



COMMISSION OF THE EUROPEAN COMMUNITIES

Brussels, 28.5.2002
COM(2002) 263 final

**COMMUNICATION FROM THE COMMISSION TO THE COUNCIL, THE
EUROPEAN PARLIAMENT, THE ECONOMIC AND SOCIAL COMMITTEE AND
THE COMMITTEE OF THE REGIONS**

eEurope 2005: An information society for all

**An Action Plan to be presented in view of the Sevilla European Council,
21/22 June 2002**

Executive summary

The objective of this Action Plan is to provide a favourable environment for private investment and for the creation of new jobs, to boost productivity, to modernise public services, and to give everyone the opportunity to participate in the global information society. eEurope 2005 therefore aims to **stimulate secure services, applications and content based on a widely available broadband infrastructure.**

I.

The Barcelona European Council called on the Commission to draw up an eEurope action plan focussing on *“the widespread availability and use of broadband networks throughout the Union by 2005 and the development of Internet protocol IPv6 and the security of networks and information, eGovernment, eLearning, eHealth and eBusiness”*¹

This action plan will succeed the eEurope 2002 action plan endorsed by the Feira European Council in June 2000. eEurope is part of the Lisbon strategy to make the European Union the most competitive and dynamic knowledge-based economy with improved employment and social cohesion by 2010.

eEurope 2002, with the joint effort of all stakeholders, has already delivered major changes and has increased the number of citizens and businesses connected to the Internet. It has reshaped the regulatory environment for communications networks and services and for e-commerce and opened the door to new generations of mobile and multimedia services. It is providing opportunities for people to participate in society and helping the workforce to acquire the skills needed in a knowledge-driven economy. It is bringing computers and the Internet into schools across the Union, bringing governments on-line and focusing attention on the need to ensure a safer on-line world.

II.

The information society has much untapped potential to improve productivity and the quality of life. This potential is growing due to the technological developments of broadband and multi-platform access, i.e. the possibility to connect to the Internet via other means than the PC, such as digital TV and 3G. These developments are opening up significant economic and social opportunities. New services, applications and content will create new markets and provide the means to increase productivity and hence growth and employment throughout the economy. They will also provide citizens with more convenient access to information and communication tools.

Most services are provided by the market. Developing new services needs significant investment, most of it from the private sector. But there is a problem: funding more advanced multimedia services depends on the availability of broadband for these service to run on, while funding broadband infrastructure depends on the availability of new services to use it.

¹ Barcelona European Council, Presidency Conclusions, paragraph 40(<http://ue.eu.int/en/Info/eurocouncil/index.htm>)

Action is needed to stimulate services and infrastructure to create the dynamic where one side develops from the growth of the other. Both developing services and building infrastructures are mainly tasks for the private sector and eEurope will create a favourable environment for private investment. This means not only developing an investment friendly legal framework but also taking action that stimulates demand and so reduces uncertainty to private investors.

eEurope 2005 applies a number of measures to address both sides of the equation simultaneously. On the demand side, actions on e-government, e-health, e-learning and e-business are designed to foster the development of new services. In addition to providing both better and cheaper services to citizens, public authorities can use their purchasing power to aggregate demand and provide a crucial pull for new networks. On the supply side, actions on broadband and security should advance the roll-out of infrastructure.

The Lisbon strategy is not just about productivity and growth but also about employment and social cohesion. eEurope 2005 puts users at the centre. It will improve participation, open up opportunities for everyone and enhance skills. eEurope contains measures regarding e-inclusion in all action lines. One important tool to achieve this is to ensure multi-platform provision of services. It is generally accepted that not everyone will want to have a PC. Making sure that services, especially online public services, are available over different terminals such as TV sets or mobile phones is crucial to ensuring the inclusion of all citizens.

III.

The eEurope action plan is based on two groups of actions which reinforce each other. On the one hand, it aims to stimulate **services, applications and content**, covering both online public services and e-business; on the other hand it addresses the underlying **broadband infrastructure and security matters**.

By 2005, Europe should have:

- modern online public services
 - e-government
 - e-learning services
 - e-health services
 - a dynamic e-business environment
- and, as an enabler for these
- widespread availability of broadband access at competitive prices
 - a secure information infrastructure

The action plan comprises four separate but interlinked tools

Firstly, **policy measures** to review and adapt legislation at national and European level; to ensure legislation does not unnecessarily hamper new services; to strengthen competition and interoperability; to improve access to a variety of networks; and, to demonstrate political

leadership. *eEurope* 2005 identifies those areas where public policy can provide an added value and therefore focuses on a limited set of actions in priority areas. Some key targets are:

- Connecting public administrations, schools, health care to broadband
- Interactive public services, accessible for all, and offered on multiple platforms
- Provide online health services
- Removal of obstacles to the deployment of broadband networks
- Review of legislation affecting e-business
- Creation of a Cyber Security Task Force

Secondly, *eEurope* will facilitate the exchange of experience, of **good practices** and demonstration projects, but also of sharing the lessons from failures. Projects will be launched to accelerate the roll-out of leading edge applications and infrastructure.

Thirdly, policy measures will be monitored and better focussed by **benchmarking** of the progress made in achieving the objectives and of the policies in support of the objectives.

Fourthly, **an overall co-ordination of existing policies** will bring out synergies between proposed actions. A steering group will provide a better overview of policy developments and ensure a good information exchange between national and European policy makers and the private sector. This steering group would also make an early participation of candidate countries possible.

IV.

This action plan is a proposal to Member States to take some far-reaching commitments. It is an invitation to the private sector to work with the Commission and Member States to realise the *eEurope* objectives. It sets out the initiatives the Commission will or is willing to take. Overall the action plan sets the scene for a co-ordinated European policy approach on information society issues. The *eEurope* action plan should be confirmed as a key element in the Lisbon strategy. If successful, this plan will have a significant impact on growth and productivity, employment and social cohesion in Europe.

