



i2010

Toward an Inclusive
Information Society

**ICT industry White Paper
on Inclusion**

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EICTA

building digital europe

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Foreword



Inclusion is at the centre of my work as European Commissioner for Information Society and Media. It is one of the three pillars of the European Commission's i2010 strategic framework for the Information Society in Europe. ICT continues to bring huge advances both economically and socially, and all of Europe's citizens should be able to participate and enjoy these benefits. Inclusion is not just about increasing access and making services widely available and easier to use but also assisting people to use ICT to make their lives richer and to engage in their community at all levels.

Digital inclusion is not something that will happen all by itself. Although ICT use is becoming more and more widespread, the divide between the people engaged in the digital revolution and those who are not is unfortunately not diminishing. 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.

Without a coherent Inclusion strategy there is a risk that 30-50% of EU citizens will be marginalised in the Information Society. At present only 16% of EU citizens over the age of 55 have Internet access, only 3% of public sector websites complied in 2005 with basic accessibility standards, 15% of the overall population has some form of ability challenge, and only 15% of the EU population has access to broadband.

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. When eGovernment is used wisely, it can help sustain our social model by making government more efficient. It can help promote growth by cutting red-tape. Above all, it can also help to reconnect people to politics and policy. However, this will only happen once nearly all citizens want ICT-based public services and are able to take them up. Accessibility, availability and affordability must all be addressed.

The ageing population is growing into a huge political and economic force, both at European and global levels. Combined with the wider community that is covered by our inclusion policy, there is an opportunity to make access and accessibility central themes in the delivery of services (both government and business) to citizens.

Our continued efforts following the Riga e-Inclusion Ministerial Declaration are ultimately aimed at 2008, when I will launch a European Initiative on Inclusion to give the issue the visibility it needs and to make sure we implement practical solutions.

EICTA's white paper is an important contribution to this Inclusion agenda. Its messages will be key to the ongoing debate and help continue the build up of momentum towards the 2008 initiative.

Strong cooperation between the European Commission, Member States, users and the technology industry that EICTA represents is essential if we are to realise the goal of building a fully inclusive Digital Europe.

Viviane Reding
Member of the European Commission
for Information Society and Media



Executive Summary

There has been rapid growth worldwide in mobile telephony and broadband access, but there are still access problems, especially in emerging economies, mainly: availability, accessibility, and affordability. EICTA, which follows a 3-phase concept towards digital inclusion, favours an approach where initiatives for inclusion avoid interventions that could lead to market distortions. EICTA welcomes the Commission's efforts for stakeholder dialogue in this regard, and suggests that, as a rule, industry should focus on the reduction of total cost of ownership, whereas public authorities should focus on creating favourable public, regulatory and fiscal policies.

The greatest barrier to access is personal income, thus, access for low-income consumers could be accelerated if they could obtain micro-finance (as championed by Nobel Peace Prize laureate Muhammad Yunus). While service costs will diminish over time due to IP core network convergence, more work is needed to ensure that tariffs are lowered, e.g. for interconnection charges and taxes on services and devices.

While EICTA supports the intent of regulatory activity to encourage accessibility for the elderly and those with disabilities, EICTA strongly recommends that it must be attainable and standards based to stimulate the ICT industry to invest in solutions for this market segment. Overcoming knowledge barriers and lack of ICT skills requires investment in Public Private Partnerships (PPPs) to improve skills and to incorporate eLearning into schools and higher education should be stimulated.

Availability of digital technologies without geographical restrictions is the third main pillar for inclusion. Whereas mobile networks cover 80% of the world population, access to broadband networks is lagging. Member States should update their national broadband strategies to set ambitious national targets in terms of coverage, take up, and minimum speed requirements. National and local government should help by creating an adequate policy and regulatory framework that allows private investment in broadband networks.

Open and competitive markets are a key to fostering a positive public sector environment. EICTA encourages a pro-active and long-term view for as European e-Communications policy and a strengthening of skills in countries lagging in communications uptake. As to fiscal policy, EICTA strongly supports the reduction of unnecessarily high taxes on ICT equipment and services. In terms of fostering R&D, public procurement, grants and state aid assist the development of the knowledge society. E-Government must be developed in cooperation with industry. Finally, we should not forget that as Europe becomes increasingly digitally included, the gap with the less economically developed world is widening; hence EU development aid should be directed towards digital technology.



1 Introduction

Integration of digital technology into our personal and professional lives helps create growth, increase productivity and improve quality of life. The European Commission estimates that ICT accounts for 8 percent of GDP, 50% of productivity gains and 25% of GDP growth in Europe.

Ensuring participation in the knowledge economy puts the onus upon all stakeholders in Europe and beyond to ensure that no-one gets left behind whether for reasons of poverty, gender, age, locality or personal ability. Strong collaboration between public, private and third sector actors can ensure all play a part in bridging the digital divide.

