

eEurope Advisory Group

e-Inclusion: New challenges and policy recommendations

**Report
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Disclaimer: This report was prepared by the Expert Section of the eEurope Advisory Group. The views expressed herein are those of the Expert Section and do not represent any official view of the European Commission.

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Table of contents

Foreword	4
Executive Summary	5
1. Understanding e-Inclusion	7
1.1 Defining the issue.....	7
1.2 e-Inclusion versus “eAdoption”.....	8
1.3 e-Inclusion as a process	8
2. The Current Situation in Europe	9
2.1 The digital divides remain significant.....	9
2.2 Barriers and gaps	13
2.3 Socio-demographic factors of e-Inclusion	13
2.4 Insufficient knowledge on the socio-economic factors of e-Inclusion	14
3. The Case for Policy Intervention	16
3.1 The e-Inclusion opportunity	16
3.2 Overview of policy initiatives with impact on e-Inclusion.....	17
3.3 Successes and shortcomings of current e-Inclusion policy measures	19
4. Policy Recommendations	20
4.1 Improving the understanding and measurement of e-Inclusion	20
4.2 “e-Inclusion Inside”: e-enabling social inclusion policies	21
4.3 Promoting bottom-up and local e-Inclusion policies.....	22
4.4 Making ICT policy measures more targeted towards e-Inclusion	25
4.5 Mainstreaming accessibility policies	26
4.6 Re-visiting eSkills in the framework of lifelong learning	27
4.7 Turning public (e-) services into tools for e-Inclusion	29
Appendix I – e-Inclusion Information in National Action Plans for Social Inclusion	31
Appendix II – Additional Statistics	37
Appendix III– References	43

Foreword



BY VIVIANE REDING, EUROPEAN COMMISSIONER FOR INFORMATION SOCIETY & MEDIA

e-Inclusion is about using Information and communication technologies (ICT) to empower all Europeans. This means more than just increasing access and making services widely available and easier to use, although these steps are important. It means also assisting people to use ICT to make their lives richer and more fun and by helping them to participate more fully in their lives as members of their families, neighbourhoods, regions, countries and as Europeans.

e-Inclusion is not something that will happen all by itself. Studies show that although ICT use is becoming more and more widespread, the gap between the information haves and have-nots in Europe is not getting narrower. This is because ICT use is a moving target. Each generation of new technology brings advances that risk leaving out those who do not have enough money, skills or motivation. These new divisions create costs in terms of social engagement and economic efficiency. For instance, ICT will lead to much better and more efficient public services, but only once nearly all citizens want them and are able to take them up.

For these reasons - participation, equality and efficiency - I have placed e-inclusion at the centre of my work as European Commissioner for Information Society and Media. It is one of three pillars of my new i2010 strategic framework for the Information Society in Europe. The Commission has already adopted a Communication on eAccessibility and it will shortly bring forward proposals on broadband access in remote and rural regions.

In June 2006, a ministerial conference on "ICT for inclusion" will debate practical measures for advancing e-inclusion, based on the results of a Member State working party that is currently being set up. In parallel, we will continue our efforts to develop e-government, e-learning and e-health, in particular in response to the ageing of European society.

All of these efforts are aimed at 2008, when I will launch a "European Initiative on e-Inclusion" to give the issue the visibility it needs and to make sure we implement practical solutions.

The current report contributes to this emerging e-inclusion agenda. It is a far ranging and provocative report from a group of independent experts. Already during its preparation, some of its ideas were taken into account in policy development. And it will undoubtedly continue to be valuable in feeding the debate that will carry us forward towards the 2008 European initiative.

That is why this report is welcome. I hope it will open new debates and help us to bring all our creative energies to bear on what could be one of the enormous advantages that we have in Europe - a commitment to a society that is efficient, fair and inclusive.

A handwritten signature in blue ink, appearing to be 'V. Reding', written over a horizontal line.

Executive Summary

In January 2004, the European Commission asked the newly constituted second section of the eEurope Advisory Group, composed of independent experts, to create two working groups: one on the geographical digital divide, looking at broadband territorial coverage¹, and one on e-Inclusion (hereafter 'the Working Group'), which prepared this report.

e-Inclusion is a fashionable topic on which literature and policy initiatives abound. The purpose of our Working Group was not to provide an exhaustive review of that material, but rather to draw upon this knowledge, and the experience of experts within the eEurope Advisory Group, to assess the current situation and current policies in order to suggest new directions to policymakers.

The Working Group quickly became convinced that the focus on Information and Communication Technologies (ICT) access characterised by most of current policy action on the information society fails to capture the real challenge: e-Inclusion is essentially about social inclusion in a knowledge society. Access to ICT tools, networks and services, and even digital literacy, are merely preconditions for e-Inclusion. Beyond that, the real issue is whether ICT makes a difference to an individual's ability to take an active part in the different spheres of society, i.e. work, social relationships, culture, political participation, etc. The issue is one of empowerment rather than access. Empowerment is not an automatic consequence of access. In some cases, the development of online services and communications can produce or deepen isolation and exclusion; in others, communities are empowered by ICT even when each individual does not make personal use of ICT tools and services.

e-Inclusion and social inclusion are highly correlated. This helps explain the apparently paradoxical results of surveys measuring *relative* differences in ICT penetration and usage between socio-economic groups, which point out that despite the dramatic growth of ICT penetration in all groups of society, the "digital divide" remains as large today as it was in the late 1990s. e-Inclusion is a moving target: On the one hand, several underprivileged communities tend to develop creative ways of using ICTs, either individually or collectively; on the other hand, technological innovation constantly creates new gaps, and growing use generates new professional and social requirements that are difficult to meet by large parts of the population.

By focusing almost exclusively on quantitative targets of ICT penetration, an opportunity has thus been missed for these technologies to contribute to a more inclusive society.

For e-Inclusion is essential for rising to the challenges of Europe. A more e-Inclusive society allows for a more competitive economy where citizens are better equipped to find better jobs, where companies can find the qualified workers they need to compete in an information economy. In a more e-Inclusive society, a greater number of citizens are empowered by new tools to work, learn, create and express themselves in new ways, thereby making society as a whole more dynamic and cohesive. In a more e-Inclusive society, the pursuit of productivity in the private and public sectors is more easily compatible with sustainable development, with high levels of employment and with easy access to public services for all.

¹ See this group's report at:

http://europa.eu.int/information_society/eeurope/2005/all_about/advisory_group/documents/index_en.htm

The fact that in the early days of the information society, public policy as well as corporate strategies focused more on raising awareness, demand and use by the average individual is perfectly understandable. Even today, strong and innovative industries, as well as a competitive telecom and technology landscape, remain necessary preconditions for any ambitious e-Inclusion policy. Indeed, some European countries are still working to create this competitive landscape and should continue to do so. However, in most of Europe, the information society has now reached a level of development that warrants new ambitions and new directions for policy action on e-Inclusion.

The Working Group believes that by 2010, ICT should have provided a measurable contribution to equalising and promoting of participation in society at all levels, as well as to improving the effectiveness and efficiency of all social policies. The largest possible number of individuals and communities should be able to benefit from ICT tools and services, either directly or indirectly, and to fully participate in a knowledge-based society and economy, regardless of their revenues, culture, place of residence, disability, age or gender.

The set of recommendations in this report aims at that objective, suggesting significant modifications to current policy actions affecting e-Inclusion:

- Build up the knowledge base on the socio-economic factors of e-Inclusion, as well as on the understanding of ICT use in daily life; base benchmarking and policy evaluation indicators upon this knowledge.
- Use ICT *within* existing social policies in order to make them more efficient and effective, to empower social workers and local communities; associate more closely the beneficiaries to the discussion and evaluation of those policies.
- Focus e-Inclusion policy measures more on local and community levels, where the diversity of real needs can best be expressed, assessed and addressed. The issue here is to devise public policies able to support (in an efficient and accountable way) small and local projects often carried out by NGOs or even informal groups.
- Consider including access to indispensable networks and e-services within the scope of "Universal Service" for electronic communications in the EU.
- Mainstream accessibility provisions, in particular through a "European Accessibility Act" covering the design of, and access to, public e-services, as well as public procurement of ICT.
- Further exploit the possibilities of ICT in relation to the development of key skills, integrating ICT-based activities across curricula, using ICT in order to facilitate access to, and management of, individual lifelong learning strategies, with a particular focus on low-qualified professions, SMEs, and disadvantaged communities.
- Accompany the development of public e-services with specific provisions designed to provide all kinds of mediation services (human or electronic, local or distant), either directly or through other public, non-governmental or even private entities.

Considering the current level of maturity of Europe's information society, e-Inclusion should become a higher policy priority. This implies, in particular, that policy actions on ICT should be evaluated not only according to their economic impact, but also to their social impact. e-Inclusion is not a mechanical result of the growth of the information society. Depending on today's decisions, our information society can either become more inclusive or more polarised. We believe that it is possible to reconcile economic, social and environmental goals. Such is the vision that we have been trying to convey in this report.

1. Understanding e-Inclusion

1.1 Defining the issue

Information and communication technologies (ICT) are becoming key enablers of modern life. They are used at work, in day-to-day relationships, in relating with public services as well as in culture, entertainment and leisure, and in community and political participation. Most public policies can no longer be implemented without them. ICT are the engine powering modern health policies, security policies, environment policies, etc.

In this context, e-Inclusion is basically social inclusion in a knowledge society. Therefore, beyond access to ICT tools and services, beyond even digital literacy, a definition of e-Inclusion should focus on people's empowerment and participation in the knowledge society and economy: Skills and competences (both ICT-related and regarding new ways of working using ICT), awareness and willingness, social capital and the means to grow it are also key factors of e-Inclusion.

The definition should also refer to the way ICT can be exploited to make *all* policy interventions affecting social inclusion more relevant and efficient.

Accordingly, the Working Group proposes the following definitions:

1. e-Inclusion refers to the effective participation of individuals and communities in all dimensions of the knowledge-based society and economy through their access to ICT, made possible by the removal of access and accessibility barriers, and effectively enabled by the willingness and ability to reap social benefits from such access.

2. Further, e-Inclusion refers to the degree to which ICT contribute to equalising and promoting participation in society at all levels (i.e. social relationships, work, culture, political participation, etc.).

3. The digital divide measures the gap between those who are empowered to substantially participate in an information and knowledge-based society and economy, and those who are not.

It should be noted that in this definition, the digital divide is not just the other side of the e-Inclusion coin, i.e. it is not synonymous with eExclusion. Some individuals may not wish to use ICT despite having the required means, abilities and level of awareness. The divide refers to *involuntary* exclusion, whereas e-Inclusion adds an element of willingness. Beyond access and accessibility which are often clear-cut barriers to participation, the divide is more often measured in "degrees" and may implicitly refer to threshold levels, beyond which differences change in nature and become inequalities.

The scope of **e-Inclusion analysis must consider both individuals and communities** (local, cultural/ethnic, affinity-based, professional...), keeping in mind that the same individual may belong to several such communities. Community membership is actually a major determinant of inclusion for individuals, through processes of social capital building. ICT can contribute to strengthen communities, thus improving the level of inclusion and participation of their members in society at large. They can also encourage greater participation of individuals in various communities. In return, communities can contribute to increase ICT usage amongst their members.

1.2 e-Inclusion versus "eAdoption"

It is of particular importance to distinguish between e-Inclusion and "eAdoption", i.e. the uptake of ICT tools and services by the population at large. The former is primarily concerned with the social impact of relative differences in ICT use between various socio-economic groups and individuals; the latter focuses instead on absolute and average figures of ICT uptake and their economic impact.

ICT adoption has a positive impact on e-Inclusion as it draws more people and services online, with a series of positive economic externalities. However, this is not automatically positive for inclusion, considering that the quantitative growth of the online population may leave out large numbers of groups and individuals. Higher rates of ICT adoption create new social and professional requirements, which may further exclude those who are unable to meet them. As a result, some gaps may deepen, in terms of employability and quality of life in general, between those who make full use of ICT tools and services, and those who don't.

Indeed, almost by definition, measures designed to stimulate ICT adoption, originating from both private and public sectors, are mostly targeted towards average consumers rather than underprivileged people. As a result, statistics provided later in this report show that, while the overall penetration of ICT has grown dramatically between 1997 and 2002, the digital divide did not narrow.

This document will therefore focus less on creating demand in general than on responding to existing, expressed and/or latent, needs and demands from those who are currently left out of society, or at risk of being so as the evolution of the information society continues. This document pays particular attention to:

- (1) ICT-related measures specifically targeted towards underprivileged or at-risk groups;
- (2) "Self-help" measures aiming at empowering individuals and communities, providing them with a new means of participating in society as well as reaching their individual and collective goals.

1.3 e-Inclusion as a process

The e-Inclusion@EU project² points out that *"Social inclusion is a social process, related to a goal. Social inclusion is not only the symmetric counterpart of social exclusion, aiming at including those who are at risk of exclusion. The process of social inclusion relies on three dimensions:*

- Overcoming the disadvantages resulting from social inequalities, in order to avoid exclusion processes;
- Harnessing the opportunities offered by the targeted societal goals, in order to reduce existing inequalities and improve the quality of life in society;
- Fostering participation and empowerment in upcoming societal processes, in order to improve individual and collective expression, civic commitment and democratic participation."

As indicated above, e-Inclusion is about the use that people make of ICT in order to achieve their goals and enhance their position (regarding job, personal relationships or

² Report D1.1 Analytic Framework - e-Inclusion and eAccessibility priority issues, October 2004 - <http://www.e-Inclusion-eu.org/Document.asp?MenuID=47>

other aspects), within the social context in which they live. In this regard, it is possible to envisage as many e-Inclusion profiles as individuals using (or not using) ICT, just as there exist a range of social inclusion situations.

