					2 <sup>nd</sup> main retail bank					Talking ATMs deployed by any other bank
	Any talking ATM deployed	Provision of headphones	Customer info on the web	Customer info by other means	Planned deployment	Any talking ATM deployed	Provision of headphones	Customer info on the web	Customer info by other means	Planned deployment	
EU (# of countries)	5	1	3	2	11	6	3	2	3	7	8
USA	✓	✓	✓	✓	-	✓	✓	✓	✓	-	✓
CA	✓	✓	✓	-	✓	✓	-	✓	✓	✓	✓
AU	✓	-	✓	✓	✓	✓	-	-	-	-	✓

Note: Provision of headphones only for ATMs operated via headphone.

Source: MeAC National Correspondents Investigation, 2007 © (c.f. Annex, section 1)

### Exhibit 83 – Average proportion of talking ATMS installed by two main retail banks across the EU



Source: MeAC National Correspondents Investigation, 2007 © (c.f. Annex, section 1).

More generally, customers with disabilities are not always well-informed through the usual information channels used by the banks (e.g. their web sites or call centres) about the location of such accessible machines as are provided. Importantly, not all retail banks provide headphones for machines that have a headphone jack as an alternative to a speaker in order to improve the customers' privacy when using the terminal (Exhibit 82).

Although many banks have adopted a corporate policy directed towards serving customers with disabilities (Exhibit 84) it seems these mainly refer to accessibility of the physical environment of

bank branches (e.g. for wheelchair users) and to eAccessibility in terms of making online banking services accessible to users with disabilities, without much obvious attention yet being given to accessibility of self-service terminals.

#### Exhibit 84 Existence of a dedicated disability policy in retail banks

	1 <sup>st</sup> main retail bank		2 <sup>nd</sup> main retail bank	
	Dedicated disability policy	Reference to eAccessibility	Dedicated disability policy	Reference to eAccessibility
<i>EU (# of countries)</i>	15	13	13	9
<i>USA</i>	✓	✓	✓	✓
<i>CA</i>	✓	✓	✓	✓
<i>AU</i>	✓	✓	✓	✓

Source: MeAC National Correspondents Investigation, 2007 © (c.f. Annex, section 1).

### 6.2.1 Comparative eAccessibility situation

The comparative analysis in the self-service domain is based on an index that reflects the share of talking ATMs amongst the overall installed base of ATMs by the two main national retail banks in each country.<sup>88</sup> The scoring system is described in the table below (Exhibit 85).

#### Exhibit 85 Scoring system: self-service terminal eAccessibility status

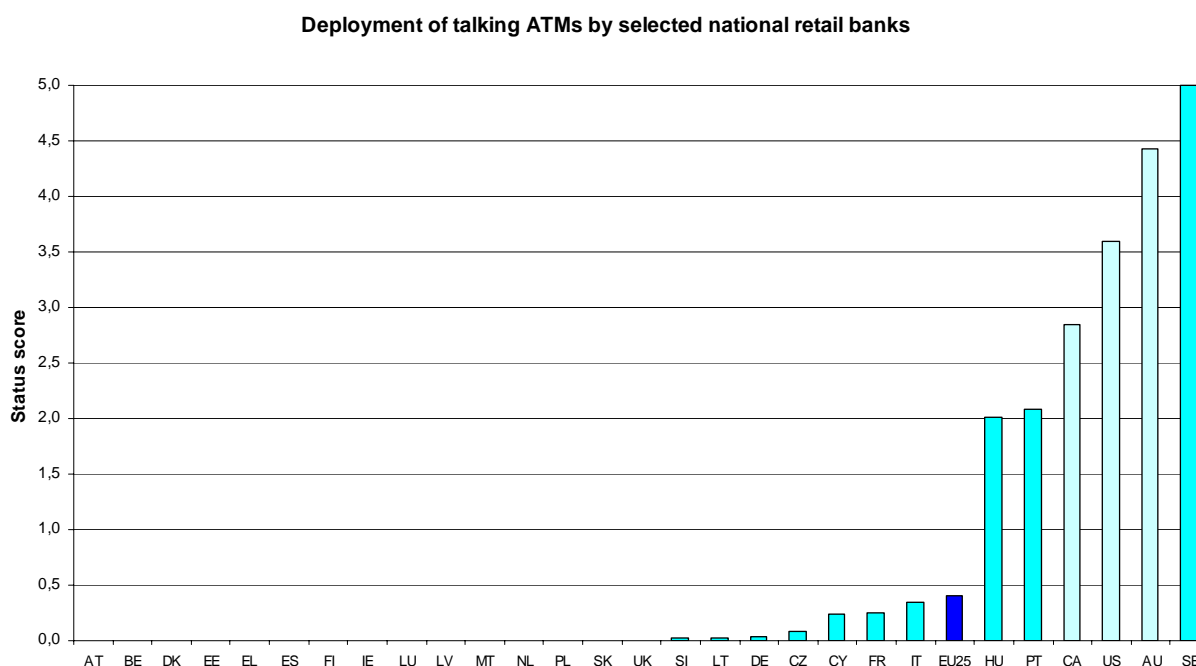
Index name	Scoring for Sub-components	Potential score
Deployment of talking ATMs by the two main national retail banks	Average share of talking ATMs deployed by the two main retail banks in country: - main national retail bank 1: talking ATMs as share of all ATMs deployed by the bank [Score: % of accessible ATMs] - main national retail bank 2: talking ATMs as share of all ATMs deployed by the bank [Score: % of accessible ATMs]	0% - 100%
	Total possible score	100

Note: For the purposes of the comparative analysis index values are standardized to a maximum value of 5 in order to allow comparison across domains and with policy scores. For details on the computation of the overall index value cf. Annex, section 4.

As noted earlier, the evidence shows that talking ATMs are not available in most of the European Member States and, where such machines are available at all, in many cases only a few machines have yet been deployed (Exhibit 86). It is striking that all three comparison countries achieve considerably higher levels of deployment when compared to all EU member States with one exception (Sweden).

<sup>88</sup> For each country the two main retail banks have been identified with help of available business statistic (c.f. Annex, section 10)

## Exhibit 86 Deployment of talking ATMs by selected national retail banks



Source: MeAC National Correspondents Investigation, 2007 © (c.f. Annex, section 1).

## 6.3 Policy impacts and implications

### 6.3.1 Impacts of existing policies

The evidence from MeAC show that those countries where policy attention has been directed towards accessibility of self-service terminals (in this case, ATMs), and/or where industry has interpreted anti-discrimination legislation to cover this aspect of customer access, tend to have much higher levels of accessibility on the ground. This is the case in the comparison countries (US, CA and AU), where there is a greater likelihood that retail banks provide any talking ATMs and, where they do, that a high percentage of the installed base of ATMs are talking models. In Europe, only a few countries show a relatively good profile in this regard<sup>89</sup>.

### 6.3.2 Implications for future EU policy

The evidence and analysis in relation to the self-service terminal area identifies a number of key challenges for the EU:

- there is a lack of direct attention to accessibility of self-service terminals in current policy at EU and Member State levels
- the extent of deployment of accessible self-service terminals that are in principle available on the market (e.g. 'talking' ATMs) is very limited, and generally compares very unfavourably with that in the three comparison countries

<sup>89</sup> In SE there has apparently been active cooperation between the banking sector and disability organisations; in HU one of the banks seems to have taken a positive initiative; and in PT a proactive policy approach on accessibility of ATMs and other kiosks is being implemented

- as suggested by the outcomes of the user survey, availability of accessible self-service other than ATMs seems even more limited.

Relevant policy options to be considered at the EU-level include:

- introduction of legislative or other measures to encourage Member States (and ultimately manufacturers and deployers) to ensure that self-service kiosks are accessible to disabled people
- equality/anti-discrimination approaches may provide useful models in this regard; specific attention to accessibility of self-service terminals in public procurement and, where relevant, within eGovernment policy, also can play an important role
- accompanying measures to encourage and support accessibility initiatives by other stakeholders, including both manufacturers and deployers of self-service terminals.

## 7 Other ICT sectors and cross-sectoral approaches

In addition to the core sectors addressed in some detail in Chapters 2 to 6, there are also a number of other sectors and approaches that need to be taken into account in considering future policy options for the EU. These include:

- Other ICT sectors
- Cross-sectoral approaches that address a number of ICT sectors within their scope
- Assistive Technologies
- ICTs in education.

Because of the nature of these sectors and/or their current levels of activity in relation to eAccessibility they are not amenable to the same level of detailed quantitative analysis as has been applied to the other sectors in earlier Chapters. However, they are nonetheless important and are therefore briefly addressed in this Chapter to provide some pointers to relevant dimensions and to ensure that they are not omitted from consideration in the context of future policy development at the EU-level.

### 7.1 Other ICT sectors

Apart from the 5 domains addressed in Chapters 2 to 6, there are some other ICT sectors that were not the main focus of the empirical and analytic work of the MeAC study and that warrant dedicated investigation in future efforts.

#### 7.1.1 Electronic books and other forms of eContent

One area that was given some attention within the MeAC work concerned access to electronic books and other forms of eContent, especially in relation to the needs of people with print-related disabilities. Specifically, a basic examination was made of the extent to which **copyright exemptions** have been put in place in the Member States (especially in the transpositions of the EU Copyright Directive<sup>90</sup>) to give special access privileges to people with disabilities who need them. The overall impression is that most Member States have included some such provisions in their transpositions but there seem to be considerable variations in the nature and scope of the exemptions that are enabled. This policy area, and its interactions with wider digital rights management issues, warrants further attention at EU-level.

#### 7.1.2 Consumer electronics / handheld devices

The MeAC survey of eAccessibility policies from across the Member States and the other countries found little or no examples of policies directly addressing consumer electronics / handheld devices. This is therefore an area that warrants further examination of what approaches, if any, might be appropriate at the EU-level to drive more eAccessibility efforts in this field.

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<sup>90</sup> Directive 2001/29/EC on the harmonisation of certain aspects of copyright and related rights in the information society; this includes provisions in relation to accessibility:

“Preamble: (43) It is in any case important for the Member States to adopt all necessary measures to facilitate access to works by persons suffering from a disability which constitutes an obstacle to the use of the works themselves, and to pay particular attention to accessible formats.”

“3. Member States may provide for exceptions or limitations to the rights provided for in Articles 2 and 3 in the following cases:  
(b) uses, for the benefit of people with a disability, which are directly related to the disability and of a non-commercial nature, to the extent required by the specific disability”.

## 7.2 Cross-sectoral eAccessibility approaches

The policy survey work in MeAC also identified some examples of cross-sectoral approaches that have emerged in some Member States, covering a number of sectors within a single eAccessibility policy framework or measure. In general, however, such approaches were not widespread and were found only in a minority of Member States. At the EU-level, there is no such cross-sectoral measure in place as of yet.

The instances found amongst the Member States covered a variety of approaches:

- Laws specifically on the eAccessibility theme (ES<sup>91</sup>, IT<sup>92</sup>)
- Laws on a wider disability (equality) theme, with a strong eAccessibility component (FR<sup>93</sup>)
- Action programmes specific to the eAccessibility theme, addressing a number of aspects / sectors (DK<sup>94</sup>, IE<sup>95</sup>, PT<sup>96</sup>)
- Action programmes within disability policy addressing a number of eAccessibility themes (LT<sup>97</sup>, SI<sup>98</sup>).

These warrant further examination in terms of their effectiveness and the added-value that they can bring over and above the more typical single-sector approaches that are to be found in most countries.

## 7.3 Assistive Technologies

Most of the focus in this report is on mainstream solutions to eAccessibility, where accessibility is built-in to the ICT products and services that are used by everyone in society. In addition to this, specifically designed assistive technologies are also of great importance<sup>99</sup>. The availability, quality and affordability of assistive technologies need to be encouraged in policy.

### 7.3.1 Policy situation

There is currently no direct EU-level policy that addresses the supply and provision of assistive technologies in Europe. However, on the basis of a study of public assistive technology delivery systems in Europe, the possibility of initiating appropriate EU-level measures has been mooted<sup>100</sup>. In addition, the achievement of good eAccessibility impacts from existing EU-level measures will require that effective (public) assistive technology service delivery systems are in place. For example, as will be discussed in more detail in Chapter 11, the EU Directive in the field of employment equality<sup>101</sup> includes an intent that the level of available public supports be

<sup>91</sup> 51/2003 Act on Equal Opportunities, Non-Discrimination and Universal Accessibility of People with Disabilities.

<sup>92</sup> Law n. 4, January 9, 2004 - Provisions to support the access of the disabled to information technologies.

<sup>93</sup> Law 102/2005: loi pour l'egalite des droits et des chances, la participation et la citoyennete des personnes handicapees.

<sup>94</sup> Action Plan "Disability no Hindrance".

<sup>95</sup> Centre of Excellence in Universal Design (NDA) – guidelines on various ICT areas, procurement toolkit, codes of practice...

<sup>96</sup> RCM 110/2003 - National Programme for the Inclusion of Disabled People in the Information Society; RCM 9/2007 - National Plan for the Promotion of accessibility (2007-2015).

<sup>97</sup> National programme for integration of disabled (2003-2012)

<sup>98</sup> 'Easily Reached Slovenia': National Guidelines to Improve Built Environment and Communications Accessibility for Disabled Persons (2005); Action Plan for Disabled People (2007-2013).

<sup>99</sup> Assistive technology, sometimes also referred to as 'rehabilitation technology' or 'technical aids', is the term used to describe technological products and systems that are of particular benefit to people with disabilities and/or older people. It can include "any item, piece of equipment, product or system, whether acquired commercially, off-the-shelf, modified or customised, that is used to increase, maintain, or improve functional capabilities of individuals with cognitive, physical, sensory or communication disabilities" (definition used in the US "Technology-Related Assistance for Individuals with Disabilities Act" of 1998)

<sup>100</sup> DG Employment and Social Affairs (2003) Access to Assistive Technology in the European Union.

<sup>101</sup> Directive 2000/78/EC of 27 November 2000 establishing a general framework for equal treatment in employment and occupation.



taken into account when judging what is considered to be a "reasonable" accommodation to be provided by an employer in order to meet the needs of a disabled person.

The MeAC policy survey gave some attention to assessing the nature and quality of assistive technology services in the Member States although an exhaustive investigation of this area was beyond its scope. In line with the results of other studies<sup>102</sup>, the evidence indicates wide variability in levels of public support / service across Europe in terms of the contexts that are covered (employment, education, everyday life), the assistive technologies covered (especially in the extent to which accessible / assistive ICTs are covered), the eligibility criteria that are applied, and so on.

### **7.3.2 Evidence from the user side**

The evidence from the MeAC survey of disability organisations points to problems on the user side as well. As has been discussed in section 5.2 already, for example, the survey of user organisations found that although the majority (63%) report some progress in relation to availability of assistive technologies in the computer hardware/software field, high purchasing costs for end users are reported as a major barrier for wider deployment by almost three quarters (73%) of the responding organisations. Similarly, as already discussed in section 2.2.2 in relation to text telephones, more than half (60%) of the user organisations surveyed reported lacking availability of product information to be a major barrier towards wider deployment, while slightly less than one half (40%) report the same holding true for high purchasing costs.

### **7.3.3 Policy implications**

If a complete EU-level approach to eAccessibility is to be developed it will need to include appropriate attention to assistive technology as well as to mainstreaming of eAccessibility. Important aspects that might be considered in future EU-level policy include:

- measures to encourage the provision of comprehensive (public) assistive technology services in the Member States, to include attention to affordability issues
- clearer explication and leveraging of the linkages between assistive technology policy and policies in other fields, such as employment equality
- measures to support RTD and market development in the field of assistive technology.

## **7.4 ICTs in education**

The eAccessibility of ICTs at all levels of education is a wide-ranging and crucially important area that has so far not been the subject of any in-depth investigation either of the eAccessibility policy situation nor of the current levels of eAccessibility that are available in Europe and beyond. Although detailed examination of this field was beyond the scope of the MeAC study, the available evidence from the policy survey suggests that there is a lack of focused policy attention in many Member States as well as considerable disparity in the attention being given. It would seem important, therefore, that eAccessibility in the educational context is given a high visibility and attention in future EU-level policy on eAccessibility.

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DG Employment and Social Affairs (2003) Access to Assistive Technology in the European Union; also, the earlier HEART study, available at [http://www.hi.se/templates/Page\\_\\_\\_\\_821.aspx](http://www.hi.se/templates/Page____821.aspx).

**Section B**  
**Data and Analysis on**  
**Horizontal and Cross-cutting Themes**

## 8 Public Procurement

Inclusion of eAccessibility criteria in public procurements of ICTs can be a very important mechanism for improving the eAccessibility situation for people with disabilities. One form of contribution is through the direct improvements in eAccessibility that are passed on to the clients and / or employees of a public service organisation when it ensures that the ICTs that it purchases and deploys meet eAccessibility requirements. Another important form of contribution is through the more general signals and impetus that can be given to ICT industry and suppliers to give greater attention to eAccessibility of their products and services.

This Chapter addresses public procurement policy and its (potential) contribution to progressing the achievement of eAccessibility in Europe, again organised into three main sections:

- policy situation
- eAccessibility status
- policy impacts and implications.

### 8.1 Policy situation

#### 8.1.1 EU-level context

Inclusion of eAccessibility requirements in public procurements of ICT has been recognised as a potentially powerful policy lever in relation to improving the eAccessibility situation in Europe. There are a number of aspects to current EU-level policy in this field.

The revised EU Public Procurement Directives of 2004<sup>103</sup> include clauses encouraging insertion of accessibility and design-for-all requirements in public procurements. The preambles (paragraph 29 of Directive 2004/18/EC and paragraph 42 of Directive 2004/17/EC) state that *“Contracting authorities should, whenever possible, lay down technical specifications so as to take into account accessibility criteria for people with disabilities or design for all users.”* The specific Articles on technical specifications (Article 23, Paragraph 1 of Directive 2004/18/EC and Article 34, Paragraph 1 of Directive 2004/17/EC) state 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.”* An earlier clarifying Communication from the European Commission provided a variety of examples of how such eAccessibility criteria might be addressed in practice<sup>104</sup>.

The Communication on eAccessibility in 2005 highlighted public procurement as an important approach for the EU and Member States. Since then, a Mandate has been given to the EU Standards Organisations to prepare standards and a toolkit to support public procurers (and suppliers) to address eAccessibility requirements<sup>105</sup>. There has also been a Ministerial commitment given in 2006 to fully leverage this approach as part of the eInclusion efforts of the EU.<sup>106</sup>

<sup>103</sup> Directive 2004/18/EC of 31 March 2004 on the coordination of procedures for the award of public works contracts, public supply contracts and public service contracts; Directive 2004/17/EC of 31 March 2004 coordinating the procurement procedures of entities operating in the water, energy, transport and postal services sectors.

<sup>104</sup> Interpretative Communication of the Commission on the Community law applicable to public procurement and the possibilities for integrating social considerations into public procurement – COM (2001) 566 Final; 15.10.2001.

<sup>105</sup> Standardization Mandate 376 to the European Standards Organizations in support of European Accessibility Requirements for Public Procurement of Products and Services in the ICT domain. M 376 - EN; Brussels, 7th December 2005.

<sup>106</sup> [http://ec.europa.eu/information\\_society/events/ict\\_riga\\_2006/doc/declaration\\_riga.pdf](http://ec.europa.eu/information_society/events/ict_riga_2006/doc/declaration_riga.pdf).

The available evidence to date, however, has suggested that historically there has been little focused attention given to eAccessibility in public procurement policy in the Member States and that various practical barriers have been perceived by procurers.<sup>107</sup>

## 8.1.2 Policy situation in the Member States and other countries

### 8.1.2.1 MeAC policy survey results<sup>108</sup>

The MeAC policy survey made an effort to systematically compile information on the public procurement policy situation in relation to eAccessibility across the Member States and in the three comparison countries. The dimensions applied in assessing policies in this field and the scoring system used are presented in Exhibit 87. The detailed policy situations underpinning the scores for each country can be found in the MeAC policy inventory<sup>109</sup>.

As indicated in the Table, the focus was on the extent to which eAccessibility is included within mainstream public procurement policy, that is, on the overarching policies that regulate public procurement practices across the spectrum of public sector organisations and of ICT purchases.