Digital inclusion is as a key aspect of the United Nations Millennium Development Goals on poverty reduction and was emphasised at both the first and the second World Summit on the Information Society.

The European Union made its commitments to the goal of inclusion at the Lisbon Summit in 2000 stating that “exclusion from the information society should be prevented and special attention should be paid to the needs of people with disabilities.”

In June 2005, the European Commission launched the i2010 Initiative - “A European Information Society for Growth and Employment” - to turn political commitments into practical realities. An important aspect of the i2010 Initiative is the third pillar called “Inclusion, Better Public Service and Quality of Life,” which puts forward as a key objective:

“An Information Society that is inclusive provides high quality public services and promotes quality of life¹.”

In the context of the i2010 Initiative, and drawing on current European policy discussions relating to inclusion, the objective of this White Paper is to present the European ICT industry’s view on furthering our move toward an inclusive information society.

This paper focuses on the contribution of communication, both mobile and fixed, to inclusion and analyses six critical success factors key to bridging the digital divide:

- 1- Affordability
- 2- Accessibility
- 3- Availability
- 4- Fostering an enabling public sector environment
- 5- Integrating ICT & Inclusion into the Development Agenda
- 6- Strengthening stakeholder collaboration

¹ “i2010 - A European Information Society for Growth and Employment” Communication from the Commission to the council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions”, COM(2005) 229 final (June 2005).

2 Benefits of Inclusive Digital Technologies

Today, more than 2.3 billion subscribers worldwide have signed up to a mobile telephony service provider and it is estimated that over one half of the world population will have mobile access by 2008. More than 1 billion of them subscribed within the last three years. No other innovation in the history of human-kind has spread so widely, so rapidly or so pervasively.

Today more than 1 billion people worldwide have access to the Internet; more than 200 million of them benefiting from broadband access. In France, for instance, there were as many as 10.5 million broadband subscribers at the end of March 2006, more than double the figure for the same period two years before.

Television is now increasingly delivered in a digital form, with a general target switch-off of analogue broadcasts by 2012, with some countries having earlier targets from 2007 on. High Definition Television is spreading, and Mobile Television is another wave of digital technology aiming to soon be widely available due to the convergence of mobile and broadcast.

Furthermore, the convergence of fixed Internet Protocol (IP) based networking and broadcast has enabled the market introduction of IPTV programmes and services in Europe. This is beginning with the delivery of TV programmes on IP based infrastructure, which also carries Internet services, and in addition with generalised access to on demand content.

WiMAX, a broadband wireless access technology, also enables connectivity through wireless networks for fixed, nomadic or mobile use in urban, suburban and rural areas. This solution offers a cost-effective broadband access alternative where DSL is unavailable for technical or economical reasons. For example, it meets the needs of users in remote villages in developing countries who are eager to connect to the telephone network and Internet for the first time.

EICTA recognises that digital inclusion is achieved through a mix of technologies, each with its own virtues and challenges. This paper focuses on what EICTA believes is the fastest and most cost-effective way to reach the goal of the Internet becoming a “public utility infrastructure”: mobile and fixed communications.

Digital convergence is rapidly increasing the power of mobile and fixed enabled devices. As devices and services become more affordable, the advantages of data services, multimedia and Internet access will be possible even in the most remote regions of Europe and the world.

In the mobile area, new mobile service subscriber recruitment is fetching more and more from the lowest revenue categories. Many users of mobile service, especially in emerging countries, are also benefiting from access to mobile telephony not only to communicate but also to improve their daily lives, whether by access to information allowing them to develop their – often small - businesses or by having better information and access to public services like health, education or government.

In a recent study by the London Business School, it was found that an increase of 10 percent access to mobile telephony lends to 0.6 percentage points in GDP growth. Therefore, in addition to improving quality of life, inclusion can also translate to greater prosperity for all.

In fact, 80 percent of people in the world reside in regions covered by mobile communications but only 35 percent make use of mobility². Therefore, there are barriers between the availability of services and their actual affordability and accessibility.

The same could be said about Internet access. It is possible to find public Internet access points (e.g., a Cyber-café) in almost every major city of emerging countries. Still, this access is often very slow, at least as much owing to the lack of available bandwidth linking the given country to the major Internet backbones as to the lack of broadband at the access level. Moreover, the access is expensive³ and, most importantly, not widely used by the population – except for Voice over IP⁴ (VOIP) and hosted electronic mail service – due to the lack of appropriate local content and applications.

In most emerging countries Internet has yet to become the public utility infrastructure allowing people to communicate, entertain, get essential information related to many aspects of their daily life, contact public administrations and authorities, and even get assistance in case of sickness or immobilisation.

² The Economist, “Less is more – Mobile Phones and Development”, July 9th, 2005

³ Even in absolute (i.e., non purchasing power parity) terms with respect to developed countries’ average prices.

⁴ As a way to bypass the expensive rates of long distance international calls that are still applied by many telecom incumbent operators of emerging countries.