The three dimensions of social inclusion process may therefore be translated as follows in the framework of e-Inclusion:

- **Preventing digital exclusion**, i.e. preventing disadvantaged people and groups from being left behind in the development of the information society. Here the focus is on access and basic ICT skills (digital literacy).
- **Exploiting new digital opportunities**, i.e. reducing existing disadvantages, providing new opportunities in terms of employability, quality of life, access to knowledge, etc.
- **Fostering participation and empowerment**, i.e. facilitating the use of ICT in order to allow individuals and groups to express themselves, to deepen and widen their social capital, to participate in democratic processes on a local as well as a wider scale.

A recent Commission document with the support of ESDIS (High Level Group on the Employment and Social Dimension of the Information Society)³ points out that *"the focus on access and skills is in fact not enough to promote socio-economic inclusion; adequate policy measures should take into account how ICT is experienced in the context of people's everyday life. Along this line, focusing on the impact of ICT on social capital, individual well-being and quality of life can help making the connection between technology adoption and general social participation and cohesion, approaching society at its 'centre' rather than (or in addition to) focusing on its 'margins'."*

2. The Current Situation in Europe

2.1 The digital divides remain significant

From an overview of available statistics it appears that, despite a significant increase of access to ICT equipment and services over the last years, approximately between one fourth and one third of the EU population still remain outside of this development:

Percentage of Europeans with NO access to ICT equipment and services (2003)

	Mobile phone	Computer	Internet
EU 15	30%	48%	56%
10 new member states	41%	59%	69%

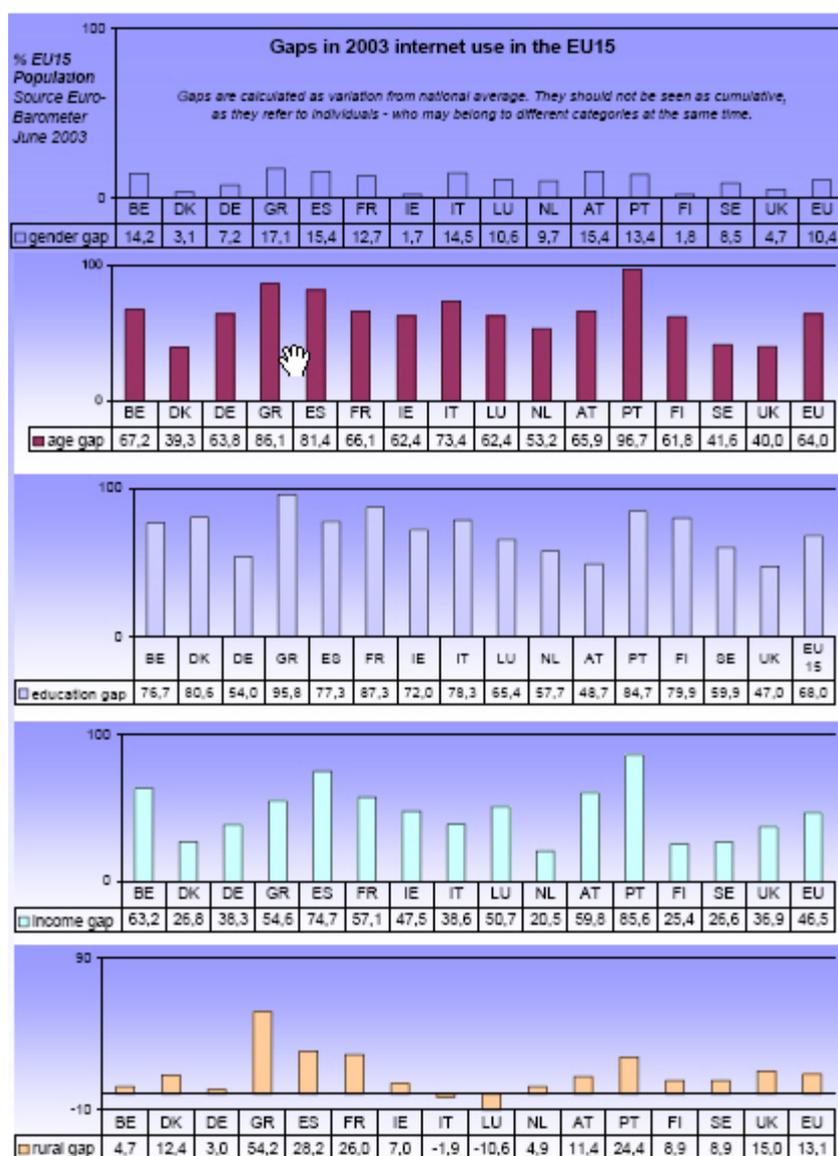
(source: Eurobarometer, June 2003⁴)

Beyond absolute figures of ICT penetration, it would appear that relative gaps regarding socio-demographic groups and location remain wide, not to mention differences in the intensity and quality of ICT use, for which there is little comprehensive data available. Indeed, while penetration of ICT has reached all socio-demographic groups and regions, large disparities persist.

³ "e-Inclusion revisited: The Local Dimension of the Information Society" (2005), ESDIS, Commission Staff Working Document SEC(2005)206 - http://europa.eu.int/comm/employment_social/knowledge_society/library_en.htm

⁴ For more detailed data, see the "Statistical Annex" to ESDIS, op.cit. - http://europa.eu.int/comm/employment_social/knowledge_society/eincl_local_stats_en.pdf

Gaps in Internet use, 2003 – EU 15⁵



(source: ESDIS, op. cit., 2004 - 2003 data)

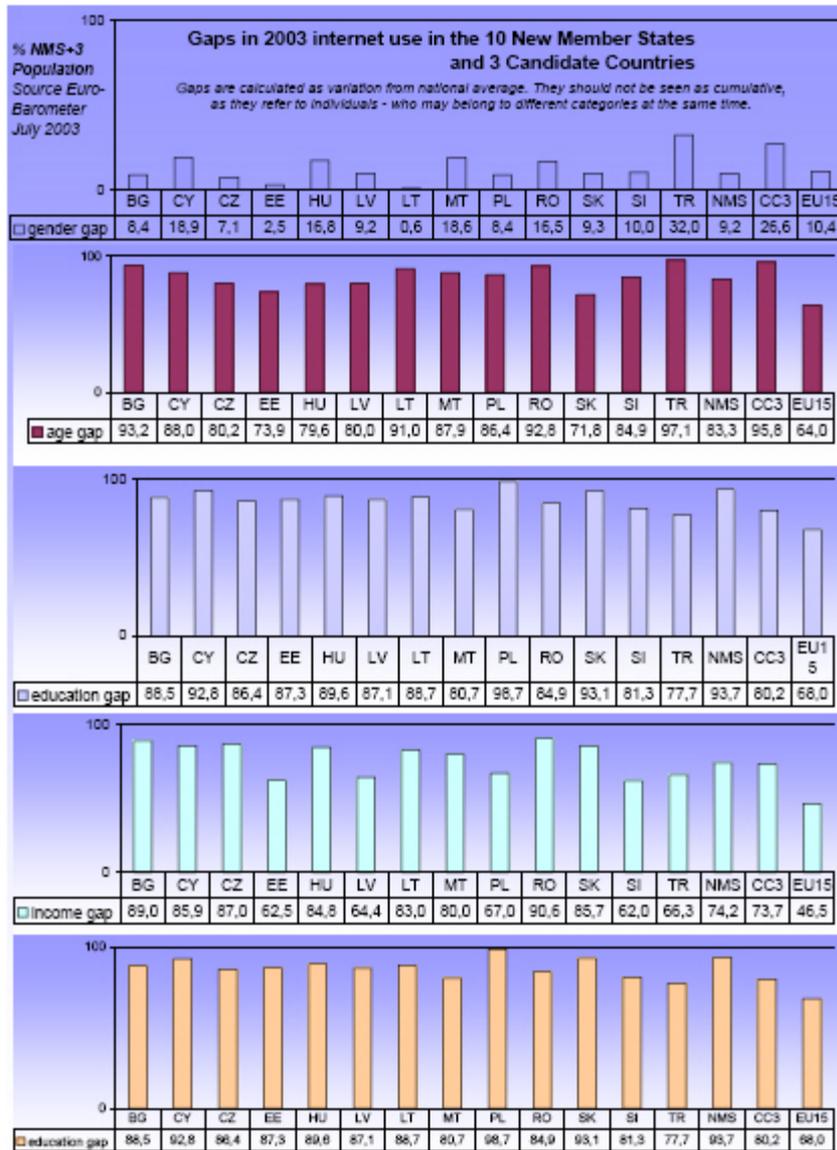
Statistics from the New Member States and Candidate Countries show that gaps are roughly distributed along the same configuration as observed in the EU 15 area. Nevertheless, they are wider, particularly with respect to income-related and geographical factors⁶. This means that the Information Society in the New Member States and Candidate Countries is more polarised than in the EU 15 zone.⁷ Indeed, available data indicates that, in general, those countries that reach a certain level of ICT diffusion later than others, bear more inequality in ICT adoption.

⁵ For additional and/ or more up-to-date figures see appendix.

⁶ It should be noted that, although disability is an important factor for e-exclusion, there are no reference data on ICT penetration and usage available related to disability. This is in part due to the complexity of disability measurements.

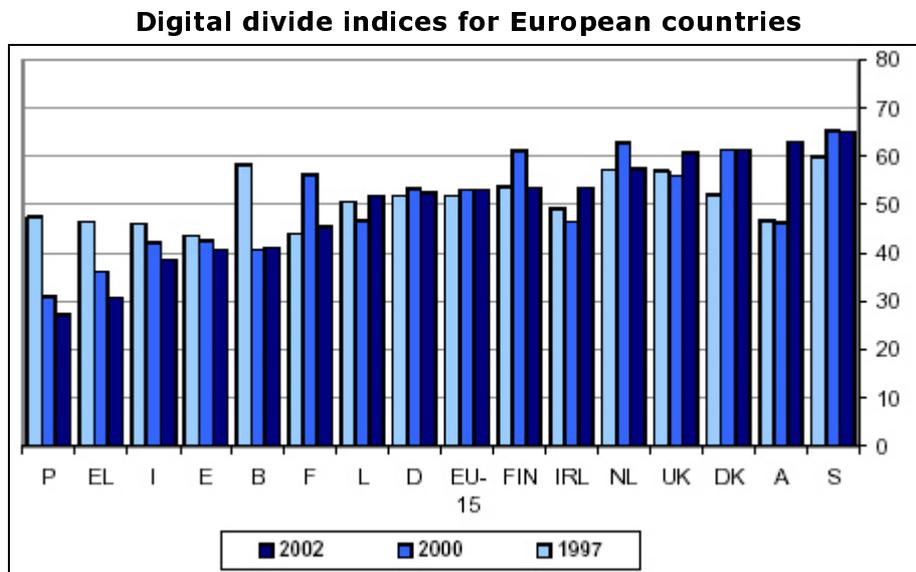
⁷ See "The impact of ICT on social cohesion: looking beyond the digital divide", Empirica for IPTS, 2004 - <http://www.jrc.es/home/pages/detail.cfm?prs=1229>

Gaps in Internet use, 2003 – New Member States and Candidate Countries



source: ESDIS, op. cit., 2004 data)

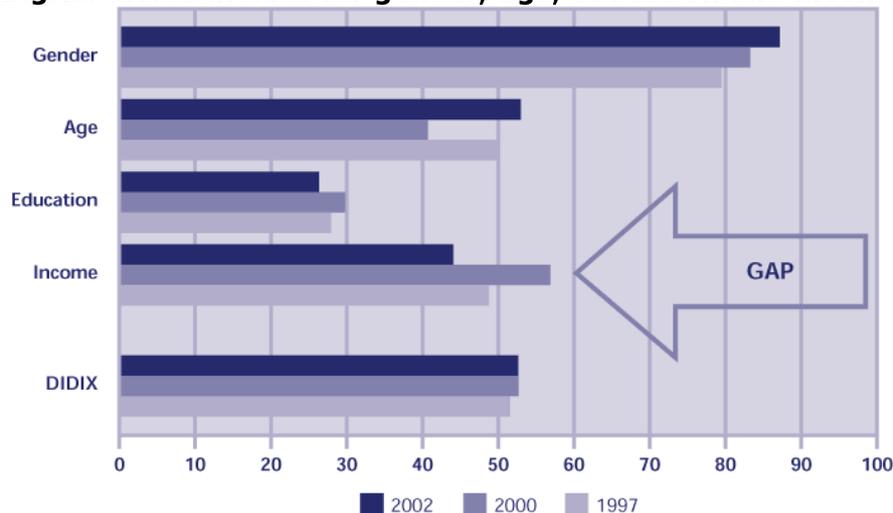
Furthermore, there is evidence that the digital divide (understood in terms of differences on internet use) remains rather constant over time, and in some cases grows, as shown by a composite indicator called the "Digital Divide Index" ("DIDIX"), developed in the SIBIS project⁸.



(source: SIBIS. NB. To read graph: the higher the bar, the lower the digital divide)

What this means is that, despite strong growth in penetration and usage of ICT throughout Europe, **relative gaps between** some population groups remain constant at best. **ICT equipment and use has made significant progress in Europe, but e-Inclusion has not**, or at least, not for all types of gaps.

Digital divide indices for gender, age, education and income



(source: SIBIS. NB. To read graph: the longer the bar, the lower the digital divide)

⁸ <http://www.empirica.biz/sibis/> – See report No. 6 "Benchmarking Social Inclusion in the IS in Europe and the US", June 2003

The Digital Divide Index (DIDIX), a compound index comprised of four indices, measures diffusion of computer and Internet access and use amongst four identified 'at risk' groups in relation to the population average. It provides a valuable insight regarding the picture at the EU level over time. The lower the Index value, the more severe is the divide, with parity resulting in a value of 100.

