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**COMMUNICATION FROM THE COMMISSION TO THE COUNCIL,
THE EUROPEAN PARLIAMENT AND THE EUROPEAN ECONOMIC AND
SOCIAL COMMITTEE AND THE COMITTEE OF THE REGIONS**

eAccessibility

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COMMUNICATION FROM THE COMMISSION TO THE COUNCIL, THE EUROPEAN PARLIAMENT AND THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMITTEE OF THE REGIONS

eAccessibility

Accessible Information and Communication Technologies (ICT) will improve the quality of life of people with disabilities significantly. At the same time, the lack of equal opportunities to access ICT can lead to exclusion. In this Communication, the Commission proposes a set of policy actions that foster eAccessibility. It calls on Member States and stakeholders to support voluntary positive actions to make accessible ICT products and services far more widely available in Europe.

This Communication on eAccessibility contributes to the implementation of the recently launched "**i2010 – A European Information Society for growth and employment**"[1] initiative, that presents a new strategic framework and broad policy orientations to promote an open and competitive digital economy, emphasising ICT as a driver of inclusion and quality of life. The Commission has the ambitious objective of achieving an "Information Society for All", promoting an inclusive digital society that provides opportunities for all and minimises the risk of exclusion.

1. INTRODUCTION

People with disabilities constitute about 15% of the European population and many of them encounter barriers when using ICT products and services. In certain cases, older people can be faced with similar problems. Accessible ICT products and services have now become a priority in Europe, due to the demographic shift: 18% of the European population was aged over 60 in 1990, while this is expected to rise to 30% by 2030.[2]

A recent study in the USA[3] found that 60% of working-age adults can benefit from the use of accessible technologies because they experience mild impairments or difficulties when using current technologies.

A 2002[4] study found that over 48% of 50 years+ persons in Europe considered that they are not being adequately addressed by manufacturers in the design of their products. Between 10 and 12 million were nevertheless potential customers of new mobile phones, computer and internet services.

The implications are clear: **making the benefits of ICT available to the widest possible number of people is a social, ethical and political imperative**. Furthermore, this creates markets of increasing economic significance.

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[1]   COM(2005) 229 final of 1 June 2005.
[2]   UN World Population Prospects (2002 Revision) and Eurostat Demographic projections
[3]   The Wide Range of Abilities and Its Impact on Computer Technology – Forrester Research Inc., 2003.
[4]   Seniorwatch IST-1999-29086 www.seniorwatch.de

Overcoming the technical barriers and difficulties that people with disabilities and others experience when trying to participate on equal terms in the Information Society (IS) is known as "*eAccessibility*". This is part of the broader eInclusion concept, which also addresses other types of barriers, such as financial, geographical or educational.

This Communication builds on previous work on eAccessibility under the two eEurope Action Plans and on the conclusions and results of RTD projects. It also integrates the main findings of an **online consultation**[5] that was held early 2005, which showed a very strong support (over 88% of responses) for the European Institutions to take initiatives to address a situation that is perceived by a significant majority (over 74%) as a lack of coherence among accessible ICT products and services in Europe. A wider availability of accessible products and services is also felt to be needed (84% of respondents).

The main objective of this Communication is to promote a consistent approach to eAccessibility initiatives in the Member States on a voluntary basis, as well as to foster industry self-regulation.

2. THE PRACTICAL CHALLENGES

New technologies have already provided clear support to persons with disabilities and have enabled the realisation of functions in an independent manner that was only possible before with human assistance. However, despite efforts by industry, persons with disabilities still report a large number of problems when trying to use information technology products and services for example:

- lack of harmonised solutions, e.g. lack of access to the 112 emergency number from text phones in many Member States;
- lack of interoperable solutions for accessible ICT ;
- software not compatible with assistive devices, screen readers for blind users are often impossible to use after releases of new operating systems;
- interference between mainstream products and assistive devices, e.g. GSM telephones and hearing aids;
- lack of European-wide standards, e.g. the seven different, incompatible text phone systems for deaf and hard-of-hearing persons;
- lack of adequate services, e.g. many websites too complicated for cognitively impaired or inexperienced users or impossible to read and navigate through for visually impaired persons;
- lack of products and services for certain groups, e.g. telephone communication for sign language users;
- physical design difficult to use, e.g. keypads and displays on many devices;
- lack of accessible content;
- restricted choice of electronic communication services, quality and price.