⁵ LSE@Media, Telecoms Demand: Measures for improving affordability in development countries, January 2006.

A study by the London School of Economics analysed key factors that account for access barriers⁵. The study found that the single most important factor was personal income. Thus, lowering the total cost of ownership of communications for citizens is central to extending the benefits of access for all.

The study estimates that a further 700 million people are today still trapped below the 'affordability line' due to low income. Income levels accounts for 80% of the correlation to high penetration.

The remaining barriers point to the need for pro-inclusion public policies and the provision of innovative solutions, which lower the total cost of ownership, and to ensure product and service designs are human-centred. This paper therefore addresses the critical success factors for extending broadband and mobility toward digital inclusion.

3 Critical Success Factors for Inclusion

EICTA believes that digital inclusion can be divided into three main risks to exclusion as follows:

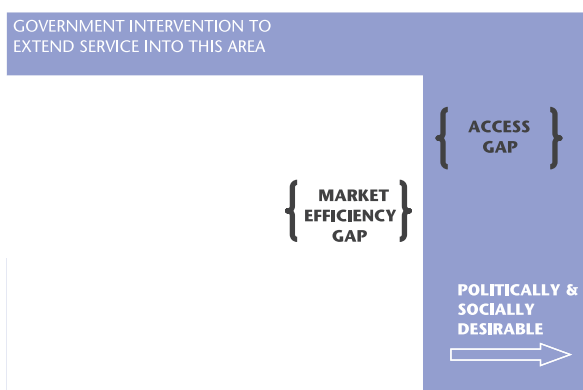
- Availability: People disadvantaged due to lack of geographical coverage
- Accessibility: This has two elements: 1) people with disabilities such as visual, audio, speech, cognitive or mobility related 2) people who are lacking in ICT skills
- Affordability: People do not have access due to a lack of resources. Either the average income of a potential consumer is too low or it is not profitable to provide service due to actual operating costs.

In relation to the latter, average incomes rise very slowly over time whereas communication price levels can be reduced more rapidly provided the right enabling environment exists. According to the London School of Economic Study there are two major influences on affordability⁶:

- overall income levels
- overall communications price levels

EICTA supports the World Bank's⁷ view that there are essentially three key phases of market development toward digital inclusion as illustrated below.

1. Business as usual
2. 'Market inefficiency gap': Commercially feasible but public policy or limiting business models
3. 'Access gap': Market failures requiring public intervention.



Before embarking upon new public policy, it is important to ensure that there are clear distinctions between the three phases. New intervention could otherwise lead to market distortions, which would actually hinder existing plans or lead to new barriers.

Therefore, EICTA fully supports the Commission's approach of open stakeholder dialogue followed by lead pilots in 2007 prior to taking further actions in 2008.

3.1 Affordability

Affordability is a function of disposable income and the total cost of ownership of communications for a citizen (the device itself plus the running costs, and taxation). Lowering the total cost makes communications affordable to people with lower disposal incomes. The impact is exponential: with every Euro saved in total cost, the market expands rapidly.

Think of a pyramid. The most affluent people are at the top peak. As we move down to lower levels of affluence, there are with each step down far more people. This dynamic is essential to the economic viability of widespread communications. Telecommunication infrastructure and devices can be made more cost-efficient and operators can profit from lower revenues per person when the underlying technology is geared for a mass market.

But costs continue to be higher than needed in many markets because of policies of regulators and tax authorities, and due to inefficient business models. It is estimated that there are 700 million people in the world without access due to cost barriers. Therefore, all stakeholders much play their part in ensuring that the total cost of ownership decreases.

As an example, on average, 71% of total cost of ownership for mobile consumers relates to the ongoing service provision i.e. the licensing, build out and ongoing usage of a mobile service. The second most significant cost is approximately 15% and relates to taxation. The remainder is related to the terminal costs.

Moreover, the total cost of ownership for future devices that can enable usage of new technologies, such as fixed-mobile convergence, can be at risk of low adoption due to terminal costs.

EICTA believes that it is essential for industry to focus on the reduction of total cost of ownership and for public authorities to focus on favourable public, regulatory and fiscal policies.

⁶ LSE@Media, Telecoms Demand: Measures for improving affordability in development countries, January 2006.

⁷ Dymont, A, Juntunen, N., & Navas-Sabater, J. (2000). Telecommunications and Information Services for poor: Towards a Strategy for Universal Access. World Bank Discussion Paper 432.

⁸ Nokia, The Affordability Line, 2004.

a. Income barriers

The greatest barrier to access is personal income. Research has shown that 80% of the differences in penetration rates can be attributed to differences in average personal income levels between countries⁸. It follows then that access will continue to increase as wealth is distributed more widely. This growth is naturally linked to long-term development plans.

