

Brussels, 1 June 2005



i2010 – A European Information Society for growth and employment

Why a new initiative now?

Best-bet investment for growth and jobs

Information and communication technologies (ICT) are a powerful driver for economy-wide productivity, growth and jobs – and are arguably Europe's best-bet investment for the future. A quarter of the EU's GDP growth and 40% of our productivity growth are due to ICT. The ICT industry generates 8% of Europe's GDP and employs 6% of its workforce.

Technology for life

There is good evidence that rapid technological progress has brought us to a turning point in the history information society. Widely deployed, ICTs have the potential to transform the way in which we work, live and interact. The digital convergence of media and information services, networks and devices provide unique opportunities: for firms, to modernize their business processes and deliver a wide range of services; for consumers, to experience a range of new media and content services, and for governments, to offer efficient, modern, interactive public services on line.

New impetus for the Lisbon strategy

"i2010" stands for a package of proactive policies to harness the potential of the digital economy to deliver growth, jobs and modern, on-line public services. It is a key component of the EU's renewed "Lisbon" competitiveness strategy.

What is new in i2010?

An umbrella strategy

i2010 is a comprehensive strategy to guide information society and media policies. It states a common purpose for the various policy levers available to the Commission: regulation, R&D investment, innovation and deployment of information and communication technologies throughout the economy and society.

A locomotive for Lisbon

i2010 is strongly focused on the main axes of the renewed Lisbon strategy: growth and employment. It also provides tools for good governance, including better regulation commitments and progress reports.

ICT services and networks will be crucial to the success of the 2005-2008 "national reform programmes" that EU Member States will present in October this year. Reforms will be tailored to national circumstances, but compared and co-ordinated at

EU level to find the best responses to new emerging issues. This will improve monitoring and policy consistency.

What are the “three pillars” of i2010?

The first pillar of i2010 combines all the regulatory instruments at the Commission’s disposal which will allow us to create a modern, market-oriented regulatory framework for the digital economy. The second pillar brings the EU’s research and development instruments into the game of digital convergence and sets priorities for our cooperation with the private sector to promote innovation and technological leadership. The third pillar seeks to promote, with the tools available to the Commission, an inclusive European Information Society, supported by efficient and user-friendly ICT enabled public services.

How widespread is broadband take-up in the EU?

Broadband take-up has increased fast. Growth has attained an average of 70% per year in the past 3 years, reaching 9% of population (roughly 20% of households EU-wide). Deployment (availability) has advanced to reach more than 85% of EU15 population. Overall, over the last three years, the EU has started to catch up with its main competitors, such as the US where broadband take-up stood at 11.5% at the end of 2004, Japan, with a rate of 14.6% and South Korea with a rate of 26.8%.

EU25 Broadband penetration rate - January 2005

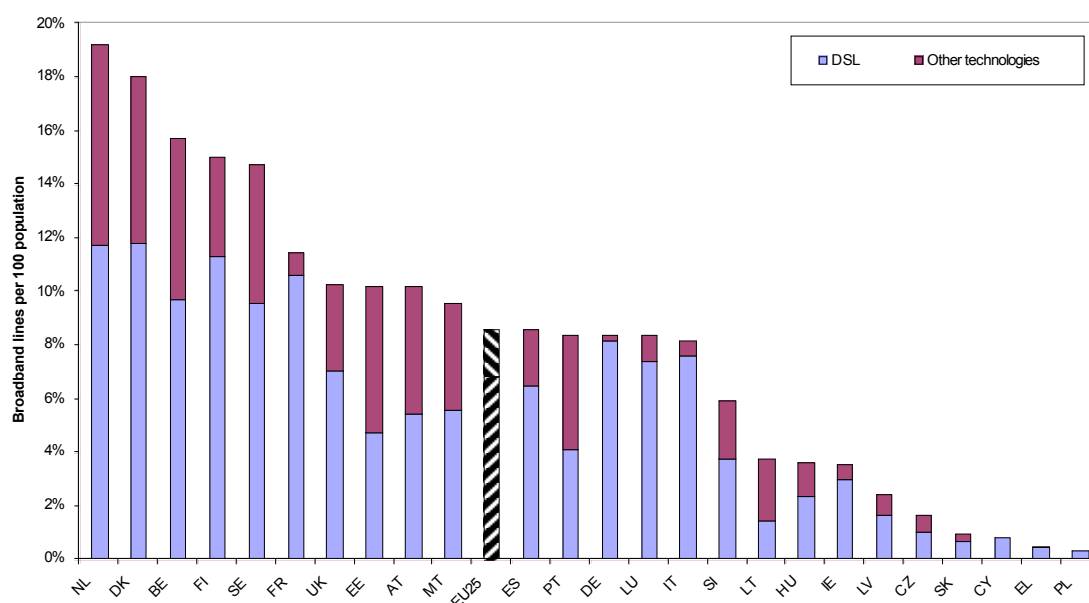


Figure 1: penetration rates by technology

How fast are Europe’s broadband communication networks?

