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The role of ICT in innovation and growth

*Check Against Delivery
Seul le texte prononcé fait foi
Es gilt das gesprochene Wort*

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Ladies and Gentlemen,

I am very pleased to meet you today to talk about the key role that ICTs play for innovation and growth in Europe.

Introduction

ICT is the most important driver of modern economy..

First it is a leader of innovation. Our latest EU innovation survey shows that the ICT industries (electrical and optical equipment, ICT manufacturing and computer services) occupy the top three positions (out of 14 branches of industry) in terms of overall innovativeness; in particular the leads in terms of research and development, in innovation expenditures, in sales of new products and in the share of employees with higher education.

But innovation in ICT is not just for the ICT industry! ICTs underpin innovation and creativity right across the rest of the economy by acting as the main driver of productivity growth in the modern economy.

Economists agree that the ICT industries, together with the investments in ICT account for 50% of productivity growth in Europe. This sounds good, but it is not good enough. In the US ICT accounts for 80% of productivity growth. And, while productivity growth has been slowing down in Europe over the last 10 years, in the US it has almost doubled. We should be concerned about this because, productivity growth is the source of our future wealth. This is not just about Europe's economic competitiveness. It is about being able to afford what we want in the future: the hope that our children will be better off than we are; a comfortable retirement for our own generation and a cohesive, socially sustainable Europe. For all these reasons, we need to implement effective ICT strategies at local, regional, national, as well as European level.

ICTs can also help in the main societal challenges facing Europe: an ageing population, globalisation, unemployment, and the need for a better management of energy resources. Let me give you a few examples:

- Innovative public services such as online procurement can help cut red tape and simplify administrative procedures for businesses. If we can reach our target of 50% take-up of online procurement, Europe could save 40 € billion a year;
- New technologies can make healthcare more efficient, while responding to the increasing demand for health services in an ageing society. An example, Sweden and Spain have an agreement that allows radiologists to use fast broadband connections so that they can share their workload. This means faster analysis of medical images such as x-rays and MRI scans. Savings are already 700 000€ per year a cost reduction of 35%, along with shorter waiting times and fewer diagnostic errors;
- ICTs also contribute to more energy efficiency: new photonics based lighting technologies, in which Europe leads the current world market of 4 billion € in 2004 is expected to double by 2009. And as it grows we can expect reduced energy demand: if we replaced all the conventional light bulbs in Western

Europe by new LED technology we could save the energy production of 10 large nuclear power plants.

This is why ICT is strategic for the Lisbon priorities of growth, jobs, investment and innovation. We can only reach these objectives, by exploiting all the possibilities that progress in ICT can offer to people, businesses and governments. This is what the initiative – i2010 A European Information Society for growth and employment which I launched last year – seeks to do at EU level.

Let's look at the main features:

Broadband

The first aim of i2010 is to create European Information Space in which the innovative potential of the digital economy is not held back by artificial barriers. In fact, the information economy transcends boundaries, and I am trying to update our regulatory regimes in order make sure that this inherently global market place can take root and grow easily in Europe.

The first requirement is a high speed, low cost, widely accessible and secure information infrastructure. For this we need to encourage investments and competition in Broadband.

Broadband is not just fast telephones. It gives us the chance to do things differently; to exploit content, applications and services that can help a nation to become a truly knowledge-based economy; to help citizens to be healthier and better educated; to help administrations to become more efficient.

Broadband is an enabler of advanced services and the root of digital convergence. Nowadays we can access the same services, such as e-mail, music and television, from various devices connected to different types of networks. Networks are also converging. The traditional borders between fixed-line and wireless mobile networks are gradually disappearing. Consumers will be in control of their entertainment and media content; they will get what they want, when they want it, and where they want it.

In many European countries, operators already offer triple-play services, a bundle of voice, internet and video services. Today, in France, consumers can subscribe to triple-play services for 20 euro a month. In some countries, like Finland, Germany, UK, Netherlands, Sweden, multi-play offers also include mobile services. Several operators, like France Telecom, Deutsche Telekom, Telecom Italia, are integrating fixed and mobile activities.

The main current examples of converged services concern Voice and Television over the Internet Protocol. Voice over IP is transforming fixed telephony and will soon be delivered over mobile phones. Television over IP, on ADSL or on mobile, is already one of the most successful triple-play and 3G services. The market is still in its infancy, but numbers already speak for themselves. The 700,000 subscribers of today are expected to rise to 9 million by 2009. Mobile 3G television has already entered a commercial phase in Germany, UK, France, Italy and here in Spain.

Recent evidence from a study conducted for Germany shows that widespread broadband availability and the take-up of triple-play services will raise German GDP

by 46 billion euro and create 265 thousand jobs by 2010. Imagine what it could do for Spain.

Our latest figures show that broadband take-up is progressing fast in Europe. There were almost 60 million broadband subscribers in the EU as of 1 January 2006, representing 13% of the population, roughly corresponding to 25% of households. Spain today has more than 5 million broadband lines. But Europe is still lagging behind Asian tigers like Korea and Japan and this growth is uneven around Europe.