The European Council in Sevilla is expected to endorse an Action Plan and invite Council and Parliament to adopt as quickly as possible the necessary legal and budgetary instruments to implement it.

CONTENTS

1. The objectives	6
2. The approach.....	8
3. The actions.....	9
3.1 Policy measures.....	9
3.1.1. Modern online public services	9
3.1.2. A dynamic e-business environment	13
3.1.3. A secure information infrastructure	15
3.1.4. Broadband.....	16
3.2. Development, analysis and dissemination of good practices.....	18
3.3. Benchmarking	19
3.4. A co-ordination mechanism for e-policies.....	21
3.5. Financing.....	21
4. Conclusions.....	22

1. The objectives

The Barcelona European Council called on the Commission to draw up an eEurope action plan focussing on:

“the widespread availability and use of broadband networks throughout the Union by 2005 and the development of Internet protocol IPv6 and the security of networks and information, eGovernment, eLearning, eHealth and eBusiness”²

This action plan will succeed the eEurope 2002 action plan endorsed by the Feira European Council in June 2000. eEurope 2002 is part of the Lisbon strategy to make the European Union the most competitive and dynamic knowledge-based economy with improved employment and social cohesion by 2010. It was complemented by the eEurope+³ initiative launched by the candidate countries in reply to the invitation of the European Council to take on board the Lisbon strategy. Many of the objectives of eEurope 2002 have already been achieved and the remainder will largely be completed by the end of this year⁴.

To create a knowledge economy, eEurope 2002 focused on extending Internet connectivity in Europe. In order to generate growth, connectivity needs to be translated into economic activities.

This is the focus of eEurope 2005: stimulating services, applications and content that create new markets and reduce costs and eventually increase productivity throughout the economy. Developing content, services and applications and rolling out the underlying infrastructure is predominantly up to the market. Therefore, the action plan will concentrate on those areas where public policy can provide an added value and contribute to creating a positive environment for private investment.

Fast progress in digital technologies and the decline in prices for information technology equipment provided business and consumers with more powerful devices. Investment in digital equipment grew throughout the 80s and 90s but when computers became interconnected as the World Wide Web took off in the mid 90s there was a particular boost to

Progress during eEurope 2002

- ◆ Internet penetration in homes has doubled
- ◆ Telecom framework in place
- ◆ Internet access prices have fallen
- ◆ Almost all companies and schools are connected
- ◆ Europe now has world's fastest research backbone network
- ◆ e-commerce legal framework largely in place
- ◆ More government services available online
- ◆ A smartcard infrastructure is emerging
- ◆ Web accessibility guidelines adopted and recommended in Member States

² Barcelona European Council, Presidency Conclusions, paragraph 40 (<http://ue.eu.int/en/Info/eurocouncil/index.htm>)

³ http://europa.eu.int/information_society/international/candidate_countries/action_plan/index_en.htm

⁴ The full text of the eEurope 2002 Action Plan, other reference documents and the results of eEurope benchmarking can be found at <http://europa.eu.int/eeurope>.

productivity. The contribution of the Internet to productivity and growth, particularly in Europe, is therefore relatively recent and much more can be expected. Two new developments will have a major impact on the further development of the Internet: multi-platform access/convergence and broadband⁵.

New communication platforms beyond PC-based Internet access are now becoming available. In particular, interactive digital television and third generation (3G) mobile systems driven by common standards open up possibilities for multiple platform access to services. They can be both substitutes and complements. The same holds for the supporting networks. The Barcelona European Council stressed the importance of open platforms for convergence⁶.

Broadband connections significantly increase the speed of transmission between computers, mobile phones, TV set-top boxes and other digital devices. This will improve quality of Internet access, making it more user-friendly and convenient for consumers, and enable the full scope of multi-media applications to be applied.

The next generation of services will rely on these features. If fully exploited, broadband technologies will improve the effective use of networks, and thereby increase productivity and employment. Having anytime, anywhere access to information will contribute to greater effectiveness. However, achieving productivity gains through effective use can only be realised by restructuring of economic behaviour to exploit the new technologies: adapting business processes, bringing public services online, enhancing skills.

Realising the potential of broadband requires that everyone is given the ability and opportunity to enjoy and exploit its richness and benefits (in terms of healthcare, education, and business for example). This means that the goal of the eEurope 2002 action plan of achieving an 'information society for all' remains valid for eEurope 2005. By supporting the emergence of alternative access platforms, such as digital television or 3G mobile systems, the new action plan will further facilitate e-inclusion, also for people with special needs.

The more networks and computers become an essential part of business and daily life, the more security becomes a necessity. Because of the value of current and expected transactions carried out online, networks and information systems need to be secure. Security has therefore become a key enabler for e-businesses and a pre-requisite for privacy.

⁵ There is no universally accepted definition of broadband, but its key characteristics are high speed and always-on functionality. Currently, broadband access is mostly offered over the telephone copper network using ADSL technology or over cable TV networks using cable modems. Broadband access can also be offered over new infrastructure, mainly fibre optic, fixed wireless access (FWA), third-generation mobile systems, R-LANs operating in licence-exempt frequency bands, and satellite communication systems.

⁶ The Barcelona European Council called upon "the Commission and the Member States to foster the use of open platforms to provide freedom of choice to citizens for access to applications and services of the Information Society, notably through digital television, 3G mobile and other platforms that technological convergence may provide in the future." It also invited the Commission to present "a comprehensive analysis of remaining barriers to: the achievement of widespread access to new services and applications of the information society through open platforms in digital television and 3G mobile communications, the full roll-out of 3G mobile communications, the development of e-commerce and e-government and the role that national electronic identification and authentication systems could play in this context." (paragraph 41).

The internationalisation of Internet management will also be a key parameter for the harmonious development of the Internet, and the EU will continue to work actively towards this aim.