**Exhibit 87 Scoring system: Mainstream Public procurement Policy**

Dimension	Scoring for Sub-components	Potential score
Strength of policy efforts on eAccessibility in mainstream public procurement	0 = no procurement laws/regulations referring to accessibility; no other relevant activities addressing accessibility in mainstream public procurement 1 = accessibility is referenced in the transposition of the revised EU Directives, but seems considerably weaker than intended; no other activities 2 = accessibility is referenced in the transposition of the revised EU Directives, but seems a bit weaker than intended / other initiatives such as toolkits are to be found, but not linked to this 3 = specific reference to / encouragement of accessibility in laws/regulations, but not (yet) being followed-up 4 = specific reference to / encouragement of accessibility in laws, and some relevant (follow-up) activity 5 = specific reference to / requirement of accessibility in laws, and a lot of relevant (follow-up) activity	5

## Comparative situation

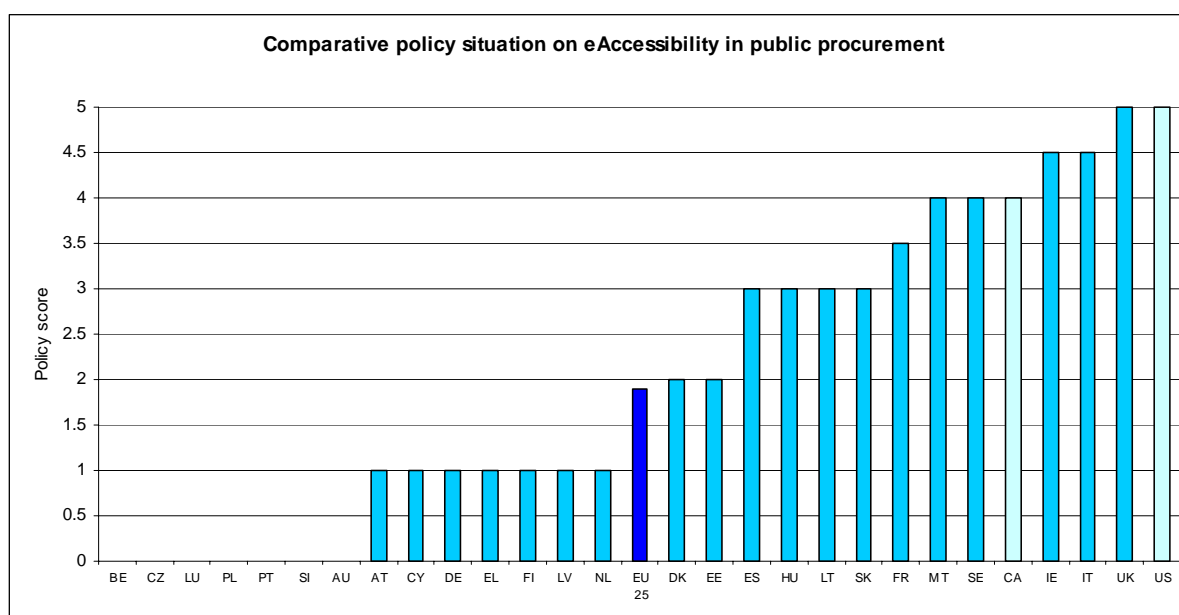
Exhibits 88 and 89 present the comparative policy situation across countries and for the EU as a whole.

<sup>107</sup> <http://www.verva.se/english2/international-network/the-accent-project/>; eInclusion@EU project (2007) Policy roadmap report on eAccessibility, [www.einclusion-eu.org](http://www.einclusion-eu.org).

<sup>108</sup> The main source of data came from the MeAC policy survey, where information on the national situations was collected and interpreted by national correspondents in each country. This has been validated to the extent possible with data from a survey of public procurement officials (see section 8.1.2.2) and thus provides a reasonably objective and consistent assessment of the current policy situation and sufficient robustness for the current analysis. However, the scope of the survey did not allow for in-depth legal analysis of the national transpositions, so the results should be interpreted as being indicative rather than being in any way a definitive 'legal' assessment of the treatment of accessibility in the transpositions.

<sup>109</sup> Available at: [http://ec.europa.eu/information\\_society/activities/einclusion/index\\_en.htm](http://ec.europa.eu/information_society/activities/einclusion/index_en.htm)

### Exhibit 88 Comparative policy situation on eAccessibility in public procurement



Source: MeAC Policy Survey, 2007 ©

### Exhibit 89 Classification of countries in terms of policy strength on eAccessibility in public procurement<sup>110</sup>

Policy strength	Number of EU25 countries	EU 25 Average	Other countries
Very Strong	3		US
Strong	3		CA
Moderate	4		
Weak	2	EU25	
Very Weak	13		AU

Source: MeAC Policy Survey, 2007 ©

By way of example, UK<sup>111</sup> is considered to be very strong because their implementation of the EU Directives imposes a strong requirement to include accessibility criteria in public procurements and this is now being interlinked with obligations on public procurers in relation to eAccessibility under equality/anti-discrimination legislation. In regard to the latter, a Code of Practice and a specific guidance document for procurers set out the procedures to be employed in procurements and give examples of ICT procurements in this context. Details of the policy situations in these and all the other countries can be found in the MeAC policy inventory<sup>112</sup>.

<sup>110</sup> 'Policy strength' is based on the policy score attained by a country according to the scoring system in Exhibit 87. A score of 4.5 or 5 is considered to be 'very strong', 3.5 or 4 to be 'strong', 2.5 or 3 to be 'moderate', 1.5 or 2 to be 'weak', and 1 or lower to be 'very weak'

<sup>111</sup> UK Public Contracts Regulations (2006); Disability Discrimination Act (Amendment) (2005); Guidance document: Procurement and the Disability Equality Duty

<sup>112</sup> MeAC eAccessibility Policy Inventory

More generally, key patterns emerging include:

- more than one-half of Member States appear to currently have weak or very weak provisions for accessibility in mainstream public procurement policy; in just under one-in-six, the situation is judged to be moderate and in just under one-in-four to be strong or very strong
- with regard to the comparison countries, two (US and CA) have strong or very strong policy provisions and the other (AU) seems to be currently very weak in this area
- amongst the 10 countries with at least a moderate policy rating, the nature and strength of the approach shows considerable variability
  - of these, 9 appear to have implemented the intention of the Directives in a reasonably strong manner; the other, Sweden, has not yet implemented the Directive but already has given a lot of policy attention to eAccessibility in practice
  - however, only 6 seem to have implemented any relevant follow-up or linked support activity and just 3 of these to have given strong attention to this.

### 8.1.2.2 Perceptions in the Member States<sup>113</sup>

In addition to the information gathered through the national correspondents and desk research, the public procurement theme was also addressed through a survey of the members of the European Public Procurement Network in each Member State. The aim was to get a better indication of the situation in each Member State and, in particular, to get some insight into the perceptions of public procurement policy makers on the issue. Data from 21 Member States was available for this analysis.

#### Respondents views on the national transpositions of the revised EU Directives

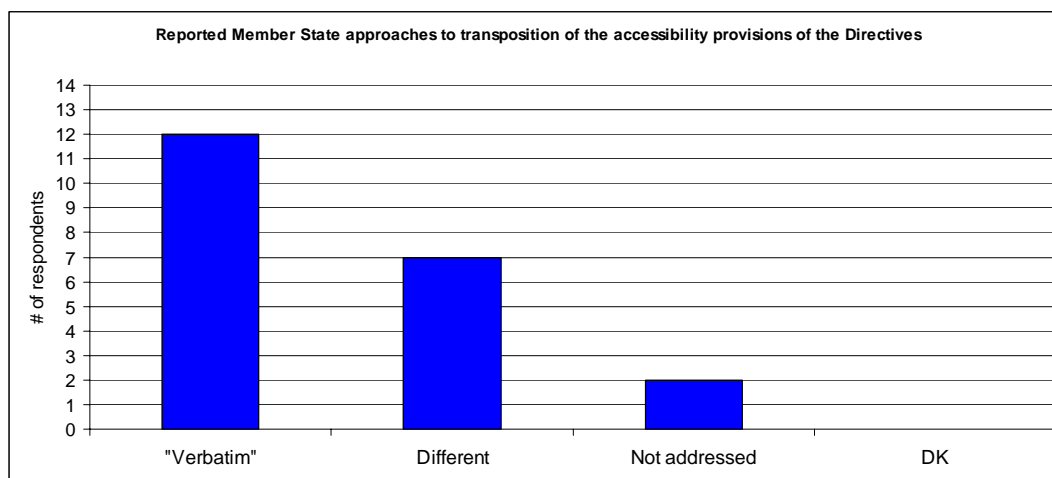
Exhibit 90 presents the respondents views on how the accessibility provisions in the revised Public Procurement Directives have been implemented in their countries. Some important patterns emerging include:

- Somewhat more than one-half of respondents considered that their country has transposed the relevant accessibility clauses through more-or-less verbatim inclusion of the relevant text; a roughly similar proportion consider the coverage of accessibility / design-for-all-users in their national transpositions to be of about the same strength as that intended in the Directives
- In a few of these cases, however, it is not clear that even the basic intent of the revised Directives in relation to accessibility has in fact been incorporated into the mainstream national public procurement law linked to the Directives
- In addition, it seems that small (but possibly important) wording differences may be quite common, and some of these might be considered to be significant deviations from the intention of the Directives although not recognised as such in the relevant Member States (e.g. "where necessary" instead of "whenever possible"; "may" instead of "should" etc.)
- One-in-three countries reported that the wording / approach to the accessibility issue in their transposition was a deviation from that of the revised Directives.

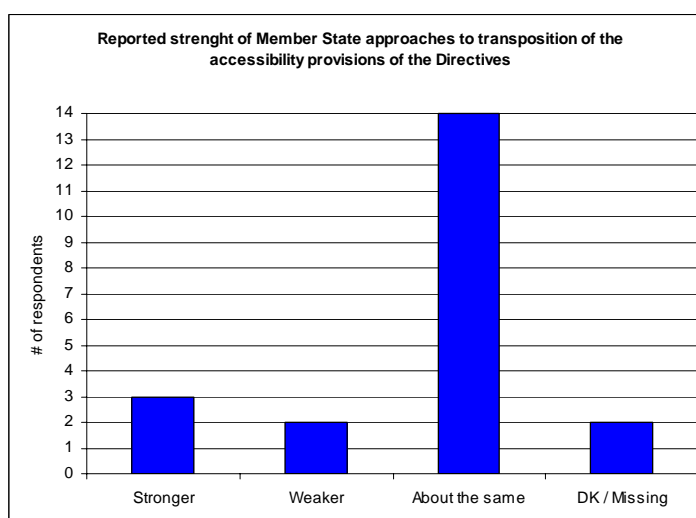
<sup>113</sup> Apart from helping to validate the policy survey as reported in section 8.1.2.1, the survey of procurement officials aimed to get an informed perspective from a key public procurement contact in each country. Although this enables a general comparative assessment to be made, based on the views of the respondents, it cannot be viewed as in any way reflecting an 'official' view from the country.

## Exhibit 90 Views on the national transpositions of the revised EU Directives

### Approach



### Strength relative to Directives



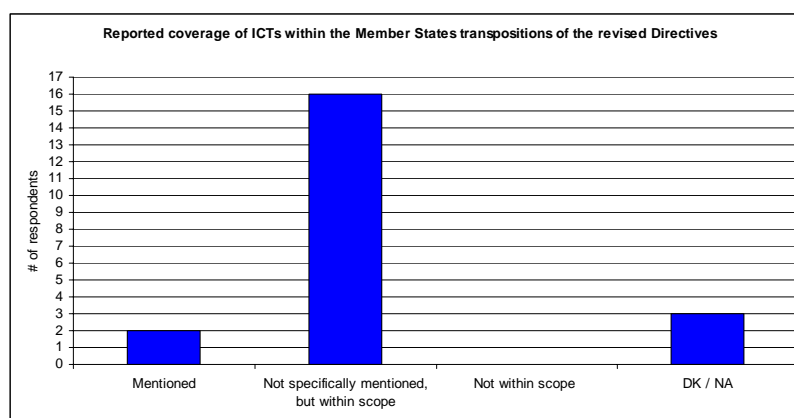
Source: MeAC Survey of Public Procurement officials, 2007 © (c.f. Annex, section 3)

### Perceived implications for inclusion of eAccessibility in public procurements

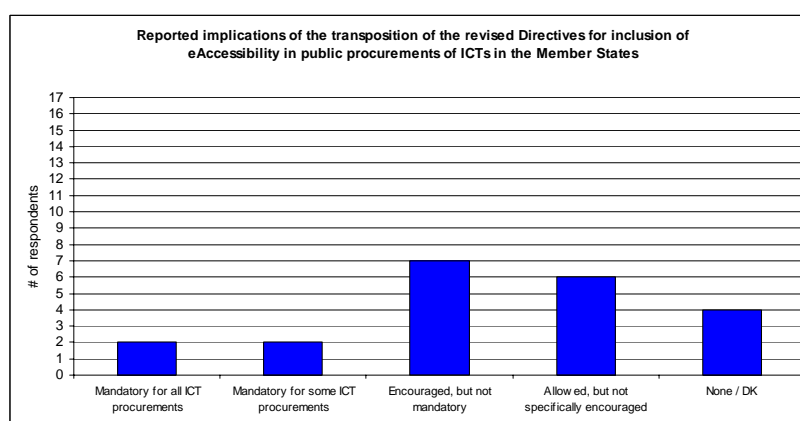
Exhibit 91 presents the respondents' perceptions of the implications for inclusion of eAccessibility requirements in procurements of ICTs that arise from the laws/regulations introduced with the transposition of the Directives.

## Exhibit 91 Perceived implications for eAccessibility of the transposition of the EU Directives

### Reference to ICTs



### Implications for ICT procurements



Source: MeAC Survey of Public Procurement Officials, 2007 © (c.f. Annex, section 3).

Some important patterns emerging include:

- Two countries reported specific mention of ICT accessibility within the accessibility provisions linked to the transposition of the revised Directives and almost all of the remainder said that ICTs were within the scope, although not specifically mentioned
- As regards implications of the national legislation for procurement practices, the most frequently reported situation was that the legislation encouraged inclusion of accessibility requirements in ICT procurements but this was not mandatory; this was closely followed by countries that reported a somewhat a weaker situation, with the inclusion of eAccessibility requirements allowed but not specifically encouraged
- Two countries reported that the implementation of the revised Directives made (or will make) it mandatory for eAccessibility to be included in all public procurements of ICTs - these were the countries where ICTs are apparently specifically mentioned in the legislation and where there is a lot of other activity on eAccessibility, including attention to the potential of public procurement to progress eAccessibility
- A further two countries reported that the legislation makes it mandatory to include eAccessibility in some procurements of ICTs; however, in one case this was "whenever necessary" and may refer to specific procurements of products for disabled people, per se, rather than inclusion of



accessibility requirements in general procurements; in the other case the interpretation seems to be that it is mandatory "where possible" (which is more in keeping with the intent of the revised Directives)

- In general, there is again the impression of considerable ambiguity in regard to the interpretation of the "whenever possible" proviso in the Directives, with this sometimes being viewed as amounting to a mandatory requirement but more commonly being seen as stating that whilst inclusion of accessibility is a positive thing, discretion is left to the contracting authority as regards necessity / appropriateness / feasibility on a case-by-case basis; in some countries it seems that this may be (incorrectly) interpreted as "where necessary", such as only in procurements specifically for disabled people
- Overall, there is a widespread lack of strong implementation of the accessibility provisions<sup>114</sup> across the Member States, as well as the suggestion of an emerging lack of coherence and fragmentation.

## Identification of other relevant laws / regulations

Respondents from very few Member States identified any other laws / regulations (other than those linked to the transpositions of the EU Directives) that address eAccessibility issues within mainstream public procurement in their countries.

However, almost one-half of the respondents mentioned laws / regulations outside of the mainstream public procurement domain that they felt have at least some relevance for the inclusion of eAccessibility requirements in public procurements, sometimes being reported to impose quite direct obligations on public procurement and sometimes less directly.

Relevant laws could arise in a variety of legislative / regulatory fields:

- in a number of countries equality/anti-discrimination legislation was reported to give rise to such implications for public procurement
- in just a few countries respondents mentioned laws or regulations on accessibility of public web sites as being of relevance for the inclusion of eAccessibility requirements in public procurements; this may be an important observation, given that we know from the information on public website accessibility policy that quite a number of countries have such laws and that these, directly or in principle, require that accessibility requirements are included in any relevant procurements relating to the development and implementation of public websites
- very few respondents had knowledge of any procedures being put in place to require / encourage the inclusion of accessibility requirements in public procurements of ICTs that utilise the Structural Funds (despite the provisions for accessibility that have been introduced in the application of the Structural Funds<sup>115</sup>).

## 8.2 eAccessibility status

Here the focus is on two main themes:

- the extent of inclusion of eAccessibility in public procurements at present
- perceived barriers to / facilitators of this on the part of procurers.

### 8.2.1 Extent of inclusion of accessibility in public procurements

The public procurement survey also included an effort to gauge the extent to which existing legislation / regulations or other measures were actually having impacts in terms of the inclusion of eAccessibility in public procurements of ICTs. To assess this, respondents were asked to give their rating of the frequency of inclusion of eAccessibility in procurements of ICTs for

<sup>114</sup> The wording "should, whenever possible" has the potential to be interpreted quite strongly, even as amounting to a mandatory provision when possible

<sup>115</sup> Article 16, Council Regulation (EC) No 1083/2006

customer-facing applications (public web sites; other ICTs used for interfacing with the citizen) and for procurements of ICTs for internal use by employees.

In general, respondents had little solid knowledge on these aspects (often stating that such information was not currently collected in their administrations) and many were not in a position to give any opinion; this applied especially in relation to procurements for internal use by employees. Where respondents did give an opinion, it was generally felt that inclusion of eAccessibility criteria was considerably more likely in procurements relating to public websites or other customer-facing ICTs rather than in procurements of ICT for internal use by employees. Even in the case of procurements of customer-facing ICTs, however, most respondents felt that eAccessibility requirements were only being included in a minority of cases, if at all.

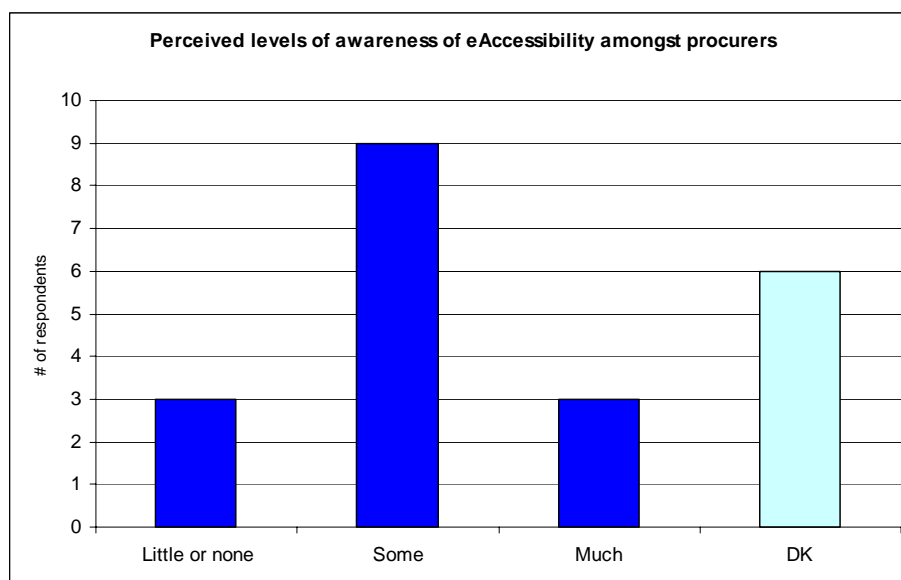
## 8.2.2 Facilitators and barriers to the inclusion of eAccessibility in public procurements

Three aspects to this were addressed: awareness, perceived barriers and perceived facilitators.

### Awareness of eAccessibility amongst procurers

The survey results present a mixed picture as regards perceived levels of awareness amongst public procurers of eAccessibility issues and of the relevance of including these in their procurements of ICTs (Exhibit 92). In countries where respondents were prepared to give their assessment, the most common view was that there is some awareness, but that generally this is not very extensive. In a few countries respondents reported more extensive awareness (in two of these, specific awareness-raising efforts were reported; in the other, a government assessment of public website accessibility was reported to have led to increased awareness).