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[5] Results available at:
http://europa.eu.int/information_society/policy/accessibility/com_ea_2005/a_documents/com_consult_res.html#_Toc97028181

Most of these problems could, conceptually, be easily solved from a technical point of view, but require cooperation, coordination and determination at European level as market forces alone seem not to have been sufficient to date.

In the near future, examples of new technologies where accessibility aspects must be considered early include:

- digital television, e.g. regarding standards and compatibility as well as design of services and hardware;
- third generation mobile telephones, e.g. regarding design of hardware and software as well as services;
- broadband communication, e.g. using the possibilities of multimodal presentations in a way that enhances accessibility rather than the opposite.

Addressing these issues, previously thought to be of interest to a specific target segment of the population, will actually have positive consequences for the majority of technology users.

3. MARKET AND ECONOMY ISSUES

ICT research and the market have come up with innovative solutions for some of these challenges. The main obstacles to their widespread availability are:

- until now they have been targeting a small market (seen essentially as people with disabilities and in some cases older people), mostly through SMEs at a national or regional level;
- the scarcity of applicable technical standards and technical specifications;
- relevant European legislation only recently explicitly contemplated the possibility of using accessibility requirements in the technical specifications in public procurement procedures;
- there are significant differences in the way some Member States have developed their own solutions.

As a consequence, the accessible ICT products and services market in Europe is still in an initial development phase, largely fragmented at national borders and lacking harmonised legislation and applicable technical standards. This does not facilitate the functioning of a single market and poses an increased burden on industry to comply with differing requirements in different Member States.

Increasingly, the target consumers are not seen anymore as only persons with disabilities and in some cases, older people, but as the whole population. This realization entails a market change we are just beginning to witness, as the bigger European industrial players are now turning their attention to this market sector, although they are still some time away before putting their full weight behind it.

This is also the case of the Telecommunications area – the pervasiveness of telecommunications products and services is now such that even this (relatively small for now) market niche is significant as a differentiator and growth generator, attracting interest from the bigger market players.

In conclusion, eAccessibility and related assistive technology products and services are now on the "midterm radar" of even the bigger mainstream technology providers, not only from Europe but also from other regions of the world.

4. LEGAL AND POLICY ISSUES

On several occasions, Council has encouraged action at EU level for instance when it called on Member States and invited the Commission to "*Tap the Information Society's potential for people with disabilities and, in particular, tackle the removal of technical and other barriers to their effective participation in the Knowledge Based Economy and Society*" [6]. The European Parliament has also supported this perspective[7].

In particular, European policies and legislation have recognised employment and occupation as key elements in guaranteeing equal opportunities for all, contributing strongly to the full participation of citizens in economic, cultural and social life and to realising their potential. The potential impact on this from a wider availability of quality accessible ICT products and services is clear. It will foster greater employability, better social inclusion and give people the ability to live independently for longer.

The need to include all Europeans in the Information Society has been expressed by the European Institutions in many contexts. The Commission has taken initiatives in the two eEurope Action Plans to build a more accessible IS. The 2002 Action Plan included a separate action line addressing these issues. It recommended the adoption of the Web Accessibility Inititiative (WAI)[8] guidelines, the development of a European Design for All (DFA) curriculum and strengthening assistive technology and DFA standardisation. In the eEurope 2005 Action Plan, the aim was to mainstream eInclusion in all action lines. It also proposed the introduction of accessibility requirements for ICT in public procurement.

Supporting this work, the Telecommunications Council has expressed the need to improve eAccessibility in Europe[9]. Furthermore the Ministerial Declaration[10]on eInclusion proposes taking all necessary actions towards an open, inclusive knowledge-based society accessible to all citizens.

Furthermore, in its 2003 Resolution on eAccessibility[11], the Social Affairs Council called on Member States to tackle the removal of technical, legal and other barriers to the effective participation of people with disabilities in the knowledge-based economy and society.