In order to accelerate digital inclusion, there are two key success factors to overcome the income barrier:

- **Make communications more affordable**
- **Give those with low income access to micro-finance**

b. Service efficiency

New business models and innovations are important to achieve affordability. First, it should be noted that mobile networks are complementing fixed networks. With internet protocol (IP) core network convergence, more and more of the backbone infrastructure will carry information and communications irrespective if data originates from fixed or wireless access points.

Whether someone is talking using a Voice over IP (VOIP) call or someone else is browsing the Internet, the backbone will be the same. This trend will drive down the service costs over time as the need for multiple network infrastructures will diminish.

In addition, new technology has emerged to maximise capacity within networks such that more traffic can be sent over existing network infrastructures.

The ability to self-serve small over-the-air payments is also making it possible for customer care costs to be reduced and also to allow those with low incomes to pay as they go.

However, EICTA believes that more work is needed to ensure that tariff rates are lowered such that low income consumers can be reached.

- **For example, regulatory and fiscal policy tools can be used to ensure interconnection charges and service taxes are reasonable.**

c. Taxation

Public authorities have a role to play in reducing total cost of ownership by lowering taxation on devices and on network services. In the example of mobile access, taxation accounts for a full 15% of the total cost of ownership.

The full extent of total cost of ownership and its influence is analysed in a 2005 independent report covering 50 emerging countries commissioned by the GSM Association (GSMA), entitled *Tax and the Digital Divide*. According to the economic models prepared for this study, every reduction of one percentage point in sales taxes on mobile services would result in a two percent increase in mobile penetration between 2006 and 2010 in any surveyed country.

This means that lowering taxes on wireless communications will increase governments' total tax revenue in the long term as more subscribers sign up. Another example would be the possibility to deduct the costs for an IT device purchase or for the subscription of a service from income or more specifically from corporate tax. EICTA calls upon public authorities to lower taxation barriers to access.

Comparable actions on tax incentives for massive broadband uptake can be identified in the fixed communications area, in Malaysia, for example, soft loans to internet service providers (ISPs) are available. This leads to 20% tax relief on broadband investment, to be extended to SMEs from selected sectors.

→ **Lower taxation on devices and on network services**

→ **Offer tax incentives for broadband uptake, e.g. soft loans**

d. Device Affordability

Mobile devices have plummeted in price over the years. In 1984 the lowest priced model was €1400. By 2003, the lowest priced model hit €80.

Today, innovation is enabling manufacturers to offer phones of high value (e.g. with many of the latest feature and even with new features designed just for low income markets) at lower prices. The same trend is happening in service fees whereby the lowest fees are a few cents a minute compared to a few Euros a minute some time ago.

It is important to note that quality must be maintained and therefore there is a lower limit to price reduction. For many people, their communications device is their sole means of connection to the world. Therefore device failure means immediate exclusion.

The evolution of PC usage in mature markets around the world followed a set of very distinct phases. First came stand alone, non-connected devices in the 1980s, then came modem-equipped PCs in the 1990s that eventually afforded their users access to the Internet, and these were followed by the advent of broadband in the beginning of the 21st Century.

Today, users in high-growth economies are bypassing all these stages and starting out with broadband access to the Internet and demand for this access has emerged as the main driver for PC acquisition.

To facilitate PC acquisition, and by association stimulate the market for broadband service, computer vendors, telecommunications service providers, and national governments have undertaken a number of noteworthy initiatives.

The widely publicised “One Laptop per Child” initiative develops specifications that can be used by manufacturers to produce a laptop with a net target price of US\$100 and assumes that the laptop will be purchased by government agencies and distributed to students free of charge.

Moreover, digital players and receivers provide easy access to a variety of content, with increased possibilities of choice, organisation and personalisation compared with that which was previously available in analogue form. The entry price of such devices is lower than those of computing devices.

3.2 Accessibility

a. Usage barriers

Since the invention of the computer, a debate has existed concerning the complexity of computers and the related skills required to use them. We have come a long way since the days when men in laboratory coats with PhD educations were needed to operate mainframes.

In the last decades, investments in intuitive ICT design have transformed many technology developments into innovative products with broad usage bases. People of all ages, income levels, and levels of education are interacting with each other.

Nonetheless, a recent study in the USA found out that 60% of working-age adults can benefit from the use of accessible technologies because they experience mild impairments or difficulties when using current technologies⁹.

Shifting demographics dictates the need for further improvements in accessible design. The number of people aged over 65 will rise from 390 million now to 800 million by 2025 - reaching 10% of the total population¹⁰. As the overall number of elderly people increases there is a corresponding rise in the number of persons with disabilities¹¹.

By 2025, increases of up to 300% of the older population are also expected in many developing countries, especially in Latin America and Asia¹².

Ageing baby boomers also have high disposable incomes and brand loyalty, which is stimulating the ICT industry to invest in solutions for this fast growing market segment.

The resulting investment will ensure greater availability of ICT solutions for people with special needs whether for visual, hearing, speech, cognitive, or physical/mobile impairments.