**Exhibit 92 Perceived levels of awareness**

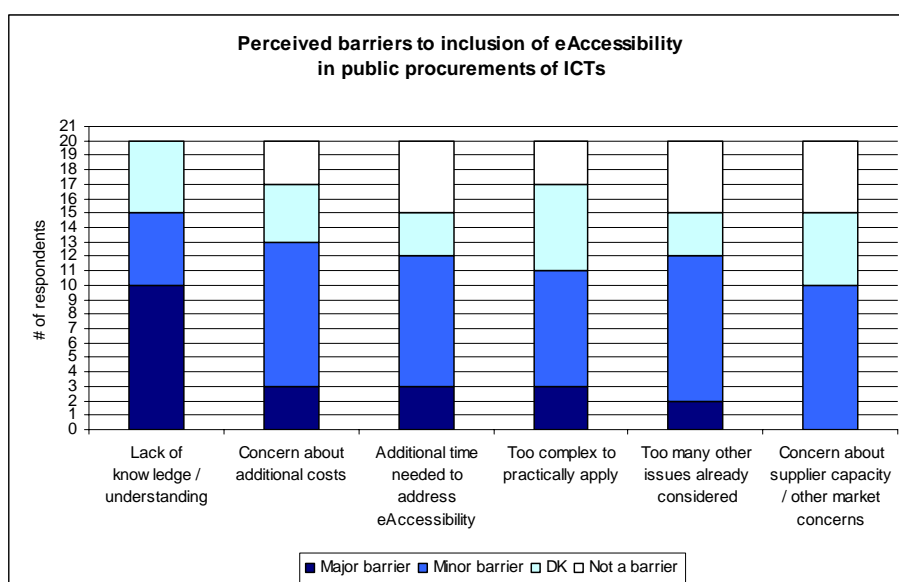


Source: MeAC Survey of Public Procurement Officials, 2007 © (c.f. Annex, section 3).

## Barriers

Lack of knowledge/understanding amongst public procurers of what eAccessibility involves was the most frequently perceived barrier to the inclusion of eAccessibility in public procurements of ICT and, importantly, was commonly felt to be a major barrier (Exhibit 93). Concern about additional costs if eAccessibility is included within the procurement process was the next most frequently mentioned barrier, although this was generally seen to be a minor rather than a major barrier. The additional time needed to address eAccessibility within procurement processes, the feeling that eAccessibility requirements are too complex for being practically applied, and the fact that too many other issues already have to be included were also quite frequently cited as barriers, although again generally seen as minor rather than major barriers. Concern about supplier capacity was also quite frequently mentioned, but only as a minor barrier.

**Exhibit 93 Perceived barriers**

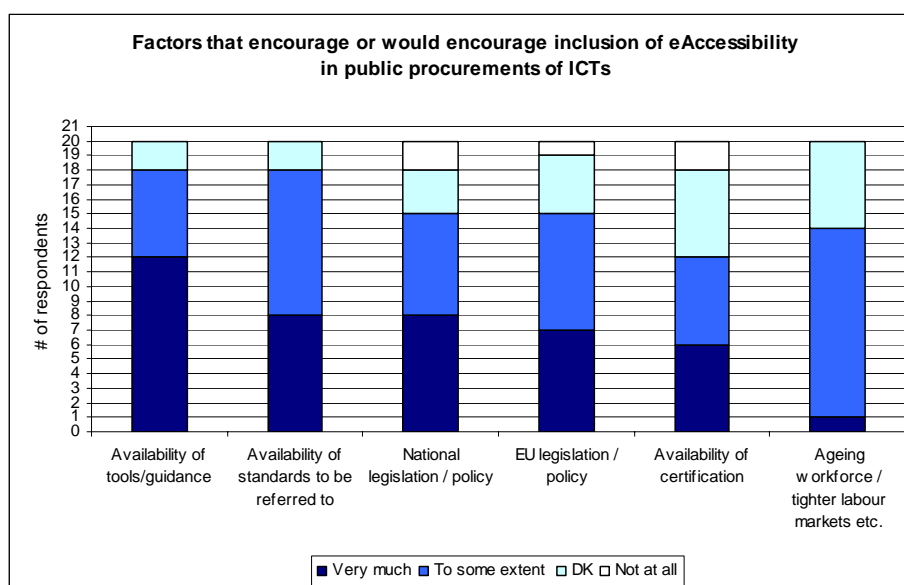


Source: MeAC Survey of Public Procurement Officials, 2007 © (c.f. Annex, section 3).

## Facilitators

Availability of tools/guidance and of standards to be referred-to were the most commonly cited factors that encourage or would encourage inclusion of eAccessibility requirements in public procurements (Exhibit 94). Both of these, but especially the availability of tools/guidance, were felt to have a strong influence or potential to influence in this regard. Other factors perceived to have a relatively strong influence or potential to influence were national legislation/policy, EU legislation/policy and availability of certification. Ageing of the workforce / tighter labour markets was also commonly seen to be an encouraging factor, although generally not as strong a factor as the others mentioned above. This may be part of the reason for the apparent lack of attention to eAccessibility in procurements of ICTs for internal use (i.e. by employees).

### Exhibit 94 Perceived Facilitators



Source: MeAC Survey of Public Procurement Officials, 2007 © (c.f. Annex, section 3).

The importance of an appropriate eAccessibility certification regime to support public procurers was also highlighted during a recent international workshop on the theme of eAccessibility in public procurement<sup>116</sup>. In this context, it was noted that in addition to certification of products, certification of supplier competence in accessibility is becoming of growing relevance as procurements increasingly involve services and as outsourcing and related approaches such as public-private partnerships become more commonplace.

## 8.3 Policy impacts and implications

The policy assessment in this section brings together the evidence from the policy side and the eAccessibility status side in order to assess policy impacts and implications for the future.

### 8.3.1 Impacts of policies

#### 8.3.1.1 EU policy impacts

On the positive side, provisions in the revised Directives have at least introduced the potential in many EU countries for eAccessibility to be addressed in public procurements of ICTs. In addition, the planned EU standards and toolkit, when available, can be expected to be very helpful as there is a strong reported need on the ground in the Member States

On the negative side, it seems that the intent of the Directives on accessibility has not been fully recognised / implemented in many cases, even if most Member States may not necessarily be aware of this. In addition, there seems to be quite wide variability across the Member States in the specifics of the implementation of the accessibility provisions of the Directives. Overall, the policy situation in the majority of Member States seems currently to be very weak and the EU situation, as a whole, compares very unfavourably with (two of the) reference countries

<sup>116</sup> Report of an international workshop on: Accessibility Requirements for Public Procurement in the ICT Domain. Held in Brussels on October 19-21, 2004. <http://www.einclusion-eu.org/ShowDocument.asp?FocusAnalysisDocumentID=1>

### 8.3.1.2 Impacts of policies at the country level

Across the Member States there is not yet much evidence of impacts in terms of actual inclusion of eAccessibility requirements in public procurements of ICTs. In general, it seems that this has not yet been mainstreamed across all public procurements of ICTs (as is the case for federal procurements in the US, for example). However, it does appear that public website accessibility policies are having impacts on web-related procurements in a considerable number of countries.

More generally, there has been insufficient activity in the Member States to be able to directly measure impacts on industry. However, the data on ICT industry attention to accessibility (see Chapter 5 on Computing) shows more attention to this theme in the US than in the European Member States, as well as a widely varying situation across Europe. This may well reflect an impact of US procurement and other legislation (and the lack of a commensurate impact yet in Europe).

### 8.3.2 Implications for future EU policy

The evidence and analysis in relation to eAccessibility and public procurement indicates a need for reinforced efforts in Europe to:

- mainstream eAccessibility within public procurement; and to
- really leverage its potential through implementation across all relevant procurements in the Member States.

Barriers include lack of strong policy implementation, as well as lack of awareness, a range of (perceived) barriers and a lack of useful supports.

These challenges suggest a need to consider (some combination of) possible measures at EU level, including:

- the possibility of clarifying / reinforcing the accessibility provisions in the EU Directives
- consideration to making the provisions mandatory
- introduction of efforts to build synergies with and leverage the eAccessibility impetus being given from the public website accessibility field:
- the procurement implications of accessibility requirements in public website laws and regulations could be spelled out and made more visible
- in this context, however, there is also a need to raise awareness that the scope covers both customer-facing and internal ICTs
- synergies and leverage also possible with equality legislation and with the accessibility dimension now included in the Structural Funds; potential links with public procurement for eAccessibility could be spelled out and made more visible
- accompanying measures to support the Member States and procurers, including actions directly linked to the EU Directives as well as a more general initiative to put public procurement strongly and visibly on the agenda as a core vehicle for encouraging and achieving eAccessibility in Europe:
  - evidence reinforces the importance of the EU standards bodies work on eAccessibility standards and toolkit for procurers
  - awareness-raising to include education of procurers about eAccessibility
  - measures to re-assure (demonstrate to) procurers that addressing eAccessibility does not add more costs, need not be too complex/time-consuming and so on; at the same time support measures to be put in place to ensure that this is in fact the case
  - encouragement of supplier capacities in eAccessibility would also make a useful contribution.

## 9 Certification

In the context of eAccessibility, 'certification' refers to the process of confirming that an ICT-related product, service or process is in conformity with a defined set of accessibility requirements. Depending on the regime that is implemented, the conformity assessment may be carried out by a third party or may be based on self-assessment. Certification of conformity assessment is often accompanied by some form of label or guarantee mark.

The previous Chapter identified certification systems in relation to eAccessibility as being of considerable perceived value for public procurers. This Chapter provides a policy background to the issue of certification in relation to eAccessibility and then presents information on the perspectives on certification held by other key stakeholders, namely industry and user organisations. In addition, an assessment is made of the extent of utilisation of certification in public website policy and of the impacts of this on the levels of public website accessibility that are being achieved.

### 9.1 Policy situation

#### 9.1.1 EU-level context

The potential of certification and quality marks to contribute to the EU's objectives in the eAccessibility policy field has been recognised at the EU-level. For instance, the 2003 Ministerial Declaration on eInclusion reflected that "a European web accessibility label that certifies compliance with WC3/WAI guidelines could be considered in order to avoid market fragmentation"<sup>117</sup>. In addition, in its January 2003 Resolution on eAccessibility, the Council called for an 'eAccessibility mark' for goods and services<sup>118</sup>, thus envisaging a wider eAccessibility scope than web sites only. More recently, the Commission's Communication on eAccessibility in 2005 highlighted certification as one of the approaches to be given specific consideration<sup>119</sup> and a mandate has been issued to the European Standardisation organisations to develop necessary supports for the inclusion of eAccessibility in public procurements, including certification aspects<sup>120</sup>. Finally, the Ministerial Declaration on eInclusion in 2006 mentioned, amongst the priority approaches to be taken forward, the application of common requirements or standards, including conformance demonstration<sup>121</sup>.

Although there are various European and international standards addressing aspects of eAccessibility, there is currently no 'official' EU or international certification system or label in the eAccessibility field.

#### 9.1.2 Policy situation in the Member States and other countries

Certification of public website accessibility seems to be the main eAccessibility certification theme that is currently being directly addressed in policy in the EU Member States. Exhibit 95 presents the situation across Europe in relation to this theme. Even in this case, it can be seen that certification / labelling of accessibility is an important feature in only a minority of Member

<sup>117</sup> Ministerial Declaration: Towards an Inclusive Information Society in Europe", Heraklion, 11 April 2003.

<sup>118</sup> Council Resolution on "eAccessibility" – improving the access of people with disabilities to the Knowledge Based Society. 5165/03. Brussels, 14 January 2003.

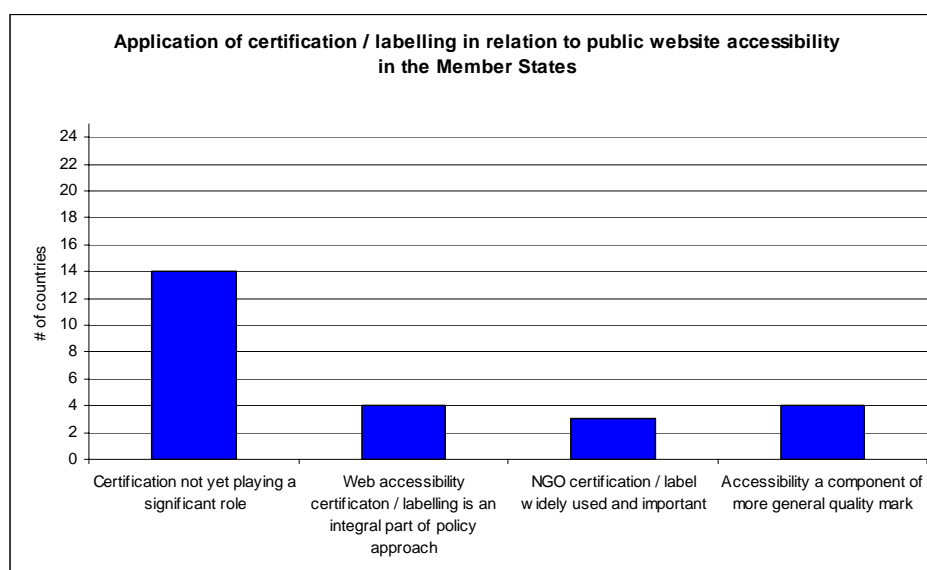
<sup>119</sup> Communication on eAccessibility Brussels, 13.9.2005. COM(2005)425 final.

<sup>120</sup> Standardization Mandate 376 to the European Standards Organizations in support of European Accessibility Requirements for Public Procurement of Products and Services in the ICT domain. M 376 - EN; Brussels, 7th December 2005.

<sup>121</sup> Ministerial Declaration on eInclusion. Riga. 11 June, 2006.

States to date and that it seems to play an integral / formal part of the policy approach in just 4 countries so far<sup>122</sup>.

### Exhibit 95 Certification in public website accessibility policy



*Source: MeAC Policy Survey, 2007 ©*

Apart from web accessibility, there are just a few examples of Member States beginning to address eAccessibility certification in other ICT fields. In Spain, for example the implementation of broad-ranging legislation on eAccessibility<sup>123</sup> may include application of conformity requirements in relation to Spanish standards on accessibility of computer hardware and software.<sup>124</sup>

In the US, a broader approach to certification has emerged in the context of the federal public procurement requirements in relation to eAccessibility<sup>125</sup>, even if this is not yet at the level of a formal certification regime. This involves completion by industry of Voluntary Product Accessibility Templates (VPATS) structured according to the various ICT domains covered under the legislation and the associated technical standards<sup>126</sup> (software applications and operating systems; web-based intranet and internet information and applications; telecommunications products; video and multimedia products; self-contained, closed products; desktop and portable computers). This is done with a view to providing Federal contracting officials with the necessary information for making preliminary assessments regarding the availability of commercial Electronic and Information Technology products and services with features that support accessibility.

## 9.2 Stakeholder perceptions

This section presents evidence collated on the perceptions of ICT enterprises and disability organisations in relation to certification and labelling as a potential facilitator to making ICT products and services accessible to people with disabilities. Data gathered by means of two

<sup>122</sup> details of the policy situations in the different countries can be found in the MeAC policy inventory, available at: [http://ec.europa.eu/information\\_society/activities/einclusion/index\\_en.htm](http://ec.europa.eu/information_society/activities/einclusion/index_en.htm)

<sup>123</sup> Act 51/2003 on Equal Opportunities, Non-discrimination and Universal Accessibility of People with Disabilities.

<sup>124</sup> Norms UNE 139801:2003 and UNE 139802:2003.

<sup>125</sup> 1998 Amendment to Section 508 of the Rehabilitation Act.

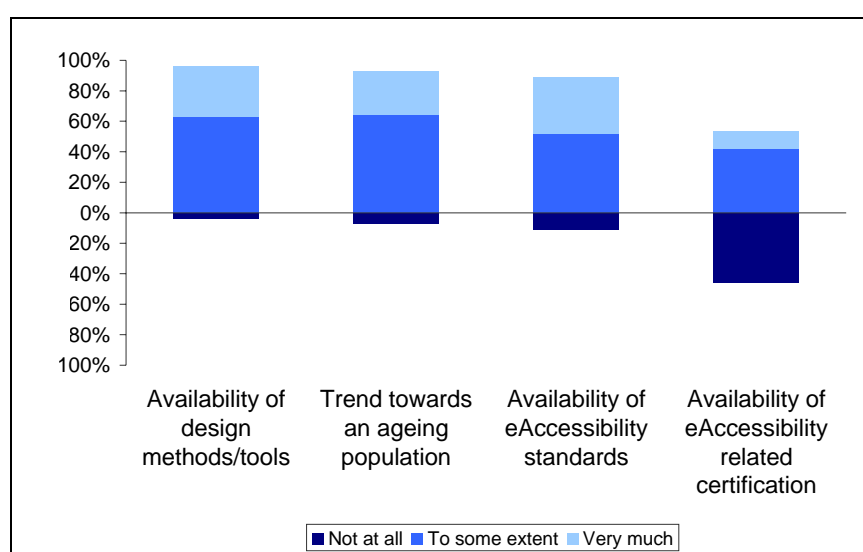
<sup>126</sup> Section 508 standards <http://www.section508.gov/index.cfm?FuseAction=Content&ID=12>.

surveys – a survey of ICT companies and a survey of disability organisations (for methodological details see Annex, section 3) – is presented in the following sections.

### 9.2.1 ICT industry

Amongst other things, the survey of ICT companies conducted in the framework of this study asked for an assessment of the extent to which a number of factors act or would act to encourage industry in making ICT products and service accessible to people with disabilities (Exhibit 96). When it comes to eAccessibility-related certification, a mixed picture emerges in this regard from the responses received. About one-in-eight (12%) of the responding enterprises regard certification as a strong facilitator, whereas two-in-five (42%) state that certification would at least to some extent act to encourage making ICTs accessible. In contrast, slightly less than one-half (46%) consider certification as not at all having a facilitating impact on the availability of products and services that are accessible to people with disabilities.

**Exhibit 96 - Perception of factors facilitating own eAccessibility efforts**



n=28

Source: MeAC Survey of ICT Companies, 2007 © (c.f. Annex, section 3).

Further to this, explanatory comments received suggest that many firms regard self-certification as an approach to be followed in this respect rather than third-party-certification<sup>127</sup>. The following statement is presented as an illustrative example of a number of similar commentaries received in this regard:

- "It is essential for all stakeholders (except the certification industry) that product/service providers are able to demonstrate conformance with requirements using a Suppliers Declaration Of Conformity (SDOC). Third party certification can fragment a market, increase costs to users, stifle innovation and increase development time; this, together with the associated label or mark, will bring no benefit to the end user."

Other commentaries received highlight a perceived need for having more mature eAccessibility standards available as a precondition for being able to practically implement certification schemes when it comes to particular ICT domains. In this context it was emphasised as well that standardisation processes need to be kept up to speed with ongoing technology

<sup>127</sup> In this context it should be noted that user and consumer organisations tend to indicate a strong preference for third-party certification (e.g. as articulated at the international workshop on eAccessibility and public procurement - Report of an international workshop on: Accessibility Requirements for Public Procurement in the ICT Domain. Held in Brussels on October 19-21, 2004. <http://www.einclusion-eu.org/ShowDocument.asp?FocusAnalysisDocumentID=1>)



developments in the various ICT fields concerned if they are not to hamper technological innovation processes. Again, this is illustrated by presenting some exemplary commentaries received in this regard:

- “To expand on the certification question... The present complexity and platform-specificity of desktop accessibility and AT solutions means that there is an insufficient basis upon which to develop a certification program.....Mature and unambiguous technical standards are a necessary pre-requisite for any certification effort. Promulgating certification in the absence of such standards would instead do active harm to the cause of accessibility. This harm includes: (a) cementing in practices used by AT that reverse-engineers and special-cases applications (and thereby retarding the growth of robust and supported access technologies); (b) the likely growth of an advice-giving industry that is not at all in agreement on techniques - resulting in advice-givers providing contrary advice; (c) subjugation of companies with deep accessibility expertise to the "grading/certification" of their products by "experts" who know significantly less than those who developed the projects.”
- “The challenge is to balance specificity of standards along with flexibility to allow for innovation. ....a lack of standards for Assistive Technology companies is also a barrier to development of accessible ICT.”
- "1. Lack of knowledge in technology advancement on the part of the regulators who demand compliance to outdated standards which in many cases cannot be applied to today's technology. 2. Lack of global eAccessibility standard harmonization. Too many countries are creating divergent standards. 3. Additional cost incurred due to over-restricted eAccessibility requirements (without deeper investigation whether the specific requirements are feasible or not) which conflicts with business function requirements".

The commentary presented above also hints at the fact that the emergence of different national eAccessibility requirements and standards is perceived as a negative development by several responding firms. Such an opinion has been expressed by various explanatory comments received, as exemplarily illustrated by the following statement:

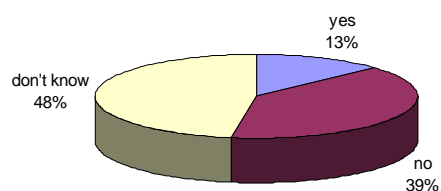
- “It is important that any policy considerations for inclusion of accessibility in products and services at the national level be harmonized with existing global policies and standards for accessibility to ensure the best solutions can be made available on a global basis.”