In line with this, the European Parliament, in its 2002 Resolution on web accessibility[12], "*reiterates the need to avoid any form of exclusion from the IS, and calls for the integration of*

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[6]   Council Resolution on "eAccessibility for People with Disabilities", 2-3 December 2002,
         http://www.socialdialogue.net/docs/cha_key/consilium_2002_14892en2.pdf
[7]   EP Resolution on eEurope 2002: Accessibility of Public Web Sites and their Content (2002 (0325))
[8]   «eEurope 2002 : Accessibility of public websites and their content », COM(2001) 529 final,
         http://europa.eu.int/eur-lex/en/com/cnc/2001/com2001_0529en01.pdf
[9]   Council Resolution on the eEurope Action Plan 2002 : Accessibility of public websites and their
         content, OJ C 86, 10.4.2002.
[10]   Ministerial Declaration on eInclusion, 11 April 2003 http://www.eu2003.gr/en/articles/2003/4/11/2502/
[11]   Council resolution 14892/02.
[12]   EP Resolution on eEurope 2002: Accessibility of Public Web Sites and their Content (2002 (0325))

disabled and elderly people in particular". Furthermore in another Resolution, the use of sign language in Telecommunications in Europe[13] is mentioned.

In a general sense, Article 13 of the Treaty establishing the EC provides for action to combat discrimination, *inter alia* because of disability.

Based on this article, Council Directive 2000/78/EC of 27 November 2000[14], has the explicit purpose (Article 1) "*...to lay down a general framework for combating discrimination on the grounds of religion or belief, disability, age or sexual orientation as regards employment and occupation*". In particular the Directive states that "*Appropriate measures should be provided, i.e. effective and practical measures to adapt the workplace to the disability, for example adapting premises **and equipment**…*"

Furthermore, a number of European Directives related to the Information Society have clauses referring to the inclusion of persons with disabilities and older people. These include the Electronic Communications Directives, in particular the Framework[15] and the Universal Service Directives[16], the Directive on Radio and Telecommunication Terminals (RTTE)[17] the Public Procurement Directive[18] and the Employment Equality Directive[19].

The Commission Action Plan[20] published in December 2003 on the follow-up of the European Year of People with Disabilities included as one of its four areas the access to, and use of, new technologies and describes actions undertaken to improved accessibility to the information society using instrument available at EU level.

Activities at EU level have an added value as several Member States are developing legislation, regulations, standards or guidelines to tackle these issues at national level. These actions are leading to similar but yet different eAccessibility requirements for products and services, thus creating a high risk for the European industry, i.e. being forced to operate in a fragmented market with the consequent loss of competitiveness and effectiveness.

The risk for consumers is even greater, particularly for people with disabilities and older persons: a fragmented market means costlier, more unfamiliar and incompatible products, more difficulty in accessing/moving information across borders, etc.

EU actions also take into account international experiences, like those in the USA and Canada, with which a dialogue has been initiated by the European Commission, particularly regarding the use of legislative provisions in the context of public procurement as a powerful leverage factor.

Consequently, basic conditions are set for initiatives to be taken at EU level − this was the view expressed by an overwhelming majority of the stakeholders during the public consultation process (84%).

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[13]   EP Resolution on Sign Language - Resolution B4/ 0985/98.
[14]   Available at
         http://europa.eu.int/comm/employment_social/fundamental_rights/pdf/legisln/2000_78_en.pdf
[15]   Directive 2002/21/EC.
[16]   Directive 2002/22/EC.
[17]   Directive 1999/5/EC.
[18]   Directives 2004/17/EC and 2004/18/EC.
[19]   Directive 2000/78/EC.
[20]   Equal opportunities for people with disabilities; A European Action Plan, COM(2003) 650 final.

5. ONGOING ACTIVITIES AT EU LEVEL

Several measures are already under way at EU level and will be strengthened and continued.

Accessibility requirements and standards

Standards are a strategic tool for industry and for the public sector as well as a key enabler for new market opportunities. Although the production and implementation of standards are voluntary, they are an important tool to support the implementation of policy actions. European Standards on eAccessibility would contribute to the proper functioning of the single European market and consequently promote the development of new markets, competitiveness and employment Thus, the Commission will continue to provide financial support to specific activities proposed by the European Standardisation Organisations (ESO) in the framework of the European Standardisation Action Plan or issuing mandates to the ESO[21].