The best performers are the Netherlands, Denmark, Finland and Sweden, with a penetration rate above 20% of population. Belgium follows closely and UK and France have achieved more than 16%. Most of new Member States and Greece and Ireland lag behind, with penetration rates below 7%.

What evidence do we have to explain this variation? I give you an answer – differences in competition! In Europe, the liberalisation and implementation of the electronic communications regulatory framework has played a significant role in the take-up of broadband. Competition is leading to decreased prices. And where competition is effective the market is growing.

In February, I presented the latest Implementation Report (which gives the “state the Union” in telecommunications), which shows clear evidence that competition drives broadband take-up. Countries with the highest broadband take-up all have extensive cable networks that compete with the networks of the incumbents. They also often have well developed regulatory access regimes. In other leading Member States, competition is based less on competing infrastructures and more on effective regulatory measures taken by the National Regulators. This is the case of France, for example, where the number of unbundled local loops almost doubled in 2005.

In Spain, businesses and consumers have substantially benefited from the process of liberalisation of the electronic communications market in the last few years. The latest reforms have had positive results on broadband take-up. Competition seems to be working, with around 50% of the broadband connections provided by new entrants

Nevertheless, Spain is still slightly below the EU average in terms of broadband penetration, with less than 12% of the population subscribing to broadband services.

For all these reasons, I would like to congratulate Minister Montilla for the Spanish “Broadband extension programme” and the initiatives taking place in the context of the “Plan Avanz@” for the development of the Information Society. This plan, if fully implemented, will certainly move Spain forward.

The regulatory review

My biggest task for 2006 is to review the regulatory framework, and as you will understand I am doing this with a view to promoting broadband take-up.

The Commission will adopt a “Review Communication” in late June that identifies the changes to the legislation to improve the performance of e-communications. These ideas will be open to public consultation until September, so that, by the end of 2006, I will be able to make concrete legislative proposals.

Recently there have been talks about encouraging investments by incumbents in more advanced broadband networks, by refraining from regulation and granting so-called regulatory holidays. This would be a step backwards and would result in re-

establishing monopolies. I have made the point very strongly to the political authorities of the Member States that this is against the spirit and the objectives of European law.

Rather, the key question is getting the balance right: the minimum of regulation to promote competition, growth, investment and innovation from industry plus a guarantee that gives the best conditions for users.

I am aware of increasing concerns of Spanish consumers regarding high prices in particular in the growing broadband service sector. The new regulatory measures to protect users' rights in Spain are therefore most welcome. I hope that they will have a positive effect.

Mobile services and content

I have concentrated on the broadband infrastructure that is the precondition for a European Information Space. But the real gains will come from new services and applications. Let's look at two examples: wireless applications and content services.

Wireless communications are an essential feature of the economic landscape. Cell phones have been a European success story. In the EU, there are now 426 million mobile phone subscribers with a penetration rate of 93%. The same trend applies to the globalisation of European 65 M standards and solutions. The world market grew by 20% last year. In China the demand is growing by 4 million subscribers every month! We also see fast take-up in Latin America and Africa.

But this is not the end of the wireless story. Mobile broadband (3G) is now taking off. The European market grew fivefold to 25 million last year. Mobile Television is expected to grow very fast this year based on the extra demand created by the Football Cup in Berlin. Trials in Member States suggest that over 50% of mobile service subscribers may be interested. In an enlarged Europe, this may represent up to 200 million people.

Another example, smart radio tags (RFID) use short range wireless connections to transform logistics, process management and security. The market is expected to fly. Sales of RFID for 2006 are estimated at 600 million tags, in ten years time the market could be 500 times larger.

There are many other applications of wireless that are emerging: Bluetooth, WiFi, WiMAX, satellite, radars for cars, and so on. It is estimated that applications of wireless represent already 200bn€ per year to the European economy, that is around 2% of GDP. And this is just the start of a wireless boom.

But, most of these uses of wireless are inherently portable and users want to take their own devices and services with them when they move around Europe.

If we want to get the benefits of these new developments in terms of growth and new services, we need a coherent strategy for efficient radio spectrum management in Europe. The Commission is calling for an EU level political debate to coordinate Member States' approaches in this area, in particular how to use the digital dividend that will be available when we switch off analog TV and an assessment of alternative services which could be given access to a part of the spectrum dividend.

I would like to encourage Spain to be particularly active in this debate, since the situation is most complex politically complicated.

Content and the audiovisual sector

Innovation and developments in ICT are driving important changes also in the audiovisual sector. The online content market is estimated to be worth €1.4bn and is expected to double by 2009. Analogue TV is progressively being replaced by Digital TV. IPTV (Internet Protocol TV) is expected to rise from less than 1% in 2004 to about 6% in 2009. I have already mentioned the potential of MobileTV.

These developments necessarily lead to new content service markets. Consumer demand for innovative and high quality audiovisual services. To create a clear legal base for these developments, I proposed a modernization of the rules applying to TV broadcasting through the "Audiovisual Media Services Directive" that will create a clear, light-touch framework for the future development of the sector.

