



European Economic and Social Committee

TEN/220
i2010 – An information
society for growth and
employment

Brussels, 16 March 2006

OPINION

of the

European Economic and Social Committee

on the

Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions on i2010 – A European Information Society for growth and employment

COM(2005) 229 final

On 1 June 2005 the European Commission decided to consult the European Economic and Social Committee, under Article 262 of the Treaty establishing the European Community, on the

Communication from the Commission to the Council, the European Parliament, the European economic and social committee and the committee of the Regions: i2010 – A European Information Society for growth and employment
COM(2005) 229 final.

The Section for Transport, Energy, Infrastructure and the Information Society, which was responsible for preparing the Committee's work on the subject, adopted its opinion on 31 January 2006. The rapporteur was Mr Lagerholm.

At its 425th plenary session, held on 15-16 March 2006 (meeting of 16 March), the European Economic and Social Committee adopted the following opinion by 141 votes to 1 with 5 abstentions.

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1. **Executive summary**

- 1.1 The EESC welcomes the European Commission's communication on i2010 as an essential component of the framework of the future strategy for the Information Society in the EU. The EESC fully agrees with the three priorities set out in the proposal, which are the following: firstly, the creation of a Single European Information Space offering universal access and rich digital content; secondly, the improvement of performance in research and innovation in the domain of Information and Communication Technologies (ICT) and lastly, the promotion of an inclusive Information Society that enhances quality of life.
- 1.2 Since ICT is such an important part of the Lisbon process, the EESC wishes to emphasise the need to intensify efforts to both support and pressurize on the Member States – particularly those which are lagging behind – so as to speed up the pace of development and meet the preconditions for achieving the Lisbon strategic objective by 2010. Without dedicating considerable financial resources, especially to R&D in ICT, the goals set out in the Communication cannot be achieved. R&D and innovation policies are crucial both for the ICT industry as such, and the ICT users industry. The availability of a larger budget is vital but, of equal importance is the need to ensure the strongest impact of R&D projects on industry thereby guaranteeing the greatest benefits to European citizens.
- 1.3 The Communication rightly addresses convergence and interoperability issues, which constitute one of the most important aspects of the strategy for end-users. The EESC is convinced that the regulations should promote interoperability while maintaining a technological neutral approach and, despite the difficulties, resolve any possible

contradictions between interoperability and neutrality. R&D and standardisation work in this field is, in the EESC's view, potentially very productive and should remain market-led and involve all relevant stakeholders.

- 1.4 The EESC emphasises that the bridging of the "digital divide" is a prerequisite for ICT to make good on its inherent social and economic potential. Only when there is technical and legal access to information, universal and affordable access to broadband services, when there are adequate computer skills and when programmes are user-friendly, can the "digital divide" be bridged. This also means that policy making should take into consideration the special needs of socially disadvantaged people, thereby ensuring an inclusive, equal Information Society. There is also a need to develop a culture of refining information and checking the authenticity of knowledge. So far the European Education System has not met these needs of the digital age. The EESC therefore recommends linking the i2010 strategy to improvements in Europe's education system in particular, by increasing funding. Only if the above conditions are met can we take advantage of the opportunities that the information society provides in terms not only of growth and employment, but also of personal development.
- 1.5 Moreover, the concept of universal and affordable access must be supported by a concrete technical step that consists of the upgrading and development of telecommunications infrastructure, which is the backbone of the Information Society. The EESC would also like to stress the importance of enhancing awareness with regard to security matters, since confidence in IT is a prerequisite for its frequent use and of particular relevance to the exploitation of the full potential of the Internet. In order to elevate awareness, public authorities at local, national and EU level should encourage cooperation with business in order to combat cyber-crime.