However, the conclusion that the digital divide remains constant must be qualified. There are differences between the types of gaps. Firstly, regarding their evolution over time; some gaps may grow or remain constant while others decrease (see next section). Secondly, there are significant differences from one country to another.

This is in line with the perception emerging from previous pages of this report that e-Inclusion is a complex issue, where excessive generalisation can lead to inaccurate conclusions. A finer analysis is needed that takes into account the relevant factors at play, as well as contextual differences.

2.2 Barriers and gaps

ICT access and accessibility function as clear-cut barriers: one either has access or one does not. Other relevant factors for ICT use must instead be analysed in terms of degrees, e.g. skills, experience, social capital and so forth. Moreover, gaps in ICT appropriation differ in nature.

- Some gaps reflect **differences** between individuals and groups, relating to preferences, cultural background, job profiles... They should be recognised as such and, in some cases, public policy may want to respect and protect these differences, rather than fight them. It is indeed important to ensure alternative ways of participating in the information society, respecting personal choices and preserving diversity.
- Some gaps are **transitory** and relate to classic adoption curves. In some cases, e.g. gender⁹ and age, time and market forces may be more efficient than public policy in reducing these gaps (see also next section).
- Some gaps are **structural**, either because they are closely related to pre-existing socio-economic gaps, e.g. education and income (see next section); or because they are created by the way ICT industries, early adopters, and sometimes even policymakers, shape technological innovation. This can, in an unintended way, make it difficult for certain people to cope with ICT evolution, and thus possibly entrench existing discriminations or generate new ones. Accessibility difficulties are a case in point.

Insofar as market forces alone fail to address structural gaps, a certain level of public intervention is justified. To be effective, such intervention must be targeted and, therefore, requires a good understanding of the underlying socio-economic factors that lead to any of the three above scenarios on the evolution of ICT appropriation.

2.3 Socio-demographic factors of e-Inclusion

In order to explain the gaps in Internet use, various surveys point to six kinds of socio-demographic factors: geography, income and social status, education, gender, age and disabilities. It appears that these factors do not carry the same weight and do not evolve in the same directions, or at the same speed:

- **Gender-related and geographical differences** in access and use seem to "spontaneously" reduce over time, with the exception of remote and isolated areas with no access to broadband or advanced mobile networks;
- **The age gap** also tends to narrow spontaneously over time, save for the population segment beyond 60. However, there is a risk that each new technological generation may create new divides among generations;

⁹ In the U.S., 51% of all Internet users are now women (Source: Nielsen NetRatings, 2005)

- By contrast, **socio-economic gaps** (occupation, income, and education which most surveys identify as the most divisive factor) are the most important for internet access and use, and show the least signs of reducing over time;
- Last, **disabilities** are often a major impediment for even the most basic level of access and use of ICT.

These socio-economic factors are of course interrelated. There are strong links between poor education, unemployment or low income, and even disabilities. It is very difficult to address these issues separately.

In general, it appears that **digital divides are closely related to other socio-economic divides in Europe**. As the previously mentioned ESDIS document points out, *“the development concerning low income and less educated groups may correspond to (...) a history of ever evolving delays and/or permanent exclusion. The link between digital and socio-economic inclusion appears therefore to be structural. Not only does it point to the need for effective public intervention supporting a more cohesive Knowledge Society in Europe (...); it also calls for an appropriate interplay and convergence between e-Inclusion and social inclusion / social cohesion policies.”*¹⁰

This analysis mostly concerns PC-based Internet use, and may not necessarily be applicable to any kind of ICT use. Typically, in certain EU countries, virtually everyone is using a mobile telephone. However, access devices complete each other rather than compete with each other. Many active users organise their online activities, relationships and leisure through several devices: a mobile phone, one or more PCs, handheld devices, a game console, etc. When the focus of e-Inclusion is on empowerment and participation rather than access and the consumption of services, computers and the Internet remain – at least for now – key enablers and important markers of inclusion.

2.4 Insufficient knowledge on the socio-economic factors of e-Inclusion

As indicated, public intervention to promote e-Inclusion requires a good understanding of socio-economic dynamics in relation to ICT developments and their impact.

Before and after the launch of eEurope, several EU projects and initiatives have addressed e-Inclusion, with a particular focus on disabled and elderly persons, as well as on remote and rural areas.

However, knowledge remains insufficient on several critical aspects:

1. Interactions between **socio-economic divides** and ICT, e.g. in the cases of people with low income and low education, unemployed, migrants, etc. There is a better knowledge base on the socio-economic divides in other contexts, which could be used in the context of e-Inclusion.
2. The quantitative and qualitative **understanding of ICT and e-services usage** remains extremely poor and uncoordinated. As an example, while voice, e-mail, instant messaging, SMS, etc. clearly drive usage, the attention is mostly focused on the use of e-content and e-services. Likewise, critical issues such as the building of social capital through ICT remain understudied. This bias is clearly reflected in the current indicators used in Europe for benchmarking ICT developments.
In this line, ESDIS points out that *“qualitative research on ICT appropriation in the everyday life of European citizens can add a crucial dimension to the picture delivered by the current quantitative indicators (themselves to be upgraded). A subjective,*

¹⁰ ESDIS, op.cit., p. 12

user-centered perspective provides policy makers with important clues on the real – as opposed to assumed – ICT impact on people at risk of exclusion.”¹¹

3. There is also a lack of **impact assessment** of relevant measures affecting e-Inclusion.

In addition, there is clearly a need for comprehensive and multidisciplinary research in these areas in order to build a knowledge base that will facilitate the definition and implementation of adequate policy measures.

2.5 e-Inclusion remains a moving target

The process of e-Inclusion is linked to the process of technological innovation. While one of the Working Group’s recommendations is that the focus of policy measures affecting e-Inclusion should look beyond the “entry level” of the information society, i.e. basic ICT access and skills, these issues remain nevertheless relevant. Indeed, continuous technological innovation keeps raising new challenges on access, accessibility or usability.

The impact of technological innovation on e-Inclusion can be felt strongly in three areas:

- **Broadband:** New, faster technologies tend to reach urban affluent areas first, constantly creating new gaps with the others.
- **Accessibility:** Applying the principle of "design for all" in the development of new products is essential to prevent the constant recreation of accessibility barriers when new technologies come along.
- **Skills:** Technological evolution also constantly generates new skill requirements in the workplace and elsewhere and, therefore, new information and training needs, new changes in the organisation of work, etc.

*
* *

In conclusion to this overview of the situation in the EU, it must be stressed that the digital divide clearly remains significant and that, in many cases, it does not seem to spontaneously narrow over time through the sole action of market forces. Fighting digital divide and promoting **e-Inclusion, therefore, remains an important public policy objective** for the reasons developed in the next section.

¹¹ ESDIS, op.cit., p. 19

3. The Case for Policy Intervention

3.1 The e-Inclusion opportunity

The Lisbon agenda and European policy in general, includes economic growth and performance within a broader policy framework that aims to strengthen social cohesion and improve quality of life for all Europeans.

In this context, promoting e-Inclusion contributes to one of the objectives of the Social Inclusion Strategy, "*preventing the risks of exclusion*", which includes the priority to "*exploit fully the potential of the knowledge-based society and of new information and communication technologies and ensure that no-one is excluded, taking particular account of the needs of people with disabilities*"¹².

However, because ICT are key enablers for growth and a critical infrastructure for most activities, the importance of e-Inclusion goes beyond this. Indeed, many "non-ICT" policy objectives, such as competitiveness, or healthcare and administrative reform, can no longer be fully reached in an insufficiently "e-inclusive" society.

Therefore, e-Inclusion should be seen as an asset and an opportunity, and policy measures in this area should not only be viewed as corrective action for adverse social impacts relating to the information society, but rather as tools to achieve key economic and social objectives and reforms.

e-Inclusion is important for growth and competitiveness

e-Inclusion is important for a skilled and performing labour force, thus for growth and competitiveness. The efficient use of ICT in the workplace can decisively contribute to faster innovation, higher productivity, better flexibility and tighter customer relationships, thus generating competitiveness and growth.

Likewise, more intensive and efficient use of public e-services, such as e-administration or e-health, allows public agencies to improve their productivity without lowering the quality of their service.

In addition, information society-related industries, from IT and telecommunications to media and online services, directly contribute to economic growth.

e-Inclusion is important for social cohesion and a better quality of life

According to the European e-skills forum¹³, e-Inclusion helps "*each individual realise their full potential and to participate in the democratic life of their communities at a time when all aspects of life are increasingly becoming reliant on ICTs.*" In the same line, for ESDIS, "*digital and social participation clearly appear as closely intertwined in a society which becomes progressively 'technical', where technology increasingly serves communication and networking purposes, and where the boundaries between on- and offline activities are fading away.*"¹⁴

¹² See http://europa.eu.int/comm/employment_social/soc-prot/soc-incl/com_obj_en.htm

¹³ "e-Skills for Europe: Towards 2010 and Beyond", synthesis report of the European e-Skills Forum, September 2004 - <http://europa.eu.int/comm/enterprise/ict/policy/ict-skills.htm>

¹⁴ ESDIS, op.cit., p. 19

What this means is that participation in contemporary society now requires a minimum, (and ever-increasing) level of access to, and competence to use, ICT tools and services. For a growing number of people, ICT are increasingly necessary for work, keeping contacts with friends and relatives, social networking, obtaining information, transacting with businesses and administrations, etc.

In conclusion, promoting e-Inclusion contributes to a virtuous circle of higher economic growth and social cohesion, supporting sustainable development.

3.2 Overview of policy initiatives with impact on e-Inclusion

Policy measures having an impact on e-Inclusion can be classified into three main categories:

- **Horizontal measures designed to stimulate ICT supply and demand**, e.g. promoting competition, low-cost ICT access, interoperable technologies, accessible tools and services, digital awareness and literacy, and so forth;
- **Targeted e-Inclusion measures for disadvantaged groups and areas**, e.g. promoting ICT in remote and rural areas, ICT components of social inclusion actions or eAccessibility measures;
- **"Embedded" e-Inclusion provisions** within other policies, especially those relating to ICT-enabled delivery of services of public interest such as government, health, social security, and education...

The Working Group was not in a position to conduct a systematic review of national and European initiatives on e-Inclusion. However, discussions on the experiences of Working Group members, and information available to them, led to identify some strengths and weaknesses of national strategies, which provided the basis for recommendations.

Initiatives in the EU Member States

The "Joint report on social inclusion summarising the results of the examination of the National Action Plans [NAP] for Social Inclusion (2003-2005)" (COM(2003)773) provides an overview and assessment of e-Inclusion measures in the 15 older EU Member States.¹⁵ According to this report (see full text in annex, bold text was added here):

*"The impact of the knowledge-based society and Information and Communication Technologies (ICTs) on inclusion, the e-Inclusion issue, is substantially recognised by the different Member States (...) As the diffusion of ICTs among (national) populations is a complex phenomenon to a large extent market driven, it is **difficult to directly relate actual trends and phenomena to policy measures** addressing them (...).*

Some initiatives still aim at the overall population (policies for raising awareness and providing computer literacy and access to a broad section of society). Other countries target specific groups at risk of exclusion (...) A correlation between the achieved level of Internet penetration in a country and the choice of general vs. group-specific e-Inclusion policies implemented is not necessarily found.

*All in all, the impression is **more of isolated initiatives and actions than broad ranging strategies**. As a matter of fact, only few NAPs attribute a really strategic importance to e-Inclusion (...), while most National Plans choose to*

¹⁵ http://europa.eu.int/comm/employment_social/social_inclusion/jrep_en.htm

The next edition is currently in preparation for publication in the months to come.

*focus on other priorities. (...) **We are still far from a system of indicators which could really allow the monitoring of progress at national level.***"

The "report on social inclusion 2005 - an analysis of the National Action Plans on Social Inclusion (2004-2006) submitted by the 10 new Member States" (SEC(2005)256) takes a similar line.¹⁶ According to this report (again see full text in annex):

"The impact of (...) the e-Inclusion issue, is generally recognised by the New Member States. However, few of them develop in the NAP a real strategic approach (...). Unfortunately, for many of the e-Inclusion initiatives mentioned in the NAPs, it is hard to understand whether they are at the stage of declaration of intents, planning or actual implementation. Often objectives are set, but details concerning specific measures/projects, approaches, targets, financial envelopes, etc. are missing.

(...) There is a need to improve the availability of statistical data and to define targets more clearly. (...) Only a few Member States set indicators."

Policies at the European level

It appears that many EU activities have a more or less direct impact on e-Inclusion. According to the EU R&D project "e-Inclusion@EU"¹⁷, e-Inclusion issues are currently being addressed at EU level, albeit under different headings and with reference to different aspects of it, in several core policy areas, including:

- As part of the EU's **information society policy**, particularly in the framework of the eEurope initiatives, under the heading of "Participation in the knowledge-based society", and in FP6/IST under the heading of "e-Inclusion";
- As part of **standards policies** (for example, in the Mandates given to the technical standards bodies like ETSI and CEN/CENELEC in relation to accessibility standards for telecommunications equipment);
- In **telecommunications policy** (in the provisions in the Universal Service Directive in relation to meeting the needs of those on low incomes and of disabled people), and in **market regulation policy**;
- In **internal market policy** (in the consideration being given to addressing accessibility issues within public procurement);
- In the context of the general **social policy** of the EU, mainly under the headings of "fight against poverty and social exclusion", "equal opportunities", "disability" and "ageing";
- As part of the European **employment policy** (Strategies for jobs in the information society), especially under the headings of "skills development", "lifelong learning" and "gender mainstreaming" (as measures to prevent exclusion);
- As part of the **cohesion policies** (Structural Funds, Social Fund, USO) to use ICT as a tool for bridging gaps between population groups and EU regions;
- To some extent also as part of the **education policy**, under the heading of "e-learning" and "digital literacy", with the objective to ensure that Europe's youth is digitally literate when leaving school, and that everyone has the opportunity to become digitally literate (e.g. ECDL, lifelong learning);
- As part of the EU's **health policy**, mainly with the objective to make available quality eHealth services for all;

¹⁶ http://europa.eu.int/comm/employment_social/social_inclusion/jrep_en.htm

The next edition is currently in preparation for publication in the months to come.

