



Improving Lives Creating Opportunities for the Future

Information Society and Media Directorate-General

2006



European Commission
Information Society and Media

Our Mission

Information Society and Media Directorate-General

The Information Society and Media Directorate General supports the development and use of Information and Communication Technologies (ICTs) for the benefit of all citizens.

Our role is to:

- Support innovation and competitiveness in Europe through excellence in ICT research and development.
- Define and implement a regulatory environment that enables rapid development of services based on information, communication and audio-visual technologies, so fostering competition that supports investment, growth and jobs.
- Encourage the widespread availability and accessibility of ICT based services, especially those that have the greatest impact on the quality of life of the citizens.
- Foster the growth of content industries drawing on Europe's cultural diversity.
- Represent the European Commission in international dialogue and negotiations in these fields, and promote international cooperation in ICT research and development.

Empowering People, Creating Growth

It's probably no surprise to you that Europe's IT, telecommunications and audiovisual industries are important to our future. Taken together, these sectors are now worth around 8% of EU GDP - double that in the early 1990s - and employ 13 million people.

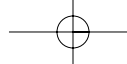
These important sectors are converging, with century-old barriers disappearing between content and service, and between telephone and TV. New opportunities in areas as diverse as culture and healthcare can flourish in this rapidly changing environment - the rules of the game have certainly changed when you can make a film and distribute it worldwide with your mobile phone, or when super-powerful 'Grid' computing allows medical researchers to improve drug design.

But this is just the tip of the iceberg. Information and Communication Technologies (ICTs) are critical everywhere, accounting for 40% of EU productivity growth, driving innovation and creating jobs throughout our economy.

ICTs also save lives every day: in hospitals, on roads and elsewhere. Not to mention the vital role they play in environmental protection, delivering education or cutting red tape.

You would probably assume, then, that countries across Europe are pouring money into ICT research. Unfortunately, EU Member States spend a lot less than our competitors, and with 25 budgets in 25 countries, there's a lot of duplication.

Which is why the Commission's Information Society Technologies (IST) research activities pool Europe's scientific and industrial resources, building critical mass and achieving world-class results.



Viviane Reding
European Commissioner for Information Society and Media

But research is not enough - technologies remain in the lab, benefiting no one, unless we create the right environment. We need to build on our technological excellence to deliver growth and jobs.

Take mobile phones. While EC-led research brought the industry together to create the 'GSM' standard, EC liberalisation of the telecoms sector created the conditions that allowed a competitive, EU-wide market to develop.

Competition and innovation did the rest. Today, Europe's mobile phone industry leads the world, giving you cheap calls and smart services.

The lesson is clear: Europe wins when it develops a common vision, embracing science, industry, governments and people across Europe.

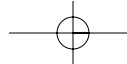
This vision is reflected within the European Commission, where one Directorate-Generale - DG Information Society and Media - tackles these interrelated issues in an integrated way.

The i2010 initiative provides the framework for our work until 2010:

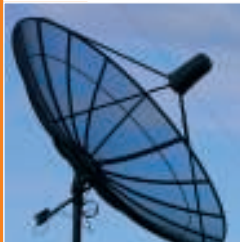
- ▶ Information Space: we need an Information Society offering affordable, secure and high-speed communications, carrying rich and diverse content and services;
- ▶ Investment in Research and Innovation: we must close the gap with Europe's leading competitors in ICT research;
- ▶ Inclusion: Europe's Information Society must provide a wide variety of public services to improve everyone's quality of life, without leaving any 'digital have-nots' behind.

Convergence is a process - it's still happening, and there are still huge opportunities. If we work together and invest in growth, we will reap the benefits together.

“Europe wins when it develops a common vision, embracing science, industry, governments and people across Europe.”



Triple Play for Europe



DG Information Society & Media pursues an integrated approach to achieving the Information Society, encompassing an evolving **regulatory environment** which emphasises competition and lets the market decide on technology; a world-class **research programme** which pools Europe's resources for world leadership; and a range of programmes designed to **promote wider use**, demonstrate innovative technologies and ensure that the benefits are felt by all.