In summary, broadband enabled communication, in combination with convergence, will bring social as well as economic benefits. It will contribute to e-inclusion, cohesion and cultural diversity. It offers the potential to improve and simplify the life of all Europeans and to change the way people interact, not just at work, but also with friends, family, community, and institutions and the way companies operate. This is what users are interested in, and this is where eEurope 2005 starts from. **The objective of this Action Plan is to stimulate secure services, applications and content based on a widely available broadband infrastructure.**

2. The approach

The eEurope 2002 action plan proved to be a successful format and the basis for similar actions not only in the candidate countries (eEurope+), but also in third countries. Its method of i) speeding up the adoption of new legal measures, ii) re-focusing existing support programmes, and iii) defining clear targets to be achieved, combined with benchmarking, had a major impact. The new action plan will build on these successes and maintain eEurope as the symbol of European Union policy to develop the information society. However it needs to be adapted with regard to three requirements.

1. Broadband technology is transforming the Internet and opening up new possibilities for interactive multimedia services only possible at very fast transmission speeds. Infrastructure investment is driven by availability of content and services and the development of new services and content depends on infrastructure deployment. The infrastructure evolves and upgrades when new services and applications emerge and vice versa. **eEurope 2005 will try to stimulate a positive feedback between infrastructure upgrading, both broadband and multi-platform and service developments.**
2. Many measures at European, national and regional level in support of the knowledge economy are already underway. Most Member States have national action plans for information society policy, many of which were inspired by eEurope 2002. **The eEurope 2005 actions should therefore go beyond current policies and make a real difference.** They must also be in line with the Barcelona conclusions⁷ and take account of the discussions at the Informal Telecom Council⁸ in Vitoria.
3. Before the end of this action plan, it is likely that a number of candidate countries for accession to the EU will be members. It will be a challenge for them (and for the current Member States) to meet the targets and to implement the actions contained in eEurope 2005. **eEurope 2005 therefore needs built-in flexibility and should provide for a mid-term review of actions to ensure a smooth phasing in of the new members in the action plan.**

⁷ <http://ue.eu.int/en/Info/eurocouncil/index.htm>

⁸ Results of the informal meeting of ministers for Telecommunications and the Information Society, February 2002 – Vitoria, <http://www.ue2002.es/>

To meet these requirements, the eEurope action plan is based on two groups of actions which reinforce each other and build a virtuous circle. The first one concerns **services, applications and content**, covering both online public services and e-business, and the second one concerns the underlying **broadband infrastructure and security matters**. The targets of eEurope 2005 can be summarised as follows:

By 2005, Europe should have:

- modern online public services
 - e-government
 - e-learning services
 - e-health services
 - a dynamic e-business environment
- and, as an enabler for these
- widespread availability of broadband access at competitive prices
 - a secure information infrastructure

The action plan is structured around four lines which are interlinked:

Firstly, **policy measures** to review and adapt legislation at national and European level, to strengthen competition and interoperability, to create awareness, and to demonstrate political leadership.

Secondly, the implementation of policy measures is supported by the development, analysis and dissemination of **good practices**. Projects will be launched to accelerate the roll-out of leading edge applications and infrastructure.

Thirdly, policy measures will be monitored and better focussed by **benchmarking** of the progress made in achieving the objectives and of the policies in support of the objectives.

Fourthly, **an overall co-ordination of existing policies** will bring out synergies between proposed actions. A steering group will provide a better overview of policy developments and ensure a good information exchange between national and European policy makers and the private sector.

3. The actions

3.1 Policy measures

3.1.1. Modern online public services

i) e-government

Starting point

Under the eEurope 2002 Action Plan, Member States agreed to provide all basic services online by end 2002. Much has been achieved in this area but many services still have limited interactivity. The Commission and the Belgian Presidency held an e-government conference in November 2001 to identify and disseminate examples of good practice. The ministers participating in the conference adopted a declaration⁹ stressing the need to further develop the exchange of good practices and to ensure inclusion and security in online public service delivery. The development of secure and seamless access to e-government services depends on deployment and the effective use of electronic authentication means. The action taken in support of smart card take-up will continue and could effectively serve this purpose by also providing a secure device to support electronic signature.

Improved access to public web sites for disabled people is an objective of eEurope 2002. In October 2001, the Council adopted a resolution on e-inclusion¹⁰ and a further resolution in March 2002¹¹ stating that Member States should speed up their efforts in implementing the 'Web Accessibility Initiative' guidelines¹². Access to government services can be facilitated by providing multilingual content and making it available on various platforms.

Initiatives regarding e-government exist at national, regional and local level. These are complemented by actions carried out at European level: the IDA programme¹³ is supporting interoperability of back office processes, standardisation and the provision of pan-European services and the IST programme¹⁴ is financing research activities. In addition, the Commission is preparing an initiative to follow up the Communication on creating a EU framework for the exploitation of public sector information¹⁵. At the Barcelona European Council, Heads of State and Government decided on the creation of a 'one stop European Job Mobility Information Web Site'. This and the portal of the EU administration developed in the framework of the IDA Programme will offer multi-lingual point of access for online information and services to citizens and enterprises supporting mobility across borders. The IDA portal will also serve as test bed for multi-platform technologies. In this context, the use and improvement of machine translation systems to fully cover the linguistic diversity of European users of such web sites will be of importance. The Barcelona European Council also invited the Commission to analyse the role that electronic authentication systems can play in removing obstacles to the development of e-government.

Proposed actions

Broadband connection. Member States should aim to have broadband connections for all public administrations by 2005. Since broadband services can be offered on different technological platforms, national and regional authorities should not discriminate between technologies when purchasing connections (using open bidding procedures, for example).