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

10 World Health Organization 50 Facts: Global Health Situations and Trends 1955-2025

11 Disability statistics abstract. People with disabilities in basic life activities in the US, number 3. Washington DC, US Department of Education, National Institute on Disability and Rehabilitation Research.

12 World Health Organization 50 Facts

13 EICTA White Paper on eAccessibility 19-10-2005: <http://www.eicta.org/files/WPeAccessibility-161511A.pdf>

14 European Commission, Social Policy Agenda, COM, 2000 (379) Final.

EICTA supports the spirit and intent of emerging regulatory activity that encourages technological products and services to be accessible to people with disabilities and the elderly. However, we believe that regulations must be objective, attainable and standards-based to provide a common set of base requirements that all vendors can work toward.

EICTA believes that the use of regulation to improve technological accessibility will be most effective when it is globally "harmonised" and embodies a consistent set of expectations and objectives. If multiple, conflicting regulations emerge it would become technically and economically difficult for vendors and their clients to support them and could create a disincentive to participate in certain markets. The end result is that the user does not benefit, may have less choice and significantly increased costs.

EICTA's general position on eAccessibility¹³ can be summarised as:

We support self-declaration as the means of confirming conformance to accessibility guidelines and requirements; self-declaration, using a Supplier's Declaration, has been shown to encourage conformance while not stifling innovation.

We believe that certification and accessibility labelling are not reasonable, have few advantages, and limits innovation as vendors concentrate on acquiring certifications as opposed to creating solutions.

In order to avoid market fragmentation and increased consumer cost we oppose the development of specific national or regional requirements.

We would prefer to see accessibility requirements expressed in terms of functional outcome rather than requiring specific implementations.

We support the adoption of globally-harmonised open standards for the Internet provided that they are able to accommodate technological advances and that they efficiently place responsibilities on all the interested parties including the Web developer, the browser, Assistive Technology manufacturers, end users, and government.

We believe that standards should be forward-looking and facilitate direct access to all technologies; we value the adoption of standards but do not support mandated ones.

EICTA is therefore committed to ensure its products and services continue the trend toward greater usability. Intuitive, human-computer design makes technology accessible for all; this is a noble goal that makes eminent business sense.

- **The market increasingly has incentive to make ICT devices accessible**
- **Regulations must be objective, attainable and standards based to provide a common set of base requirements for all vendors**
- **Self declaration is the appropriate means of confirming conformance to accessibility guidelines and requirements**
- **Certification and accessibility labelling are not reasonable**
- **Specific national or regional requirements should not be developed**
- **Accessibility requirements should be expressed in terms of functional outcome**
- **Globally harmonized open standards for the Internet should be adopted provided that they are able to accommodate technological advances and that they efficiently place responsibilities on all the interested parties.**

b. Knowledge barriers

The structure of the industry is changing from being dominated by manufacturing to being dominated by advanced services and high-skilled jobs. The level of education in Europe must be increased to, and above, the levels found in the other main regions of the industrialised world¹⁴.

ICT technologies offer large opportunities for more flexibility and quality in educational systems. But equally important is the increase in the level of ICT skill, both in the working place and in daily life, for all groups in society. Life-long learning will also be necessary.

A study conducted recently by AICA in Italy, entitled “the cost of ignorance”, demonstrates that the lack of computer literacy in the workforce is costing the government approximately €15.6 billion a year¹⁵. Another survey recently conducted by the NHS in UK shows that if basic ICT training were provided, people would save over half an hour a day in performing their tasks.

It is important to invest in major skills training initiatives such as the European Alliance on Skills for Employability, launched in January 2006¹⁶. The Alliance’s goal is to put a clearer spotlight, through programmes and contribution to policy dialogue, on the provision of employability skills training that will help Europe’s unemployed people, older workers and people with disabilities to become more employable and economically active.

The ICT industry is increasingly active in designing programmes to improve citizens’ e-skills. The support from government in the form of public-private partnerships is needed to face this huge challenge. The main focus should be on disadvantaged people like the elderly, unemployed, people with disabilities, people working in SMEs etc. It is also critical to be active with e-learning initiatives in school and higher education because children and younger people learn quicker. This will have a long-lasting macro-economic effect on our societies in terms of human resources. It is therefore also critical to be active in the development of e-skills for teachers and professors and integrate ICT into the school and higher educations’ curricula.

EICTA supports the Commission’s views and is committed to fostering ICT skills to ensure Europe is well positioned to meet the challenges of a knowledge-based economy.

- Invest in major skills training initiatives
- Public-private partnerships to improve e-skills
- E-Learning initiatives in schools and higher education

3.3 Availability

As mentioned above, one of the three main sources of exclusion is availability of digital technologies due to geographical restrictions. While mobile networks cover 80% of the world population access to fixed and mobile broadband networks is lagging.