Regulation

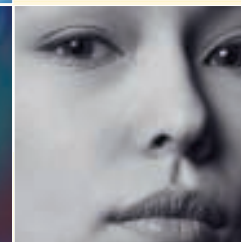
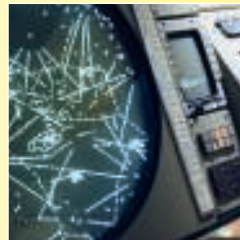
EU-led regulation liberalised Europe's telecommunications sector in the 1990s, creating growth and driving prices down.

The 2003 **electronic communications framework** updates the situation for a converging world. It sees regulation as temporary, needed only until normal market conditions develop, and is applied regardless of the technology, stimulating innovation. By creating a consistent market across Europe, it will give operators the confidence to build on a scale which only a market of 25 Member States and over 450 million consumers can provide, and will continue to increase consumer choice.

The new framework also means Europe can better coordinate the use of **radio spectrum**, stimulating growth in all sectors which use this resource, including wireless communications, satellite observations, digital TV and more.

Finally, the Television Without Frontiers (TVWF) Directive regulates **television broadcasting** services across the EU to stimulate the European broadcasting industry and protect consumers.

The i2010 Perspective: As broadcasting is now converging with telecommunications, these regulatory regimes will be revised and integrated together wherever necessary.

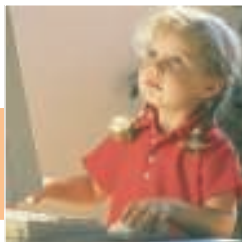


Research

Information Society Technologies research takes up the single largest portion (€3.6bn) of the EU's "Sixth Framework Programme for Research" (2002-2006).

All projects bring together scientists, companies and others from across Europe, pooling their resources and helping create an EU-wide vision of how technologies should be developed.

Strategic Objectives range from very basic research (nanotechnology, photonics ...) through to using ICTs to improve quality of life (road safety, healthcare ...) and industrial competitiveness (eBusiness, software ...).



Promoting Wider Use

A range of obstacles are slowing down the roll-out of the Information Society.

DG Information Society & Media runs a range of programmes to overcome these obstacles, tackling issues as diverse as helping Europe's 'content industries' make the transition to the digital society to making the Internet safer for children:

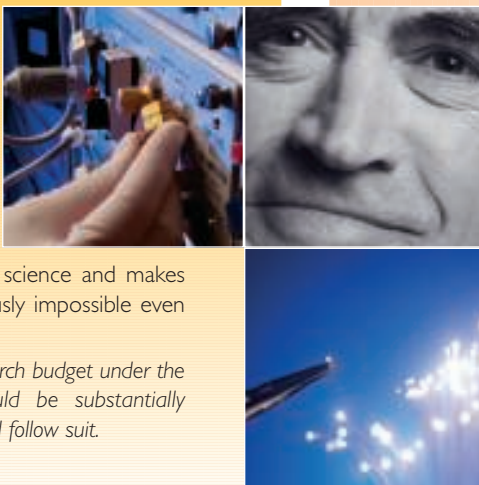
- ▶ **eContentplus** (2005-2008): stimulating the development of digital content and services in 'public interest' areas (education, culture, public information ...);
- ▶ **MEDIA Plus** and **MEDIA Training** (2001-2006): strengthening the competitiveness of Europe's audio-visual industry;
- ▶ **Safer Internet plus** (2005-2008): promoting the safer use, particularly by children, of the Internet and other online technologies, fighting content such as child pornography and racism;
- ▶ **eTEN** (2003-2006): stimulating the deployment of "e-services" such as eHealth, eGovernment and eLearning.

The i2010 Perspective: The Commission's new Competitiveness and Innovation Programme will include an ICT Policy Support Programme incorporating eTEN and eContentplus, while MEDIA 2007 will help the industry benefit from convergence.

These are complemented by the **Future and Emerging Technologies** initiative - a nursery for incubating the innovative, high-risk ideas vital for Europe's long-term competitiveness.

DG Information Society & Media has also created **GÉANT**, linking researchers in over 3,500 research and education centres in 34 countries together across Europe. The world's most powerful research network, **GÉANT** creates massive economies of scale for European science and makes possible research that was previously impossible even to imagine.