Interoperability. By end 2003, the Commission will issue an agreed interoperability framework to support the delivery of pan-European e-government services to citizens and enterprises. It will address information content and recommend technical policies and

⁹ http://europa.eu.int/information_society/eeurope/egovconf/index_en.htm

¹⁰ OJ C 292 of 18.10.2001.

¹¹ OJ C 86 of 10.04.2002.

¹² <http://www.w3.org/TR/WCAG10/>

¹³ Interchange of data between administrations (<http://europa.eu.int/ispo/ida>)

¹⁴ Information society technologies (<http://www.cordis.lu/ist>)

¹⁵ COM(2001) 607 final of 23.10.2001.

specifications for joining up public administration information systems across the EU. It will be based on open standards and encourage the use of open source software.

Interactive public services. By end 2004, Member States should have ensured that basic public services are interactive, where relevant, accessible for all, and exploit both the potential of broadband networks and of multi-platform access. This will require back-office reorganisation¹⁶ which will be addressed in the good practice exercise. It also implies addressing access for people with special needs, such as persons with disabilities or the elderly. Commission and Member States will agree on a list of public services for which interactivity and interoperability are desirable.

Public procurement. By end 2005, Member States should carry out a significant part of public procurement electronically. The experience of the private sector shows that reducing costs is most efficiently achieved through the use of the Internet in supply chain management, including e-procurement. Council and Parliament should adopt as quickly as possible the legislative package on procurement.

Public Internet Access Points (PIAPs). All citizens should have easy access to PIAPs, preferably with broadband connections, in their communes/municipalities. In establishing PIAPs, Member States should use structural funds and work in collaboration with the private and/or voluntary sector, where necessary. The Commission intends to continue to support technology development in the research programme and good practice showcases to the extent possible through the follow-up programme to the PROMISE programme.

Culture and tourism. The Commission, in co-operation with Member States, the private sector and regional authorities, will define e-services to promote Europe and to offer user-friendly public information. These e-services should be deployed by 2005 and build on interoperable interfaces, use broadband communication, and be accessible from all types of digital terminals.

ii) e-learning

Starting point

Member States responded positively to the ambitious eEurope 2002 targets. Most schools are now connected and work is underway to provide convenient access to the Internet and multimedia resources for schools, teachers and students. In Barcelona, the European Council set the target of ensuring by end 2003 a ratio of 15 pupils per on-line computer for educational purposes¹⁷ in EU schools. Trans-European networks connecting national research and education networks have been upgraded substantially but, as yet, few schools are connected.

The Commission has contributed to financing some of these actions through the IST Programme, the eLearning initiative and other actions co-ordinated under the eLearning Action Plan. EU measures included support to the provision of equipment, co-operation and

¹⁶ Re-engineering of internal administrative processes that relate e.g. to data collection and data management, electronic information exchange, interagency co-ordination.

¹⁷ The Barcelona European Council also requested to develop digital literacy through the generalisation of an Internet and computer user's certificate for secondary school pupils and to undertake a feasibility study to identify options for helping secondary schools to establish or enhance an internet twinning link with a partner school elsewhere in Europe (paragraph 44).

exchange of good practices, teacher training, pedagogical research, and the development of e-learning content and services.

Proposed actions

Broadband connections. By end 2005, Member States should aim that all schools and universities have Internet access for educational and research purposes over a broadband connection. Museums, libraries, archives and similar institutions that play a key role in e-learning should also be connected to broadband networks.

eLearning Programme. By end 2002, the Commission intends to adopt a proposal for a specific eLearning Programme. It will focus on the implementation of the objectives of the eLearning Action Plan from an educational perspective and run from 2004-2006. The Commission will also publish an analysis of the European market for e-learning, including the private sector. It will review the market situation and analyse legal, economic and social issues with a view to identifying obstacles to the development of the e-learning market in Europe and where necessary make proposals to remedy them.

Virtual campuses for all students. By end 2005, Member States, supported by the eLearning and eTEN¹⁸ programmes, should ensure that all universities offer on-line access for students and researchers to maximise the quality and efficiency of learning processes and activities.

University and research computer-supported co-operative system. By end 2003, the Commission will launch research and piloting actions to enable the deployment of Europe-wide computer-supported networks and platforms, based on high performance computing infrastructures and GRID¹⁹ technologies. They will allow collaborative work addressed at solving complex problems and virtual access to, and sharing of learning resources, and computational power across Europe.

Re-skilling for the knowledge society: By end 2003, Member States, where appropriate using structural funds and supported by the Commission, should launch actions to provide adults (e.g. the unemployed, women returning to the labour market, etc) with the key skills²⁰ needed for the knowledge society, to improve their employability and overall quality of life. These actions will take advantage of the possibilities offered by e-learning.

iii) e-health

Starting point

The work of medical practitioners at all levels is becoming more information intensive as sophisticated medical equipment and computer applications are more widely used. At the same time, demands on healthcare budgets are increasing in the face of medical and scientific advances, an ageing population and changing patient expectations. Digital technologies are becoming more important in health management both at individual practitioner level and at national and regional level. They offer the potential to reduce administrative costs, to deliver

¹⁸ The former TEN-Telecom programme.

¹⁹ wide-area distributed computing using the global Internet to build distributed computing and communications infrastructures.

²⁰ Key skills include basic computer skills (digital literacy) and higher-order skills such as teamwork, problem solving, project management, etc.

health care services at a distance, to avoid unnecessary duplicate examinations. In addition, the Internet is increasingly used by citizens to obtain medical information. Against this background, it is critical that e-health content and services are developed efficiently, are available for all and health related web sites comply with established quality criteria.