One way in which this should be addressed is by updating national broadband strategies in the Member States to include ambitious national targets, both in terms of coverage and take up, but also minimum speed requirements. National broadband plans should also move beyond today’s first generation broadband networks and consider next generation networks with improved speed and reliability and the ways to achieve it. In order to prevent exacerbation of the global digital divide and the associated consequences for economic development, European governments should be mindful of international compromises when planning national strategies.

This does not mean that the national governments should build the networks themselves. The main role of national or local government is to create an adequate policy and regulatory framework that would allow private financing of broadband networks, and only take some necessary initiatives if commercial players do not see the business-case as sufficiently to warrant investment.

To fulfil a national broadband strategy, a number of instruments can be used:

Wholly or partly publicly-funded infrastructure projects which are usually done through a Public-Private Partnership. This has to be done in compliance with competition rules and in a way that does not distort the competition in the market.

Regulatory conditions can be adjusted, allowing for some regulatory relief that improves the business case for the commercial entities. EICTA believes that the private sector

15 Report by AICA (the Italian Computer Association) and SDA Bocconi University, 2003.

16 The “European Alliance on Skills for Employability” is a new initiative by the members of the “eSkills Certification Consortium” (www.e-scc.org/alliance), Cisco Systems, CompTIA, EXIN, ECDL, and Microsoft together with Randstad and State Street Corporation and supported by a growing number of other stakeholders like EAEA, FIT etc.

17 For further information, please see EICTA’s white paper on “Innovation and Investment in Research” <http://www.eicta.org/press.asp?level2=24&level1=6&level0=1&docid=701>

can finance the deployment of broadband networks in most cases if the regulatory framework allows for adequate compensation of the investment risk.

Exchange of best practice, e.g. through a special website, as proposed by the Commission. This can be an important supporting activity to other actions.

Demand aggregation may trigger deployment in certain areas of Europe. Care must be taken so that it does not foreclose the market to other operators or lead to the deployment of technologies without scope for further development, to the detriment of consumers.

When designing which policy measures to use, it is in general important not to prescribe which technology should be applied. There is presently a broad palette to choose from, whether fixed, mobile, wireless or satellite. Those that build the network and take the commercial risks should make the technology choice, with the only restriction from government being that the quality of service should meet certain standards.

- **National broadband strategies in the Member States need to be updated to include ambitious national targets, both in terms of coverage and take up, but also minimum speed requirements.**
- **Wholly or partly publicly-funded infra structure projects should be proposed, usually through a Public -Private Partnership.**
- **Regulatory conditions should be adjusted, allowing for some regulatory relief that improves the business case for the commercial entities.**
- **Exchange of best practice should be encouraged**
- **Demand aggregation may trigger deployment in certain areas of Europe.**

3.4 Motivation to change

EICTA believes that policy-makers and industry need to increase communications on the overall benefits of a shift toward a knowledge-based economy.

This shift is not in conflict with the European way of life, on the contrary, continued prosperity will help sustain and build upon it. Change requires a mindset shift and motivation to embrace that which is new. We must build motivation to embrace ICT and to ultimately change the way we live and work.

3.5 Foster an Enabling Public Sector Environment

a. Open and Competitive Markets

Europe's own e-Communication market is one of its biggest policy successes. Europe success in deregulation of the sector coupled with pan-European standardisation, harmonisation of spectrum and increased investment in R&D provided a pro-innovation environment for the digital technology industry.

Furthermore, independent and strong regulators have been successful in ensuring a level, market-driven and competitive playing field in Europe and beyond. High penetration rates correlates with multiple market players.

EICTA encourages Europe to continue with a pro-active and long-term view for e-Communications policy and where possible strengthen skills among countries which are lagging in communications uptake in Europe and beyond.

b. Favourable Fiscal Policy

In order to lower total cost of ownership and make technology more affordable, public authorities can reduce the tax burden places upon ICT services and devices.

Sales taxes, tariffs on services and for non-EU countries high customs duties should be reduced to stimulate markets.

EICTA strongly supports the reduction of unnecessarily high taxes on ICT equipment and services.

In addition, government investment is needed in R&D. EICTA strongly supports the EU targets of increasing R&D spending of up to 3% of GDP. Here public procurement, grants and state aid can help foster this new growth knowledge society¹⁷.

iii. Develop compelling public services

eGovernment is a key factor in achieving digital inclusion, as recognised by the EU Ministerial Declaration on eGovernment and by the European Commission¹⁸. EICTA believes the following steps are necessary to realise the goals of the Commission and Member States:

Winning trust and acceptance by citizens and business

The political direction of eGovernment must reinforce trust and acceptance for ICT solutions by citizens and business around Europe. The opportunity today is to develop trusted local solutions, for example, for electronic identification, and at the same time to advance interoperability so that public services can become much easier to use, more meaningful, and do away with unnecessary administrative burden across Europe.