Accessibility requirements specified by standards must meet the needs of industry, designers and providers of products and services to avoid the hampering of creativity or innovation. At the same time they must meet user needs, and the involvement of users in the development of standards is therefore essential: a balance should be found between industrial and public interest. Standards should allow easy enforcement and reference in legislation, regulation and other instruments that promote accessibility. Free availability of standards or availability at a reduced cost would make their uptake easier, especially by SMEs with limited resources to purchase them and for users to access them.

Whilst promoting interoperability, care should be taken that patented technologies without reasonable and non-discriminatory (RAND) licensing are not promoted as standard solutions.

Design for All (DFA)

The DFA methodology denotes the design of products and services to be accessible to as broad a range of users as possible[22]. DFA is now well established, although not yet widely practiced. It is therefore essential to continue raising awareness and promotion of DFA in Europe. To this end, the Commission has set up a network of centres of excellence known as EDEAN[23], which has over one hundred members.

DFA not only allows a **more thorough consideration of accessibility requirements when designing a product or service**, but also fosters important **economies by avoiding costly redesign or technical fixes** after their deployment.

The basic structure for a European DFA curriculum for engineers and designers has been developed and several pilot courses have been provided in Member States. Strengthening its use in post secondary and professional education is a way of ensuring a future accessible IS.[24]

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[21]   This process is governed by Directive 98/34:
      http://europa.eu.int/eur-lex/pri/en/oj/dat/1998/l_204/l_20419980721en00370048.pdf
[22]   There are three main strategies for DFA: 1) design for most users without modifications, 2) design for easy adaptation to different users (e.g. using adjustable interfaces), 3) design with a view to connect seamlessly to assistive devices.
[23]   Website EDEAN (European Design for All e-Accessibility Network), http://www.e-accessibility.org/
[24]   DFA curriculum report of IDCnet project.

The presence of an accessibility officer competent in DFA in relevant organisations, could be a way to professionalize eAccessibility.

Web accessibility

A 2001 Commission Communication [25] on accessibility to public websites was followed by Council and Parliament resolutions in 2002. As a result, Member States have committed themselves to make their public websites accessible according to international guidelines[26].

Through the eAccessibility Expert Group, the Commission with the Member States is monitoring developments, including new evaluation methods[27] and procedures, benchmarking, data collection and identification of best practices. **Web accessibility is an enabler** of accessible online services of public interest. To facilitate this process, it is important to encourage the development of authoring tools that encompass accessibility[28].

A need for certification schemes of accessibility has arisen from the fact that several Member States have binding legislation that mandates accessibility and the need to assess compliance. A European Committee for Normalization (CEN) Workshop[29] is currently exploring adequate solutions.

Benchmarking and monitoring

Several Member States are introducing benchmarking for accessibility and monitoring in their national legislation. At EU level, monitoring of web accessibility has been requested by Council and the European Parliament. The Parliament also requested monitoring subtitles and audio description for Digital TV.

To be able to further develop adequate European eAccessibility policies **it is essential to have European data comparable across Member States**. The Commission will build upon the ongoing European monitoring activities, taking account of the revised Lisbon approach.

The Commission maintains a dialogue with statistical bodies in order to develop and improve relevant indicators, in particular to mainstream accessibility questions in existing indicators.

Research

Research and technological development (RTD) is a fundamental element in the push towards an accessible IS. Almost 200 European RTD projects since 1991, representing approximately € 200 Million in EC co-financing[30] have already contributed to improving accessibility with increased knowledge of accessibility problems and required solutions.