More than 10 years of research and development in health telematics and in the framework of the IST programme have been undertaken. Examples of results are integrated regional health information networks, standardised electronic health records, reliable and effective telemedicine services (teleconsultation and home telemonitoring) as well as personal systems for citizens to support and manage their health status. Another important action already underway which will **be** contributing to eEurope 2005 is to improve the use of telematics in the community pharmaceutical regulatory system (e.g. Eudravigilance for safety of medicines, Europharm Database or e-submission for information exchange between regulatory authorities and industry) which is expected to deliver first results by end 2003. **eEurope offers the possibility to combine efforts into a strategy to deliver visible results at the end of the action plan.** Health data is particularly sensitive, and all actions in this area must be accompanied by the development of the technical and organisational means to ensure the protection of individuals' health information from unauthorised access, disclosure, and manipulation.

Proposed actions

Electronic health cards. Building on the agreement at the Barcelona European Council that a European health insurance card will replace paper based forms needed for health treatment in another Member State, the Commission will make a proposal before the Spring Council in 2003. The Commission intends to support a common approach to patient identifiers and electronic health record architecture through standardisation and will support the exchange of good practices on possible additional functionalities, such as medical emergency data and secure access to personal health information..

Health information networks. By end 2005, Member States should develop health information networks between points of care (hospitals, laboratories and homes) with broadband connectivity where relevant. In parallel, the Commission intends to set up European-wide information networks of public health data and co-ordinate actions for Europe wide rapid reactions to health threats.

Online health services. By end 2005, Commission and Member States will ensure that online health services are provided to citizens (e.g. information on healthy living and illness prevention, electronic health records, teleconsultation, e-reimbursement). Some of the health and related preventative services (e.g. air and water quality online information) could be expanded to a trans-European level through the eTEN programme. The Commission will monitor actions taken by Member States to make health information as accessible as possible to citizens as well as initiatives to implement quality criteria for web sites.

3.1.2. A dynamic e-business environment

Starting point

e-business comprises both e-commerce (buying and selling online) and restructuring of business processes to make best use of digital technologies. Since the publication of the e-

commerce communication in 1997²¹, the Commission has developed a comprehensive policy in this field. Among the achievements have been the rapid adoption by the EU of a series of directives²², which are aimed at establishing an Internal Market for information society services, as well as a number of non-legislative initiatives aimed at promoting self-regulation, notably in the field of “e-confidence” and online dispute resolution (ODR)²³, and the launch of the 'Go Digital' initiative to help small and medium-sized enterprises to better use e-business. In addition, the tax environment of e-commerce has been adapted and simplified, mainly through the adoption of a directive on electronic invoicing²⁴ as well as a directive and a regulation on VAT on digital supplies²⁵.

The Commission has also launched²⁶ a debate on the future of consumer policy, regulation and its enforcement. It highlights the need to eliminate regulatory distinctions between the on and off-line world and for future regulation to be created in such a way that it neither becomes redundant or stifles innovation and new technology.

Building on the European Competitiveness Report²⁷ and on the Communication on the e-economy²⁸, the Commission is working in co-operation with Member States to support e-business in Europe. The goal is to promote take-up of e-business with the aim of increasing the competitiveness of European enterprises and raising productivity and growth through investment in information and communication technologies, human resources (notably e-skills) and new business models, whilst ensuring privacy. eEurope 2005 will be instrumental in making this policy work.

Proposed actions

Legislation. The Commission, in co-operation with Member States, will review relevant legislation where appropriate with the aim of identifying and removing factors that prevent enterprises from using e-business. This review will in particular aim at extending existing e-commerce friendly rules to the off-line delivery of goods and services in order to create a level playing field between the different trading modes (on-line/off-line). The review, open to all interested parties, will be kicked off with an **e-business summit** in 2003, giving high-level business representatives the opportunity to describe difficulties encountered when doing e-business.

²¹ A European Initiative in Electronic Commerce, COM(1997) 157 final of 16.4.1997.

²² Directive 2000/31/EC of the European Parliament and of the Council of 8 June 2000 on electronic commerce, OJ L 178 of 17.7.2000, Directive 1999/93/EC of the European Parliament and of the Council of 13 December 1999 on a Community framework for electronic signatures, OJ L 13 of 19.1.2000, Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the Information Society, OJ L 167 of 22.6.2001, Directive 97/7/EC of the European Parliament and of the Council of 20 May 1997 on the protection of consumers in respect of distance contracts, OJ L 144 of 4.6.1997.

²³ The Commission has established an alternative dispute settlement network - the EEJ net - in order to utilise and promote dispute resolution mechanisms for resolving consumer-business disputes cross border throughout the EU.

²⁴ Council Directive 2001/115/EC of 20.12.2001, OJ L 15 of 17.1.2002.

²⁵ Council Regulation (EC) No 792/2002 of 7.5.2002, OJ L 128 of 15.5.2002 and Council Directive 2002/38/EC of 7.5.2002, OJ L 128 of 15.5.2002.

²⁶ Green Paper on consumer protection 2001 COM(2001) 531 final, follow-up Communication currently under preparation.

²⁷ Commission Staff working paper: European competitiveness report 2001, SEC(2001) 1705.

²⁸ The Impact of the e-Economy on European Enterprises: Economic Analysis and Policy Implications' - COM(2001) 711 final of 29.11.2001.

SMEs. By end 2003, the Commission intends to establish an European e-business support network, federating existing European, national and regional players in this field with a view to strengthening and co-ordinating actions in support of SMEs in the field of e-business. The Commission will foster geographical and sectoral clusters of SMEs working online to encourage innovation in e-business, sharing of good practice and promotion of guidelines and standards.

e-skills. By end 2003, the Commission, in close co-operation with Member States, will publish an analysis of the supply and the demand for e-skills in Europe. The Commission and Member States should foster public-private partnerships and the co-operation of stakeholders with a view to developing European-wide e-skills definitions.

Interoperability. By end 2003, the private sector should, supported by the Commission and Member States, have developed interoperable e-business solutions for transactions, security, signatures, procurement and payments. This will facilitate services enabling seamless, secure and easy cross-border electronic business and mobile commerce.