## 9.2.2 User organisations

In general, and reflecting the limited usage of eAccessibility certification in practice as of yet, knowledge about eAccessibility-related certification and labelling schemes does not seem to be widespread among user organisations. When it comes to the individual ICT domains addressed in the framework of this study, a large share of organisations report that they do not know whether or not any eAccessibility certification schemes exist (Exhibit 97). Those organisations that did report the existence of eAccessibility related labelling/certification most commonly (51%) referred to schemes addressing web accessibility that have been implemented in their countries. Other ICT domains seem considerably less well covered in terms of eAccessibility-related certification according to the user organisations.

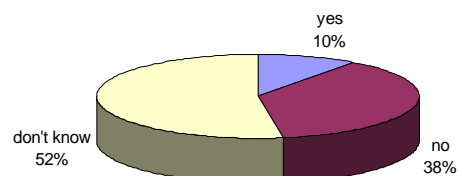
**Exhibit 97 - Disability organisations' awareness of eAccessibility related labelling and certification schemes in different ICT domains**

Telecommunications services and equipment



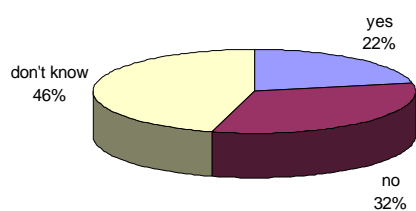
n=38

Broadcasting services and equipment



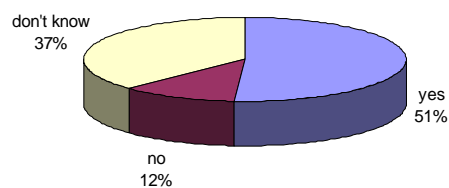
n=40

Computer hardware and software



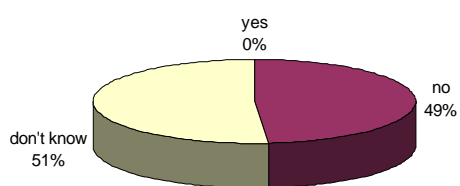
n=37

Web content and service



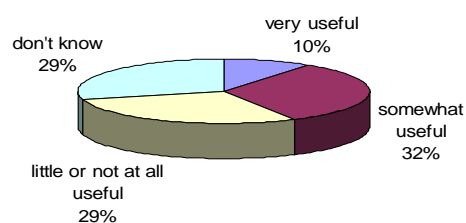
n=43

Self-service terminals



n=37

Perceived usefulness for people with disabilities



n=31

Source: MeAC Survey of Disability Organisations, 2007 © (c.f. Annex, section 3).

For example, for computer hardware and software about one-in-five (22%) reported that they are aware of the existence of labelling/certification schemes, for broadcasting and telecommunications equipment about one-in-ten (10% and 13% respectively); no organisation was aware of any labelling or certification scheme for accessible self-service terminals.

As regards perceptions of the usefulness of such schemes for making ICT products and services accessible to people with disabilities, a mixed picture emerges from the responses received although, overall, about two-in-five (42%) of the responding organisations regard such labelling and certification at least as somewhat useful. In general, explanatory comments received from the user organisations suggest that they feel that, for various reasons, the potential generally provided by certification and labelling have not yet been optimally leveraged for the purposes of achieving accessible ICT products and services.

To begin with, there seems to be a general lack of awareness among users with disabilities of the labels that currently exist and of the benefits these may provide to them. This is reflected by the following statements received:

- “Most people with disabilities are firstly not aware of such labelling or certification and secondly do not have information regarding the implications of such labelling”
- “Lack of knowledge of the meaning of ones that do exist”
- “The labelling should be commonly known - at least well known among the social and NGO field, which is not the case currently”
- “Providing end users, i.e. people with disability with education regarding such labelling / certification is crucial”

Further to this, the usefulness of existing eAccessibility labels is perceived as being restricted by lack of credibility of (some) existing labels and by fragmentation in terms of the variety of different accessibility criteria actually applied. This is reflected in the following exemplary statements:

- “Studies have shown that WCAG compliance labels are more often than not displayed incorrectly, where the claimed compliance level has not actually been reached. WCAG labels are usually displayed at the bottom of a page which makes them not very noticeable for many of the people who would require accessibility.”
- “It would be useful if a common certification scheme was enforced. The current fragmentation is not useful”
- “It is necessary that the national standardization entity in our country creates an independent certification process for each one of the issues related with eAccessibility such as telecommunications devices, communications services, web content, etc. Obviously it is necessary that the laws include the obligation to carry out the e-Accessibility schemes agreed by the owner users and the industry in the national standardization committees.”
- “Labels would be more useful if their use was more widespread, if they were prominently displayed (e.g. on a website as part of the metadata so that user agents could announce them and search engines could filter on them), if they were actually reliable indicators of accessibility and if there was some mechanism by which misuse could be reported by members of the public and the labels removed until compliance was re-established”.

## 9.3 Policy impact and implications

### 9.3.1 Impacts of policies

#### 9.3.1.1 EU policy impacts

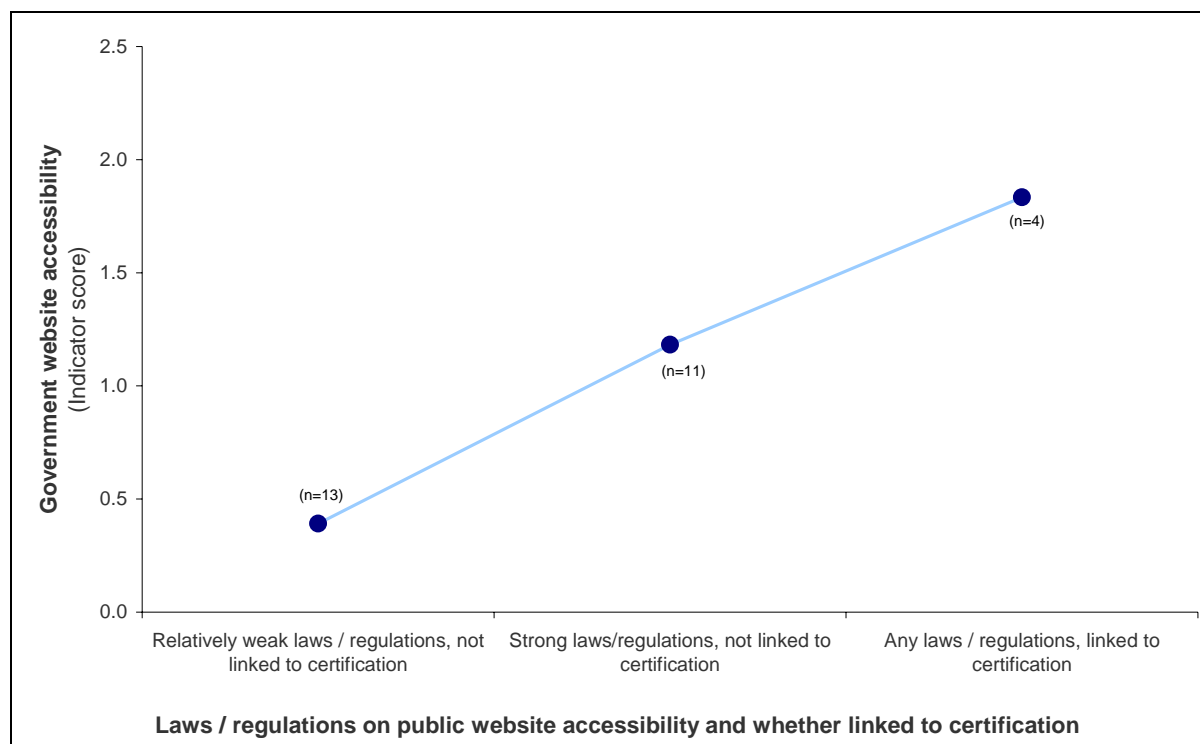
There has not yet been any concerted EU-level effort to put into practical effect a European-wide eAccessibility certification regime. Nevertheless, the policy attention given to eAccessibility certification in the eAccessibility Communication of 2005 and the earlier Resolutions and

Declarations has led to some efforts in relation to web accessibility certification by the European Standards organisations<sup>128</sup>.

### 9.3.1.2 Impacts of policies at country level

Although policy on eAccessibility certification is generally not well-developed at present it is nevertheless possible to already detect positive impacts in cases where eAccessibility certification is implemented as a formal component of policy. In this regard, Exhibit 98 shows the evidence from MeAC of the positive role that certification can play in boosting the impacts of policy on eAccessibility in relation to public websites.

**Exhibit 98 Impacts of certification on the achievement of accessibility of public websites**



Source: MeAC 2007 ©

It can be seen that, on average, stronger results (in terms of the extent of accessibility of key government websites) seem to be achieved in those countries where certification is formally included within the accessibility policy<sup>129</sup>.

### 9.3.2 Implications for future EU policy

The current situation in relation to availability of and utilisation of eAccessibility certification in Europe poses a number of important challenges that warrant attention at the EU-level. These include:

- the general lack of availability of an appropriate certification regime for use across the Member States

<sup>128</sup> CEN Workshop Agreement: Specifications for a Web Accessibility Conformity Assessment Scheme and a Web Accessibility Quality Mark. CWSA 15554. June 2006.

<sup>129</sup> e.g. IT, PT, NL and BE - see MeAC policy inventory for details of public website policy in the various countries; available at: [http://ec.europa.eu/information\\_society/activities/einclusion/index\\_en.htm](http://ec.europa.eu/information_society/activities/einclusion/index_en.htm)

- the fact that only a small number of countries are yet actively using accessibility certification in the one field - web accessibility - where the evidence already shows that 'official' certification schemes can lead to better accessibility outcomes
- the lack of a commonly shared understanding of what accessibility may actually mean in terms of testable criteria when it comes to particular ICT domains which are to be made accessible to different user groupings
- the fact that awareness among users of current labelling practices seems to be rather low and that existing labels are not unanimously perceived as reliable indicators for accessibility at the users' side.
- the possibility (already evident in the web accessibility field) that a variety of different national eAccessibility certification schemes, based on differing national standards, will emerge, posing a strong risk of market fragmentation.

These challenges suggest a need to consider (some combination of) measures at the EU level, including:

- Implementation of an accelerated and reinforced effort to develop and introduce a comprehensive European eAccessibility certification regime (covering all of the key ICT product and service sectors), backed by the necessary European standards, and harmonised as appropriate with relevant international standards
- Possible options to explore:
  - The possibility of addressing this through accelerating / expanding the work of the European Standards Organisations under the existing Mandate 376, in order to provide as soon as possible the groundwork needed to underpin such a European certification regime
  - Initiation of an additional, dedicated measure directed towards the development of commonly agreed technical standards on eAccessibility across the various ICT domains concerned and implementation of a comprehensive European eAccessibility certification regime linked to this.

## 10 Goods and Services Equality

Policy approaches based on equality/anti-discrimination legislation addressing access to goods and services have considerable potential in the eAccessibility field. Such approaches can provide disabled people, individually or collectively, with a right to seek redress if they are confronted with inaccessible ICT-based goods and services. They may also include positive duties on the producers and deployers of ICTs and/or measures aiming to produce systemic change, and may also, in effect, lead to industry making proactive accommodations to avoid future litigation. The scope of coverage of such laws / regulations may be restricted to public services only or may include both public and private (commercially provided) services.

An important concept in relation to equality/anti-discrimination law in the disability field is 'reasonable accommodation', whereby such laws often require a provider of goods or services to make reasonable efforts to address the specific needs of customers with disabilities. Assessment of what is reasonable is an important element in this, and may take into account factors such as the scale of the financial or other burdens that would be imposed on the provider in making the necessary accommodations.

Equality/anti-discrimination laws that are relevant for eAccessibility include both those that make specific reference to accessibility of ICTs (can be either narrowly or more broadly defined) as falling within their scope and laws which do not make any such specific reference but nevertheless may be interpreted as including ICTs within their scope.

To be effective, the anti-discrimination approach needs to be supported by a good system of redress, whereby appropriate institutions are in place to help people to take cases, to adjudicate on cases and to decide on consequences (which may include monetary compensations and/or imposition of a requirement on a goods or services provider to make changes to accommodate the needs of the disabled person(s)). Where a case is taken on eAccessibility grounds there may be a need for expertise in assessing what would be a reasonable accommodation. Technical supports may thus be important to ensure that the necessary expertise is available to the adjudicatory process.

The effectiveness of anti-discrimination legislation often depends on case law, that is, on the extent to which successful precedents have been established in one or more judgements. The extent to which there have been (successful) cases on grounds relating to eAccessibility of goods and services is therefore also an important factor at the national level.

### 10.1 Policy situation

#### 10.1.1 EU-level context

There are currently no specific measures in place at the EU-level that address equality of access to goods and services for disabled people. However, Article 13 of the Treaty of the European Union provides a broad legal basis for combating discrimination based on disability. This goes further than the field of employment equality (to be discussed in Chapter 11) and also has already been invoked (in the Race Directive) to include services such as housing.

The concept of 'services of general interest'<sup>130</sup> also has considerable potential relevance for equality of access to goods and services for disabled people, although an analysis of how eAccessibility provisions may fit within this has not yet been carried out.

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<sup>130</sup> White Paper on services of general interest. COM(2004) 374 final Brussels, 12.5.2004  
[http://eur-lex.europa.eu/LexUriServ/site/en/com/2004/com2004\\_0374en01.pdf](http://eur-lex.europa.eu/LexUriServ/site/en/com/2004/com2004_0374en01.pdf)

More generally, equality of access to goods and services would seem to be important in relation to freedom of movement for disabled people within Europe. Varying levels of accessibility of ICT-based services may impose substantial barriers to the exercise of rights of freedom of movement.

### 10.1.2 Policy situation in the Member States and other countries

#### Policy assessment dimensions

The dimensions applied in assessing policies in this field and the scoring system that was used are presented in the following Table (Exhibit 99). The detailed policy situations underpinning the scores for each country can be found in the MeAC policy inventory<sup>131</sup>.

The scoring system covers the various elements already mentioned - right of redress, positive duties, coverage of public and/or private sectors, and support mechanisms for redress. The extent to which cases have been taken under the law is also given some weight (even if this can also be considered to be an impact rather than a component of policy) because it gives a useful indication of the extent to which the law is really embedded in an action-oriented framework.

**Exhibit 99 Scoring system: Equality of access to goods and services policy**

Dimension	Scoring for Sub-components	Potential score
Equality approach and scope includes / makes reference to eAccessibility of goods and services (public and/or private)	0 = none 0.5 = could be inferred, public only 1 = could be inferred, public and private 1.5 = clear reference / relevance, public only 2 = clear reference / relevance, public and private	2
Positive duty element (may be direct or impose some requirement for systemic action or trigger remedial or anticipatory actions)	0 = none 0.5 = apparently some positive duty element 1 = clear positive duty element of some sort	1
Support mechanisms for redress	0 = nothing specific 0.5 = some, not well developed 1 = good	1
Relevant cases	0 = nothing 0.5 = limited / only web 1 = more than web	1
Total possible score		5

#### Comparative policy situation

Exhibits 100 and 101 present the comparative policy situation across the EU Member States and the other countries.

By way of examples: UK<sup>132</sup> is considered to be strong because their equality/anti-discrimination legislation includes both a positive duty (on public agencies) that directly includes ICTs for internal and customer-facing uses and also offers the potential for individuals to seek redress in relation to both public and private service providers; ES<sup>133</sup> is considered strong because their

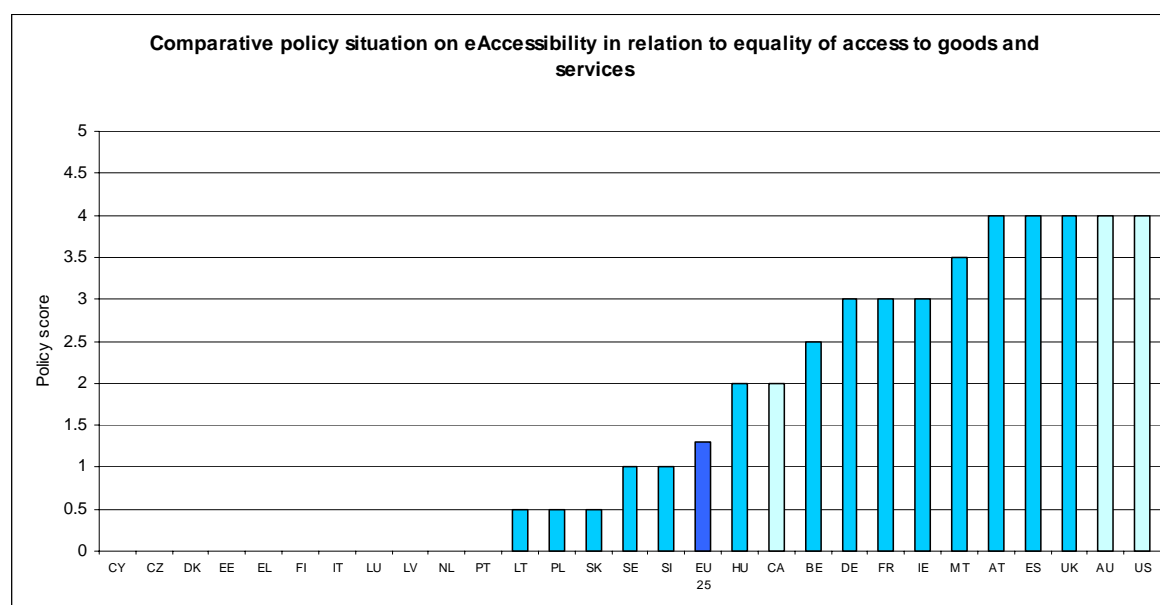
<sup>131</sup> Available at: [http://ec.europa.eu/information\\_society/activities/einclusion/index\\_en.htm](http://ec.europa.eu/information_society/activities/einclusion/index_en.htm)

<sup>132</sup> Disability Discrimination Act (Amendment) (2005)

<sup>133</sup> 51/2003 Act on Equal Opportunities, Non-Discrimination and Universal Accessibility of People with Disabilities

equality legislation is in the process of imposing strong positive duties on eAccessibility that target a number of sectors (mobile phones, public websites, ICT hardware and software used by public administrations, electronic signatures, TV audiovisual content, digital TV, and other media); AT<sup>134</sup> is considered strong because their equality/anti-discrimination legislation has clear relevance for eAccessibility in more than one field (already has been invoked in relation to commercial website and TV captioning) and interlinks with consumer protection legislation. Details of the policy situations in these and all the other countries can be found in the MeAC policy inventory<sup>135</sup>.

### Exhibit 100 Comparative policy situation across Europe and other countries



Source: MeAC Policy Survey, 2007 ©

### Exhibit 101 Classification of countries in terms of policy strength on eAccessibility in equality of access to goods and services<sup>136</sup>

Policy strength	Number of EU25 countries	EU 25 Average	Other countries
Very Strong	0		
Strong	4		AU, US
Moderate	4		
Weak	1		CA
Very Weak	16	EU25	

Source: MeAC Policy Survey, 2007 ©

More generally, however, policies in the majority of Member States are weak or very weak, and just four are rated as moderate and four as strong. In addition, the situation compares unfavourably with the comparison countries.