¹⁷ <http://www.e-Inclusion-eu.org/default.asp?MenuID=8>

- And as part of the **citizenship, democratic participation and fundamental rights policies** with the objective to fight discrimination and exclusion, empower citizens and support equal rights for all, amongst others through eGovernment actions.

3.3 Successes and shortcomings of current e-Inclusion policy measures

Several consistent lessons appear to emerge from the initial review of policies at the Member State and European levels:

- The insufficient level of understanding and measurement of many e-Inclusion issues has resulted in fragmented rather than co-ordinated actions by public authorities at all levels, as well as little knowledge of the actual impacts of those actions. In particular, **the results of many actions on e-Inclusion policies are at best immeasurable and at worst questionable**. Indeed, as seen above, many of the relative gaps between population groups have not been reduced and in some cases have increased.
- e-Inclusion measures have mostly been focused on accessibility and remote and rural areas, to the point of overshadowing other inclusion factors. While there is a need for continuous efforts in these two areas (see below), the socio-economic dimension of e-Inclusion clearly requires more decisive action.
- Most other measures presented under the "e-Inclusion" heading appear to be extremely supply-sided (equipment, access, training, service provision). They often seem to aim at developing a market for ICT products and services, as well as for public e-services, rather than at fostering e-Inclusion as such.
- The focus is on access to and use of ICT by individuals, failing to take the further step of "e-enabling" existing social inclusion policies. This is partly the result of the supply-sidedness of e-Inclusion measures. Indeed, in some cases, there is a risk that an excessive technological focus may yield counter-productive results. For instance, eHealth policy actions are (or should be) about health more than ICT policies; the same goes for education, government, social services, etc. Focusing on the technological side may lead to missed opportunities as well as new, unforeseen exclusion phenomena, and eventually generate resistance by professionals as well as end-users.

Partly for these reasons, there seems to be a general and justified **shift from general access policies towards (i) specific groups and (ii) skills, services and usage**. However, due to the pace of technological innovation, attention to ICT access and use for the general population will still be needed:

- **Accessibility has generated many actions at all levels** of public intervention, with encouraging results. However, these results are constantly challenged by rapid innovation, especially in the absence of strong enforcement mechanisms and in a context where the level of awareness by ICT professionals regarding eAccessibility remains low.
- Another area which has received much attention (and funding) is the **geographical aspects of the digital divide**. The results are encouraging but technological evolution tends to turn objectives such as "broadband for all" into moving targets.

4. Policy Recommendations¹⁸

Building on its definition of e-Inclusion, the Working Group agreed to suggest the following political goal for e-Inclusion in the EU:

By 2010, information society tools and services should have provided a measurable contribution to equalising and promoting participation in society at all levels, as well as to improving the effectiveness and efficiency of social policies.

As a result, by 2010, the largest possible majority of individuals and communities should be able to benefit from ICT, directly or through intermediaries, to improve their participation in an information and knowledge-based society and economy, in spite of socio-economic differences such as revenue, education, place of residence, disability, age or gender.

This political statement can be broken down into three more specific objectives, which contribute directly to EU social cohesion goals:

- Avoiding the creation of new gaps or the widening of existing gaps and discrimination directly related to ICT and digital services;
- **Reducing existing gaps and discriminations**, better including socially disadvantaged individuals, groups and areas, through both direct and mediated ICT use;
- **Fostering active participation and empowerment** in society at large through the use of ICT, thus contributing to social cohesion, competitiveness and democracy.

Achieving these objectives is not an easy task. As it appears from the analysis in this report, e-Inclusion is a complex subject; so is policy action in this area. The Working Group, after several discussions on key challenges of e-Inclusion, identified the following series of priorities for policy action, as contributions to the above political statement.

4.1 Improving the understanding and measurement of e-Inclusion

Section 2.4 has pointed to a strong need to improve the understanding and the measurement of e-Inclusion:

- Building up the knowledge base on the socio-economic factors of eExclusion and e-Inclusion;
- Improving the quantitative and qualitative knowledge and understanding of ICT usage
- Building a more relevant set of e-Inclusion indicators;
- Assessing the social impact of ICT policies.

¹⁸ As previously mentioned, this workgroup did not consider measures designed to fight territorial inequalities in broadband or mobile network access. These issues were dealt with by another workgroup – see http://europa.eu.int/information_society/eeurope/2005/doc/wg1_digi_divide_written_recs_290904.pdf

Relevant e-Inclusion indicators

The group believes that the following indicators, which already exist in part at EU level or have been suggested by European research projects, provide relevant insights:

- Broadband Internet access and use (whether from home, work, public places or elsewhere); if possible, quantify different levels of use intensity/frequency;
- Mobile use (phone + data);
- Synthetic access and use indicators;
- ICT use for personal and public communications (voice, email, instant messaging, SMS, online content creation, etc.);
- Digital literacy¹⁹;
- Familiarity with/trust and confidence in the Internet;
- Perceived added value of ICT;
- Direct and mediated use of public e-services (eEducation, eHealth, eGovernment).

The need for a systematic "social impact assessment" of ICT policies

No information society policy measure, no indispensable public e-service should create new permanent social gaps. Wherever this may be the result of early diffusion, corrective measures should be designed from the start and rapidly implemented in order to avoid transitory gaps becoming permanent. This would call for:

- A systematic impact assessment of the consequences of all major ICT policy measures, infrastructure investments, and the deployment of public interest e-services;
- Considering the possibility of including some indispensable infrastructures and e-services within the definition of "universal service" (see recommendation 5).

Recommendation 1: Research, benchmarking and assessment

- Support more active research on (i) Socio-economic gaps in relation to ICT use and the rise of the Information Society in general, and (ii) ICT appropriation in everyday life, both by the general population and by underprivileged and at-risk groups;
- Upgrade e-Europe benchmarking indicators accordingly;
- Include social inclusion considerations as part of impact assessments of all relevant policy measures on ICT.

4.2 "e-Inclusion Inside": e-enabling social inclusion policies

There is a huge, mostly untapped, potential in using ICT in order to make *all* social inclusion policies at the European, national and local levels more relevant, more efficient, more effective and more closely related to the actual and personalised needs of excluded and at-risk populations:

- By providing better tools to elaborate, evaluate, deliver and personalise social services;
- By providing social workers with better tools and means of communication to do their work on the ground;

¹⁹ E.g. see "digital literacy Index" developed in SIBIS, op. cit.

- By using ICT in order to enable all kinds of mediation activities, which through professional social workers, volunteers, communities or even commercial services, may enhance access to public and private e-services, health, education, jobs, culture, information, means of expression, communications with others, social capital, etc, to go beyond the “self-service” model often at work in eGovernment, e-services or eCommerce;
- By using ICT in order to empower local or cultural communities, and providing them with better tools to strengthen the bonds among their members;
- By using ICT in order to better include potential beneficiaries in the definition and evaluation of social inclusion policies.

Beyond “e-services” supposedly targeted towards end-users, ICT can provide a dramatic help to all beneficiaries of social policies, through the mediation of social workers in charge of implementing these policies on the ground. The goal is to bring services, content, learning, awareness and means of expression closer to underserved communities, rather than further away. In order to reach that goal, individual empowerment through ICT should be supplemented by the use of existing social relays, which play and will continue to play a key role in social inclusion. Two specific areas where proactive policies can exploit the added value of ICT are:

- **eHealth services**, both through remote communications (diagnosis, monitoring, advice..) and through mobile services, can significantly improve access by underprivileged groups to health professionals and advice, as well as help develop home care;
- **Activities of social workers, who can be empowered with tools, applications and training** that will enable them to provide a more efficient, more personalised service, whether from their workplace or in mobile situations. European projects could help identify and benchmark such efforts in different areas; these actions should also include voluntary workers, informal carers including NGOs, local communities, etc.

Recommendation 2: “e-Enhancing” social policies

Policy measures on social inclusion should explicitly include an ICT dimension, targeting not only their end beneficiaries, but also the large number of intermediaries in charge of implementing those measures (such as public agencies, social workers or associations), providing them with ICT-enabled solutions and assistance to facilitate their mission, thus helping to empower individuals and communities.

4.3 Promoting bottom-up and local e-Inclusion policies

Inclusion policy measures are implemented on a global, as well as a local or community level. The same should be true for e-Inclusion. Communities, both local and otherwise (ethnic, professional, etc.) are often the place where real needs can be expressed, assessed and addressed.

Supporting local and community-based projects

e-Inclusion policies should support local or community projects on a small scale, on top of (and sometimes rather than) acting on a national or European level, in particular, through the following type of actions:

- Support new forms of public Internet access points (PIAPs), especially in underserved areas.

PIAPs have mostly been built from scratch by local administrations; Policies should now strive to support other kinds of PIAPs with tighter links to their local communities. For instance, opening up of school premises, NGO-run PIAPs, public computers in places usually frequented by underprivileged populations (see Emmaus' "Cyber Espace" in France²⁰), and even commercial cybercafés in underserved areas.

PIAPs are not just places where people get trained at eSkills: They should be places where they get free (or cheap), mostly unmonitored access to their own cyberspace; where local projects can be born; where mediators can provide their assistance to all kinds of online activities, from looking up information to using e-Government, from writing an e-mail to posting a CV.

- Support local and community-based projects and services, with a focus on individual and collective empowerment, which requires in particular to:
 - **Raise awareness of the potential of ICT** among social workers and community leaders;
 - Provide financial support to projects, but also "in-kind" help (computers and software), assistance and training;
 - Support **micro-finance initiatives** that include ICT in their scope in order to develop small-scale economic activities;
 - Support **networks of projects and communities**, gathering both specialised IT communities and others, in order to exchange best practices, to share tools, content and competencies, etc.
- Support e-Government initiatives by local communities, especially:
 - **"Technical" mediation** whereby local portals provide a co-branded access to national e-services (see France's "service-public local"²¹);
 - **Human mediation activities** in order to provide a human access point to digital and non- digital eAdministration services (see section 4.7);
 - **eDemocracy**, participation through online means, both directly and through mediators.
- Support efforts on the part and on behalf of ethnic and language minorities, be they migrants or local, from community endeavours (see above), to the provision of multilingual services (including minority languages).

Such support for local and small-scale initiatives is currently made difficult by the rigidity and complexity of public funding and monitoring mechanisms, both at the European and national levels. NGOs insist that **access to public financing should be made simpler** and less bureaucratic. Ways to make access to funding easier could be to design calls for projects with NGO representatives, to use local communities and/or larger NGOs as intermediaries, etc. **Specific evaluation and monitoring criteria** adapted to the size of these projects should also be designed.

Co-designing and co-owning e-Inclusion policies

In order to succeed, e-Inclusion policy measures, from local to European levels, should be co-designed, co-evaluated and, in a way, co-owned by their beneficiaries. **The definition and monitoring of e-Inclusion policies should actively include public**

²⁰ <http://www.fing.org/index.php?num=4286>

²¹ <http://lecomarquage.service-public.fr/>

bodies and NGOs working with underprivileged populations, as well as corporations willing to act in this area.

The Commission should therefore, while including ICT use as part of general inclusion policy, strive to identify representative players active in the e-Inclusion area, and create durable channels to collaborate with them from the inception of the relevant measures.

The Commission should also:

- Encourage national and local authorities to do the same;
- Provide NGOs, community leaders and social workers with means to network, exchange best practices and material, or support such networking efforts.
- Make sure that all relevant DGs (Employment and Social Affairs/Enterprise/Information Society/Regio...) continuously collaborate on the issue of e-Inclusion.

e-Inclusion and SMEs

SMEs are extremely important in the economy and in the social fabric. They are also large employers of high to low-skilled individuals. However, their rate of ICT adoption is much slower (in quantity and in depth) than that of larger firms, which puts them at a competitive disadvantage.

A specific set of public and/ or private support actions targeted towards “low-tech” small businesses (e.g. local retail, craft industries, restaurants, etc.) would, therefore, yield very beneficial effects on e-Inclusion. Several kinds of measures can be envisaged:

- Raise awareness through the mediation of professional bodies, but also consultants, accountants, etc.
- Provide (or support access to) consultancy and mediation and
- Support the development of specific services towards SMEs, both by for-profit and non-profit organisations, including tailored access to eAdministration.

However, while this Working Group believes higher ICT adoption by SMEs would do much for work-based e-Inclusion, it also feels that this is as much an economic objective as it is a social one. Since helping SMEs go online is already a priority of Europe’s economic agenda, the Working Group can only support policies aiming towards this objective.

Recommendation 3: Support bottom-up initiatives

Design and implement mechanisms at EU and national level to support local or community-based projects:

- Review current mechanisms for supporting, funding and evaluating such initiatives;
- Review the approaches to Public Internet Access Points (PIAPs) to support more diversified bottom-up projects, with a broader focus than ICT access and training seeking, in particular, to reinforce local communities;
- Create or support, at European level, network(s) for the exchange of good practices and solutions from local projects, as well as consensus-building on common aims and priorities for EU and national support.
- Promote the use of ICT in SMEs.

4.4 Making ICT policy measures more targeted towards e-Inclusion

Most policy measures on ICT access have so far aimed at eAdoption rather than e-Inclusion, with the exceptions of eAccessibility and the “geographical divide”. As previously mentioned, this group believes that in most cases, e-Inclusion issues should be dealt with in a more targeted and/or local manner. The issue of access will remain important, especially in the new EU Member States. However, once a competitive landscape exists and a certain level of access is reached, proactive access policies will lose most of their efficiency if they are not clearly targeted towards e-Inclusion. More specifically, general “awareness” campaigns or top-down terminal equipment policies, such as giving away PCs indiscriminately, should clearly be dropped in favour of more targeted actions.