Specific results demonstrated possible solutions such as accessible remote home services for older people (including alarms and emergency services). Solutions have been developed to

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25   COM(2001) 529 final.
26   W3C/WAI/WCAG1.0 Web Content Accessibility Guidelines 1.0. Version 2 is under preparation and will address the evolution that has taken place in web technologies and facilitate testing compliance.
27   Web Accessibility Benchmarking (WAB) cluster.
28   W3C/WAI/ATAG Authorising Tools Accessibility Guidelines (ATAG).
29   http://www.cenorm.be/cenorm/businessdomains/businessdomains/isss/activity/ws-wac.asp
30   For examples of projects, see http://www.cordis.lu/ist/so/einclusion/home.html and http://www.cordis.lu/ist/directorate_f/einclusion/previous-research.htm

improve access to digital information by blind and partially sighted persons (text, graphics, 3D images, coded music, television programmes). Systems for motor impaired persons to facilitate mobility, manipulation and control have been demonstrated, as have services to improve communication possibilities of hearing impaired persons including sign language and lip movement generation. Other examples included computer environments to facilitate the integrated education of children with disabilities or employment of adults with disabilities and contributions to policy-making (eEurope i.e. Web Accessibility, Design for all).

Many of the results of Community projects have been further successfully elaborated in products in the market, or the knowledge developed has contributed to the improvement of the accessibility of ICT products and services.

As technologies continue to rapidly evolve, offering new technical solutions, it is essential to invest in research to reap the significant potential that they have for people with disabilities and older persons. The current proposal for the 7th Framework Programme integrates the **need to continue and, indeed, to expand RTD in eAccessibility** so as to further develop European assistive technology industry[31] and to make accessibility an everyday issue for mainstream industry.

6. INCREASING THE E-ACCESSIBILITY OF ICT PRODUCTS AND SERVICES IN EUROPE – THREE NEW APPROACHES

In addition to promoting the ongoing measures just listed, the Commission will foster the use of three approaches not yet widely used in Europe: (i) accessibility requirements in public procurement, (ii) accessibility certification, and (iii) better use of existing legislation.

Two years after the publication of this Communication, the Commission will evaluate the outcome of these actions. Following the principle of Better Regulation[32] the Commission will hold an exchange of views with the Member States and, subject to full impact assessment, may consider the possibility of taking additional measures, including legislation if deemed necessary.

1. *Public procurement*

The total public procurement in Europe is about 16% of the gross domestic product. Public authorities at all levels can require accessibility features in the goods and services they purchase. In fact, the European Public Procurement Directives specifically mention the possibility to include DFA and accessibility requirements in conditions for tender (technical specifications).

This implies a clear commitment to **an inclusion policy that makes the products and services available to more users, citizens and employees**. It encourages industrial companies to include accessibility as a built-in feature of their products and creates a larger market for accessible ICT. Such effects have been seen in the USA[33] where legislation mandates accessibility requirements to be included in federal procurement.

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[31]   Access to Assistive Technology in the EU, a DG EMPL report, CE-V/5-03-003-EN-C
[32]   European Commission 'White Paper on Governance' COM(2001) 428 final.
[33]   Section 508 of the Rehabilitation Act as amended by the Workforce Investment Act of 1998.

In the online consultation over 90% of respondents favoured the principle of public agencies requiring all ICT products and services they buy to be accessible. Some Member States already include accessibility requirements in their public procurement. Shared accessibility requirements at EU level have the potential to reduce market fragmentation and to foster interoperability.

There is a strong need for consistency of accessibility requirements in public procurement in Europe. To this effect, the Commission is preparing a mandate to the European standardisation organisations to develop European accessibility requirements for public procurement of products and services in the ICT domain. The mandate is currently submitted to the Member States for consultation. It is foreseen to be issued to the European standardisation organisations by the end of 2005.

The Commission will encourage the debate on this subject with the Member States in the framework of the eAccessibility Expert Group[34]. It will continue to collect experiences from Europe and to encourage an international dialogue in particular with the US through the Transatlantic Economic Partnership (TEP) on harmonisation of eAccessibility requirements for public procurement.

2. *Certification*

It is not always obvious when buying ICT products what requirements they fulfil. This is particularly important when buying accessible ICT. Some standards exist or are under development defining how products and services can be made accessible. However, at present there is no reliable means to assess the conformity of products with those accessibility standards. Adequate certification schemes for accessibility of products, organisational processes and professionals (based on the European Key Mark[35] and on European standards) would provide guidance to customers and clients who want accessible products and services and might give manufacturers and service providers due recognition for their efforts. They would also facilitate the monitoring of compliance with regulations demanding accessibility.