Trust and confidence. By end 2003, the Commission, together with the private sector, consumer organisations and Member States will examine possibilities of establishing a European-wide online dispute resolution system. To facilitate cross-border electronic transactions for SMEs, the Commission will further support the establishment of online information systems on legal issues. The Commission will work with stakeholders on trustmarks requirements with a view to a recommendation on consumer confidence in electronic commerce.

The ".eu company". By end 2003, the Commission will examine the possibilities to provide European companies with additional functionalities linked to the .eu domain name such as a trusted cyberidentity and other supporting operations, e.g. trustmarks and an authentication scheme.

3.1.3. A secure information infrastructure

Starting point

The European Union has already launched a comprehensive strategy based on the Communications on network security²⁹, cyber crime³⁰, and the current³¹ and forthcoming data protection directive regarding electronic communications. The suggested approach was endorsed and further developed by the Council Resolution of 28 January 2002³² and by the recent Commission proposal for a Council Framework Decision on attacks against information systems³³.

²⁹ Network and Information Security: Proposal for A European Policy Approach, COM(2001) 298 of 6.6.2001.

³⁰ Creating a Safer Information Society by Improving the Security of Information Infrastructures and Combating Computer-related Crime, COM(2000) 890 of 22.1.2001.

³¹ Directive 97/66/EC of the European Parliament and of the Council on 15 December 1997 concerning the processing of personal data and the protection of privacy in the telecommunications sector, OJ L 24 of 30.1.1998.

³² <http://register.consilium.eu.int/pdf/en/01/st15/15152en1.pdf>

³³ http://europa.eu.int/comm/dgs/justice_home/index_en.htm, COM(2002) 173 final of 19.4.2002.

Based on the 28 January Resolution, a number of initiatives (e.g. the establishment of a cyber security task force, awareness campaigns, promotion of good practices, and improved exchange of information mechanisms) should be completed by the end of 2002. This will provide the basis for the work towards a secure information infrastructure. Work on the creation of a secure European smart card infrastructure should continue and the roll-out of applications be intensified.

Community research activity on security will continue under the Sixth Framework Programme. Priorities will be: trustworthy network and information infrastructures with an emphasis on emerging technologies (e.g. broadband, wireless architectures, ambient intelligence); the identification of vulnerabilities and inter-dependencies in infrastructures. It also intends to support standardisation with a view to wider use of open standards and open source software. Research activities should also take into account the 'human factor' in security, e.g. basic security standards, user-friendliness of systems.

Proposed actions

Cyber security task force (CSTF). By mid 2003, the CSTF should be operational. Based on a proposal which the Commission intends to submit in 2002, Council and Parliament will be able to adopt the necessary legal base as quickly as possible, taking into account the cross-pillar dimension of network and information security. Member States and the private sector should support the activities of CSTF. It should become a centre of competence on security questions, e.g. to develop with Member States a concept for a European computer attack alert system; to facilitate cross-pillar discussion; to improve trans-border co-operation.

'Culture of security'. By end 2005, a 'culture of security' in the design and implementation of information and communication products should be achieved. The private sector should develop good practices and standards and to promote their consistent application. The Commission intends to support projects and will work to raise awareness of security risks in all users. An intermediate report of progress made will be issued end 2003 and a final assessment by end 2005.

Secure communications between public services. By end 2003, the Commission and Member States will examine the possibilities to establish a secure communications environment for the exchange of classified government information.

3.1.4. Broadband

Starting point

Governments world-wide are increasingly realising that broadband access will be central to the economic development of their countries. Wide availability of broadband communication would have a significant impact on the economy, and several EU Member States have started reviewing broadband development on their territory. Their common objective is to accelerate its deployment. The importance of 'widespread availability and use of broadband networks throughout the Union by 2005' has been recognised by the Barcelona European Council. The actions proposed in this Action Plan correspond to this priority.

Investment in broadband will mainly come from the private sector. In its broad economic policy guidelines, the Commission recommended that "Member States should: ... ensure effective competition in local telecommunication networks (the 'local loop') in order to speed

up the development of the European broadband network". Competition is expected to drive investment, generate innovation and lower prices. Therefore, public policy should focus on issues where competition is not effective or where political objectives, e.g. territorial coverage with a view to cohesion, need to be ensured.

The new regulatory framework, which will be applied in all Member States from July 2003, takes full account of the convergent nature of broadband. Encouraging efficient investment in infrastructure (by new entrants and incumbent operators) and promoting innovation are explicit objectives for regulators. This means taking account of the need for investors to obtain an adequate return on their investment, in the light of the risks taken. This also means that regulatory uncertainty for investors must be reduced as much as possible.

In the wider context of the European Research Area project, the Commission is supporting the full exploitation of broadband networks by the research community. This will continue under the Sixth Framework Program using the new priority instruments of Networks of Excellence and Integrated Projects. In specific terms, it will support the upgrade and efficiency of technology for optical fibre access networks, mobile broadband wireless services (beyond 3G), broadband access satellite systems (also taking into account the needs of the Galileo system), convergence of fixed and mobile networks, including the transition to the next generation Internet Protocol (IPv6) and take account of security and privacy issues (wireless, always-on) etc. The Commission has already set out the steps needed to support the next generation Internet in its IPv6 Communication³⁴, "Next Generation Internet - priorities for action in migrating to the new Internet protocol IPv6" and those recommendations should be followed up.

A broadband strategy will have a complex task as it is affected by many different policies: town and country planning, research policy, taxation and regulation. They are carried out at all levels: international, European, national, regional and local, and by a range of different actors, private sector as well as public sector. The Commission will deepen the analysis of policy options and existing obstacles to broadband deployment, in particular with a view to widespread access to new services through open platforms in digital television and 3G, in line with the request from the Barcelona European Council

Proposed actions

Spectrum policy. The Commission will use the new regulatory framework for radio spectrum policy to ensure spectrum availability for, and efficient spectrum use by, wireless broadband services (e.g. W-LANs) and to co-operate with Member States' with regard to the introduction of such services. The Commission will initiate a discussion on new approaches to spectrum valuation and trading of rights-of-use of frequencies.