Regulatory measures

Some regulatory measures can have a direct impact on e-Inclusion, notably:

- **Continue the push towards openness and competition** in technology and networks (especially in the new EU Member States), as well as services, in order to drive prices down and provide incentives for the creation of new services;
- **Consider reviewing “universal service” obligations**, for instance to extend them (i) to networks beyond basic telephony and (ii) to a set of general interest public e-services. While practical implementation details of such a change have not been discussed by the Working Group, we consider that broadband Internet or mobile networks, as well as some e-services (e.g. in the areas of health, emergency, education administration) are good candidates for a broad definition of “universal service” that enhances inclusion;
- Require the public sector to:
 - Take eAccessibility into account in IT procurement as well as in the provision of public e-services (“Accessibility Act” – see recommendation 5);
 - Follow a set of common standards to develop technology-neutral and interoperable public e-services, as well as **open up access to public digital information and services**, in order to allow interested parties to build further services on that basis, e.g. private firms, NGOs, local authorities, etc. (see recommendation 7).

Financial measures

While granting them a somewhat lower level of priority, the group considered targeted financial measures designed in order to foster e-Inclusion:

- Encourage member states to support the **re-conditioning of old PCs** to be made available in public places or to be distributed (for free or not) to selected households. Such measures would also contribute to the environment protection by limiting electromechanical waste.
- Encourage member states to support managers/owners of buildings, or building companies, to provide **cheap co-located broadband access** (e.g. fibre-to-the-home).

Recommendation 4: Render ICT policies more social

- Continue supporting openness and competition in ICT markets;
- Evaluate potential impacts on social inclusion from enlarging “universal service” obligations notably to broadband Internet, mobile communications or access to basic public e-services;

- Encourage targeted financial support measures, e.g. regarding re-use of computer equipment and high-quality ICT connections in buildings.

4.5 Mainstreaming accessibility policies

Within the e-Inclusion field, accessibility is certainly the area where most of the work has been done; sometimes to the point of overshadowing other e-Inclusion issues. However, it remains essential to continue to act in this area, as it is a prerequisite for the e-Inclusion of large and (due to the ageing of the population, growing parts of the European population. There is awareness within governments, but not yet within most ICT professionals. Enforcement of several political decisions is uneven. Much remains to be done and in some areas, positive achievements are made fragile by technological innovation. It seems that each new innovation cycle reproduces accessibility problems, sometimes in the same areas where prior work had succeeded in reducing them.

Therefore, and since ICT tend to become pervasive in all aspects of life, this Working Group believes that accessibility policies and rules should become mainstream, and be systematically embedded in, at the very least, public ICT measures and activities.

Towards an European "Accessibility Act"

Regulation should require that:

- All public e-Services comply with "**Design for all**" and Web Accessibility Initiative (WAI) standards.
- **Public procurement of ICT tools** and services include accessibility provisions.

The United States have already put in place several of such measures. Since technologies are often global, they will have an impact on Europe. Europe should aim at becoming a major player in this field. The stakes are economic as well as social.

Professionalising eAccessibility

With regard to IT professionals and corporations, as well as service providers, Europe should:

- Undertake and/or support proactive actions including:
 - Raising awareness on Design for All and WAI guidelines;
 - Design and exchange training material related to accessibility;
 - Financial incentives to corporations for training, consulting and purchasing of services allowing for the implementation of accessibility guidelines;
- Continue to support the development of **assistive services and devices**, through the support of R&D efforts, as well as of deployment and distribution of such devices. Innovation in accessibility and assistive devices is known to strongly contribute to innovations, which later prove useful in many other areas;
- Support the development, through public and/ or private initiatives, of **certification mechanisms and labels** for accessible ICT good and services.

Recommendation 5: eAccessibility

- Consider the approval of a European Accessibility Act covering the design of public e-services, as well as public procurement of ICT tools and services;
Develop and/or support proactive initiatives in order to raise awareness on e-Accessibility

and competences among IT professionals and providers.

4.6 Re-visiting eSkills in the framework of lifelong learning

Providing the necessary skills to use ICT has always been part of e-Inclusion policies. However, this area needs to be revisited as policy objectives move beyond basic access.

- Digital literacy is not a uniform concept. The capacities that an individual needs in order to use ICT in useful ways may vary considerably from one individual to another depending on their job, qualification, social life, goals, etc.
- Beyond technical knowledge, there are several possible layers of skills requirements, e.g. the ability to work in new ways, to co-operate remotely, to shift tasks more rapidly, to publish information, to learn continuously, etc. These capacities are no less important than the ability to use a machine.

The concept of skills should, therefore, refer not only to the ability to use ICT tools and services, but also consider:

- The **various levels of necessary eSkills** in relation to people's autonomy in the information society, people's professions, etc.;
- The use of **ICT as tools** to bring and collect knowledge to/from individuals and within communities (knowledge management);
- The use of ICT to **support changing patterns of learning** (lifelong learning, working-learning continuity, learning organisations, etc.).

As OECD projects such as PISA²² and IALS²³ point out, digital literacy is very strongly connected to general functional literacy, and is far from being purely an ICT issue. Moreover, the integration of ICT in all learning organisations and processes is a trend going beyond e-Inclusion.

Therefore, the focus of skills-oriented e-Inclusion policies needs to be significantly revisited.

- The EU should in particular re-assess the methods through which digital literacy is currently taught and accredited, e.g. the European Computer Driving Licence (ECDL). This requires:
 - To define European standards on minimal e-literacy requirements, necessary for individuals to become autonomous in the Information Society. Those standards should go beyond the basic ability to use tools and services. They should cover functional skills, possibly differentiating curricula depending on each individual's prior qualifications, profession, goals, and so forth.
 - To support the exchange of best practices on training and evaluation, as well as of training material (translating it as necessary).
- Within the scope of lifelong learning, support programmes designed in order to provide relevant and necessary **eSkills in specific professions**, including low-qualified ones, as well as to help SMEs provide their employees with easier and cheaper access to training;

²² <http://www.pisa.oecd.org/>

²³ *Literacy in the Information Age*, OECD Publishing/Statistics Canada, 2000 – See also: <http://www.statcan.ca/english/Dli/Data/Ftp/ials.htm>

- support the use of ICT in order to provide **easier access to education and training** in underserved populations, including through:
 - Remote after-school or after-work training and assistance, from home or in community centres and PIAPs;
 - Access to specific courses and materials that would otherwise require considerable effort to obtain , or that would need to be shared among larger audiences in order to justify their cost, e.g. language-specific material;
 - Schemes to manage individual lifelong learning strategies. As an example, Wales is providing an ePortfolio²⁴ to all citizens to help them to manage and plan their lifelong learning, from school to beyond retirement;
 - Approaches contributing to learning communities: adult learning centres, professional communities, local associations, etc.

Recommendation 6: Skills

- Further exploit the possibilities of ICT in relation to the development of key skills, integrating ICT-based activities across the curriculum, not only in separate informatics modules;
- Develop European digital literacy standards that go beyond the basic ability to use ICT tools and services;
- Encourage the development and use of ICT for the self-management of lifelong learning, not just for access to educational content;
- Facilitate the acquisition of eSkills in low-qualification professions;
- Promote the use of ICT to facilitate access to lifelong learning, especially for SMEs and disadvantaged communities.

The issue of multiple platform access and user interfaces

There was disagreement within the group about the role that new user interfaces, be they hardware-based (such as interactive digital TV) or software-based (such as better design, Design For All, etc.), could and should play for e-Inclusion.

Some members believed that these interfaces could play a key role in allowing non IT-literate persons access e-services.

Others believe that, while these developments are certainly positive, empowerment in the Information Society implies much more than easy access to e-services. In particular, simplified terminals, such as TVs, may not do much to improve e-Inclusion as defined in this document, in terms of active participation in society. The existence of easy-access interfaces should not prevent governments, local authorities, NGOs, etc. from actively promoting e-Inclusion, notably by raising eSkills in the ways suggested above, or facilitating access to advanced ICT tools.

²⁴ On ePortfolios, see www.eife-l.org/portfolio/index_html?set_language=en

4.7 Turning public (e-) services into tools for e-Inclusion

Adding a new focus on e-Inclusion

Public e-services such as e-Administration, e-Health and e-Education can provide huge benefits, both to the population at large and to public administrations looking for ways to improve services while raising productivity. Since underprivileged and at-risk groups tend to use public services more than others, and have more difficulties in accessing them, public e-services can also be extremely beneficial to them.

However, the current impact of public e-services on e-Inclusion is sometimes ambiguous:

- Most e-services today are not targeted and/or designed towards underprivileged groups and their specific needs. **A specific effort should now be undertaken in order to identify those services** (e.g. social benefits, visas, etc.) **that could most benefit underprivileged groups**, as well as to design these services with these populations in mind. Some issues to consider in this context are assistance, multilingualism, accessibility, user-friendliness, etc. European projects could help make progress in this area.
- Most e-services are built in "silos" by each administration and can, therefore, not be provided under the banner of private entities (for profit or not), or even different public organisations, that have a closer relationship with, and understanding of, some populations. **Public e-services must be designed in order to be easily deployed in different ways on various terminals, in various languages, through various intermediaries**; the use of open standards must be considered in this context. This kind of measures facilitates the access to public service information, in line with the spirit of EU and national legislation in this area.
- At-risk communities may sometimes (although not always) use different terminals, speak different languages and require different accessibility provisions than mainstream users. **Public e-services must reach high accessibility requirements as well as use standards in order to be easily deployed on other terminals** (such as interactive TV) **as well as in other languages**.

Complementing self-service with human mediation

There is a risk that rapid deployment of e-services accelerates the closure of physical government contact points, and provides e-service users with more or less tangible advantages (e.g. faster response, round-the-clock service, tax deductions, etc.) over other users. The benefits to administrations are clear. However, underprivileged groups often have a more difficult and less confident relationship with administrative processes, and tend to need more assistance than others. Not all individuals are able or willing to relate to public services on a self-service basis. In some cases, the use of ICT may thereby *reduce* the ability of many individuals to access these services at all.

In the public sector at least, ICT should aim at facilitating access to the underlying services, both online *and* offline. The focus should not only be on raising awareness and training people to use e-services, but also on allowing human mediators to provide those services with an excellent level of quality, thanks to the use of ICT. Mediation activities may include:

- Mediators in town halls, libraries, public Internet access points, post offices and local offices of public administrations. Clerks and service operators could be enabled to deliver all kinds of public information, to assist people in filling out forms, etc.
- Remote mediation through voice and/or video and remote control or co-navigation in order to help individuals fulfil some tasks online.

- Home assistance, e.g. for elderly or disabled persons, to use mobile technologies to access files, to organise their activities, to keep in contact, provide health care and monitoring, and to contact emergency services or remote experts.

e-Inclusion policies should, therefore, help public-interest services to **move away from a purely self-service paradigm to one that includes human mediation**. Therefore:

- **The growth of e-Government should be accompanied by specific policies designed to provide mediation services** (both remote and physical), and to increase, rather than reduce, the availability of human interfaces for those who need them;
- These mediation services may be delivered by **public agencies (national or local) as well as communities, NGOs or even private for-profit services**, so long as they contribute to bringing e-services closer to underserved populations, and match a certain number of objective criteria for quality and equality. There should be no discrimination towards specific kinds of mediation;
- **e-Government services should be designed for use by both end-users and mediators**, notably those assisting under-privileged groups, which sometimes means providing different interfaces to different users (see Ireland's REACH project).

Recommendation 7: Public e-Services and Mediation

- Broaden access to, and re-use of, online public information and services by other "digital mediators" such as local governments, NGOs and private service providers, who are best suited to adapt that information and services to the specific needs of their "customer base";
- Support human mediation services, to ensure that public services become more accessible by underprivileged populations, rather than the opposite. Mediators may be civil servants, local community employees, NGOs or even private service providers.

Appendix I – e-Inclusion Information in National Action Plans for Social Inclusion²⁵

[Extract from "Joint report on social inclusion summarising the results of the examination of the National Action Plans [NAP] for Social Inclusion (2003-2005)" (COM(2003)773), pp. 78-81]

The impact of the knowledge-based society and Information and Communication Technologies (ICTs) on inclusion, the e-Inclusion issue, is substantially recognised by the different Member States, as was already the case in the 2001 Inclusion NAPs.

Again, the starting point varies greatly among member states, as some of them (e.g. the Nordic countries and the Netherlands) experience much higher levels of diffusion of ICTs (e.g. in terms of Internet penetration, also specifically in low-income groups) and of use of the possibilities they offer for social inclusion. However, it is interesting to notice that, with respect to 2001, internet penetration in the EU - when measured in terms of internet users as percentage of the total population²⁶ - has globally increased from 34.3 % to 43.5%; this trend has affected all considered age groups and socio-economic categories, although to different extents. In particular, the increase in access rate has been higher for women (~ 10.8%) than for men (~ 7.5%), thus showing a trend toward bridging the existing "gender divide" within the digital divide. Moreover, access has proportionally increased more among unemployed and self-employed people (~14%) with respect to populations belonging to other employment-related categories (~10-12%). On the other side, Internet penetration among housepersons, especially women, retired people and in rural areas is clearly lagging behind. The picture is obviously much diversified if statistics at country level, and especially at regional level, are considered. In fact, big disparities characterise the "geographical" distribution of access and use of ICTs across the EU.