In its January 2003 Resolution on eAccessibility , the Council called for an "eAccessibility mark" for goods and services. The 2002 Ministerial Declaration on eInclusion reflected that *"a European web accessibility label that certifies compliance with W3C WAI[36] guidelines could be considered in order to avoid market fragmentation"*.

The Commission will study together with the key stakeholders **possibilities for the development, introduction and implementation of certification schemes for accessible products and services**, including the definition of criteria testing, and evaluation methods. The possibility of self-declaration or third-party certification will also be investigated and the different options will be compared for their effectiveness[37]. The Commission will launch a study on this matter in the last quarter of 2005.[38]

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[34] The eAccessibility Experts Group coordinates experts from the Member States who support the implementation of the eEurope Action Plan.

[35] http://www.cenorm.be/conf_assess/keymark/keymarktext.htm

[36] World Wide Web Consortium (W3C) Web Accessibility Initiative (WAI).

[37] The online consultation showed a strong support (over 72%) for the certification and labelling of eAccessible ICT products and services, with significant differences among target groups only 61.4% agreement among *Manufacturers, providers or sellers of eAccessibility products & services)*. Additionally, among those supporting product certification and labelling, the groups *"Private*

3. *Better use of existing Legislation*

Several Directives have provisions that can be used to enforce eAccessibility (such as the Equal Treatment in Employment Directive[39], the Directive on Radio and Telecommunication Terminals and the Public Procurement Directives). It is important to cooperate with the Member States, to develop a practical way of using these Directives to address eAccessibility.

In particular, implementing the Inclusive Communications Group (INCOM)[40] suggestions would resolve some existing European challenges, e.g. to ensure access by users with disabilities to emergency services using the single European number 112, to have harmonised frequencies in Europe for assistive wireless solutions, to ensure real time text and sign communication across Member States, and to facilitate the purchasing of accessible goods by public authorities. Possible difficulties in putting existing legislation into practice should be addressed.

The Commission, in its audiovisual policy dialogue, will encourage common or interoperable solutions in the field, for example, of improved access to digital TV programmes. Such common solutions will allow the exploitation of economies of scale.

The "eAccessibility potential" of existing European legislation needs to be fully exploited. The Commission will launch a study[41] in 2005 to identify best practices and establish a dialogue with Member States and key stakeholders through the relevant groups in charge of the implementation of the Directives.

7. CONCLUSIONS AND FOLLOW-UP

This Communication and the results of the online consultation process show and endorse the European Commission's determination to address eAccessibility issues and find solutions that (i) convey to Member States the urgent need to work together towards a consistent approach to e-accessibility; (ii) encourage industry to develop accessible solutions for ICT products and services; (iii) demonstrate to users with disabilities the active commitment to improve accessibility in the Information Society.

During the next two years (2005-2007), the Commission will continue to raise awareness, promote the use of the proposed instruments, gather evidence and continue stakeholder consultation in order to take informed decisions in the eAccessibility domain.

To this effect, the Commission plans a study to begin in the last quarter of 2005 on *"Measuring progress of eAccessibility in Europe"* in order to identify and evaluate policy options aiming at improving eAccessibility in Europe. The initial results of the study will be available in early 2007.

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individuals with a disability" and "*Public Agencies*" clearly favouring mandatory schemes, while "*Manufacturers, providers or sellers of eAccessibility products & services*" favour voluntary procedures, with the remaining groups standing somewhere in between.

[38] See chapter Follow-up and conclusions.

[39] Council Directive 2000/78/EC of 27 November 2000 prohibits discrimination of persons with disabilities *inter alia* at work and encompasses reasonable accommodation including ICT.

[40] Formed in 2003 and made up of representatives of Member States, Telecoms operators, user organisations and standardisation bodies.

[41] See Follow–up and conclusions.

A follow-up that focuses on the eAccessibility situation will be made two years after the publication of this Communication. It will include an evaluation of the outcome of the approaches proposed here, following the principle of Better Regulation[42] and, subject to full impact assessment, the Commission may consider additional measures, including new legislation if deemed necessary. This eAccessibility work will in turn contribute to the already announced 2008 European Initiative on eInclusion[43].

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[42]   European Commission 'White Paper on Governance' COM(2001) 428 final.

[43]   COM(2005) 229 "i2010 – A European Information Society for growth and employment".