The EU is a long way behind its international competitors on network speed. For example, Japan had 15.4 million broadband subscribers in April 2004 and nearly 10% of these were connected via fibre optic cable with downlink rates of up to 26Mbps. In the EU, there are 40 million subscribers and few connections with bandwidth above 3Mbps. Speeds are generally increasing, but vary widely among Member States. This disadvantage could seriously delay the introduction of new services here. Competition affects both prices and speeds. The EU is improving

access speeds, but is far behind key international competitors such as US, Japan and Korea:

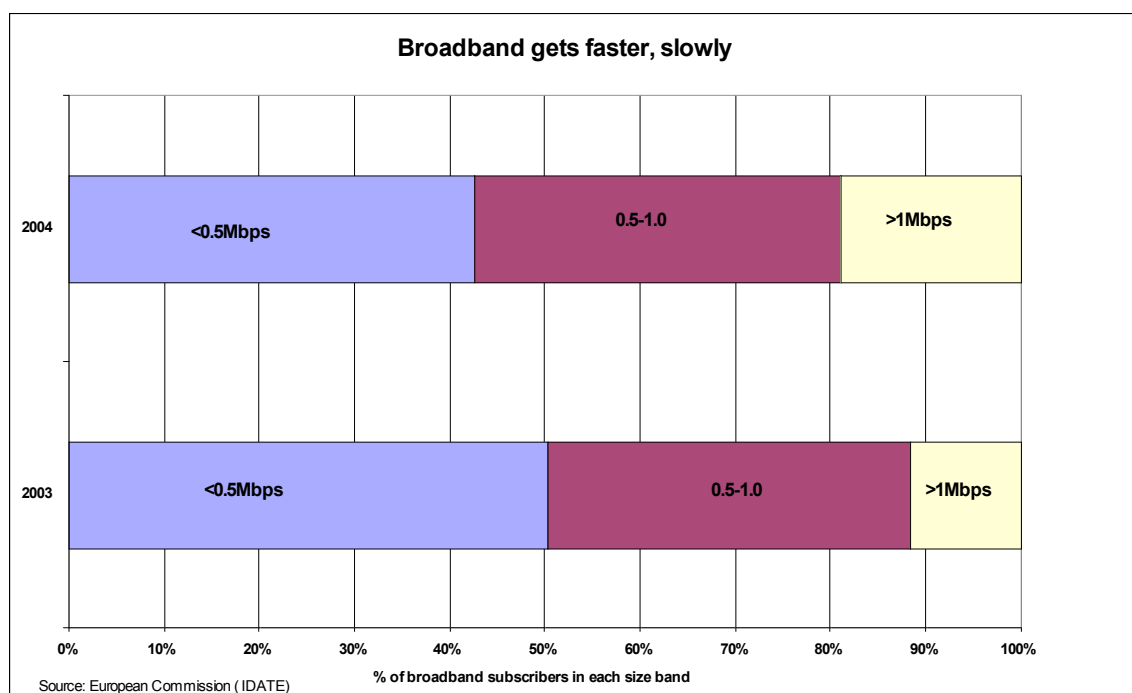


Figure 2: increases in speed in EU15: a comparison December 2003-2004

How can the EU stimulate the take up of broadband?

A migration towards advanced high-capacity networks can primarily be achieved through more competition. As in other network industries competition is still weak. The Member States with the highest broadband penetration rates are those where competition between alternative technologies is most keen and the customer has most choice, with both cable and ADSL offers for instance. But cable coverage is limited in the EU and competition between alternative platforms is not widespread. Therefore stimulating competition through the full and correct transposition into national law and implementation of the regulatory framework for electronic communications are crucial.

A recent success story in this respect is France where a large increase in unbundled local loops induced by the implementation of the regulatory framework has enhanced competition in the market for advanced digital subscriber lines (ADSL). Broadband prices in France are now among the lowest in Europe. Improvements in speeds in many areas allow the emergence of “triple play” offers (telephony, Internet and TV). One year ago France’s broadband penetration rate was below EU average and now tops the list.

What is “convergence” and why does it matter?

Digital “convergence” – of telecommunications, media content and electronic devices – is enabled and driven by the expansion of broadband internet. It is opening new markets and creating new challenges, not the least of which are interoperability at the network, device and content levels, the efficient management of spectrum to facilitate the emergence of new wireless technologies, and the availability of content. All this places new demands on regulators and policy makers in all these fields.

Convergence also calls for a new level playing field among audiovisual content service providers. Modern EU rules should be market-oriented, flexible, and neutral as between delivery platforms, and enable content service providers to compete on an equal footing, ensure regulatory consistency and strengthen legal certainty based on the country of origin-principle. To this end, the Commission will propose a modernisation of the Television without Frontiers Directive in 2005.

Is there any real evidence of link between information and communication technology R&D investment and productivity?

The intensity of the ICT research effort correlates directly with productivity growth. Within the EU, the countries that have a large ICT-producing sector and invest the highest levels in ICT research, like Ireland, Finland and Sweden, also have the highest productivity growth rates¹.