Let me shortly touch upon the other two pillars of i2010: the promotion of research in ICT and the promotion of the social face of the information society.

ICT Research and Investment

The ICT sector is one of the most research intensive sectors of the economy, responsible for 25% of research and development in the business sector. While Europe is still very well-positioned in a number of key ICT segments, its share in the global hi-tech added-value has been in constant decline since 1995. We can easily understand the reason for this decline!

Just look at our levels of investment in ICT research and compare it with those of our main competitors. It is estimated that in 2005, in the EU, some 71 € per head were spent on ICT research. In the United States and Japan the corresponding amounts were more than 200€ per head.

If we want to succeed in the face of globalisation, ICT needs a strongly increased research budget because of the key role ICT plays in the building-up of the European economy. At the same time, we also need to make sure that EU businesses and administrations take up ICTs and use them efficiently in order to get the payback in terms of productivity and growth.

SMEs and Innovation

Let us take an example. Small and medium enterprises (SMEs) are crucial for innovation but they often behind major technology breakthroughs. Thirty years ago many of the technology giants of the sector did not yet exist: Microsoft, Oracle, Cisco. They are all new companies created during the information revolution. The cycle of births of new giants has not yet stopped; think of Yahoo, AOL and Google. Very few of these new giants are of European origin, although there are obvious exceptions: Nokia, Skype, SAP.

So Europe urgently needs actions to promote innovative firms in the Information Economy. I will use the collaborative research incentives, mostly technology platforms, in order to boost innovation. But we need also more risk capital and an atmosphere that values and rewards the entrepreneurial spirit. High growth from high tech is an opportunity for Europe that we cannot afford to miss.

In addition, we need to help European SMEs to make the best use of ICT, to innovate in products and services, streamline and to optimise their business processes and be permanently connected to worldwide business networks. Although SMEs are generally connected to the Internet, the new ICT-opportunities are not fully feeding through into their business processes. For example buying and selling online is only a third of that of large companies. Clearly, there is much more to be done!

Ageing, eHealth and eGovernment

Economics and growth is the main topic of my talk. But this is only a part of the story. ICT is a powerful force to make life better for Europeans, through efficient health-care, cost-effective and accessible public services more social inclusion and higher quality of life.

In this context, i2010 aims at fostering an inclusive information society by making sure that ICTs bring benefits to all citizens.

Europe is currently facing a major demographic shift due to the ageing of its population. The European population older than 50, is expected to rise by 35% between 2005 and 2050, with negative impacts on economic growth and major pressure on the sustainability of the European Social Model and public finances.

Here ICT can be part of the solution.

ICTs can help people to have full independent lives until a very advanced age. That is why, later in 2006, I will launch an i2010 flagship initiative on "independent living in an ageing society", focusing on better health-care for older people, keeping them at home, as long as possible, strongly linked to their social networks.

Tomorrow, I will open the fourth EU conference on eHealth, this year it is in Malaga. Our aim is to improve significantly the quality, access and efficiency of healthcare for all citizens through actions on improved health systems, electronic patient records, electronic referrals, e-health cards, better interoperability of systems, remote diagnostics and so on. Europe leads the world in many of these areas but the landscape is fragmented between the different regions, institutions and professionals involved. We have to work together in a more efficient way, in order to make ICT for health an economic + social success story!

I have also recently launched an eGovernment Action Plan, which sets out a roadmap for high efficiency, inclusive and open eGovernment services. Our studies indicate that more efficient eGovernment could boost GDP growth-rate more than 5%!

Skills and the knowledge economy

Finally, let me say a few words about the need to invest more in education and skills. We need up to-date scientists and engineers for our knowledge economy. Today about 20% of the labour force has ICT skills. That is not enough. The new phase of growth based on web services and digital convergence is already generating a shortage of skills. Europe's technology firms are struggling to find people with skills in IP telephony, security and wireless networking. It is estimated that we will face a shortage of some 615,000 technicians and engineers by 2008.

Educational and training is crucial, therefore I welcome the recognition that “better education and human capital” are a key policy area in the Spanish National Reform Programme for the Lisbon strategy, in particular the “measures to incorporate the Information Society into education.

Conclusions

I have set out the case for ICTs and their efficient adoption in all sectors of the economy as key for the European productivity revival.

I am absolutely convinced that enhancing the impact of ICT must be a policy priority for Europe and my mission is to convince all of you. Sometimes, it is difficult to convince the non ICT-enthusiasts that ICTs really matter. But you have to know that without ICT, there will be no growth and jobs, Europe cannot afford to waste the opportunities to catch-up with its competitors. We need appropriate policy frameworks, clear pro-innovation regulations, more investment in research, efforts to ease the deployment of new applications and policy support measures to encourage take-up.

In all these areas we need to take an open view and a strategic approach. The aim is clear: if we get it right, ICTs will drive growth, innovation inclusion. This is what Spain needs. This is what Europe needs. So let us join forces to get it done!