<sup>134</sup> Disabled Persons Equal Opportunity Act (2005) and Consumer Protection Act (2006)

<sup>135</sup> MeAC eAccessibility Policy Inventory

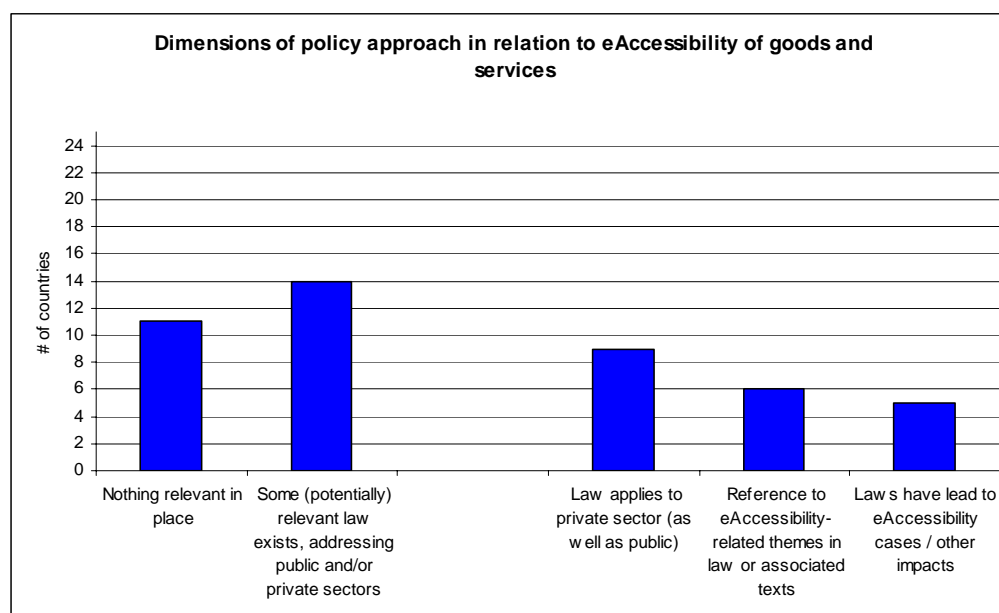
<sup>136</sup> 'Policy strength' is based on the policy score attained by a country according to the scoring system in Exhibit X. A score of 4.5 or 5 is considered to be 'very strong', 3.5 or 4 to be 'strong', 2.5 or 3 to be 'moderate', 1.5 or 2 to be 'weak', and 1 or lower to be 'very weak'



## Dimensions of the policy approaches

Exhibit 102 presents a more detailed analysis of the policy approaches in this field across the Member States<sup>137</sup>.

### Exhibit 102 Dimensions of the policy approaches in the Member States



Source: MeAC Policy Survey, 2007 ©

As regards the more specifics of the policy approaches, the main patterns include:

- just under one-half of Member States currently have no relevant policies in place
- amongst those who have some relevant policy, all cover equality in relation to public services and nine cover private services as well (sometimes limited to specific sectors such as telecoms, TV and/or media)
  - amongst these, most employ 'traditional' anti-discrimination approaches, occasionally augmented by specific positive duties (usually on public sector)
  - only in a minority of countries does the law or associated mechanisms make specific reference to ICTs / eAccessibility issues
  - in a few countries there have been cases taken that have resulted in remedial action by commercial service providers (web site accessibility, subtitling on TV)
  - in a few countries there appear to have been some indications of proactive (anticipatory) actions.

<sup>137</sup> The analysis presented here is intended to be indicative and should not be taken as reflecting a definitive, in-depth legal analysis; details of the policy approaches in each country are available at: [http://ec.europa.eu/information\\_society/activities/einclusion/index\\_en.htm](http://ec.europa.eu/information_society/activities/einclusion/index_en.htm)

## 10.2 eAccessibility status

This is a horizontal policy approach, without specific eAccessibility status indicators, per se. In fact, impacts are best indicated through:

- evidence of anti-discrimination cases being taken on eAccessibility grounds
- evidence of positive duties in relation to eAccessibility being taken up by the targeted entities
- evidence of proactive / anticipatory eAccessibility activity by industry.

Some examples of these types of impacts are presented in section 10.3.

## 10.3 Policy impacts and implications

### 10.3.1 Policy impacts

Although the nature of the equality/anti-discrimination approach makes it inappropriate to expect to find clear, large-scale quantitative effects on eAccessibility in a given country that are directly attributable to this type of approach, there are nevertheless some good examples of positive impacts. Examples from particular countries include:

- US - the Americans with Disabilities Act (ADA)<sup>138</sup> has provided the impetus for a substantial part of the eAccessibility achievements in that country; this has been achieved through a combination of the rights of redress that it provides, the imposition of direct positive duties on some aspects/sectors; the implementation of proactive accommodations by some industry sectors (e.g. the banking sector in relation to accessibility of ATMs)
- AU - the Disability Discrimination Act<sup>139</sup> has had important impacts both through the redress route (e.g. the well-known successful case taken in relation to inaccessibility of the Olympic website), the invocation and subsequent direct linkage of the equality legislation with accessibility obligations of the main telecommunications operator, and the implementation of proactive accommodations by some industry sectors (e.g. banking sector in relation to accessible ATMs and online banking).
- AT - the Disabled Persons Equal Opportunities Act<sup>140</sup> has already led to a number of successful eAccessibility cases that have had more generalised impacts, one in relation to accessibility of the website of a mobile telecoms operator and another in relation to the levels of subtitling for deaf people provided by a TV broadcaster.
- MT - the Equal Opportunities (Persons with Disabilities) Act<sup>141</sup> has led to a number of complaints in relation to lack of accessibility of both public and private websites and to the public redress agency initiating discussions with the parties concerned.

### 10.3.2 Policy implications

The equality/anti-discrimination approach seems to offer good potential as a vehicle to reach producers and deployers of ICT goods and services in relation to eAccessibility. However, there are no direct EU-level measures addressing this approach as of yet. There is wide disparity across the Member States in the extent to which equality/anti-discrimination laws addressing goods and services have been implemented, and in the strength and other characteristics of the

<sup>138</sup> Americans with Disabilities Act (1990) <http://www.usdoj.gov/crt/adahom1.htm>

<sup>139</sup> Disability Discrimination Act (1992) [http://www.humanrights.gov.au/disability\\_rights/index.html](http://www.humanrights.gov.au/disability_rights/index.html)

<sup>140</sup> Disabled Persons Equal Opportunities Act (2005)

<sup>141</sup> Equal Opportunities (Persons with Disabilities Act) (2000) <http://www.justice.gov.mt/lom/Legislation/English/SubLeg/452/95.pdf>

laws that are in place.

Possible options for EU-level policy to consider include:

- examination of the potential to invoke the equality provisions of Article 13 of the Treaty of the European Union across all policy areas of relevance to eAccessibility; possibilities to implement both rights of redress and positive duties or other proactive actions to foster wider systemic change could be considered in this regard; links with the concept of "services of general interest" also could be examined in this context
- development and implementation of an EU-level measure (Directive) on equality/anti-discrimination in relation to access to goods and services, to include a strong and explicit coverage of eAccessibility within this
- accompanying measures to help support other relevant stakeholders to address eAccessibility in the equality/anti-discrimination context such as Member State equality agencies, adjudicating bodies, and disability NGOs), including technical guidance and support.

## 11 Employment Equality

Policy approaches based on equality/anti-discrimination legislation in relation to employment also have considerable potential in the eAccessibility field. Typically, the main implication of such legislation is the establishment of a right to seek redress by a disabled person who feels that they are being discriminated against in relation to employment / the workplace. The scope of coverage in Europe generally includes both the public and private sectors, although in some other countries coverage may be limited to the public and/or other specified sectors. Some laws also include more positive duties or components that aim to encourage more systemic action (more generalised changes across the workplace to anticipate the needs of disabled people).

As in the case of goods and services, a key concept here is the notion of "reasonable accommodation", whereby laws typically require employers to make reasonable efforts to accommodate the needs of disabled people, on a case-by-case basis on request. The extent to which such accommodations are explicitly or implicitly recognised to include eAccessibility-related issues (such as accessibility of ICTs in the workplace and/or provision of ICT-based assistive technologies), where relevant, may vary. Assessment of what is reasonable is an important element in this, and may take into account factors such as the scale of the financial or other burdens that would be imposed on the employer in making the necessary accommodations. This may involve taking into consideration the level of available public supports that employers can avail of in order to meet the needs of a disabled person.

Also, as noted in the case of goods and services, in order to be effective the anti-discrimination approach needs to be supported by a good system of redress, whereby appropriate institutions are in place to help people to take cases, to adjudicate on cases and to decide on consequences (which, again, may include monetary compensations and/or imposition of a requirement on an employer to make changes to accommodate the needs of the disabled person(s)).

As is the case for equality of access to goods and services, the effectiveness of anti-discrimination legislation in the employment field often depends on case law, that is, on the extent to which successful precedents have been established in one or more judgements. The extent to which there have been (successful) cases on grounds relating to eAccessibility issues is therefore also an important factor at the national level.

### 11.1 Policy situation

#### 11.1.1 EU-level policy

The main EU-level measure in place in this field is the 'employment equality' Directive<sup>142</sup> which all Member States should have implemented by now. The Directive includes a requirement that employers make reasonable accommodations to ensure equality of access to employment for people with disabilities unless such measures would impose a disproportionate burden on the employer. Although no specific reference to ICT accessibility is made, the Preamble mentions adaptation to equipment as an example of appropriate measures that may need to be taken. The Directive also states that the burden on employers is not to be considered disproportionate when it is sufficiently remedied by measures existing within the framework of the disability policy of the Member State concerned. Although not made explicit in the text, this provides a linkage to public supports in relation to eAccessibility, for example, through assistive technology service delivery systems.

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<sup>142</sup> Directive 2000/78/EC of 27 November 2000 establishing a general framework for equal treatment in employment and occupation

## 11.1.2 Policy situation in the Member States and other countries

### Policy assessment dimensions

The dimensions applied in assessing policies in this field and the scoring system that was used are presented in Exhibit 103. The detailed policy situations underpinning the scores for each country can be found in the MeAC policy inventory<sup>143</sup>.

The scoring system covers the various elements already mentioned - right of redress, positive duties, support mechanisms for redress and linkage with assistive technology services. The extent to which cases have been taken under the law is also given some weight (even if this can also be considered to be an impact rather than a component of policy) because it gives a useful indication of the extent to which the law is really embedded in an action-oriented framework.

**Exhibit 103 Scoring system: Employment equality policy**

Dimension	Scoring for Sub-components	Potential score
Anti-discrimination law / reasonable accommodations	0 = no reasonable accommodation provisions 0.5 = unclear / weak reasonable accommodation provisions 1 = 'standard' reasonable accommodation provisions (as in the EU Directive) 1.5 = good (implicit) coverage of eAccessibility issues 2 = explicit coverage of eAccessibility issues	2
Positive duties / requirement for systemic action	0 = none 0.5 = apparently some relevance 1 = clear requirement	1
Support mechanisms for redress	0 = nothing specific 0.5 = some, not well developed 1 = good	1
Linkage with public assistive technology services / relevant cases have been taken	0 = nothing 0.5 = some elements of relevance, not strong 1 = strong relevance	1
Total possible score		5

Source: MeAC Policy Survey, 2007 ©.

### Comparative situation

Exhibits 104 and 105 present the comparative policy situation across the EU Member States and the other countries.

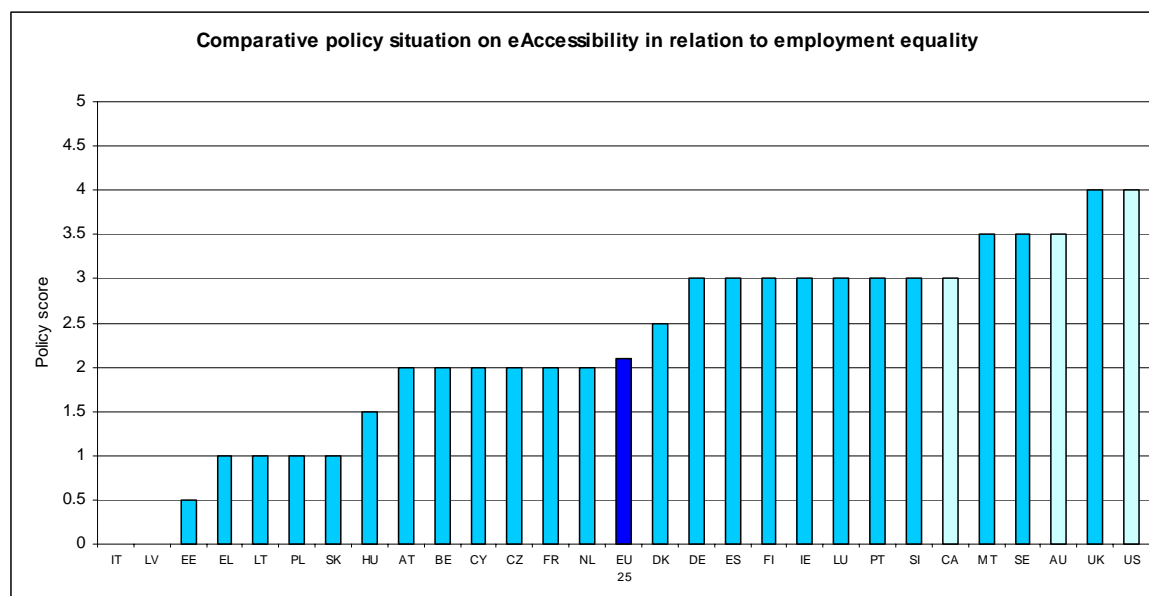
By way of example: UK<sup>144</sup> is considered to be strong because the legislation includes clear implementation of the reasonable accommodation principle with a Code of Practice that gives examples of eAccessibility accommodations and also refers to public supports, including assistive technologies. In addition the equality agency provides legal support for disabled people seeking redress. SE and MT are also considered strong because there appears to be clear reference to or linkage with ICTs / assistive technology in the context of the employment equality legislation / regulations. Details of the policy situations in these and all the other countries can be found in the MeAC policy inventory<sup>145</sup>.

<sup>143</sup> Available at: [http://ec.europa.eu/information\\_society/activities/einclusion/index\\_en.htm](http://ec.europa.eu/information_society/activities/einclusion/index_en.htm)

<sup>144</sup> Disability Discrimination Act (1995) and associated codes of practice and guidance documentation

<sup>145</sup> MeAC eAccessibility Policy Inventory

### Exhibit 104 Comparative policy situation on e Accessibility in relation to employment equality



Source: MeAC Policy Survey, 2007 ©.

### Exhibit 105 Classification of countries in terms of policy strength on eAccessibility in employment equality<sup>146</sup>

Policy strength	Number of EU25 countries	EU 25 Average	Other countries
Very Strong	0		
Strong	3		AU, US
Moderate	8		CA
Weak	7	EU25	
Very Weak	7		

Source: MeAC Policy Survey, 2007 ©.

More generally, more than one-half of EU Member States are rated as weak or very weak; just under one-third as moderate; and only 3 as strong. Overall, the EU situation compares very unfavourably with the comparison countries.

As regards the specifics of policy approaches, some of the main patterns emerging include:

- practically all countries have focused on the anti-discrimination approach, and most (not all) have introduced a clear reasonable accommodation or similar provision; a few countries also appear not to have correctly implemented the intended reasonable accommodation concept (in the Directive)

<sup>146</sup> 'Policy strength' is based on the policy score attained by a country according to the scoring system in Exhibit X. A score of 4.5 or 5 is considered to be 'very strong', 3.5 or 4 to be 'strong', 2.5 or 3 to be 'moderate', 1.5 or 2 to be 'weak', and 1 or lower to be 'very weak'

- however, eAccessibility is not yet explicitly visible in the reasonable accommodations context in most countries;
- around one-half of countries have limited / weak support (redress) mechanisms, which weakens the potential impact of the approach;
- there is little evidence of positive (anticipatory) duties or initiatives to create systemic change being introduced within the equality approach, per se;
- the majority of countries as of yet have little or no linkage of employment equality law with public assistive technology service provisions and have so far had no cases on eAccessibility-related grounds.

## 11.2 eAccessibility status

As in the case of equality/anti-discrimination in relation to access to goods and services, this is a horizontal issue, without specific eAccessibility status indicators, per se. In this case, impacts are best indicated through:

- evidence of anti-discrimination cases being taken on eAccessibility grounds
- evidence of positive duties in relation to eAccessibility being taken up by employers
- evidence of proactive / anticipatory eAccessibility activity by employers.

In fact, as will be discussed in section 11.3, there are few direct examples of these types of impacts in Europe as of yet.

## 11.3 Policy impacts and implications

### 11.3.1 Policy impacts

#### 11.3.1.1 EU policy

The evidence from MeAC suggests that whilst the EU's 'employment equality' Directive has led to the establishment of a good potential to leverage eAccessibility benefits in the Member States this potential is not yet being realised to any appreciable extent.

On the positive side, EU employment equality policy as presented in the Directive seems to broadly be implemented in most, but not all Member States. On the negative side, the MeAC evidence shows that the current implementations and follow-up activity in the Member States have important limitations in relation to the achievement of eAccessibility policy objectives, including:

- not much impact to date in terms of visibility of and attention to eAccessibility in the Member States, probably at least in part due to the fact that this is not directly emphasised in the current text
- the link in the Directives between reasonable requirements and available public supports for employers is not being made in most Member States in relation to public supports for assistive technologies for employers/employees.

#### 11.3.1.2 Member States

At Member State level there is little evidence of much impact on eAccessibility in the employment context, either in terms of anti-discrimination cases taken or proactive (anticipatory) initiatives by employers. There are, however, some signs that better impacts may be occurring where there is a positive duty, linked to (public) assistive technology services.

### 11.3.2 Policy implications

Based on the available evidence it can be concluded that the potential to address eAccessibility in the employment equality context is not yet being realised in Europe. Possible EU-level policy options to consider include:

- next revision of the Directive could incorporate more specific reference to eAccessibility issues
- direct linkage and fostering of synergies between employment equality policy and policy in relation to assistive technologies
- accompanying measures to better leverage existing legislation; these might include stimulation of exchange of good practice amongst Member States and implementation of targeted support measures such as awareness-raising, technical support / guidance, etc.
- development and implementation of more proactive approaches targeting eAccessibility in employment.



# Section C

## Data and Analysis on Stakeholder Readiness

## 12 Stakeholder readiness to promote eAccessibility

The evidence and analysis presented in the previous Chapters sheds light on the current policy situation as it can be observed in relation to the eAccessibility theme across the EU and beyond, and on levels of eAccessibility achieved in selected ICT domains as well. This chapter presents the information gathered on the 'readiness' of two key stakeholder groupings – ICT industry and user organisations - to engage in and contribute to the effort to promote accessibility of ICT services and devices to people with disabilities. Here 'readiness' is addressed mainly in terms of the resources and expertise available in relation to eAccessibility, as well as in the extent to which eAccessibility is being given attention in their activities.

On the one hand, ICT industry clearly has a contribution to make in developing and making available accessible products and services to consumers with disabilities and to employers and service providers that deploy ICTs in relevant usage contexts (e.g. the workplace, public places, everyday public and consumer services); through provision of information about available accessibility solutions; through involvement in standardisation processes; and so on. On the other hand, user organisations also have a central role to play through helping to represent and articulate the eAccessibility concerns of disabled people, older people and other relevant groupings. This may include a dedicated role within regulatory/legal processes (such as compulsory consultations with end user representative); taking of legal cases<sup>147</sup>; raising awareness of the eAccessibility theme amongst ICT industry, deployers and policy makers as well as the general public; user participation in research and technology development and in technical standardisation processes; and, of course, in helping to inform and educate end users about eAccessibility solutions and on how best to avail of them.

The MeAC information on stakeholder readiness was generated through two surveys, one addressing the ICT industry and the other addressing disability organisations across the European Union and in the comparison countries (for methodological details see Annex, section 3).

### 12.1 ICT industry

The responses received from the ICT industry survey can be assumed to mainly reflect the situation in relation to large enterprises operating on international markets rather than small and mediums sized firms (Exhibit 106) as nearly three-quarters of the responding firms employ more than 250 employees. In terms of business activities, they address a spectrum of ICT-related markets including manufacturing of equipment such as telecommunications devices and computer hardware, telecommunications network operation and services provision to end users, ICT systems integration and consulting as well as software development and web design. Also, a large share of the responding firms have their head-quarters located outside Europe, although the immediate response received in terms of a completed questionnaire may well stem from an EU-based branch.

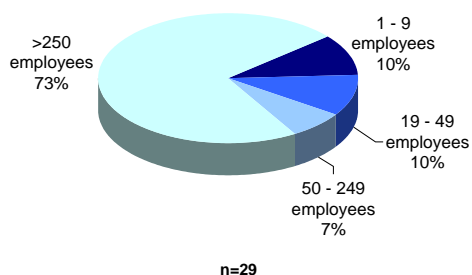
Bearing this caveat in mind, it can be concluded that the level of awareness of general disability issues amongst the firms that have responded to the MeAC survey is rather high (Exhibit 108). All in all, some 80% report they have implemented a dedicated corporate strategy towards people with disabilities. In most cases, such a strategy has been implemented in terms of a general statement of corporate values that explicitly includes disability issues (48%) or in terms of a dedicated Corporate Social Responsibility (CSR) strategy that explicitly commits to addressing disability (45%). Nearly one-third has committed itself to engage with disabled

<sup>147</sup> In the USA, the National Federation of the Blind has for instance recently taken legal action to enforce accessibility of the online presence of an eCommerce provider (Case No:C 06-1802 MHP; Court: U.S. District Court for the Northern District of California, The Honorable Marilyn Hall Patel presiding; Date Case Filed: February 7, 2006)

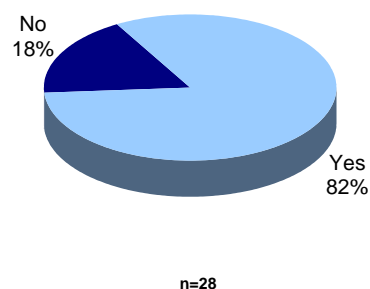
stakeholders (31%) and about one-quarter has named a champion or board director responsible for corporate governance in relation to disability issues (24%).