2. **Introduction: Gist of the proposal**

- 2.1 With this proposal (COM(2005) 229 final), the Commission intends to follow up the *eEurope 2005 Action Plan*¹, which was the successor of the *eEurope 2002*² Action Plan. The latter was launched in June 2000 to support the Lisbon Strategy, in order to make the European Union the most competitive and dynamic knowledge-based economy in the world capable of sustainable economic growth with more and better jobs and greater social cohesion by 2010. The forthcoming closure of the *eEurope 2005 Action Plan*, the new challenges provoked by ICT as it becomes more mature and global, as well as the mid-term revision of the Lisbon Strategy result in an urgent need to build up a comprehensive and holistic strategy to spur on the growth of the sector.

¹ *eEurope 2005: an Information Society for all* COM(2002) 263.

² *eEurope 2000: eEurope 2002: Accessibility of Public Web Sites and their Content* COM(2001) 529.

- 2.2 The Commission considers the ICT sector to be a powerful driver of growth and employment and as such playing a key role in European Union level policy making. At the same time the Commission admits that digital convergence of information society, media services, networks and devices constitute an important challenge for policy making since they require a proactive and integrated policy approach and policy convergence beside an aptitude to adapt regulatory frameworks in a rapid manner.
- 2.3 The Commission proposes a new strategic framework, i2010 – European Information Society 2010, laying out broad policy orientations. It promotes an open and competitive digital economy and emphasises ICT as a driver of inclusion and quality of life. A key element of the renewed Lisbon partnership for growth and jobs, i2010 will build towards an integrated approach to information society and audio-visual media policies in the EU.
- 2.4 Drawing on a comprehensive analysis of information society challenges and drawing on wide stakeholder consultation on previous initiatives and instruments³, the Commission proposes three priorities. The first objective is to create a Single European Information Space offering affordable and secure high bandwidth communications, rich and diverse content and digital services respecting the principle of interoperability of devices and platforms. The second objective is to achieve world-class performance in research and innovation in ICT. Finally, the third objective is to influence the evolution of an Information Society in a way that it would become inclusive, provide high quality public services and promote quality of life.

3. General comments

- 3.1 In its opinion on the eEurope Action Plan⁴, which is the predecessor to the proposed i2010 Action Plan, the EESC made several observations, including the following:

*"The ESC welcomes the eEurope initiative and considers it to be the most important and ambitious effort by the European Union to date to familiarise its citizens with and adapt its businesses and its public bodies as rapidly as possible to the new conditions created by the digital age and the new economy. In the Committee's view, this initiative is more than a starting point for that familiarisation and adaptation process, however; it is a buttress for the relevant processes that are already developing, though slowly, in the market and in society"*⁵.

"The ESC is adamant that all the measures relating to stimulating Internet use, establishing an information society and achieving the Union's new strategic goal should focus on people and their needs, the European citizen, European society and the European economy.

³ i.e. the eEurope initiatives and the communication on the future of European audiovisual regulatory policy - COM(2003) 784.

⁴ The rapporteur of the opinion was Mr Christoforos Koryfidis.

⁵ OJ C 123 of 25/04/2001.

Provided it serves that principle, the establishment of the information society - as an antecedent to the knowledge-based society - will acquire real significance"⁶.

"The ESC is aware of the scale and number of problems associated with the development of the action plan. In particular, the Committee foresees difficulties in covering the ground and gaps that have opened up as a result of Europe's tardy response to the new technological challenges"⁷.

"For the ESC, the risk of individuals, groups or entire regions being excluded from the overall initiative is great and manifold, given that non-computerised access to universal services will gradually become obsolete as the provision of computer-based services develops. For this reason, the ESC agrees with those who support the view that the programme as a whole and the individual measures should include means of combating these risks"⁸.