Broadband access in less favoured regions. Member States, in co-operation with the Commission should support, where necessary, deployment in less favoured areas, and where possible may use structural funds and/or financial incentives (without prejudice to competition rules). Particular attention should be paid to outermost regions.

Reduce barriers to broadband deployment. Member States should ease access to rights-of-way, poles and conduits to facilitate investment, for instance through the removal of

³⁴ COM(2002) 96 final of 21.2.2002.

legislative barriers. The Commission will support this by encouraging and organising exchange of local and regional experience and private/public partnerships.

Multi-platform content. Public authorities in Member States and the private sector should aim to offer their content on different technological platforms, such as interactive digital TV, 3G etc. The Commission intends to support demonstrations and research projects. The Commission will identify regulatory obstacles to the use of digital television for interactive services³⁵.

Digital switchover. In order to speed up the transition to digital television, Member States should create transparency as far as the conditions for the envisaged switchover are concerned. Member States should publish by end 2003 their intentions regarding a possible switchover. These could include a road map, and an assessment of market conditions, and possibly a date for the closure of analogue terrestrial television broadcasting which would enable the recovery and refarming of frequencies. National switchover plans should also be an opportunity to demonstrate a platform-neutral approach to digital television, taking into account competing delivery mechanisms (primarily satellite, cable and terrestrial).

3.2. Development, analysis and dissemination of good practices

In all areas of eEurope 2005, commercial and public applications are being developed, support programmes are running, and experimental applications are being tested. These activities are a rich source of knowledge and expertise. Progress is rapid but uneven, for example one administration or school may be trying to develop or use an application already working somewhere else or for which there is a viable private sector solution.

eEurope 2005 aims to build upon these experiences. It will not only identify and exploit good practices, but further advance them to act as a showcase which will be instrumental to the achievement of the eEurope targets. Good practice activity will therefore be complementary to the policy actions. A three-step approach is proposed:

i. Examples of good practice will be identified, and selected.

The Commission, in close co-operation with Member States, candidate countries, and the private sector, will identify examples of good practice world-wide. This would include practical working examples from the public sector and commercial applications in the areas of the action plan.

ii. Where appropriate, selected good practices will be enhanced to broaden their applicability and an analysis will be carried out to produce a template or guidelines for good practices.

Relevant examples would be extended in scope (e.g. multi-platform instead of single platform or additional users) or complemented by additional developments (e.g. greater functionality or multi-lingual interaction). The demonstration and evaluation aspects of these projects will be reinforced, so that a thorough analysis of the results may be undertaken.

The detailed analysis of good practice should result in templates or guidelines. These provide proven, well-documented approaches to tried and tested applications for e-services. They

³⁵ As has been requested by the Barcelona European Council.

would be modular and customisable for any particular user and would typically consist of a methodology, an associated set of tools and software in open-source form. This would result in a critical assessment of success factors and lessons of failure, which may lead to transfer and dissemination of good practice across Europe, particularly in the less favoured regions.

iii. The good practices and the results of the project analysis will be disseminated.

For the dissemination of good practices, the Commission in co-operation with the Council Presidencies will organise promotional campaigns covering the EU and candidate countries. This will be based on the following mechanisms:

- **Conferences/workshops:** The e-government conference with its exhibition of good practice examples is one successful model for an exchange of experience and lessons learnt. An e-health conference which will follow this model is planned for the first half of 2003, as is an e-learning conference and a second e-government conference is proposed for the Italian Presidency.

These conferences normally address policy-makers. They will be accompanied by special dedicated workshops which would bring together the actors for the respective strategies. These events will address in detail the good-practice showcases, templates and guidelines.

- **Support networks:** Results will be disseminated using existing business, academic, research and user networks - e.g. the e-business support networks to the SME's or the European School Net- and other such channels at the European, national or regional levels. Comparable networks will be sought for actors in all eEurope areas. In doing so, the regional and local dimension shall be particularly taken into account, inter alia by maintaining an open dialogue with networks such as TeleCities, Eris@ and Elanet. The new Innovative Actions programmes within the framework of the European Regional Development Fund (ERDF) offer regions (in particular, less favoured regions and areas under re-conversion) the possibility to test innovative tools and to exchange good practices in regional e-services. This will contribute positively to regional development strategies and thus play an important role within the eEurope 2005 action plan.
- **A web site:** Links to the good-practice templates and guidelines will be published on a specific web site which will provide tools supporting their use and feed-back mechanisms.

3.3. Benchmarking

Benchmarking of eEurope is a 3 stage process.

i. Definition of indicators

For eEurope 2002, 23 indicators were used. The rationale behind these indicators is to focus on output, i.e. the final objective of policy, not the policy itself (e.g. % household connected to the Internet rather than any measure of local loop unbundling). The objective of benchmarking is policy development and this means it is essential to obtain political endorsement of the indicators³⁶. Indicators will need to be updated for eEurope 2005 to reflect the revised political objectives. From 2004 onwards, i.e. after the end of eEurope+, the new

³⁶ Indicators were endorsed by the Internal Market Council, November 2000 (13493/00 ECO 338).

indicator list will also serve as a basis in the Candidate Countries. Where appropriate, regional indicators will be developed.

ii. Measurement and analysis

Internet related statistics soon become outdated and, to retain policy relevance, indicator measurements must be available quickly. Inevitably there is a trade-off between speed and quality. To improve the quality, measurement of eEurope 2005 indicators should make greater use of official statistics from the National Statistical Institutes and Eurostat. To allow for regular and comparable data collection in Member States, a legal base is needed for information society statistics. The Commission will propose this legal base before end 2002.