### Exhibit 106 - Key characteristics and eAccessibility related competencies of ICT companies participating in the MeAC survey

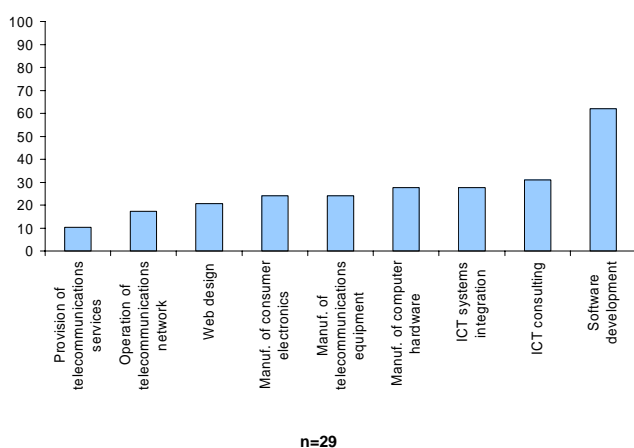
Number of employed staff



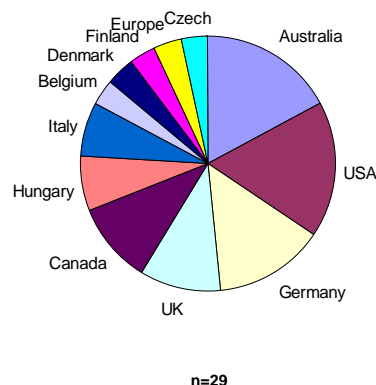
Implementation of a dedicated corporate policy towards people with disabilities



Business activity



Countries in which the responding companies / branches are based



Source: MeAC Survey of ICT Companies, 2007 © (c.f. Annex, section 3).

When it comes to eAccessibility in particular, the responding enterprises seem to consider this issue as being important to them in the first instance with respect to their corporate social responsibility and with respect to regulatory requirements they have to meet. Unanimously, all firms (100%) report that eAccessibility is at least of some strategic relevance to their own business when it comes to meeting general societal demands concerning their social responsibility (Exhibit 107). Beyond this, a majority reports this theme to be of high strategic relevance with respect to compliance with national legislation / regulation (79%). Individual pieces of legislation that are mentioned include Section 255 of the US Telecommunications Act, Section 508 of the US Rehabilitation Act as well as the Federal Communications Commission's regulation for hearing aid compatibility and TTY for emergency calling. Beyond this European legislation is mentioned as well such as the Italian 'Stanca' law, Disability Discrimination Act in the UK and the Ordinance on the Creation of Barrier-Free Information Technology (BITV) in Germany.

Meeting market demand is reported as being of high relevance to the enterprises' business to a somewhat lesser extent, but still by more than two-thirds (68%). It is however not clear whether

this assessment relates to current levels of demand perceived by the responding enterprises or to levels of demand expected to materialise in the future. For instance, the majority of the responding firms report that the trend towards population ageing acts as an encouragement to making ICT products and services accessible to people with disabilities, either very strongly (29%) or at least to some extent (64%). At the same time, only about one tenth (10%) do not at all consider eAccessibility as being of strategic relevance for their own business when it comes to satisfying market demand.

Beyond mere awareness of the eAccessibility theme, a considerable share of the responding enterprises have built up at least some in-house expertise in terms of employing staff that posses dedicated expertise in this regard. About two-thirds (66%) report that they employ at least one eAccessibility expert, with the majority employing more than one expert (56%). By contrast, about one-third (34%) report having no staff with dedicated expertise concerning eAccessibility.

When it comes to concrete activities pursued to make their products/services accessible to users with disabilities, more than two-thirds (72%) report having conducted some kind of research concerning user requirements of people with disabilities, and two-thirds (66%) state that they consider eAccessibility as part of standard development cycles. In five cases, explanatory comments received make reference to a web site where accessibility related information on their products is provided to the public. While about half (52%) of the responding enterprises report some form of cooperation with disability organisations, direct involvement of users with disabilities in the design process seems somewhat less common, the latter being reported by 41%. All in all, slightly more than one-half of the responding enterprise (55%) state that their eAccessibility-related efforts were directed towards complying with existing technical standards.

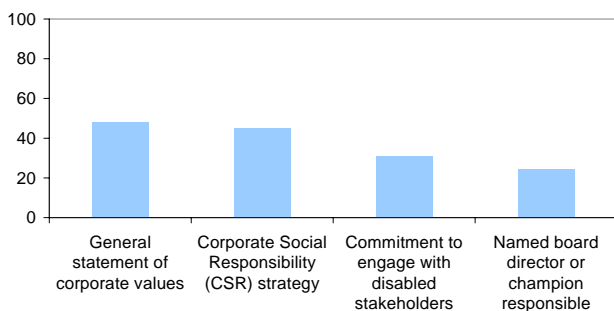
The survey also asked the responding enterprises about factors that would act to encourage making their products/services accessible to people with disabilities. In this regard, almost all responding enterprises (96%) deem the availability of design methods and tools that help to practically address eAccessibility issues to be a facilitator, and one-third (33%) state that the availability of such methods/tools would help very much. A similar pattern emerges when it comes to the availability of eAccessibility standards referring to the types of products/services sold by the responding companies. Here, slightly more than one half (52%) state that the availability of such standards acts or would act as a facilitator at least to some extent, while more than one third (37%) regard such standards as a strong facilitator. As already indicated by the analysis presented in relation to eAccessibility-related certification and labelling (Chapter 9), explanatory comments received suggest that many of the responding firms share concerns about the risk of market fragmentation due to non-harmonisation of eAccessibility-related policy efforts pursued in different countries.

As regards the value of eAccessibility-related certification of ICT products, however, a different pattern emerges from the survey data, as already discussed earlier in this report in detail (Chapter 9), with slightly less than one-half not regarding the availability of such certification schemes as a facilitating factor and the other half reporting that it would be a facilitating factor, at least to some extent.

When it comes to factors acting as barriers to making products and services accessible, it is striking that none of the dimensions prompted in the questionnaire is regarded as a major barrier by a clear majority of the responding enterprises. For instance, additional costs that may accrue when considering eAccessibility requirements are regarded only by about one-third (32%) as a major barrier, followed by additional time that may be needed when addressing eAccessibility as part of the development cycle (30%), difficulties to cope with the complexity of eAccessibility requirements in practical terms (24%) and a general lack of knowledge and understanding of what eAccessibility is about (15%).

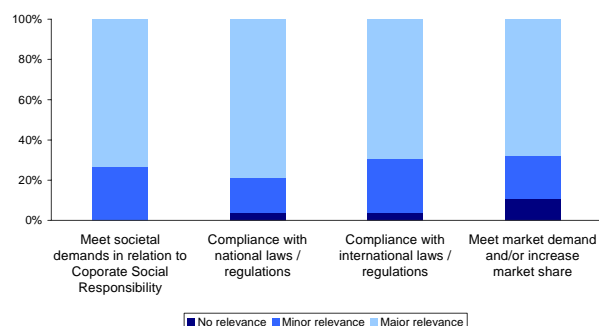
### Exhibit 107 – Readiness of the participating ICT enterprises to make own products / services accessible to users with disabilities

Means of corporate disability policy implementation (in %)



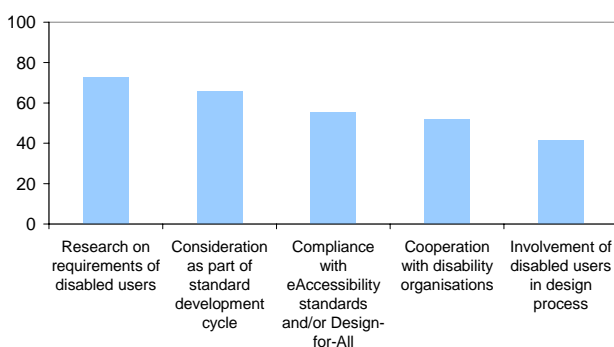
n= 24

Strategic relevance of eAccessibility for own business (in %)



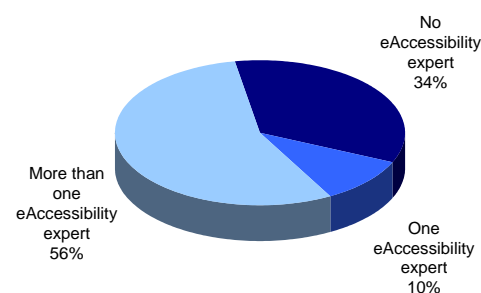
n= 28

Activities undertaken by ICT companies to make products/services more accessible



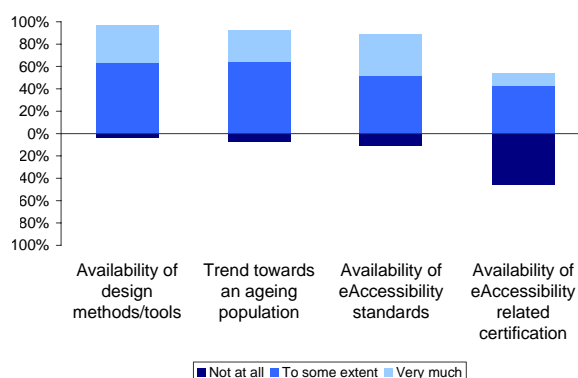
n=29

Number of employed staff possessing dedicated eAccessibility expertise



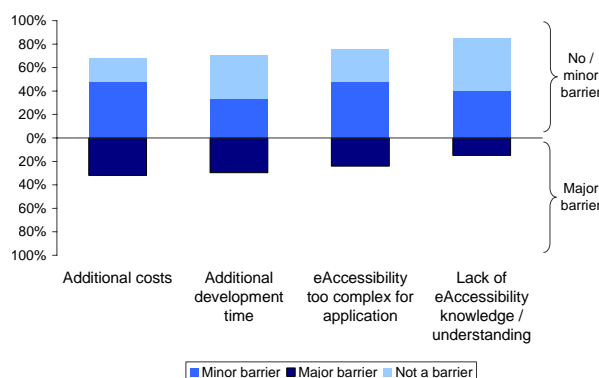
n=29

Perception of factors facilitating own eAccessibility efforts



n=28

Perception of barriers to own eAccessibility efforts



n=27

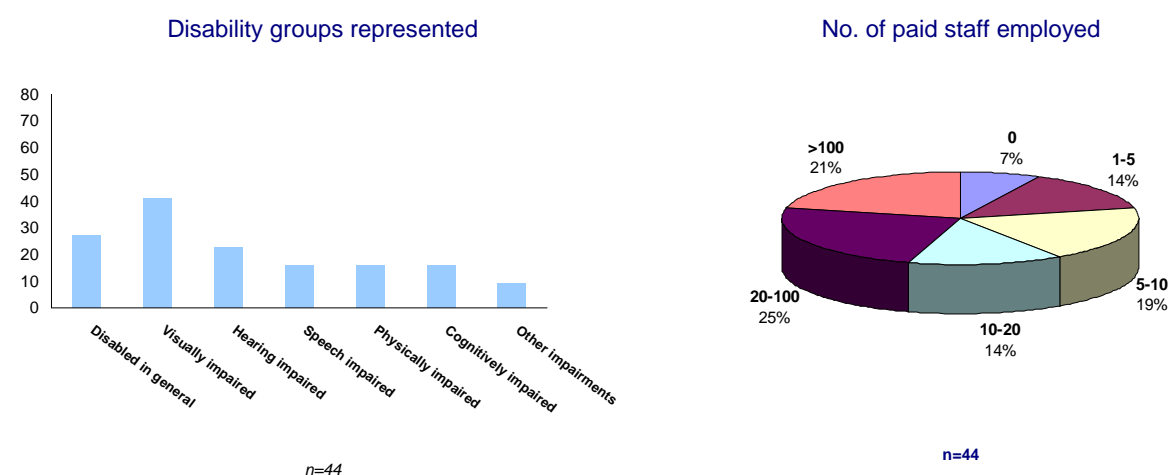
Source: MeAC Survey of ICT Companies, 2007 © (c.f. Annex, section 3).

## 12.2 Organisations representing disabled people

The organisations that participated in the survey represent people with different types of disabilities (Exhibit 108), as well as umbrella organisations addressing disability in a general sense. Also, the participating organisations vary considerably according to their organisational size measured in terms of employed staff. In this regard, about one-fifth (21%) can be considered as very small with not more than five paid employees, whereas one-third of these (7% of all responding organisations) entirely rely on voluntary staff; one-third (33%) can be regarded as “medium-sized” employing five to ten paid staff; and somewhat less than one half (46%) can be regarded as comparatively large organisations with up to 100 and more paid employees. Although these figures do not reflect the fact that individual organisations may well be able to rely on considerable numbers of voluntary supporters, they nevertheless suggest that the responding organisations’ capacities may vary considerably when it comes to engaging in the types of eAccessibility-related activities outlined in the beginning of this chapter. In particular, smaller organisations may find it difficult to build up required knowledge and expertise, and to sustainably remain devoted to the eAccessibility theme as part of their overall activities.

A closer look at the concrete activities pursued by the responding disability organisations reveals that about one-fifth (18%) do not at all address eAccessibility issues as part of their work (Exhibit 109). Where eAccessibility is addressed, a large share of activities concern general awareness-raising (66%), information provision on eAccessibility to people with disabilities (63%) and lobbying of policy, ICT industry and other institutional bodies on the eAccessibility theme (61%). All in all, less than half (41%) of the responding organisations provide eAccessibility services to disabled people (e.g. assistive devices and software) or are actively involved in research on accessible ICTs/media. To some extent, these figures may even overstate actual levels of engagement in eAccessibility issues at the side of disability organisations because the motivation to participate in this survey may be lower among those organisations that do not currently engage in any activities focusing on accessibility of ICTs to people with disabilities. Nevertheless, the data reported by the responding organisations shed light on the type and nature of activities currently pursued on the side of disability organisations, and on the capacities they have available for these purposes in terms of personnel resources.

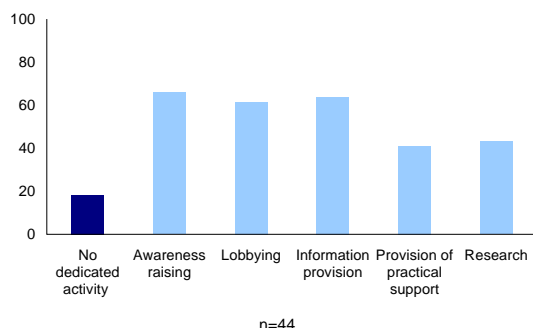
**Exhibit 108 - Characteristics of responding disability organisations**



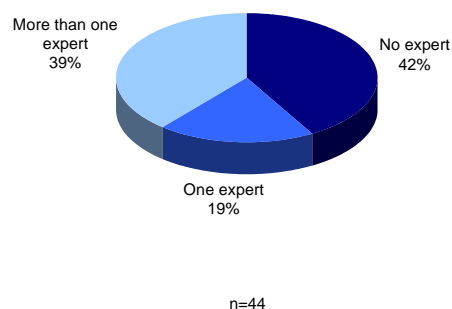
Source: MeAC Survey of Disability Organisations, 2007 © (c.f. Annex, section 3).

### Exhibit 109 – User organisation’s readiness to engage in eAccessibility

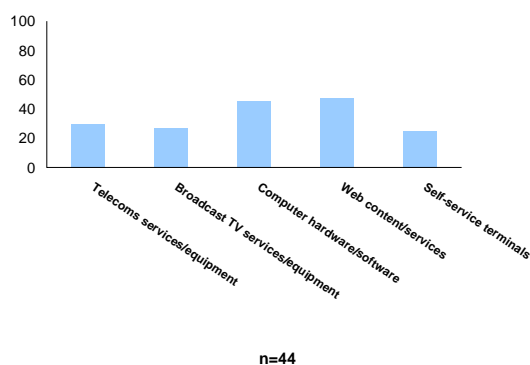
Engagement in eAccessibility-related activities  
(in %)



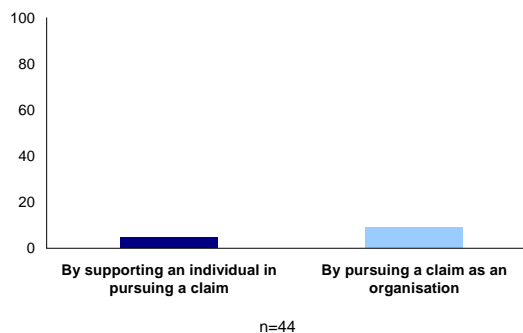
Number of eAccessibility experts employed  
(in %)



Thematic fields of eAccessibility related activities  
(in %)



Involvement in eAccessibility-related discrimination claims (in %)

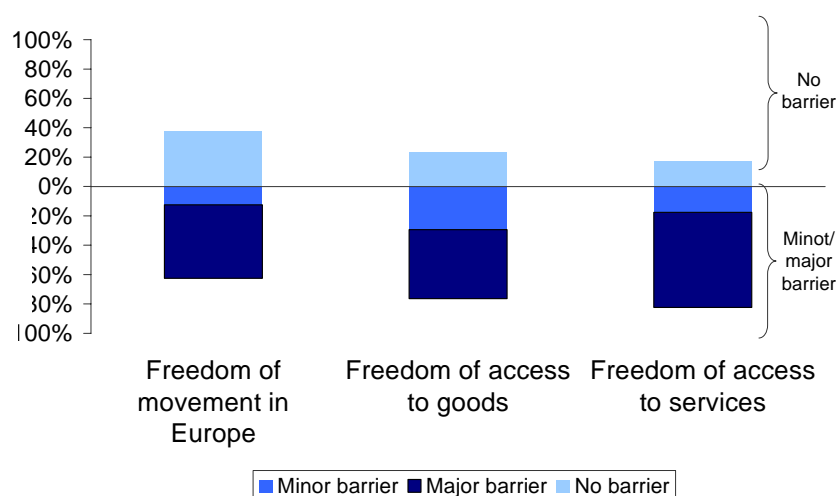


Source: MeAC Survey of Disability Organisations, 2007 © (c.f. Annex, section 3).

In relation to the latter, our survey data suggest that about two-in-five (42%) of the disability organisations have no personnel resources at all available in terms of paid staff processing dedicated expertise in the field of eAccessibility, while another one-in-five (19%) can rely at least upon one employed eAccessibility expert and the remaining two-in-five (39%) employ more than one paid eAccessibility specialist. A closer look at the particular ICT domains for which the organisations have expertise reveals that most organisations have expertise available in relation to accessible web content and services (45%), and in relation to accessible computer hardware and software (48%). Other ICT domains such as telecommunications services and equipment (29%), broadcasting services and equipment and self-service terminals (25%) seem less well covered.

A majority consider that the current eAccessibility situation in their countries poses barriers to disabled people in relation to key freedoms of European citizens (Exhibit 110). In particular when it comes to the freedom of accessing services that are common today, a clear majority (65%) considers the current eAccessibility situation to represent a major barrier, in relation to the freedom of movement in Europe one half (50%) considers lacking eAccessibility as a main barrier (50%), while slightly less than one half (47%) do so in relation to the freedom of access to goods. Although many disability organisations consider such key freedoms as being violated by the current eAccessibility situation, many do yet not seem to be in a position to play a more active role through enforcing redress by means of formal/legal mechanisms.

### Exhibit 110 - Extent to which the current eAccessibility situation poses barrier to people with disabilities in relation to key freedoms for European citizens



n=25

Source: MeAC Survey of Disability Organisations, 2007 © (c.f. Annex, section 3).

In practice very few disability organisations have up to now been actively involved in pursuing an eAccessibility-related discrimination claim through legal action or through other redress mechanisms such as ombudsman schemes or equality tribunals - just 4% of the responding organisations report having supported an individual in pursuing an eAccessibility related discrimination claim in one or other regard, while 9% state that they have pursued such a claim as an organisation themselves.