- 3.2 These and other⁹ observations by the EESC, in conjunction with the Final Report and other Commission documents on the eEurope 2002 programme, have led the Committee to the following conclusions on the Commission communication on "i2010 – A European Information Society for growth and employment".
- 3.3 The EESC welcomes the European Commission's communication on i2010 as an essential exercise to frame the future strategy for the Information Society in the EU.
- 3.4 The EESC supports the Commission's intention to continue and enhance the eEurope initiative beyond 2005.
- 3.5 Over the last decade Europe has made much progress in exploiting new information technology, both in terms of IT uptake and maintaining a strong IT and telecoms industry. This has been enhanced by important political initiatives from the Commission, not least the eEurope 2005 Action Plan, which has been instrumental in this respect. However, much remains to be done to take full advantage and reap the benefits of the evolving information- and knowledge society.
- 3.6 The EESC shares the Commission's view that investment and research in ICT partly explains the productivity differences between the EU and the US, and that investing more in ICT can

⁶ ibid. (point 3.1.4).

⁷ ibid. (point 3.2).

⁸ ibid. (point 3.2.2).

⁹ cf. relevant EESC opinions including: OJ C 123 of 25.4.2001, OJ C 139 of 11.5.2001, OJ C 80 of 3.4.2002, OJ C 94 of 18.4.2002, OJ C 116 of 20.4.2000, OJ C 61 of 14.3.2003, OJ C 133 of 6.6.2003, OJ C 36 of 8.2.2002, O.J. C 311 of 7.11.2001, OJ C 85 of 8.4.2003, OJ C 36 of 8.2.2002, OJ C 241 of 7.10.2002, OJ C 221 of 7.8.2001, OJ 133 of 6.6.2003 etc.

secure faster productivity gains in Europe too, and thereby enhance growth, employment and welfare.

- 3.7 Globalisation presents the EU with new challenges. China, India and South America are fast growing economies where the ICT industry is developing rapidly. In order to address this competition, the EU needs to develop robust strategies, not least in the field of ICT.
- 3.8 The importance of ICT to enhance EU competitiveness was highlighted in the Lisbon Strategy. The EESC welcomes the i2010 initiative as a component in achieving the Lisbon objective of making the EU *"the most competitive and dynamic knowledge-based economy in the world capable of sustainable economic growth with more and better jobs and greater social cohesion "* by 2010.
- 3.8.1 Since ICT is such an important part of the Lisbon process, the EESC would emphasise the need to intensify efforts, support and pressure on the Member States – particularly those who are lagging behind – to speed up the pace of development and to meet the preconditions for achieving the Lisbon strategic objective by 2010.
- 3.9 ICT is a "General Purpose Technology" (GPT). A GPT enables the transformation of virtually the whole society as the GPT is disseminated in a myriad of applications often embedded. One other example of GPT for the 20th century was the combustion engine. When the car was invented, it was not the car industry that was the force providing the impetus behind the prolonged upswing in western economies in the 20th century but the infrastructure that we built to enable us to use the car - from roads and new service sectors to the fundamentally changed patterns of living and systems for the distribution of merchandise.
- 3.9.1 The introduction of new technology in itself does not as such create additional value or profit, this only happens when the work and production processes are reorganised. Productivity gains often do not emerge until long after the innovation was introduced. The same applies to ICT. It must be understood that the full potential of ICT (a GPT) can only be realised through a widespread up-take of the technology by all stakeholders including businesses, employees, citizens and public authorities on all levels of government. The EESC emphasises that the bridging of the digital divide is a prerequisite for ICT to deliver its inherent potential.
- 3.10 The Commission communication particularly stresses the need for increased investment to strengthen the supply side. The EESC feels it would have been useful if the Commission had also looked more closely at the conditions that would enable such investment to be made. The EESC also believes that it is a question of innovation capacity and dissemination of technology.
- 3.10.1 If efficiency and productivity gains are to be achieved through new technology, work should be organised in a way that makes better use of the opportunities provided by the new

technology. This will require changes to business management and the introduction of open and innovative working structures, through social dialogue. This would also give employees a wider range of responsibilities and job content. The Commission might have usefully discussed this dimension more in depth.