Analysis of the factors underlying indicator values is a key element in exploiting the data for policy development. The first analysis of eEurope 2002 indicators was given in the Commission benchmarking report³⁷. To enable Member States to undertake their own analysis the results are regularly updated on the eEurope web site³⁸. The Commission and the Member States will encourage the development of regional benchmarking, especially with less developed regions in relation to the development of national and regional information society strategies.

iii. Policy development

The value of benchmarking to policy development is evidenced by the Commission's Spring Report to the European Council³⁹ and the Benchmarking report which provided impetus for the eEurope 2005 Action Plan.

Benchmarking can be further exploited by exchanging policy good practices. To facilitate this, the Commission will analyse the benchmarking results to identify policy good practices, including regional policies of those Member States, or other countries, with best results in terms of the indicators.

Proposed actions

By end 2002, based on a proposal of the Commission, the Council adopts a **list of indicators and a methodology for the benchmarking exercise**.

By beginning 2003, the Commission will publish an **evaluation of the eEurope 2002 action plan** which will build on the first benchmarking report and will provide the analytical basis for progress assessment under eEurope 2005.

The Commission will **carry out benchmarking**, will publish an interim report early in 2004, and regularly update the benchmarking data on the eEurope web site.

³⁷ eEurope Benchmarking Report, COM(2002) 62 final,
http://europa.eu.int/information_society/eeurope/news_library/documents/index_en.htm

³⁸ <http://europa.eu.int/eeurope>

³⁹ "The Lisbon Strategy – Making change happen", COM(2002) 14 and the supporting staff paper SEC(2002) 29 of 15.01.2002.

3.4. A co-ordination mechanism for e-policies

Over the recent years many policy initiatives have been launched either as a direct response to the e-economy or to build in an e-dimension into existing policies. **Examples at European level** are policies such as regional (e.g. support for eEurope in structural funds⁴⁰), development (e.g. dotforce - the G8 initiative), education (e.g. e-learning), employment and inclusion (e.g. employment guidelines), trade (e.g. e-commerce in WTO) and the eEurope+ action plan. **At national level equally**, many policy initiatives related to the e-economy have been taken. It is not always guaranteed that the various national measures are well communicated at European level. A better overview and an exchange of information between the various actors would enhance the efficiency of e-policies.

For this reason, an **eEurope steering group**, chaired by the Commission (composed of Member States and candidate countries representatives, the European Parliament, and, where necessary, representatives of the private sector and of consumer groups, and funded by the follow-up to the PROMISE programme), should be established. This steering group would monitor progress of the eEurope action plan with the aim of improving the implementation of eEurope 2005. It would also provide a forum to exchange experiences. It would allow to bring in the private sector and make an early participation of candidate countries possible. The group would in general meet twice a year and with executive level participants to allow a strategic discussion.

3.5 Financing

The action plan sets ambitious objectives and proposes actions that will need significant resources. This will be met by using and, where necessary, re-focussing existing programmes. To finance projects and actions at European level, the Commission will make full use of the eTEN and the IDA programmes. Both programmes are currently being re-orientated to support eEurope objectives. In particular the financial regulation with respect to the eTEN programme would need to be adapted to make this programme an appropriate tool.

The Commission will, where possible, also use available funds of the eContent programme, the follow-up programme of PROMISE⁴¹, the multiannual programme for enterprise and entrepreneurship, as well as the standardisation, the Internal Market and the industrial competitiveness budget lines. The forthcoming eLearning Programme will also support eEurope related activities. The use of funds from these programmes will be in accordance with their legal base.

IST financed projects have been directly relevant to the eEurope 2002 action plan and the new IST priority in the Sixth Framework Programme intends to continue to finance research and demonstration projects covering these fields, thus contributing (mostly in an indirect way) to the eEurope objectives. .

Proposed actions

⁴⁰ A significant amount of structural funds expenditure, around 6 billion euro, has been earmarked for information society actions over the period 2000-2006, mainly on improving digital literacy, modernising public services, promoting e-business and upgrading the digital infrastructure.

⁴¹ multi-annual support programme for the promotion of the information society in Europe (http://europa.eu.int/ISPO/promotion/i_promise.html)

By end 2002, Council and Parliament, on the basis of a Commission proposal, should raise the **funding ceiling** for the implementation phase of **eTEN** projects from 10% to 30% without prejudice to the other TEN programmes.

By end 2002, Council and Parliament should adopt the proposal for an amendment of the **IDA programme** to reorient it according to the eEurope objectives.

By end 2002, the Council, on the basis of a Commission proposal and taking into account the opinion of the Parliament, should adopt a follow-up programme to PROMISE and the legal base for the cyber security task force.

By end 2002, the Commission intends to adopt a proposal for a specific eLearning programme.

By end 2002, the Commission will examine the need to adjust the second eContent work programme with a view to eEurope objectives and, if necessary, will make an appropriate proposal.

By end 2003, the Commission will make a proposal for a follow-up programme to the eContent programme.

4. Conclusions

This action plan is a proposal to Member States to take some far-reaching commitments. It is an invitation to the private sector to work with the Commission and Member States to realise the eEurope objectives. It sets out the initiatives the Commission will or is willing to take. Overall the action plan sets the scene for a co-ordinated European policy approach on information society issues. The eEurope action plan has been confirmed as a key element in the Lisbon strategy. If successful, this plan will have a significant impact on growth and productivity, employment and social cohesion in Europe.

One lesson learnt from eEurope 2002 is that it would be useful to review actions during the course of the action plan. This becomes particularly important given that several new Member States will probably have to be accommodated during eEurope 2005. Therefore a mid-term review, which would coincide with the proposed interim benchmarking report, presented in advance of the 2004 Spring European Council is suggested.

The European Council in Sevilla is expected to endorse an Action Plan and invite Council and Parliament to adopt as quickly as possible the necessary legal and budgetary instruments to implement it.