Luxembourg and the UK now join the Nordic countries and Netherlands in scoring an Internet access rate above – or much above - the 50 % threshold. A group of countries – such as Italy, Belgium, Austria, Germany are positioned around the EU average; Ireland, Spain and France still have a lower than average access rate (~35%), together with Portugal and Greece (~21%). Between 2001 and 2003, the growth in Internet penetration in the UK, Luxembourg, Germany, Belgium and France has been higher than the European average (+10-12 %).

As the diffusion of ICTs among (national) populations is a complex phenomenon to a large extent market driven, it is difficult to directly relate actual trends and phenomena to policy measures addressing them, as the ones implemented by the Member States in the 2001-2003 period. However, higher than average growth rates in internet access among certain disadvantaged groups (women, unemployed) or within certain countries (Germany, Belgium, Luxembourg, UK), often match the strategic objectives that the NAPs 2001 had set and the effort put in wide-ranging e-Inclusion programmes.

Measures concerning access to the new ICTs and their opportunities are foreseen again by Member States for the 2003-2005 period. Some initiatives still aim at the overall population (policies for raising awareness and providing computer literacy and access to a broad section of society). Finland and France introduce an innovative approach along this line, whereby access to new technologies is mainly considered as access to their contents and services, especially cultural contents. Thus coupling digital and traditional

²⁵ Op. cit. http://europa.eu.int/comm/employment_social/social_inclusion/jrep_en.htm

²⁶ Source of all data mentioned in this section: Eurobarometer 59.2 – Spring 2003.

literacy and the fight against cultural exclusion are at the core of the e-Inclusion policy of their National Plans.

Other countries target specific groups at risk of exclusion, such as younger people in situations of disadvantage (Luxembourg), low-income/ unemployed/ retired people (Belgium, Ireland) and women. An interesting trend - conducive to social capital building - is the provision of ICTs equipment and skills to parents and children - involving schools, families and local communities (Belgium, Denmark, UK). Also, the progressive creation of public access points in libraries, community centres, cybercafes is foreseen by many Member States. A correlation between the achieved level of Internet penetration in a country and the choice of general vs. group-specific e-Inclusion policies implemented is not necessarily found.

ICTs related measures fostering access to employment are addressed in the 2003 Inclusion NAPs; however, the 2002 Employment NAPs had already partly covered this domain. ICTs are used as tools supporting services for job search, orientation and vocational training; provision of ICTs skills for socio-professional integration of groups at risk of exclusion is planned - and in fact implemented - by most EU countries. Moreover, new open and flexible forms of learning supported by new ICTs (e-learning) are progressively used for re-qualification of workers, training of people under temporary contract, adult education.

Integration of ICTs in school curricula at all educational level and provision of internet connection to all educational institution is a goal achieved by some countries and pursued by many others; as a matter of fact, access and digital literacy provided through public education are considered by MS as being among the most important means for including the new generations in the knowledge society. Again, the description of policies and measures planned or taken in this field is often included in the NAPs Employment 2002, and only partially covered by the NAPs Inclusion 2003.

Provision of ICTs access and services to disabled people has been particularly focused on by practically all national governments. European initiatives in this field²⁷ have stimulated the adoption of WAI guidelines for public web sites - several Member States have developed legislation to mandate the adoption of the Guidelines - and the engagement in developing universal design for e-accessibility following the creation of the "European network on Design for all", EDEAN²⁸. The implementation of speech recognition applications for adapting ICTs equipment to the needs of some categories of disabled people is an innovative approach in this respect (Denmark). Initiatives for integrating disabled people in the labour market with the support of ICTs are also a good model to be followed (Austria), as well as the programmes aiming at improving access by disabled people to services in the field of health or education. Sweden gives a high priority to meeting disabled persons' needs of effective telecommunications and other services and to meeting their needs for products and services that depend on high transmission capacity (broadband).

As a matter of fact, the opportunities potentially offered by the knowledge society reside very much in the - universal - provision of contents and services, access being a mean and not an aim in itself. From this point of view, relatively little is included in the NAPs 2003-2005 (with some exceptions). Some initiatives have been launched in the field of public services provided on-line - portals for social services, provision of administrative information or of legal assistance (France, Germany, Greece, Netherlands); a working group on eHealth has been created in Greece. A programme for training and exchange of

²⁷ In particular under the Action Plan eEurope 2002, action line "participation for all in the Knowledge based economy".

²⁸ EDEAN has created a National Network in each Member State and in Europe more than 100 organisations are participating.

good practices in the field of e-government at local level is foreseen in France. A particular attention to ICTs access and use at local level is especially to be found in the UK and Ireland. Greece addresses the issue of Internet penetration in rural areas, with grants to young farmers for purchasing computers and Internet connections.

Equal participation of women to the knowledge society is among other issues targeted in the NAPs with specific initiatives, such as provision of education and professional training in the ICTs field, support to networks and to women entrepreneurship.

All in all, the impression is more of isolated initiatives and actions than broad ranging strategies. As a matter of fact, only few NAPs attribute a really strategic importance to e-Inclusion (Portugal, Greece, Spain, Sweden), while most National Plans choose to focus on other priorities. Often, programmes and actions targeting specific groups or areas are actually implemented in Member States but are not reported in the NAPs Inclusion. In some cases, only a reference is made to other national strategies or documents. An opportunity for exchange of practices and policy responses is thus missed.

FOUR e-Inclusion ACTIONS (GREECE)

1. **Women and the Information Society:** The Operational Programme "Information Society" has a twofold strategy. It includes measures of a general nature to facilitate the dissemination of technologies and information science (e.g. in education, in very small businesses) and measures specially designed for women. Projects have been designed with a positive discrimination quota in favour of women (70/30), such as programmes to develop skills in new professions.
2. For the **participation of disabled people** a Working Group on "Universal Access and Ease of Use in the Information Society" was set up in 2002 to put together a general framework. The following actions have been proposed: advanced Eurozone services for disabled individuals, special education equipment, promotion of equality of access to health services and development of health information systems for the elderly and for disabled people, development of educational programmes, provision of telecommunications services for disabled people, involvement in the process of creating a national network "e-accessibility.gr" being part of EDEAN.
3. **Introduction of new technologies into education:** The Ministry of Education is coordinating a number of measures to ensure that the potential of ICT is assimilated into the day-to-day teaching process. The initiative is designed along three axes: 1) Development of equipment 2) Development of digital content 3) Further training of teachers.
4. **For the rural areas,** grants are to be paid to young farmers to allow them to purchase computers and internet links.

Indicators for e-Inclusion in 2003-2005 are provided by France, Greece, Spain and Portugal. In general, this area is slightly better developed than in the 2001 NAPs; however, we are still far from a system of indicators which could really allow the monitoring of progress at national level.

[Extract from "report on social inclusion 2005 - an analysis of the National Action Plans on Social Inclusion (2004-2006) submitted by the 10 new Member States" (SEC(2005)256), pp. 70-72]

The impact of the knowledge-based society and Information and Communication Technologies (ICTs) on inclusion, the e-Inclusion issue, is generally recognised by the New Member States. However, few of them develop in the NAP a real strategic approach which would fully exploit ICT related opportunities for increased social and economic participation - and improved quality of life - of all citizens.

Most New Member States lag behind the EU 15 in the development of the ICT sector as such. Basic provision of telecommunication infrastructure – and the enhancement of the existing one - is still a problem to be tackled in most countries, especially in rural or remote areas. In all New Member States, Internet penetration rates are lower, or significantly lower than the EU 15 average (43,4%), with the exception of Estonia (44%), closely followed by Slovenia (41,4 %).²⁹ All other 2004 countries score rates of Internet access ranging from 25% in Hungary to 35% in the Czech Republic, with only 30% of the population in Poland surfing the Net. Not having a computer at home, not being able to purchase one, the high cost of Internet connections, lack of digital skills, lack of interest for going online, are among the most frequently identified barriers to digital access in the New Member States. As in most EU countries, income, education and age emerge as the main determinants of digital exclusion, followed by geographical location (the rural/urban divide) and gender. For people with disabilities lack of accessibility is a major barrier to the use of new technologies having a direct impact in their inclusion and participation in society. However, the gaps in the 2004 countries are relatively wider, particularly with respect to income related and geographical factors. Generally speaking, the (emerging) Information Society in the New Member states is more polarised in the EU 15 zone, even in areas showing an Internet penetration rate close to the EU 15 average (EE, SI).³⁰

The diffusion of ICTs among (national) populations is a complex phenomenon to a large extent driven by market dynamics. At a different pace, supply and demand in the ICT sector are developing in the New Member States; however, evolution trends – and impact on new technologies diffusion - are not easily identified for relative lack of directly comparable data over time³¹. Following the eEurope + initiative, National Plans for the Information Society were developed in the New Member States, along the main lines traced by the eEurope 2005 Action Plan. These National Strategies are mentioned in most NAPs as providing the framework within which e-Inclusion related measures are embedded.

The main emerging concern relates to the provision of digital access to the population at large, especially to the wide share of citizens of middle or lower income who cannot afford the high cost of hardware and Internet connection, or are not at reaching distance from the information highways. Developing, modernising, enhancing the quality of telecommunication infrastructure - and making connection to it affordable - are among the objectives most frequently mentioned in the NAPs, irrespective from the different level of advancement of the Information Society in the various national realities, from Hungary to Estonia³². The cost of PCs is not expected to drop rapidly in the New Member

²⁹ Source of all data mentioned in this section: Eurobarometer 2003.3 – public Opinion in the Candidate Countries –

³⁰ Commission Staff Working Paper "e-Inclusion revisited: the local dimension" – *currently undergoing interservice consultation – deadline Oct. 15*

³¹ an attempt in this direction is to be found in the Czech Republic NAP

³² Extension of broadband telecommunication infrastructure to backward regions is also realised with the support of the Structural Funds (e.g. Hungary).

States; this is why most of them foresee - or implement - measures supporting digital access in PIAPs (Public Internet Access Points) set up in town halls, schools and libraries, and community access points in rural areas. Slovenia introduces the concept of PIAPs "with added value", where specialised assistance and training are provided.

In most NAPs – and rightly so - the provision of basic digital skills is considered a fundamental enabler for the participation to the knowledge society, and e-Inclusion initiatives are heavily concentrated on this issue: Estonia will provide 20.000 free basic IT training opportunities for adults each year; Slovenia tackles digital literacy of the unemployed; a *National Plan for Computer Literacy* was launched by the Czech republic in 2003; the Slovak Republic plans to open the use of Internet laboratories in schools to the local communities. The connection to Internet of educational institutions, the introduction of digital skills in the curricula starting from primary schools, the IT training of teachers, are measures particularly targeting the younger generations. Initiatives in primary schools are particularly important in promoting e-Inclusion (as all young children go there) as are efforts to boost the skills of teachers and associate parents. Estonia and Slovenia are showing the way in this respect. eLearning is also often mentioned in the NAPs, in connection with distant and lifelong learning and in relation to vocational training (e.g. LV, CY, EE, PL, CZ & SK). In Slovenia, *General education centres for independent study* are set up, in order to ensure access to eLearning and distant learning by socially excluded and vulnerable group. The CIP EQUAL initiative is often stimulating and co-financing this kind of activities. In Estonia, it is planned to enhance employment opportunities by means of job search portals and telework. Leading ICT companies have launched major initiatives in the new Member States to address the issue of basic ICT skills and digital literacy. However, these initiatives and the public-private partnerships need to be made more visible and to be supported in future NAPs/inclusion.

Supporting access to culture through IT (e.g. networks of digital libraries) and the provision of eGovernment services are also measures contemplated by various New Member States. In some of them – e.g. Estonia, Czech Republic - WAI guidelines are made compulsory for public administration web sites (eAccessibility). In Slovenia, the development of userfriendly applications for people with special needs is foreseen, as well as the introduction of telework for employment of disabled persons in specific jobs. Some groups at risk of digital – and social - exclusion (elderly/retired people, minorities, women, people with disabilities) are identified in the NAPs but are not necessarily – or hardly - targeted with specific measures. The potential of ICTs enabled opportunities for social integration of vulnerable groups seems not to be fully developed in the 2004 -2006 e-Inclusion plans. The same can be said concerning support to the provision of contents, services and user-friendly applications, issue hardly mentioned in the NAPs (except for eGovernment). However, digital access is not an end in itself, and technology is only adopted – and "domesticated" - when its use is perceived as socially relevant. The development of local contents, the provision of services – e.g. through eHealth initiatives – the creation of networks for cooperation of actors toward common aims, would act as catalyst for ICT diffusion as well as for social – and civic - participation. Again, Slovenia is setting the right priorities when it targets the creation of local, regional and national networks for linking workplaces, homes and IT centres. On the other side, Estonia intends to provide all public services in a web based environment by 2006, and implement electronic voting at local elections.

Unfortunately, for many of the e-Inclusion initiatives mentioned in the NAPs, it is hard to understand whether they are at the stage of declaration of intents, planning or actual implementation. Often objectives are set, but details concerning specific measures/projects, approaches, targets, financial envelopes, etc. are missing. This makes it obviously impossible to evaluate the scope and potential impact of the initiatives; moreover, experiences are not shared concerning methods, approaches, success factors, etc. The usefulness of the whole exercise is therefore somehow jeopardized. Thus, as in many

other aspects of the NAPs, there is a need to improve the availability of statistical data and to define targets more clearly. This would make it more possible in future to distinguish between intent, planning, wishful thinking and implementation.

Only a few Member States set indicators (LV & SK); others NAPs describe interesting e-Inclusion Good Practices (Slovenia: "*e-Schools*"; Lithuania : "*Lithuanian Citizens Advice union: Enhancement of Information Accessibility*"; "*Window to the Future Alliance: Development of the Information Society*").