- 3.10.2 If we want to create a knowledge society and economy, we need to consider the application of ICT in manufacturing and services in the overall context of changing production and work conditions. An examination of examples of the successful application of ICT in companies reveals that these were always achieved in conjunction with the prior introduction of new forms of work organisation, with flat hierarchies, where trust is put in the experience and knowledge of employees, and expertise and decision-making tend to coalesce.
- 3.10.3 The Commission's strategy puts great emphasis on increases in investment levels to improve the supply side. A more explicit discussion of what framework conditions and user requirements are needed to turn such investments into successful innovation in the first place could have been useful.
- 3.11 The EESC feels that the Commission Communication should have addressed the issue of compiling statistics on the information society. The statistics instruments used thus far cannot be used for the new communications technologies and related sectors. Policy in this area requires standardised, internationally comparable statistics on the use and development of services and technology. Although there is no such discussion in the Communication, the EESC is aware and welcome that the Commission has taken initiatives to address these issues.

4. **Specific comments**

- 4.1 The EESC notes that the crucial factor for the achievement of the goals set out in the Communication is the upgrading and development of telecommunications infrastructure, which is the backbone of the Information Society. It is crucial when framing future policy initiatives to give the utmost importance to measures that promote investment and effective competition inside the different sectors and between all market players, within the framework of a level playing-field for all stakeholders. The EESC stresses, however, that special consideration must be given to the presence of dominant actors and other special competitive conditions that apply to the ICT industry, and particularly to firms that develop, produce and market software.
- 4.2 The EESC would stress the need for broadband to be rolled out at a pace that will not stymie use of advanced applications of new technology.
 - 4.2.1 It is difficult to give a specific, generally accepted definition of broadband, but a somewhat limited definition is of course necessary if there is to be a meaningful discussion of its development. The Commission Communication should have elucidated this better. The EESC believes that, as a minimum, broadband should mean an asynchronous throughput of

over 2mb per second, and that only in exceptional cases can 512 kbit per second be accepted as broadband.

- 4.3 The EESC welcomes the Commission's intention to review the electronic communications regulatory framework. This review is urgently needed in order to create more incentives for investment and innovation.
- 4.4 The EESC would emphasise that convergence exposes policy-makers to new challenges in the drive to increase IT uptake. Convergence means that users will be able to access the same content and services (e.g. voice, high-speed data and video) over a wide range of different platforms (ADSL, cable, satellite, PLC, 3G, etc.) to various end terminals ranging from traditional computer terminals, mobile phones and TV to integrated information technology elements in cars, household equipment and a variety of other applications. The benefits of convergence will depend on customers being offered quality content services and having access to high-speed connections.
 - 4.4.1 It is important to acknowledge the rapid development of new applications and the introduction of disruptive technologies like smart tags and voice-over IP when framing new regulations or standards. The EESC is convinced that the regulations should promote interoperability, the most important question for end-users, while keeping a technologically neutral approach, and despite the difficulties to solve any possible contradictions between interoperability and neutrality.
- 4.5 The ICT sector is itself in a state of major transformation which will enable it to meet these challenges, including expansion of broadband, technological change, evolving consumer patterns, new business models, and growing competition between different platforms.
 - 4.5.1 The Communication rightly addresses convergence and interoperability. R&D and standardisation work in this field are, in the EESC's view, potentially very productive. The standardisation work should remain market-led, involve all relevant stakeholders and focus on users' needs. The EESC would refer to earlier experiences with, for example, the GSM standard, and the IP-protocol.
- 4.6 The move towards more integrated IP-based networks both in business as well as in the public sector, will have far-reaching implications for the interplay between stakeholders: enterprises, public authorities and citizens. Massive investment will be required from telecommunications operators to meet the convergence requirements, upgrade existing networks, simplify architectures and develop next generation networks. The EESC believes it is essential for the European information society that EU and national policy-makers ensure the appropriate climate for these major investments.
- 4.7 In the information society debate, security is central to the development of attitudes towards and trust in IT. The perceived security of and trust in digital transactions determines the speed

with which enterprises are likely to exploit ICT in their business. Consumers' willingness to provide credit card numbers on a web page is greatly influenced by the perceived safety of the action. In addition, users' trust in ICT is an essential ingredient to the acceptance of eGovernment and to its rollout.