	GDP share of ICT-producing sector 1995-2000	Labour productivity growth 1995-2000
Ireland	12.3 %	5.3 %
Finland	10.6 %	2.5 %
US	7.3 %	2.5 %
Sweden	7.3 %	2.1 %
UK	7.1 %	1.8 %
EU	5.9 %	1.4 %
Netherlands	5.8 %	0.9 %
Germany	5.6 %	1.3 %
France	5.5 %	1.2 %
Italy	4.7 %	0.8 %
Denmark	4.7 %	1.9 %

Figure 3: Research effort and labour productivity growth in EU Member States

How does Europe's R&D investment in information and communication technologies compare with the US and Japan's?

ICT represents more than 30% of the total R&D budget in all major OECD countries but only 18 % in Europe. For instance, investment in ICT research in the EU is around one third that of the US and is 30% lower than Japan. In fact, the gap in ICT research investment represents half of the total gap in research spending between the EU and the US. The picture is similar for both public and private investment.

ICT R&D2	EU15	US	Japan
Private sector investments	23 B€	83 B€	40 B€
Public sector investments	8 B€	20 B€	11 B€
Inhabitants	383 m	296 m	127 m
Investments / inhabitant	8.0 €	350€	400€
ICT R&D as % Total R&D	18%	34%	35%

Figure 4: Investment in ICT Research (2002)³

It is ICT use that is driving the next wave of innovation, putting technology at the service of people and businesses. Research is aiming at getting computers, phones and electronic devices out of the boxes and bringing them to the user wherever she/he is and at any time. ICT research today is about electronics at home bringing content across different media and in the most natural forms. It is about ICT supporting creativity and design across the industry. It is about efficient solutions for early detection and close monitoring in health, security and for environmental risks.

Europe must and is certainly capable of reversing the trend and of remaining a key player in these strategic technologies. A renewed and more intensive effort in ICT research needs both private and public investments.

How will i2010 be funded?

Two crucial EU programmes – the 7th Research Framework Programme (FP7) and the Competitiveness and Innovation Programme (CIP) – both give priority to Information and Communication Technologies (ICT) as drivers for competitiveness.

The new Information Society Technology (IST) Priority in FP7 will put **€1.8 billion annually** into strategic research priorities in areas of European technological leadership such as fixed and mobile communications, embedded systems, nanoelectronics and high-quality audiovisual content. At 30% of the budget, the IST priority gets the largest single share of collaborative research funding.

The new **€802 million** Information and Communication Technology (ICT) Policy Support Programme, a specific programme within the CIP, will promote wide take-up of promising ICT applications, by demonstrating industrial-scale technological and organisational solutions to interoperability, identity management and security problems.

What will EU-funded information and communication technology R&D achieve?

Our priorities are to reinforce leadership in areas where Europe has recognised strengths, to build capacities to seize new opportunities as they emerge, and to ensure co-evolution of technologies and application and boost innovation from ICT use.

Under the current EU Framework Programme for Research, FP6, this has given a boost to promising fields such as embedded systems and semantic-based knowledge handling, and areas such as nanoelectronics and mobile and broadband communications are also allocated significant resources to reinforce strengths in these fields.

The Commission proposal for FP7 contains additional reinforced technology pillars on “simulation, visualisation, interaction and mixed realities” and on “software, Grids, security and dependability”. Another novelty is the emphasis on “Integration of Technologies” in areas such as “personal environments”, “home environments” and “robotic systems”.

What does an “inclusive European information society” mean?

² "Investment in ICT Research, Comparative Study", IDATE 2002

³ Comparable data for EU 25 will be available by the end of 2005.

The information society will be sustainable only if it ensures inclusion and broad electronic participation in society (e-participation). Tackling all forms of the “digital divide” is therefore a key concern of i2010.

Less than 50% of EU households have access to the internet (the figure is much lower in the EU10) and the benefits reaped are uneven. The EU needs to address threats (“no one left behind”) but also seize new opportunities for better participation and empowerment. This is a moving target, as the information society keeps evolving. i2010’s aim is to showcase concrete achievements (drawing on existing developments), while exploring new ICT solutions for everyday life challenges.

The currently planned i2010 “flagship initiatives”, to be shaped by stakeholders’ feedback and emerging needs, are:

Caring for people in an ageing society: further explore and exploit ICT solutions for “Ambient Assisted Living”, to extend the time older people can live independently in their homes (supporting their daily activities, health and security).

Safer, smarter and cleaner cars: this will build on ongoing work under the “eSafety” initiative, e.g. recent announcements of “eCall” system allowing cars to automatically call an emergency number after collision; anti-crash short range radars for cars.

Digital libraries: announced communication for July 2005 addressing development, management and usage of digital archives for text, image and sound information, thus promoting European cultural heritage.

How will eGovernment contribute to the i2010 agenda?

There is a political consensus in the EU that ICT plays a key role to improve quality, efficiency and accessibility of public services. Therefore Member States have invested in ICTs to reshape their public services. As a result 90% of EU public service providers are now online; 40% of 20 “basic services” are fully interactive. Challenges are now shifting from online availability to rising demand and reaping benefits (e.g. greater efficiency through back-office restructuring, improved quality of services, and increase cross-border services). I2010 will support these new challenges and foster innovative approaches to eGovernment solutions.

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