WINDOW TO THE FUTURE ALLIANCE (LITHUANIA)

***Window to the Future Alliance* started in 2002 as a consortium of business leaders – including major banks, IT companies and telecom operators – supporting the development of the information society in Lithuania. A Public Internet Centre project - launched in 2002 – was implemented with the cooperation of the Lithuanian Government, as part of a wider strategy for enhancing public Internet access throughout the country. So far, 172 Public Internet Centers have been established within the premises of 44 Libraries, 10 Post Offices, 8 Local Administrations, 23 commercial outlets and 15 various organisations. Almost a half of these centres – scattered across 58 different municipalities - are based in small towns of 400 to 4.500 inhabitants. The Alliance had developed a dedicated software application for the management of the Centres, which enables to monitor the operations of PCs installed in all Internet centres from a single master computer.**

Appendix II – Additional Statistics³³

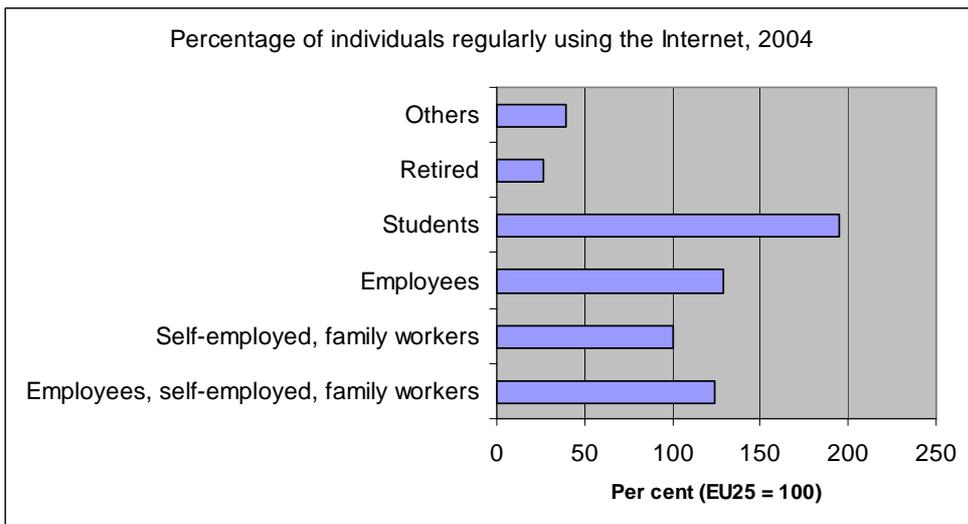
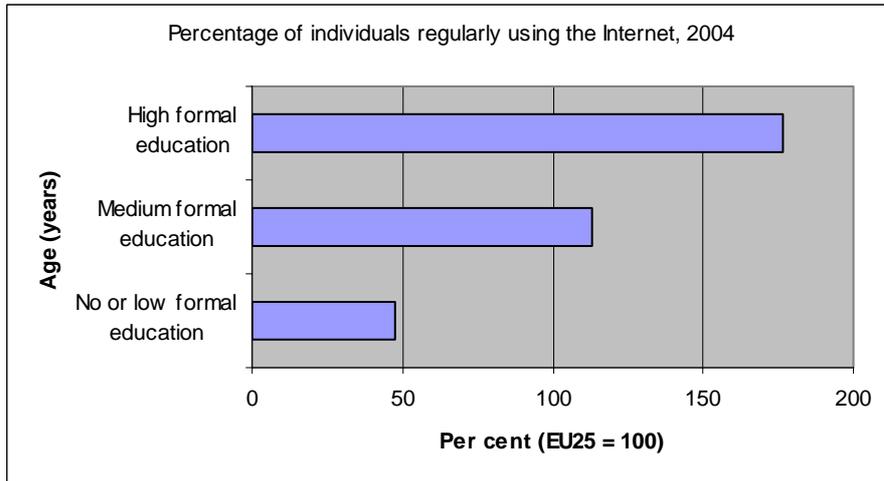
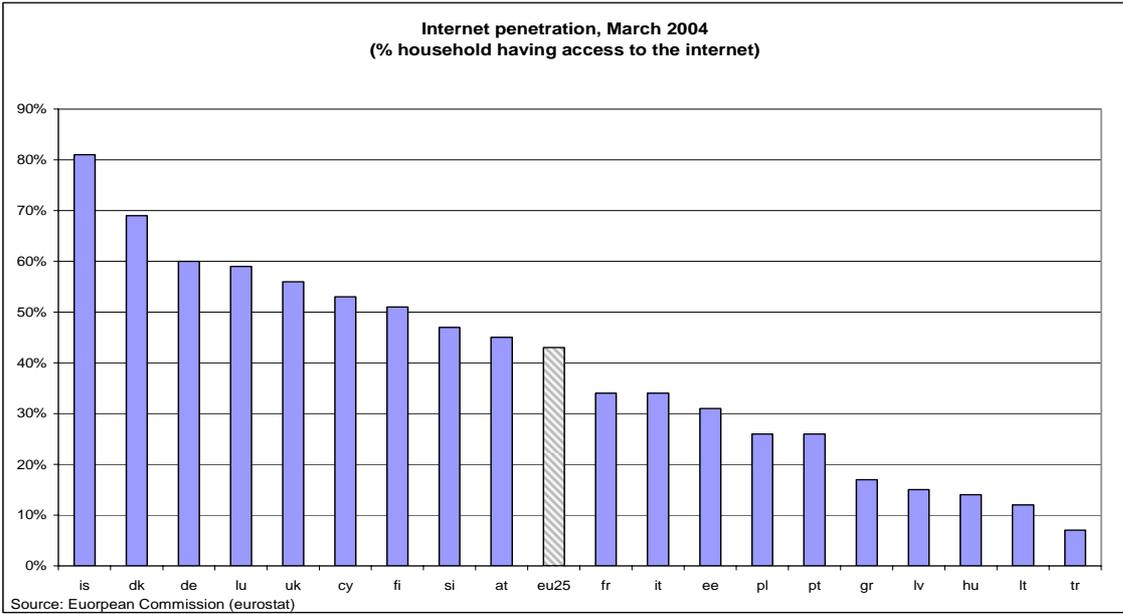
	eu25	eu15	cz	dk	de	ee	gr	es	ie	it	cy	lv	lt	lu	hu	at	pl	pt	si	fi	se	uk	is	no	bg	tr
All Individuals 2003	:	38	20	64	44	:	14	29	25	25	:	:	20	48	:	36	:	22	:	58	69	46	75	66	:	
All Individuals 2004	38	41	:	70	50	45	17	31	27	26	28	27	26	59	21	46	22	25	33	63	75	49	77	68	13	1
Individuals, 15 years old or less	:	:	:	:	:	:	:	:	:	11	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
Individuals, 16 to 24 years old	61	63	:	82	78	75	35	56	35	47	55	54	63	78	53	69	50	54	66	88	92	65	91	84	33	2
Individuals, 25 to 34 years old	52	56	:	79	72	60	26	46	36	39	39	41	31	69	28	65	31	37	54	85	87	64	87	79	20	1
Individuals, 35 to 44 years old	44	48	:	80	60	49	22	35	33	30	27	29	22	67	18	53	18	25	:	75	82	57	82	79	13	9
Individuals, 45 to 54 years old	34	38	:	73	49	37	10	23	24	22	16	19	16	61	16	42	15	17	:	62	76	46	75	75	9	5
Individuals, 55 to 64 years old	21	23	:	59	27	21	2	11	12	10	9	8	7	44	:	24	7	7	:	47	64	32	59	47	3	1
Individuals, 65 to 74 years old	8	9	:	26	13	7	1	2	4	2	4	1	2	14	:	7	1	:	:	9	41	16	29	18	1	0
Males, 16 to 74 years old	43	46	:	73	55	45	21	36	28	31	33	28	26	70	24	53	24	27	36	63	78	55	79	73	15	1
Females, 16 to 74 years old	33	36	:	66	44	44	14	27	26	20	23	27	25	49	19	39	21	23	31	63	73	43	75	63	12	6
Employees, self-employed, family workers	47	50	:	77	61	53	22	39	:	35	30	35	27	70	26	:	26	29	:	74	79	56	:	77	17	1
Self-employed, family workers	38	43	:	76	70	58	15	34	:	34	21	20	13	61	31	:	15	21	:	67	73	49	:	66	24	6
Employees	49	52	:	77	60	52	25	41	:	35	31	35	30	71	26	57	30	31	42	75	79	58	79	78	17	2
Students	74	76	:	89	84	89	46	71	:	62	73	64	77	84	70	89	62	80	82	93	94	84	96	94	48	4
Retired	10	12	:	29	18	3	1	4	:	4	7	1	1	29	1	12	4	:	:	14	33	17	25	28	1	2
Others	15	16	:	57	27	24	3	8	:	4	8	19	6	53	12	24	7	:	:	65	78	29	42	31	11	1
Individuals with no or low formal education	18	19	:	56	39	38	3	10	11	9	11	14	24	34	9	29	21	11	:	48	65	17	67	37	5	3

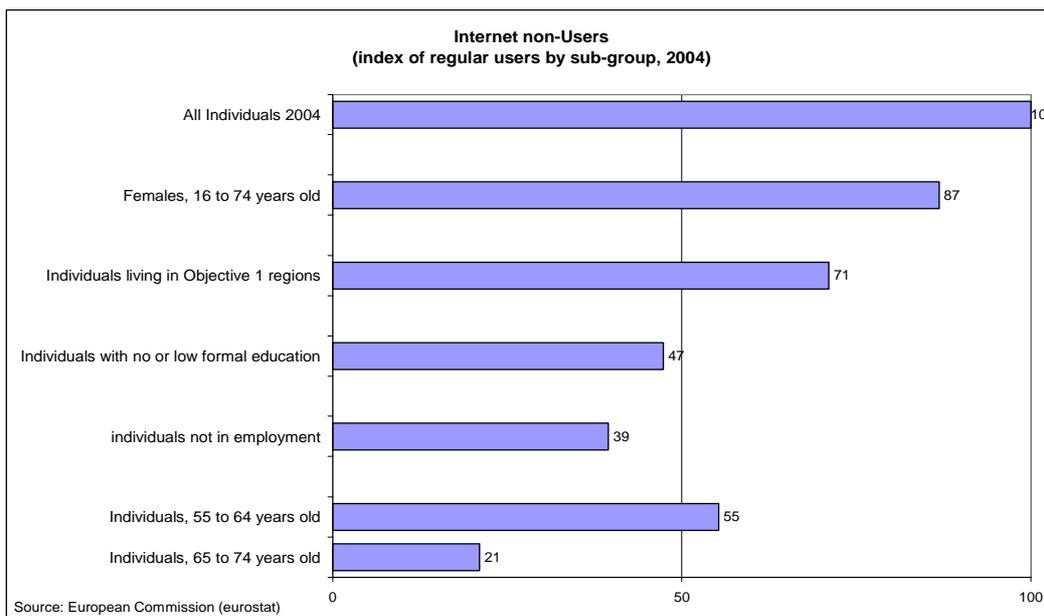
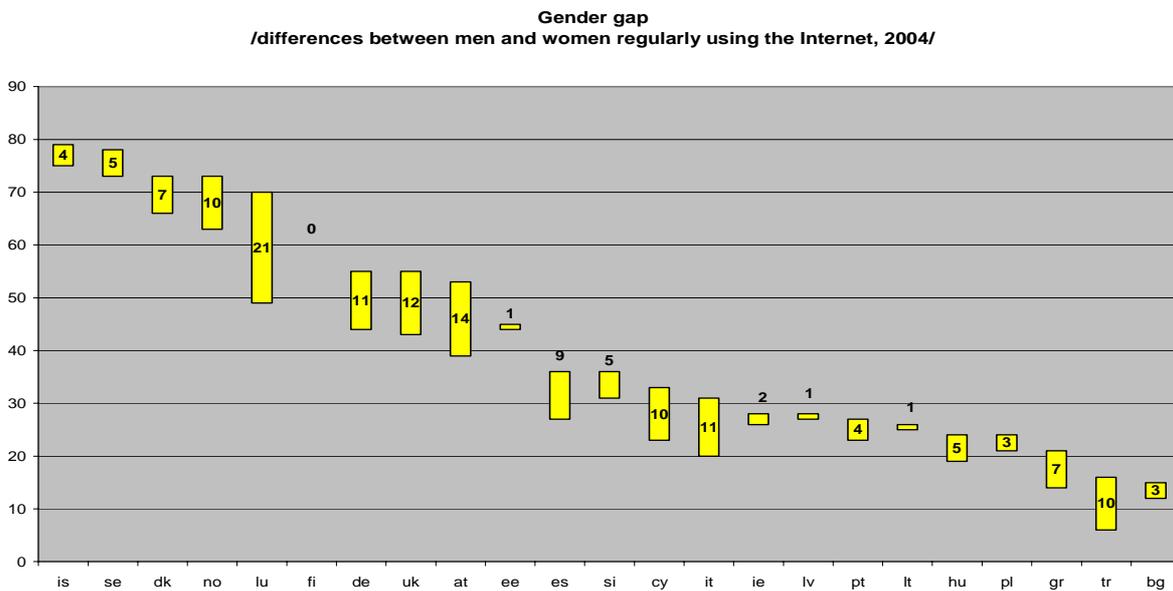
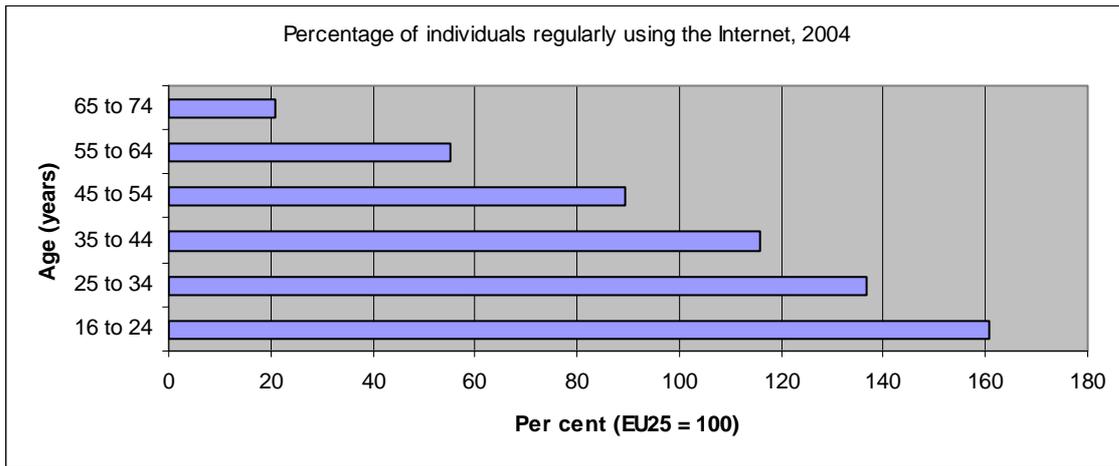
³³ Prepared on the basis of data from Eurostat).