- 4.7.1 The security of information and computer-related crime is increasingly a major problem affecting businesses, administrations, employees and consumers alike. The EESC would stress that information society policy must be framed in such a way that confidence is enhanced and all players dare to exploit the full potential of the Internet¹⁰.
- 4.7.2 As information networks become increasingly integrated, society is ever more dependent on 24/7 functioning of the system; consequently, functioning of the physical infrastructure is crucial when information- and network security is under discussion. It is important that the systems should include network redundancy.
- 4.7.3 For ICT users it is essential that computer-related crime is tackled, where possible, in an internationally harmonised way, and that enforcement of legislation is vigorously pursued, thereby demonstrating that such crime does not pay. Initiatives to combat computer-related crime must, however, be assessed to ensure they are not at the expense of industry or at the expense of fundamental rights such as the right to privacy. Such assessments are important, notably in the current debate regarding stricter data retention requirements¹¹.
- 4.7.4 The security problem has been acknowledged by the Commission in numerous communications and recommendations, as well as through the establishment of the European Network and Information Security Agency. The EESC believes that a common environment should be created through the Agency where public and private sectors can work together to protect their information systems, taking into account the increasingly rapid changes in technology and without imposing inappropriate administrative or financial burdens.
- 4.7.5 The EESC believes that **enhancing awareness** is fundamental to increasing information and network security. In order to elevate awareness, public authorities at local, national and EU level should encourage more intense cooperation with business in order to combat cyber-crime.
- 4.8 In other respects, too, trust in e-transactions should be strengthened. The patchwork of directives and national laws on e-business and privacy does not add to the easy understanding of what is permitted and what is not. Especially since enforcing the law and passing sentences is still immature.

¹⁰ Due consideration should also be given to the security solutions offered by the open source operating systems and softwares in the fight against piracy and intrusions in the networks.

¹¹ See the opinion CESE 1606/2005 adopted on 19 January 2006 (rapporteur: Mr Hernández Bataller).

- 4.8.1 The EESC welcomes the Commission's proposal for an evaluation of the directives on e-business and privacy. Simplification is often possible, since this leads to transparency. Further harmonisation is sometimes useful, e.g. in the way Member States address spam in electronic communication.
- 4.9 However, it is not only security aspects and knowledge of existing rules that keep SMEs from benefiting fully from the potential offered by ICT development. An important factor is the lack of programmes that are sufficiently user-friendly. The EESC believes that supporting the development of ICT products and services applicable for SMEs, e.g. through R&D support, standardisation and educational projects, could be a key factor in boosting EU competitiveness.
- 4.10 R&D and innovation policies are crucial both for the ICT industry as such, as well as the ICT users industry. It is not just important to have a larger budget available for R&D and innovation activities; it is also important to seek the highest impact and benefits for European citizens and industry from R&D projects. In this sense, involvement of the main players in R&D projects is essential, particularly those who have a bigger impact in the final application of the technologies: industries, manufacturers and service providers.
- 4.11 The independent "Five-Year Assessment Panel of IST-RTD" concluded in its recent report that Europe's research and development in Information Society Technologies (IST) makes a vital contribution to efforts to become the world's most competitive knowledge economy, but Europe must step up this investment if it is to achieve "critical mass" in these technologies. The report also highlights the need to reduce bureaucracy, which threatens to stifle research. The EESC shares this analysis.
- 4.12 The EESC believes that one of the central pillars in ICT-policy is public authorities' use of ICT in a broad sense. Public authorities are often demanding and capable users and buyers of ICT and are therefore a key policy instrument to achieve the objectives of the i2010 Action Plan. There are a whole set of different measures that can be envisaged ranging from electronic public procurement, using ICT for easing the administrative burden for enterprises (eGovernment), eHealth, eLearning and public spending on R&D.
- 4.13 It is important to heed the consequences of the "digital divide" and of increased use of ICT. The impact will be economic, social and cultural. If the full potential of the information society is to be realised, businesses, citizens and employees must become more IT proficient. This is a matter of lifelong learning and skills development.
- 4.14 On the basis of its work to date, the EESC believes that one main concern in the bid to build a full and effective European information society is the lack of understanding, among much of the European public, of the role, value and potential of reliable information and knowledge in transforming the modern world of production and trade; and the fact that there has been no