Inclusion of the industry in developing the eGovernment agenda

Industry has already successfully developed ICT solutions for many internal services and processes. Therefore, it is critical that Industry is allowed to play a full part in the development of the eGovernment agenda as a full and trusted partner, as well as being a delivery agent of effective ICT solutions. Such cooperation in agenda setting will also provide a good basis for public-private partnerships for successful eGovernment delivery.

There are a number of examples in EU member states where government and industry have developed a modern relationship based on openness and trust, which has contributed to the achievement of successful delivery of ICT-enabled public sector programmes for the benefit of citizens and business. We urge the European Commission to consider adopting such initiatives at the EU level to enable the achievement of eGovernment objectives.

Such examples include:

- **The UK IT Supplier Code of Best Practice (sets out the standards of professionalism and behavior that should be most likely to improve the success rate of IT enabled projects and programmes)**
- **Senior Responsible Owner and Senior Responsible Industry Executive initiatives (to promote clear, active and visible leadership for public sector projects)**
- **Concept Viability initiative (early engagement between the government and industry aimed at enabling public sector clients to take market soundings to test the practicability of their ideas at the earliest possible stage)**

Furthermore, production and delivery of broadcast programmes of public interest, with public funding is delivered in digital form by the members of the European Broadcasting Union (EBU), on a variety of platforms:

- **Digital Television**
- **Web access for Electronic Programme Guides and selected programmes (e.g. radio) for replay**
- **Recorded media, e.g. DVD, CD.**

¹⁸ p10 Commission Communication "i2010 - A European Information Society for Growth and Employment", 1 June 2006; EU Ministerial Declaration on eGovernment, 24 November 2005

<http://www.egov2005conference.gov.uk/documents/proceedings/pdf/051124declaration.pdf>

Best Practice & Professionalism

Industry's training and business development programmes play a key role in expanding the technical skills base. This is equally valid for public administrations. One area of concern is the ability and aptitude of existing administrative and operations staff within public administrations to use more advanced systems and to provide broader, holistic services. To this end, EICTA believes attention should also be paid to non-IT professionals within the senior levels of public administrators. Their performance management programmes should include an awareness of ICT and ICT programme delivery.

Governments will benefit from making optimum use of existing market solutions, services, and technologies

Governments will benefit from making better use of the existing market. By adopting already developed solutions there can be major savings in cost, time and risk.

Moving away from departmental silo mentality to a more holistic approach

A holistic approach (between IT departments of public administration, between government organisations, and between EU member states) will bring significant benefits for citizens, business and the competitiveness of the EU.

Trusted access to public services through mutually recognised electronic identifications

As is rightly stated in the EU Ministerial Declaration, secure electronic means of identification for use by people accessing public services is essential for citizen and business trust and in ensuring the effectiveness and efficiency of our public administrations. Cooperation at the EU level is necessary to achieve this goal.

Interoperability – using standard building blocks in order to avoid duplication and re-inventing the wheel

Interoperability is the ability of two or more networks, systems, devices, applications or components to exchange information and to use the information exchanged. In this area, the challenge to the public sector is not only to achieve technical interoperability, but also to make progress in the fields of organisational/legal interoperability between the many layers of government, as well as achieving semantic interoperability between various government IT-systems.

- **Industry is allowed to play a full part in the development of the eGovernment agenda**
- **Performance management programmes of senior public administration officials include an awareness of ICT and ICT programme delivery.**
- **Governments will benefit from making optimum use of existing market solutions, services, and technologies**
- **Public administrations should move away from departmental silo mentality to a more joined-up approach**
- **Secure electronic means of identification for use by people accessing public services is essential**
- **For interoperability, the challenge is not only to achieve technical interoperability, but also to make progress in the fields of organisational interoperability between the layers of government**

3.6 Leveraging EU Development Policy**Europe is the world's largest development aid donor.**

Given the relative and growing importance of Information and Communication Technologies in the programming of the EU Structural Funds in the years 2007-2013 this positive evolution should also be reflected in a revised EU Development Policy. ICT infrastructure is a main driver of competitiveness and job creation. But there is also a risk that Europe becomes increasingly digitally included whereas the gap with the less economically developed world is widening. Consequently, EICTA believes that Europe should use its relative strength in e-Communication as a contingent policy instrument for development aid.

The World Summit on the Information Society concluded that efforts should be strengthened to include ICT in multilateral and bilateral aid considerations. While it is recognised that bilateral aid is the domain of individual Member States, the EU should aim at providing incentives for harmonising existing and future aid programmes of its Member States with a view to provide a coherent development policy that includes ICT for development. Any such development aid should also provide for the possibility of combining soft aid with market based financing, i.e. in public-private partnerships for development.