The i2010 Perspective: the ICT research budget under the next Framework Programme should be substantially increased, and Member States should follow suit.



Snapshot: From Saving Lives to Creating Jobs



DG Information Society and Media
creates Europe's ".eu" internet domain

Cheaper Phone Calls from Home and Abroad

Thanks to the competition the Commission unleashed on Europe's telecoms sector, call costs have plunged and innovative products and services have appeared. EU-led standardisation and research also created the GSM standard, boosting European leadership in this thriving sector and driving mobile call costs down.



Except for when you go abroad, as anyone who has come home to a staggering mobile phone bill can attest. Which is why we and Europe's national telecoms regulators began investigating the often opaque and bloated 'roaming charges' imposed on people using their mobile phone abroad. Working together, we aim to stimulate the competition needed to drive these charges down.

Television for the 21st Century

High definition TV, television over broadband internet and mobile phones, digital, interactive and on-demand TV ... Europe's audiovisual sector is changing faster than ever before.

European regulation must change with it. We are therefore modernising Europe's 1989 'TV Without Frontiers' regulation to reflect the convergence of communication networks, media, services and devices.

The updated legal framework will stimulate competition and increase consumer choice, while protecting Europe's rich cultural diversity. The resulting legal and economic certainty will stimulate growth in Europe's audiovisual sector and prepare it for the challenges ahead. Meanwhile, our research programme continues to develop new technologies in the field of interactive broadcasting and beyond.



Mobile Phone, Mobile Cash

Thanks to European research, anyone with a mobile handset will soon be able to pay for anything, anywhere. The SEMOPS project (Secure Mobile Payment Service) has developed a highly secure way for consumers to make payments using mobile devices.

Users can send money to friends and family, pay bills and invoices, buy anything from vending machine coffee to a new car, purchase via the Internet and more, all using their mobile handset. And because they approve each transaction and only provide sensitive information to trusted partners, they remain in full control, with security guaranteed.





Help! I'm a car and I've crashed

From 2009, all new cars will be equipped with automatic "eCall" technology that could save an estimated 2,500 lives every year and provide faster medical care for many thousands more car accident victims.

When the car senses a major impact, eCall will automatically report your exact location to the emergency services via mobile phone, using another Commission initiative - the single '112' European emergency number. Anyone in the car can also trigger an eCall by simply pushing a button.

This is a joint Commission-industry initiative. Launching both eCall and 112 meant bringing together governments, vehicle manufacturers, ICT industries and emergency services from across Europe, showing how research must often be combined with regulation to turn innovative ICT technologies into life-saving services.

Bringing the Ballot Box to You

A successful research project into electronic voting has led to an eTEN project to test the technology in real world elections, helping Europe deliver on the promise of eGovernment.

Electronic voting is vital to eGovernment, where interactive technologies help deliver better public services and attract citizens back to democracy.



Any new system, however, must be at least as secure, private and accessible as existing ones to win voter trust. The ePoll research project therefore defined and piloted an electronic voting framework, incorporating smart cards, biometrics, cryptography and user-friendly, portable kiosks. The follow-up eTEN project then successfully ran large-scale, legally valid elections in France and Italy to ensure the technology meets real-world needs.

A Safer Internet for Children

While the Internet is hugely beneficial to all walks of society, it also offers opportunities to child pornographers, paedophile rings, hate preachers and others.

By allowing the public to report illegal Internet content to the police or Internet service providers, hotlines are a key weapon in making the Internet safe for all users, without resorting to unworkable censorship.

The Safer Internet Programme funds 20 hotlines across Europe as well as INHOPE, established to coordinate the hotlines' work, exchange best practices, provide expertise to policymakers and forge links with similar organisations worldwide.

Together, these networks collected almost 120,000 reports between September 2004 and March 2005, of which around a third concerned child pornography.



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"We must combine the economic dynamism of the rapidly expanding communication sector with the potential to create new jobs, and to improve the quality of life of citizens."

Viviane Reding
European Commissioner
for Information Society and Media