mass, systematic development of "a culture of refining information and checking the authenticity of knowledge¹²"; in other words, a culture that can deal with the confusion created by the greater volume of information and by the speed at which it moves today.

- 4.14.1 The EESC believes that these problems arise from the poor performance of European education systems in terms of responding to the needs of the digital age. It therefore recommends linking the i2010 strategy as closely and effectively as possible to improvements in Europe's education systems, in particular by increasing funding.
- 4.14.2 Doubling the proportion of the labour force undergoing digital training would certainly provide new impetus. This training should attract high-skilled and low-skilled workers in equal numbers. Both employers and employees have an important role to play here.
- 4.14.3 The public sector at various levels also has an important role to play in encouraging and integrating lifelong learning. This is clearly in line with the EU's overall policy objectives under the Lisbon process, which include sustainable development. At the same time, the unemployed must also have access to publicly supported IT training programmes in order to help them return to work.
- 4.14.4 In this connection the EESC would reiterate the stance it took in a previous opinion¹³ and emphatically stress the need to create a more favourable climate for eLearning to become part of all education and training levels.
- 4.15 However, providing access for the socially disadvantaged is not just a matter of education initiatives. Many groups, owing to economic or geographic reasons or special needs (e.g. the visually impaired or the elderly) are often excluded from modern communications. Overcoming these barriers is an important criterion in creating a successful, equal information society.
- 4.15.1 A further challenge is the creation of an inclusive European information area, which strengthens the participation rights of all citizens and supports cultural and linguistic diversity. In order to achieve this, the flow of information and innovation must be made democratic and unfettered access to information guaranteed. Given the digitization of the information area and new technical developments as regards monitoring and restricting the

¹² This means the development within education of individual mechanisms for filtering information and checking its reliability OJ C 157 of 25.5.1998 (Paragraph 2.3.8).

¹³ EESC opinion on The European dimension of education: its nature, content and prospects (rapporteur: Mr Christoforos Koryfidis) OJ C 139 of 11.05.2001(Paragraph 4.5).

"The ESC sees the eLearning initiative as the cornerstone of Europe's effort to bring its citizens into the digital age, and more specifically to promote Internet use, the networking of educational establishments and the development of virtual mobility. It therefore recommends removal as soon as possible of the obstacles standing in the way of effective development of the initiative, foremost among which are the cost and quality of the relevant electronic infrastructure, connection costs, digital content and the linguistic reality of the Internet."

flow of information, there must be legal guarantees that information in the public domain remains accessible to all and that consideration is given to public interest in information protected by copyright. The ability to innovate can be strongly influenced by rules on the protection of intellectual property, from patents and copyrights to the protection of software and databases. Intellectual property protection rules in one hand, and individual access rights to culture and knowledge in the other hand, should be balanced in a way that allows a temporary protection for promoting innovation and investments, while allowing the widest possible access to information and knowledge, in line with the Lisbon strategy.

- 4.16 Only when there is technical and legal access to information, universal and affordable access to broadband services, when there are adequate computer skills and programmes are user-friendly, can the "digital divide" be bridged. Only then can we take advantage of the opportunities that the information society provides in terms of growth and employment, but also personal development.

Brussels, 16 March 2006

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