## 12.3 Implications for policy

Bearing in mind that the data collated by means of the ICT industry survey can be assumed to reflect the situation in relation to larger enterprises operating on international markets rather than to small and mediums sizes firms, the evidence presented in section 12.1 suggests that the eAccessibility theme has emerged on the radar of key mainstream ICT market players:

- A considerable share regard eAccessibility as being of strategic relevance to their business activities, an important reason being the need for compliance with legislation that has been in existence for some time, particularly in the US. However, national legislation that has emerged more recently in some European countries is also recognised. As suggested by explanatory comments received (c.f. also Chapter 9 on certification), many enterprises regard the achievement of a “level playing field” in terms of internationally harmonised eAccessibility policies and technical requirements as an important aspect.
- Many of the responding enterprises seem to have started to build up in-house expertise in relation to eAccessibility and to undertake concrete activities (e.g. research) to make their products or services accessible. On the other hand, a considerable share (about one third) cannot rely on any in-house expertise when it comes to eAccessibility and many feel that availability of suitable tools and design methods would act as a strong facilitator towards making their products and services accessible to people with disabilities. These findings point to the conclusion that there is quite considerable room for capacity building internal to the responding firms to enable an adequate response to be given to the eAccessibility-related needs of customers with disabilities.



The evidence reported in section 12.2 suggests that disability organisations as well regard the eAccessibility theme as a matter that deserves their attention:

- Most of the organisations regard the current eAccessibility situation as posing barriers to key freedoms for persons with disabilities in Europe.
- Although many organisations have built up expertise and address eAccessibility as part of their work in one or another regard, organisational capacities seem to vary a lot (in terms of paid staff with and without dedicated expertise in the field of eAccessibility) across the responding disability organisations.

These findings suggest the need for consideration to be given to EU-level measures aiming to support the capacities of these stakeholders to play their parts in achieving eAccessibility in Europe.

## Section D

# Overall Synthesis and Conclusions

## 13 Synthesis and conclusions

This Chapter brings together the detailed results and analyses from the previous Chapters and presents a synthesis and conclusions in terms of two main themes:

- assessment of the eAccessibility status and policy situation in Europe
- implications for future EU-level policy.

### 13.1 Assessment of the eAccessibility status and policy situation in Europe

Overall, the results show that whilst some progress towards eAccessibility can be detected in Europe, this has not been enough and further EU-level measures need to be considered. Three key benchmarks underpin this conclusion:

- the eAccessibility 'deficit'
- the eAccessibility 'gap'
- the eAccessibility 'patchwork'.

#### 13.1.1 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 (Exhibit 111).

**Exhibit 111 The eAccessibility 'Deficit'**

#### **Europe's eAccessibility 'deficit' - some examples**

- Text relay services (essential for deaf and speech impaired people) are only available in one-half of the Member States; emergency services are directly accessible by text telephone in only seven Member States
- Mobile operators in only seven Member States provide dedicated information for customers with disabilities on their websites
- On average, less than one-third of national language broadcasts of main public broadcasters in Europe were provided with subtitling (for deaf people) in 2006; there is wide variability (from 95% to none) in the amount of subtitling across individual countries
- On average, less than one-tenth of national language broadcasts of main commercial broadcasters in Europe were provided with subtitling in 2006; most of this is provided in just a few countries
- Public broadcasters in only five Member States provided any of their programmes with audio description (for visually impaired people) in 2006 and, where they did, the levels provided amounted to a very small percentage of their overall programming; only in one country did any commercial broadcaster provide any audio description
- Only a very small proportion of key government web sites in the Member States meet the accepted minimum international standards on accessibility (12,5% passed automated testing and only 5,3% passed both automatic and manual examination)
- The share of key commercial/sectoral web sites (e.g. railways, TV, newspapers, retail banking) providing this minimum level of accessibility is even lower (only 3,9% passed automated testing while not a single site passed both automatic and manual testing)
- Only in six Member States has one of the leading retail banks installed ATMs with 'talking' output (enabling self-service for customers with visual impairments); across countries on average only 8% of all ATMs that have been installed by the two main retail banks in the EU 25 Member States provide such output, with the bulk of this provided in just a few countries.

## Telephony

In the case of telephony, the basic eAccessibility yardstick is 'functional equivalence', whereby disabled people have access to the same level and quality of everyday telecommunications services (at the same price and with the same choice) as everyone else. The evidence presented by the MeAC study indicates a substantial lack of availability of key accessibility provisions and a range of factors (e.g. lack of awareness, lack of information and high costs) that act as barriers to take-up of solutions that are available, as well as a perception of limited and slow progress overall. To take just two examples, text telephone relay services are still only available in about one-half of Member States and only seven Member States have facilities in place to enable text telephone users directly access the emergency telephone number.

## TV broadcasting

In the case of television, the basic eAccessibility yardstick is the extent to which disabled people (in so far as is technologically possible) have access to and can enjoy the same choice of programming as everyone else. The evidence from the MeAC study again indicates a substantial lack of availability of key accessibility provisions and a range of factors (e.g. lack of awareness, lack of information and, in some cases, high costs) that act as barriers to take-up of solutions that are available, as well as a perception of limited and slow progress in general. On average, less than one-third of the national language broadcasts by the two main public broadcasters across the Member States are subtitled to ensure that they are accessible for people with hearing impairments, with levels of provision varying from almost none to more than 95% across countries. The comparable figures for commercial channels are very much lower. Public broadcasters in only five Member States provide any audio description to enable accessibility for people with visual impairments and, where they do, the levels provided amount to very small percentages of programming. Only in one country do any of the main commercial broadcasters provide any audio description.

## Web

When the MeAC study tested a similar sample of key public and sectoral/commercial websites in each Member State, only a very small percentage were found to meet accepted international accessibility standards - 8.2% were accessible based on automated testing and just 2.6% when subjected to a more stringent follow-up manual testing. For government websites, percentages accessible were 12.5% and 5.3% for automated and manual testing, respectively. For sectoral/commercial websites, just 3.9% passed the automated test and none passed the manual test. These results mean that only a small proportion of key public websites (national government, national parliament, and key ministries such as social, employment, health and education) meet the accessibility standards and the situation is even worse for key sectoral/commercial websites (e.g. railways, TV, newspapers, retail banking). In a few countries, the majority of the public websites tested met the standards but in many none of them did.

## Self-service terminals

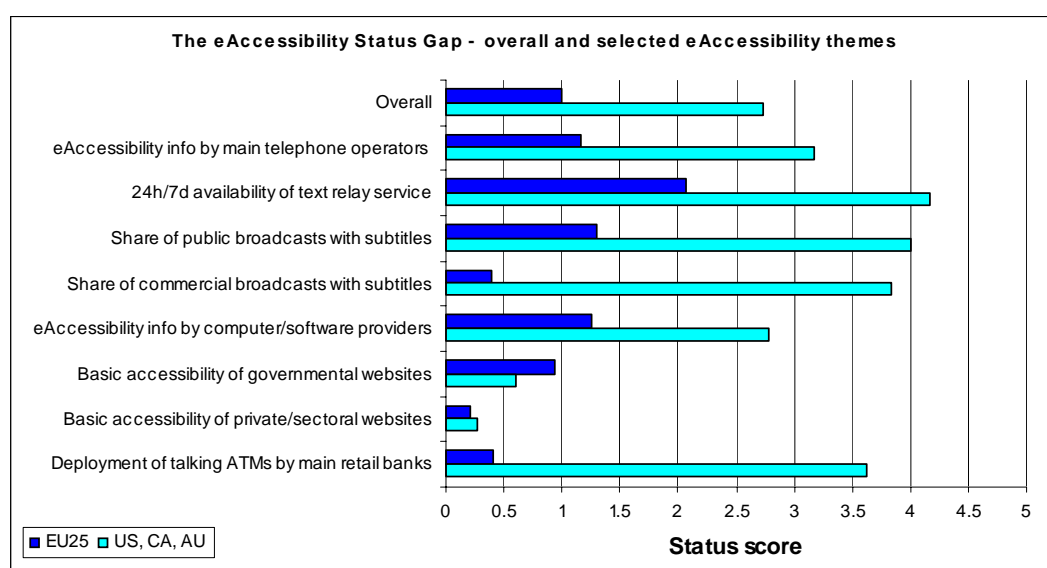
The basic eAccessibility yardstick in relation to self service terminals concerns the extent to which people with disabilities (in so far as is technologically possible) can have access to the same level of self-service as everyone else. The evidence from MeAC indicates little progress in the deployment by the banking sector of the accessible ATMs that are now available on the market and even less progress in relation to other self service domains. Only in six Member States has one of the two leading retail banks installed such machines at all and, where they have, in many cases only a few machines have been deployed. Across countries, on average just 8% of all ATMs that have been installed by the two main retail banks in the EU 25 countries provide 'talking' output to ensure accessibility for people with visual impairments, with most of these to be found in just three countries. User organisations also report very limited availability

of accessible versions of other types of self-service machines, such as information kiosks and automatic ticket machines.

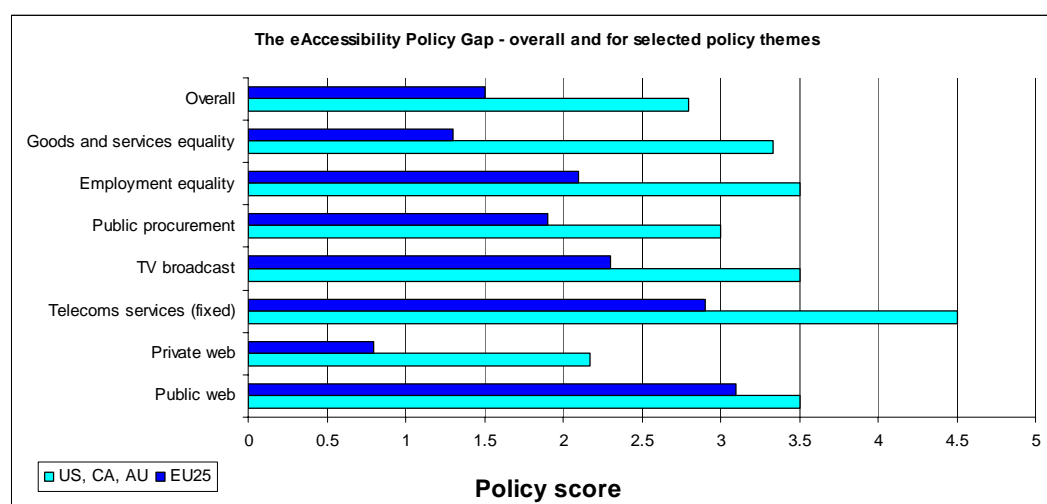
### 13.1.2 The eAccessibility 'Gap'

From a comparative perspective, the eAccessibility situation for people with disabilities across Europe as a whole, in terms of both eAccessibility status (exhibit 112) and eAccessibility policy (exhibit 113), compares very unfavourably with that of their peers in the comparison countries examined in the MeAC study (AU, CA and US). More generally, according to the status and policy yardsticks employed in the MeAC analysis, in absolute terms the overall European eAccessibility situation across the Member States must be assessed as being weak and even very weak in many respects.

**Exhibit 112 The eAccessibility status 'Gap'**



**Exhibit 113 The eAccessibility policy 'Gap'**



Although these 'gaps' show that Europe, as a whole, currently has a less well-developed eAccessibility situation in comparison to key international peers, they also show that it is neither unreasonable nor unrealistic to aim for a much stronger situation in Europe, given that this has already been achieved in the other countries (especially in the US) and in at least one EU country.

Exhibit 114 The eAccessibility status 'Patchwork'

	MeAC overall status index	Telephony		TV		Computer	Web		Self-service terminals
		Telecom operators provision of accessibility information	Availability of text relay service	Share of national language broadcasts with subtitles by two main public broadcasters	Share of national language broadcasts with subtitles by two main commercial broadcasters	Hard- and software manufacturers provision of accessibility information	Basis accessibility of governmental websites	Basic accessibility of private/sectoral websites	Deployment of accessible cash dispensers
AT									
BE									
CY									
CZ									
DE									
DK									
EE									
EL									
ES									
FI									
FR									
HU									
IE									
IT									
LT									
LU									
LV									
MT									
NL									
PL									
PT									
SE									
SI									
SK									
UK									
EU25									
AU									
CA									
US									

Note: darker shading indicates better eAccessibility status

Exhibit 115 The eAccessibility policy 'Patchwork'

	Sectoral									Horizontal		
	Web		Telecommunications			TV		Other		Public Procurement	Equality / Anti-discrimination	
	Public websites	Other websites	Telecoms services – fixed	Telecoms services – mobile	Telecoms equipment sector	TV services	TV equipment sector	Computer hardware / software	Kiosks, consumer audiovisual etc.		Employment	Goods & Services
AT												
BE												
CY												
CZ												
DE												
DK												
EE												
EL												
ES												
FI												
FR												
HU												
IE												
IT												
LT												
LU												
LV												
MT												
NL												
PL												
PT												
SE												
SI												
SK												
UK												
EU 25												
AU												
CA												
US												

Note: darker shading indicates stronger eAccessibility policy provisions

### 13.1.3 The eAccessibility 'Patchwork'

Finally, the situation across Europe for both eAccessibility status (Exhibit 114) and eAccessibility policy (Exhibit 115) is very much a patchwork at present. These patchworks present a picture of many important 'white spaces', of uneven attention across the spectrum of eAccessibility themes and of wide disparities across the Member States.

#### 'White spaces'

The patchworks indicate that there are domains that currently provide no or only a very low level of eAccessibility in almost all EU countries (e.g. accessibility of commercial web sites, provision of access services by commercial broadcasters, self service terminals) and similar "white spaces" appear on the policy side. Such "white spaces" are a lot less visible in the three comparison countries.

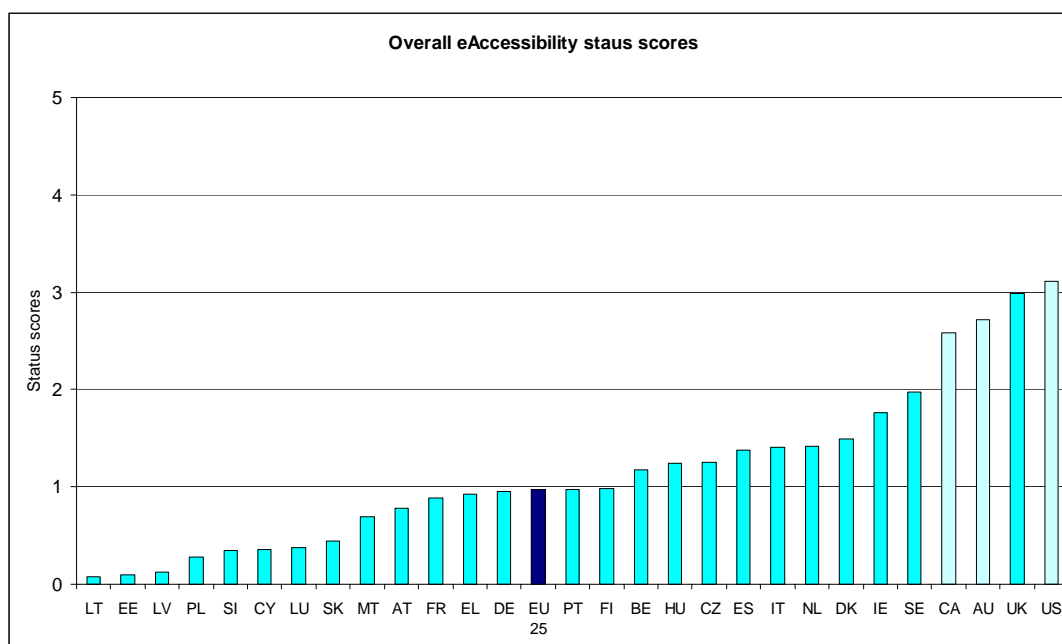
#### Uneven attention to themes

The patchworks also show that the scores for eAccessibility for some ICT domains and for some eAccessibility policy themes tend to be higher than others. In relation to eAccessibility status, for example, the telephony, public broadcasting and computer domains tend to score better when compared with other domains, even if yet far from satisfactory.

#### Disparities across the Member States

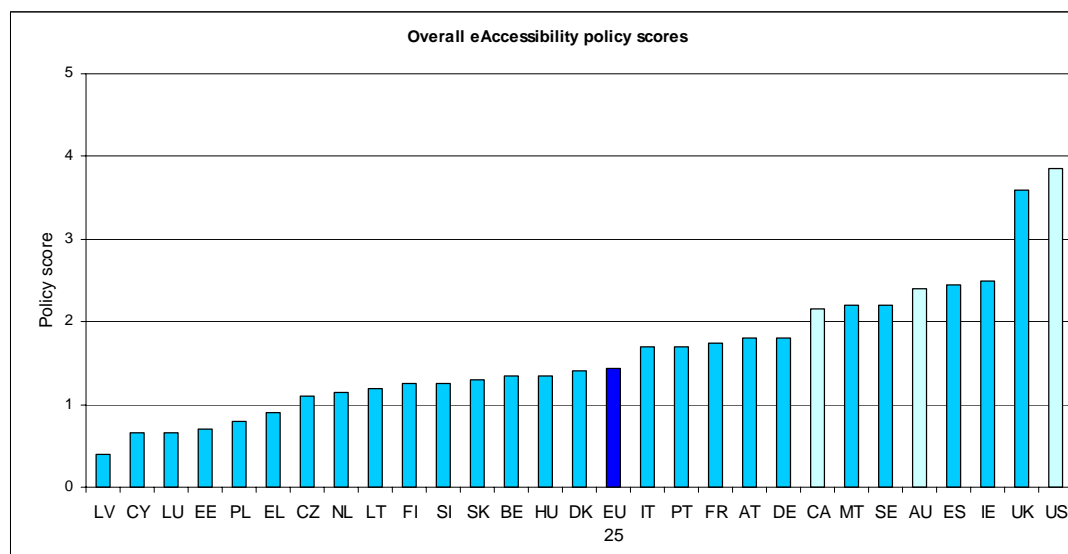
Finally, there is wide variability across the Member States in overall eAccessibility status (Exhibit 116) and policy scores (Exhibit 117), with very few countries achieving comparatively high scores across many ICT sectors or policy approaches.

**Exhibit 116 eAccessibility status disparities**





### Exhibit 117 eAccessibility policy disparities

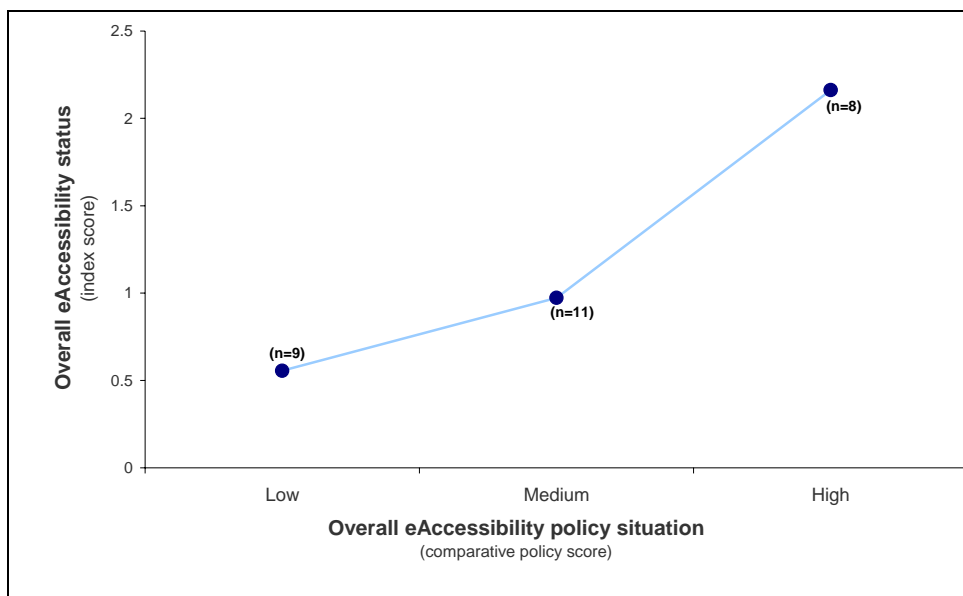


Apart from the direct implications for disabled people because of the widely differing eAccessibility situations across the Member States, these disparities are a source of fragmentation that is not helpful when it comes to market functioning. Differing levels of development of eAccessibility policy may result in differing levels of eAccessibility requirements and obligations on ICT providers and ICT deployers in the different European countries. This has been raised as an important concern by the ICT industry and the need for a 'level playing field' across Europe and internationally has been emphasised.