The EU should focus on the following areas that, together, form a logical “ensemble”:

- **ICT programmes that give opportunities to people to get digitally included**
- **ICT in Education programmes that make sure people know how to use technology in their day-to-day life**
- **E-government measures that enhance and simplify the communication between government and citizens**
- **Fixed and mobile broadband access programmes as the Internet is a major incentive to purchase a device and is a synonym for access to more information that is otherwise difficult to obtain in poor countries**
- **Integration of ICT into sectors essential for sustainable development such as health, agriculture and entrepreneurialism.**

Project experience from the ICT industry in developing countries shows that the latter are very eager to be progressive in terms of ICT adoption. They are not focusing only on the basic needs in health and transport infrastructure. The reason for it is that they see the long term macroeconomic impact of ICT infrastructure measures. But very often public funding is insufficient. That is where the EU has to help by providing financial backing to less economically developed countries.

ICT should also be fully integrated into development policy to ensure larger markets for European innovations, particularly those which contribute to digital inclusion.

Stimulating markets abroad and harnessing EU know-how will help accelerate and provide incentives to industry to bring inclusive solutions to market.

3.7 Strengthen Stakeholder Collaboration

EICTA supports the European Commission’s approach of stakeholder dialogue in the run up to 2008 when it will launch pilots. This gives ample time for reflection by all parties on a clear and proactive strategy for further developing an inclusive information society.

ICT technologies are clearly available for most, but for many they are not affordable. Therefore further reflection is needed on where and how change is needed so as to ensure digital inclusion.

Policy makers will need to ensure they carefully analyse the appropriateness of policy tools in reducing the “market efficiency gap” vs. “the access gap”. Intervention in commercially feasible vs. unfeasible markets requires a differentiated approach. A false step can lead to market distortions.

Public, private and third sector actors all have a role to play in building a strategy for an inclusive information society and thus, EICTA welcomes deepened stakeholder dialogue.

4 Conclusions

There has been a rapid growth worldwide in mobile telephony, and broadband access has been growing quickly. Digital TV, HDTV, IPTV and mobile TV are all spreading. Nonetheless, there are access problems, especially in emerging countries. There are three main risks to inclusion: availability, accessibility – both in terms of people with disabilities and those lacking in ICT skills – and affordability. The biggest problem of them all is affordability.

EICTA supports the concept of three phases of market development towards digital inclusion: the functioning market, the market inefficiency gap and the access gap. The market inefficiency gap is where digital inclusion is commercially viable, but is limited by public policy hurdles or limiting business models. The access gap represents market failures, which may be socially and politically desirable but require public intervention. It is necessary to identify initiatives with this in mind to avoid intervention that could lead to market distortions. Therefore, stakeholder dialogue is important and EICTA welcomes the efforts of the Commission to do so.

EICTA believes that it is essential for industry to focus on the reduction of total cost of ownership and for public authorities to focus on favourable public, regulatory and fiscal policies. The greatest barrier to access is personal income. It follows then that access will continue to increase as wealth is distributed more widely. To accelerate access low-income consumers could be given access to micro-finance. In terms of service costs, these will diminish over time as IP core network convergence leads to multiple access networks to decrease. However, more work is needed to ensure that tariffs are lowered, for example, for interconnection charges and service taxes. Taxes should be decreased on devices to promote inclusion and this may lead to increased tax revenues in the long run. There is also a long term trend for the prices of digital technology devices to fall. It should be noted, however, that there is a lower limit to price reduction as quality of service is important in achieving inclusion too.

Shifting demographics dictates the need for further improvements in accessible design as elderly people are proportionally more likely to have disabilities. This is naturally stimulating the ICT industry to invest in solutions for this market segment. EICTA supports the intent of regulatory activity to encourage accessibility but it must be attainable and standards based. It will also be more effective when it is globally harmonised. Knowledge barriers, or lack of ICT skills, are proving

expensive in economic terms. It is therefore important to invest in PPPs to improve skills and to incorporate eLearning into schools and higher education.

Availability of digital technologies due to geographical restrictions is the third main source of digital exclusion. While mobile networks cover 80% of the world population access to fixed and mobile broadband networks is lagging. One way in which this should be addressed is by updating national broadband strategies in the Member States to include ambitious national targets, both in terms of coverage and take up, but also minimum speed requirements. This does not mean that the national governments should build the networks themselves. The main role of national or local government is to create an adequate policy and regulatory framework that would allow private financing of broadband networks.

Open and competitive markets are a key to fostering a positive public sector environment. EICTA encourages Europe to continue with a pro-active and long-term view for e-Communications policy and where possible strengthen skills among countries which are lagging in communications uptake in Europe and beyond. Favourable fiscal policy is also important. EICTA strongly supports the reduction of unnecessarily high taxes on ICT equipment and services. In terms of fostering R&D, public procurement, grants and state aid assist the development of the knowledge society. E-Government is also very important and the agenda must be developed in cooperation with industry.

Finally, project experience from the ICT industry in developing countries shows that the latter are very eager to be progressive in terms of ICT adoption. The reason for it is that they see the long term macro-economic impact of ICT infrastructure measures. The risk is that Europe becomes increasingly digitally included whereas the gap with the less economically developed world is widening; hence EU development aid should be directed towards digital technology.



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