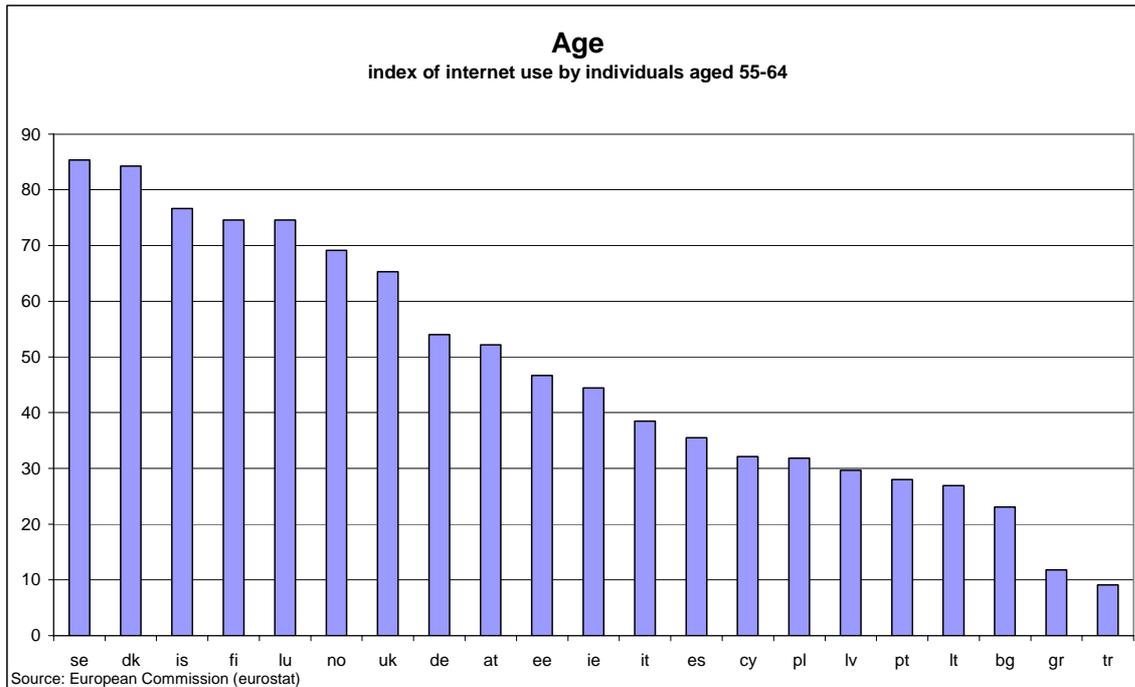
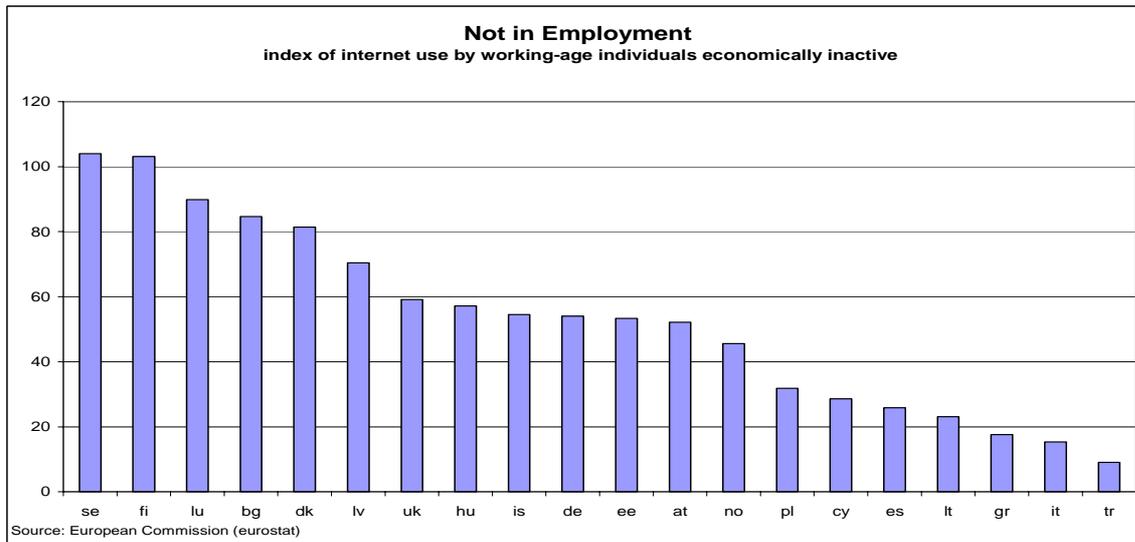
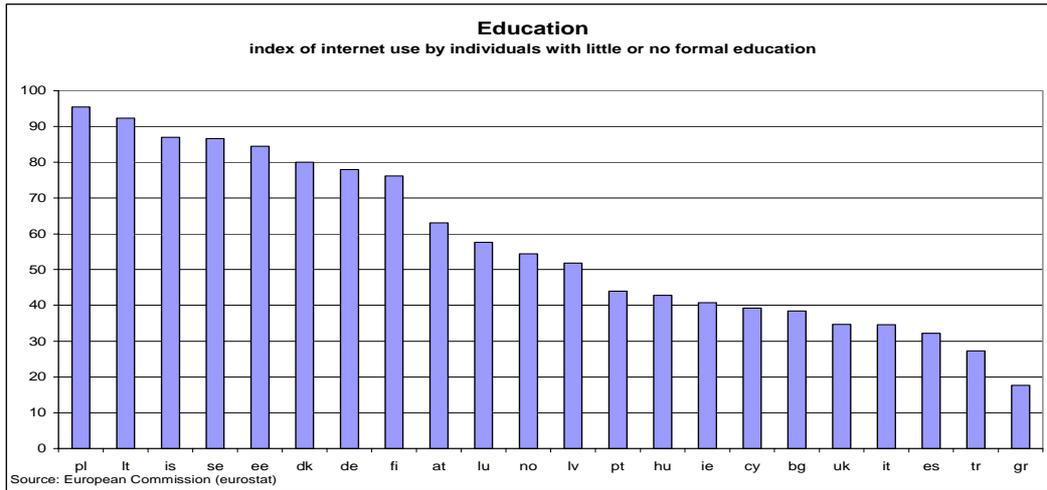
Individuals with medium formal education	43	49	:	70	49	38	24	46	30	42	25	23	18	68	35	47	17	65	33	63	70	53	79	66	11	2
Individuals with high formal education	67	69	:	87	66	64	45	66	52	63	55	58	34	83	57	73	57	79	78	83	91	74	94	87	32	5
Individuals living in Objective 1 regions	27	29	:	:	45	45	17	27	27	20	:	27	26	:	21	40	22	25	33	54	78	40	:	:	:	:

Source: European Commission (Eurostat Household Survey)

Table 2	Percentage of households having access to the Internet at home, 2004																										
By Household type:	eu25	eu15	cz	dk	de	ee	gr	es	fr	ie	it	cy	lv	lt	lu	hu	nl	at	pl	pt	si	fi	uk	is	no	bg	tr
All households	42	45	:	69	60	31	17	34	34	40	34	53	15	12	59	14	:	45	26	26	47	51	56	81	60	10	:
Single person	30	33	:	53	44	11	11	15	15	16	21	48	3	3	47	4	:	31	16	9	13	33	36	45	38	4	:
Single parent with dependent children	44	46	:	69	72	29	31		30	24	34	63	18	18	0	27	:	51	28	29	:	50	49	81	67	13	:
2 adults	38	41	:	69	54	22	8		25	32	20	47	9	7	58	8	:	38	16	14	21	49	52	69	65	4	:
2 adults with dependent children	57	61	:	88	83	52	26		49	55	41	56	24	18	78	26	:	63	37	42	69	79	77	91	88	15	:
3+ adults	53	58	:	:	81	26	19		:	46	48	52	24	14	67	19	:	51	30	28	55	66	63	84	80	16	1
3+ adults with dependent children	53	64	:	:	90	32	14		:	55	48	59	21	15	79	23	:	62	30	33	65	92	76	95	94	12	:
All types without dependent children	39	43	:	:	53	17	12		:	30	30	49	10	6	53	9	:	38	19	16	28	42	48	66	49	8	:
All types with dependent children	56	64	:	:	82	46	23		:	51	43	57	22	18	66	25	:	62	34	39	:	77	71	91	84	14	:
Households in Objective 1 regions	30	34	:	:	51	31	17	27	:	40	29	:	15	12	:	14	:	39	26	26	47	40	48	:	:	:	:
Time Series																											
2002	:	39	:	56	46	:	12	:	23	:	34	:	:	4	40	:	58	33	:	:	:	44	50	:	:		
2003	:	44	15	64	54	:	16	28	31	36	32	:	:	6	45	:	59	37	:	22	:	47	55	:	60		
2004	42	45	:	69	60	31	17	34	34	40	34	53	15	12	59	14	:	45	26	26	47	51	56	81	60	10	:







Appendix III– References

eEurope Advisory Group

eEurope Advisory Group - Working Group 1 – "Broadband Territorial Coverage - Digital Divide Written Recommendations", 2004

http://europa.eu.int/information_society/eeurope/2005/all_about/advisory_group/documents/index_en.htm

European Commission Papers

"Common objectives in the fight against poverty and social exclusion", Lisbon European Council (March 2000), revised, December 2002

http://europa.eu.int/comm/employment_social/soc-prot/soc-incl/com_obj_en.htm

"Joint report on social inclusion summarising the results of the examination of the National Action Plans for Social Inclusion (2003-2005)" (COM(2003)773), and "Report on social inclusion 2005 - an analysis of the National Action Plans on Social Inclusion (2004-2006) submitted by the 10 new Member States" (SEC(2005)256)

http://europa.eu.int/comm/employment_social/social_inclusion/jrep_en.htm

"e-Inclusion revisited: The Local Dimension of the Information Society" (2005), ESDIS, Commission Staff Working Document SEC(2005)206

http://europa.eu.int/comm/employment_social/knowledge_society/library_en.htm

"e-Skills for Europe: Towards 2010 and Beyond", synthesis report of the European e-Skills Forum, September 2004

<http://europa.eu.int/comm/enterprise/ict/policy/ict-skills.htm>

European research projects

e-Inclusion@EU - Report D1.1, "Analytic Framework - e-Inclusion and eAccessibility priority issues", October 2004

<http://www.e-Inclusion-eu.org/Document.asp?MenuID=47>

Empirica for IPTS, "The impact of ICT on social cohesion: looking beyond the digital divide", 2004

<http://www.jrc.es/home/pages/detail.cfm?prs=1229>

SIBIS – Report No. 6, "Benchmarking Social Inclusion in the IS in Europe and the US", June 2003

<http://www.empirica.biz/sibis/>

BEEP (Better eEurope Practices), "Social Inclusion in the European knowledge society"

<http://www.beepsocial.org/>

e-Living (Life in a Digital Europe), "ICT and Socio-Economic Exclusion Final Report : eLiving Waves 1 and 2", January 2004. See also "ICT Uptake and Usage: Panel Data Analysis" and "Social Capital and ISTs"

<http://www.eurescom.de/e-living/>

OECD reports and surveys

OECD, "Understanding the Digital Divide", 2001
<http://www.oecd.org/dataoecd/38/57/1888451.pdf>

OECD Publishing/Statistics Canada, "Literacy in the Information Age", 2000
<http://www.statcan.ca/english/Dli/Data/Ftp/ials.htm>

PISA, OECD Program for International Student Assessment
http://www.pisa.oecd.org/pages/0,2966,en_32252351_32235731_1_1_1_1_1,00.html

Other sources and papers

European Commission Research Centre, "ICT and Social Capital in the Knowledge Society", 2004
<http://fiste.jrc.es/Pages/detail.cfm?prs=1174>

Pew Internet & American Life Project, "The Ever Shifting Internet Population - A New Look at Internet Access and the Digital Divide", December 2003
http://www.pewinternet.org/report_display.asp?r=88

Bridges.org, "Spanning the Digital Divide: Understanding and Tackling the Issues", May 2001 (long list of links to surveys in Annex 3)
<http://www.bridges.org/spanning/index.html>

(UK) "Digital Equality: Reviewing Digital Inclusion Activity and Mapping the Way Forward"
<http://www.citizenonline.org.uk/pdf/DigitalEquality1.doc>

Alain Rallet and Fabrice Rochelandet, "La 'fracture numérique', une faille sans fondements ?", 2003
http://www.marsouin.org/IMG/pdf/rechelandet_rallet-fracturenum1003.pdf

Arturo Serrano Santoyo, "Estimation and Characterization of the Digital Divide", 2003
<http://www.ejds.org/meeting2003/ictp/papers/Serrano.pdf>