## 13.2 Implications for EU-level policy

The results of the MeAC study clearly demonstrate the importance of policy for achieving eAccessibility. In addition to this being suggested in the policy and status comparisons between Europe and the US that were presented in the previous section, the more detailed data and analysis provides clear evidence that well-developed and implemented policies have a strong impact in terms of the achievement of eAccessibility, whether in Europe or the other countries. For example, Exhibit 118 shows the strong positive link between overall eAccessibility policy and overall eAccessibility status scores<sup>148</sup>. Similar patterns are found for each of the specific ICT domains.

<sup>148</sup> n = no. of countries. For purposes of this analysis, the 28 countries are grouped into categories according to their overall average policy scores across the various fields outlined in the 'eAccessibility policy patchwork'; countries with an average score of 1.2 or less are included in the 'low' group, those between 1.2 and 1.9 are included in the 'medium' group, and those scoring 2 or above are included in the 'high' group; the graphs show the average overall eAccessibility status scores for each group of countries.

**Exhibit 118 Impacts of policy on eAccessibility status**

In addition to the evidence of eAccessibility gaps, deficits and patchworks, on the one hand, and of the effectiveness of (good) policy, on the other, the MeAC evidence and analysis also indicates the importance of the role of EU-level policies in progressing eAccessibility in Europe. In this regard, although there is evidence that EU-level measures can have positive impacts, the overall findings and analysis provide a clear indication that further EU-level measures need to be considered if satisfactory progress in eAccessibility is to be achieved within any reasonable timeframe.

The following sections outline the EU-level policy considerations that are raised in relation to a number of major sectoral and policy themes.

### 13.2.1 Telecommunications services and equipment

#### Impacts of EU measures to date

On the positive side, the evidence from MeAC indicates that in relation to fixed telephony services, at least, some reference to accessibility issues has been made in the transpositions of the EU telecoms directives<sup>149</sup> in almost all countries (although there are a few exceptions). On the negative side, however, in some cases the accessibility themes that are mentioned have not yet been followed-up and implemented in practice.

Overall, the impact of EU policy across Europe as a whole has not been sufficient to bring the 'average' policy situation on accessibility of fixed telephony services to the same level as that in the comparison countries (US, Australia and Canada). Only a small number of Member States compare favourably with these reference countries and the majority compare unfavourably.

Of equal importance is the fact that the situation across the Member States is quite uneven in terms of the strength of requirements implemented in national transpositions of the EU measures and, also, in the dimensions of telecoms accessibility that are addressed. The result is a patchwork of provisions, with differing mixes of accessibility issues being addressed and many gaps.

<sup>149</sup> Directive 2002/22/EC on universal service and users' rights relating to electronic communications networks and services. ("Universal Service Directive"); Directive 2002/21/EC on a common regulatory framework for electronic communications networks and services. ("Framework Directive")

Even if it can be expected that, if left alone, some improvements in eAccessibility policy strength might be expected over time in some countries (especially in those where the laws/regulations are very recent and have not yet been fully implemented in practice), overall the evidence indicates that sufficient progress is unlikely to be achieved without (further) EU-level intervention. In addition, the absence of EU-level provisions in relation to accessibility of mobile telecommunications services and also in relation to the (fixed and mobile) telecommunications equipment sectors<sup>150</sup> is reflected in the fact that very few Member States have implemented any policies in these areas.

### Policy options to consider

The challenges that are presented suggest a need to consider (some combination of) possible measures at EU level, as listed in the following box.

#### Policy options for consideration at EU-level: Telecommunications

- Revision and strengthening of the eAccessibility dimension of the EU telecommunications regulatory package
- Introduction of measures to address the accessibility of telecommunications equipment (as well as services) and, in relation to services, to widen the scope to include mobile services and beyond
- Wider, multi-sectoral measures to help ensure coherence across all relevant policy sectors – telecommunications services, telecommunications equipment, and social policy
- Measures that address affordability as a dedicated issue (including encouragement of mainstreaming of eAccessibility features so that they are provided as standard in popular products and services, and clarification of the role of social policy in relation to issues of affordability and equipment provision)
- Accompanying measures to reach, mobilise and increase the capacity of the various stakeholders (industry, users, policy) in this field.

## 13.2.2 Television services and equipment

### Impacts of EU measures to date

Although there have been no EU measures of direct relevance in this field to date, the political agreement on the new Audiovisual Services Directive (amending the Television Without Frontiers - TVWF - Directive) includes accessibility within its scope<sup>151</sup>. On the positive side, the inclusion of accessibility within the Directive can be expected to encourage more and better Member State activity on accessibility of TV broadcasts. On the negative side, the new provisions in the Directive do not seem to require the imposition of mandatory obligations nor do they establish specific targets or indicate a sense of urgency for action.

Even if it can be expected that, over time, the introduction of accessibility in the Audiovisual Services Directive will make a contribution to progressing this field, the evidence from MeAC would suggest that (further) EU-level measures need to be considered if sufficient accessibility of TV services is to be achieved across Europe within any reasonable timeframe. The current absence of EU-level measures addressing the TV equipment sector or the new opportunities and challenges posed by digital TV also needs to be taken into account in this regard.

<sup>150</sup> There are (latent) provisions in the Radio & Telecommunications Terminal Equipment (R&TTE) - Directive 1999/5/EC, but these have yet to be invoked.

<sup>151</sup> [http://ec.europa.eu/avpolicy/docs/reg/modernisation/proposal\\_2005/avmsd\\_cons\\_may07\\_en.pdf](http://ec.europa.eu/avpolicy/docs/reg/modernisation/proposal_2005/avmsd_cons_may07_en.pdf).

## Policy options to consider

The challenges that are presented suggest a need to consider (some combination of) possible measures at EU level, as listed in the following box.

### Policy options for consideration at EU-level: Television

- Strengthening of the eAccessibility dimension of EU policies on TV services, including appropriate measures to address both public and commercial broadcasters
- Introduction of measures to address accessibility of TV equipment (as well as services)
- Introduction of measures to address new issues posed by digital TV
- Wider, multi-sectoral measures to help ensure coherence across all relevant policy sectors – TV services, TV equipment and, where relevant, the social policy sector which continues to play an important role in relation to affordability and equipment provision in some countries
- Accompanying measures to reach, mobilise and increase the capacity of the various stakeholders (industry, users, policy) in this field.

## 13.2.3 World Wide web

### Impacts of EU measures to date

In relation to public websites, the assessment indicates both positive and negative aspects. On the positive side, there is clear evidence that EU-level policy initiatives are being taken up in the policies of the Member States. Almost all countries have policies in place, in many cases directly triggered by EU-level initiatives such as the Ministerial Resolutions and eEurope<sup>152</sup>. On the negative side, there are still some gaps, with little happening in a few countries, and overall there is quite wide variability in the nature and strength of approaches across countries. Crucially, the evidence shows that the impacts to date on levels of accessibility of key websites have generally been very modest.

In relation to other (commercial) websites, there is no direct EU-level policy currently in place. The absence of leadership from the EU can be detected in the low levels of policy activity across the Member States as well as in the diversity of approaches amongst the countries where there is at least some relevant activity.

## Policy options to consider

The challenges that are presented suggest a need to consider (some combination of) possible measures at EU level, as listed in the following box.

### Policy options for consideration at EU-level: Web

#### Public websites

- Accompanying measures to help Member States put the most effective policy approaches in place (linked with wider inclusive eGovernment activity), including use of certification

#### Other (commercial) websites

- Examination of the scope for introduction of horizontal measures in the equality/anti-discrimination and/or other fields.

<sup>152</sup> COM (2001) 529 Communication from the Commission eEurope 2002: Accessibility of Public Web Sites and their Content; Council Resolution on "eAccessibility" - improving the access of people with disabilities to the Knowledge Based Society, 2-3 December, 2002, 14892/02; EP Resolution on eEurope 2002: Accessibility of Public Web Sites and their Content (2002 (0325))

### 13.2.4 Other sectoral themes

There are also a number of other sectors that need to be taken into account in considering future policy options for the EU. These include:

- Self-service terminals
- Computing and other specific ICT sectors
- Copyright exemptions and Digital Rights Management
- Assistive Technologies
- ICTs in education.

These need to be given appropriate consideration in the context of future eAccessibility policy development at the EU level.

#### Policy options to consider

The challenges that are presented suggest a need to consider (some combination of) possible measures at EU level, as listed in the following box.

#### **Policy options for consideration at EU-level: Other sectoral themes**

##### Self-service terminals

- Introduction of legislative or other measures to encourage Member States (and ultimately manufacturers and deployers) to ensure that self-service kiosks are accessible to disabled people
  - equality/anti-discrimination approaches may provide useful models in this regard; specific attention to accessibility of self-service terminals in public procurement and, where relevant, within eGovernment policy also can play an important role
- Accompanying measures to encourage and support accessibility initiatives by other stakeholders, including both manufacturers and deployers of self-service terminals

##### Computing and other important consumer ICT sectors

- Introduction of measures that encourage greater efforts by industry to mainstream accessibility as a standard feature of computer hardware and software, and other consumer ICTs, and to better communicate achievements to disabled customers across the EU
- Development and implementation of consumer support measures to increase awareness and information on available accessibility solutions, targeting both the demand (user) and supply sides
- Development and implementation of appropriate EU-level initiatives to encourage the development of (public) assistive technology services in the Member States and/or other approaches to subsidising end-user costs (e.g. through social policy)

##### Copyright exemptions and Digital Rights Management

- This policy area is of great importance for people with visual impairments and others who have difficulties accessing printed materials; the specific provisions for copyright exemptions and the interactions with wider digital rights management vary widely across Europe and this warrants further policy attention at EU-level

##### Assistive Technologies

- Measures to encourage the provision of comprehensive (public) assistive technology services in the Member States, including attention to affordability issues
- Clearer explication and leveraging of the linkages between assistive technology policy and policies in other fields, such as employment equality
- Measures to support RTD and market development in the field of assistive technology

##### ICTs in education

- eAccessibility in the educational context needs a high visibility and attention in future EU-level policy on eAccessibility.

## 13.2.5 Public procurement

### Impacts of EU measures to date

The revised EU public procurement directives offer the potential to significantly contribute to eAccessibility if effectively implemented by the Member States and followed-up by public procurers in their day-to-day work.

On the positive side, provisions in the revised Directives have at least introduced the potential in many EU countries for eAccessibility to be addressed in public procurements of ICTs. In addition, the planned EU standards and toolkit, when available, can be expected to be very helpful as there is a strong reported need on the ground in the Member States. On the negative side, it seems that the intent of the Directives on accessibility has not been fully recognised / implemented in many cases, even if most Member States may not necessarily be aware of this. In addition, there seems to be quite wide variability across the Member States in the specifics of the implementation of the accessibility provisions of the Directives. Overall, the policy situation in the majority of Member States seems currently to be very weak and the EU situation, as a whole, compares very unfavourably with (two of the) reference countries.

### Policy options to consider

The challenges that are presented suggest a need to consider (some combination of) possible measures at EU level, as listed in the following box.

#### **Policy options for consideration at EU-level: Public procurement**

- The possibility of clarifying / reinforcing the accessibility provisions in the EU Directives
- Consideration to making the provisions mandatory
- Introduction of efforts to build synergies with and leverage the eAccessibility impetus being given from the public website accessibility field
  - the procurement implications of accessibility requirements in public website laws and regulations could be spelled out and made more visible
  - in this context, however, there is also a need to raise awareness that the scope covers both customer-facing and internal ICTs
- Synergies and leverage are also possible with equality legislation and with the accessibility dimension now included in the Structural Funds; potential links with public procurement for eAccessibility could be spelled out and made more visible
- Accompanying measures to support the Member States and procurers, including actions directly linked to the EU Directives as well as a more general initiative to put public procurement strongly and visibly on the agenda as a core vehicle for encouraging and achieving eAccessibility in Europe:
  - evidence reinforces the importance of the EU standards bodies work on eAccessibility standards and toolkit for procurers
  - awareness-raising to include education of procurers about eAccessibility
  - measures to re-assure (demonstrate to) procurers that addressing eAccessibility does not add more costs, need not be too complex/time-consuming and so on; at the same time support measures to be put in place to ensure that this is in fact the case
  - encouragement of supplier capacities in eAccessibility would also make a useful contribution.

## 13.2.6 Certification

### Impacts of EU measures to date

There has not yet been any concerted EU-level effort to put into practical effect a European-wide eAccessibility certification regime. Nevertheless, the policy attention given to eAccessibility certification in the eAccessibility Communication of 2005, and in earlier Resolutions and Declarations on eAccessibility and eInclusion, has led to some efforts in relation to web accessibility certification by the European Standards organisations.

More generally, the current situation in relation to availability of and utilisation of eAccessibility certification in Europe poses a number of important challenges that warrant attention at the EU-level. These include:

- the general lack of availability of an appropriate certification regime for use across the Member States
- the fact that only a small number of countries are yet actively using accessibility certification in the one field - web accessibility - where the evidence already shows that 'official' certification schemes can lead to better accessibility outcomes
- the lack of a commonly shared understanding of what accessibility may actually mean in terms of testable criteria when it comes to particular ICT domains which are to be made accessible to different user groupings
- the fact that awareness among users of current labelling practices seems to be rather low and that existing labels are not unanimously perceived as reliable indicators for accessibility at the users' side
- the possibility (already evident in the web accessibility field) that a variety of different national eAccessibility certification schemes, based on differing national standards, will emerge, posing a strong risk of market fragmentation.

### Policy options to consider

The challenges that are presented suggest a need to consider (some combination of) possible measures at EU level, as listed in the following box.

#### **Policy options for consideration at EU-level: Certification**

- The implementation of an accelerated and reinforced effort to develop and introduce a comprehensive European eAccessibility certification regime (covering all of the key ICT product and service sectors), backed by the necessary European standards, and harmonised as appropriate with relevant international standards
- Possible options to explore:
  - The possibility of addressing this through accelerating / expanding the work of the European Standards Organisations under the existing Mandate 376<sup>153</sup>, in order to provide as soon as possible the groundwork needed to underpin such a European certification regime.
  - Initiation of an additional, dedicated measure directed towards the development of commonly agreed technical standards on eAccessibility across the various ICT domains concerned and implementation of a comprehensive European eAccessibility certification regime linked to this.

<sup>153</sup> Standardization Mandate 376 to the European Standards Organizations in support of European Accessibility Requirements for Public Procurement of Products and Services in the ICT domain. M 376 - EN; Brussels, 7th December 2005

## 13.2.7 Equality / anti-discrimination approaches

### Impacts of EU measures to date

Although Article 13 of the Treaty of the European Union provides a broad legal basis for combating discrimination based on disability, EU-level measures to date in the disability field have only directly addressed the field of employment equality (through the 'employment equality' directive<sup>154</sup>).

#### Employment equality

The evidence from MeAC suggests that whilst the EU's 'employment equality' Directive has led to the establishment of a good potential to leverage eAccessibility benefits in the Member States this potential is not yet being realised to any appreciable extent.

On the positive side, EU employment equality policy as presented in the Directive seems to broadly be implemented in most, but not all Member States. On the negative side, the MeAC evidence shows that the current implementations and follow-up activity in the Member States have important limitations in relation to the achievement of eAccessibility policy objectives, including:

- not much impact to date in terms of visibility of and attention to eAccessibility in the Member States, probably at least in part due to the fact that this is not directly emphasised in the current text
- it seems that the link in the Directives between reasonable requirements and available public supports for employers is not yet being made in most Member States in relation to public supports for assistive technologies for employers/employees.

#### Equality of access to goods and services

This approach seems to offer good potential as a vehicle to reach producers and deployers of ICT goods and services in relation to eAccessibility. However, there are no direct EU-level measures addressing this as of yet. This is reflected in less overall attention to this aspect in Member State legislation as well as in wide variability in the extent to which there are equality/anti-discrimination laws addressing goods and services in place at all, and in the strength and other characteristics of the laws that are in place.

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<sup>154</sup> Directive 2000/78/EC of 27 November 2000 establishing a general framework for equal treatment in employment and occupation



## Policy options to consider

The challenges that are presented suggest a need to consider (some combination of) possible measures at EU level, as listed in the following box.

### Policy options for consideration at EU-level: Equality / anti-discrimination

#### Employment equality

- Next revision of the Directive could incorporate more specific reference to eAccessibility issues
- Direct linkage and fostering of synergies between employment equality policy and policy in relation to assistive technologies
- Accompanying measures to better leverage existing legislation; these might include stimulation of exchange of good practice amongst Member States and implementation of targeted support measures such as awareness-raising, technical support / guidance, etc.
- Development and implementation of more proactive approaches targeting eAccessibility in employment

#### Goods and services equality

- Examination of the potential to invoke the equality provisions of Article 13 of the Treaty of the European Union across all policy areas of relevance to eAccessibility; possibilities to implement both rights of redress and positive duties or other proactive actions to foster wider systemic change could be considered in this regard; links with the concept of "services of general interest" also could be examined in this context
- Development and implementation of an EU-level measure (Directive) on equality/anti-discrimination in relation to access to goods and services, to include a strong and explicit coverage of eAccessibility within this
- Accompanying measures to help support other relevant stakeholders to address eAccessibility in the equality/anti-discrimination context (e.g. Member State equality agencies, adjudicating bodies, and disability NGOs), including technical guidance and support

### 13.2.8 An Integrated Approach

Overall, the evidence from the study suggest a need to consider an EU-level approach that combines three main strands:

- better leveraging of existing EU-level measures
- strengthening of existing EU-level measures
- introduction of new measures.

An integrated approach involving a combination of these three elements would seem most likely to be effective in achieving Europe's eAccessibility objectives within an acceptable timeframe.

To begin with, there are various EU-level measures already in place (e.g. in relation to telecommunications, public websites, public procurement and employment equality) where the evidence suggests that efforts to better leverage their potential could be considered. The evidence shows that, when well implemented, such approaches can have positive impacts on the status of eAccessibility for people with disabilities.

In addition to this minimalist approach, the evidence suggests that strengthening of some of the existing measures also warrants serious consideration. This applies especially in the case of existing measures in relation to telecommunications and TV, and possibly also in other areas

such as public procurement and employment equality. Existing efforts in relation to certification also need concerted attention and strengthening.

Finally, the evidence also suggests a need to give serious attention to the possibility of introducing new measures. This may be warranted in order to address a number of important challenges presented by the current situation, including:

- reaching the 'white spaces', the ICT sectors and deployer sectors that are not being reached by existing EU-level measures
- addressing the European 'patchwork' whereby there are wide disparities across Member States in the strength of policy attention being given to different aspects of eAccessibility
- achieving co-ordination and synergies across the different (and potentially complementary) policy approaches.

In addition, a new concerted effort would seem to be required in order to close the eAccessibility gap between the EU, as whole, and the reference countries

### Policy options to consider

As regards possible new measures to be considered, two (not necessarily mutually exclusive) options might warrant more detailed examination. These are the introduction of:

- an EU-level directive on equality of access to goods and services
- a wider, overarching and cross-cutting EU-level eAccessibility instrument.

As noted earlier, there is currently no EU-level instrument addressing equality of access to goods and services. Some countries have implemented legislation of varying forms but many have not yet initiated anything in this regard. The evidence shows that this can be a useful mechanism for reaching ICT and deployer sectors that may otherwise be difficult to address through direct sectoral policies. For these reasons, an examination of the possibility of introducing a Directive on equality of access to goods and services, to include a strong eAccessibility component, seems warranted.

In addition, the evidence suggests a need to give serious consideration to the possibility of introducing at EU-level a wider, overarching and cross-cutting eAccessibility instrument. This would seem to be the most effective way of supporting the development of a coherent approach across the Member States and of avoiding the emergence of unhelpful market fragmentation in relation to eAccessibility. Linked to the equality/anti-discrimination approach, it might also be an effective way to reach ICT sectors and deployer sectors that may otherwise be difficult to directly address. It would also provide a mechanism for effective policy co-ordination and for the identification and achievement of the potential synergies that exist across policy approaches.

#### **Policy option for consideration at EU-level: Overarching, cross-cutting instrument**

- Outlining a comprehensive perspective on eAccessibility that will support a shared view on eAccessibility (and all of its dimensions) across the Member States and of the mix of policy approaches that can best support its achievement
- Making the cross-policy linkages that are needed to ensure coherence across EU-level (and, ultimately, Member State level) measures and foster the achievement of the cross-policy synergies that are possible
- Instituting whatever specific legislative/regulatory measures that might be needed, to include strengthening of existing measures and introduction of new measures as appropriate
- Specifying accompanying measures to better leverage existing legislative / regulatory measures and to help support the other stakeholders in their efforts to address eAccessibility.

