EUROPEAN INFORMATION SOCIETY POLICY EMERGENCE AND GOVERNANCE

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- "A Prospective Analysis of the New Member States' Contribution to the Knowledge-based Europe", issue "ICTs and Enlargement", *Communications&Strategies*, November 2004.
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- "Les enjeux politiques de l'ère de l'information: le cas de l'Europe", in Michel Saloff-Coste, *Le Management du troisième millénaire*, 4th Edition 2005.
- *Dependability Issues: the Case of France*, Carine Dartiguepeyrou, 2002. A report prepared under the Information Society Technologies Programme of the European Commission. Published by Rand Europe and available on the web site: http:/www.ddsi.org.
- *Les Horizons du futur* (Horizons of the Future), Carine Dartiguepeyrou and Michel Saloff-Coste, ed. Guy Trédaniel, 2001. Available in English: http:/www.mscetassocies.com. This essay features a patchwork of ten themes surrounding the information era and the world's adaptation to the technological revolution.
- "Innovation Beyond Technology: How to Build a Sustainable World," Carine Dartiguepeyrou. Conference and paper presented at the Global Community in Palo Alto, 2001.
- *Stimulating Industrial Innovation for Sustainability: the Case of France*, Carine Dartiguepeyrou, 2000. Published by Rand Europe as part of the report *Stimulating Industrial Innovation for Sustainability, International Comparison*, 2000.
- "Doing Business in Russia: Beyond the Myth," Carine Dartiguepeyrou. Published by the *International Review for Chief Executive Officers*, 1994.
- *Investir en Pologne*, Carine Dartiguepeyrou, published by Bank BISE with the support of Crédit Commercial de France, Crédit Coopératif and Crédit mutuel, 1992. This book is a guide to French investors describing the geographical, political and economic portrait of Poland. It was one of the first analyses describing business reform in Poland after the crash of the Berlin Wall. It is updated each year.

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SUMMARY

The European Information Society policy (the "IS policy") has been undergoing a significant evolution since its beginning. We can distinguish three phases: the "telco-regulatory" phase, the "sectoral-economic" phase and the current "socio-environment" phase. A new phase is soon to start where IS policy is likely to become more "citizen-centric".

IS policy has from a very early stage promoted sustainable development. IS policy is not limiting growth to the economic parameter. It is promoting a sustainable way to look at growth (i.e. economic, social and environmental) and a vision to achieve a better quality of life.

The DG INFSO helped the EU to recognise IST as essential contributors to European competitiveness although did not communicate around it. IS policy has nourished the early stage of the Lisbon strategy.

The different evaluations of the Lisbon strategy tend to show two broad conceptions of the social and economic model of growth and competitiveness in Europe. One, the economic orientation promotes employment as a major driver of growth. The second promotes a more balanced and systemic approach where social and environmental growth is considered as a major source of value creation.

The first model is influenced by a classical neoliberal approach; the second is more empirical trying to leverage the experience in the Scandinavian countries. In both models, ICT are recognised as key. None of the evaluations directly relating to the Lisbon Strategy question in depth the meaning of the European ambition (to become a "knowledge society").

IS policy has been contributing to the implementation of new modes of governance. IS policy and reform of governance depend on each other. Both challenge the balance of power in place in promoting bottom up approaches, multi-actor forums, multi-layer policies taking into account complexity, peer review and intergovernmental collaboration, and involvement of European citizens.

They generally defend a series of values including but not limited to transparency, accountability, responsibility, collaboration, solidarity (ageing, gender, minorities…) and sustainability (environmental and non-environmental).

INTRODUCTION

The information and communication technologies (ICT) have only recently given birth to a major source of debate in Europe as it became clear that these technologies could substantially transform our societies for the best as well as for the worst. Since the beginning of 2000, this debate has raised the following questions: what kind of science and technology do we want to develop? What are the content and services we want to promote? What are the civil, individual and collective rights and liberties we want to defend? What are the economic model and development steps we need to adopt?

The notion of Information Society (IS) and the introduction of ICT in the public policy's sphere have been enhancing the nature of the debate and have boosted the prospective horizons of researchers and politicians. In Europe, the number of forums has increased substantially since the mid-1990s. They now incorporate not only economic and political agents but also representatives from civil society. The European Union has developed a unique approach in the field.

The deployment of the public policy in the field of Information Society coincides with the appearance of new modes of governance. It is closely interlinked with the change of the nature of globalisation and the new modes of governance that this globalisation generates. IS policy is also confronting the limits of the traditional economic theories. There is recognition that immaterial goods and services need to be taken into consideration to understand the value creation of our societies. The economic development of our societies requires the incorporation of new accounting measures and valuation of intellectual capital but also necessites a revision of our conception of sustainable growth. It implies reconsidering the relationship between the economic, social and environmental factors and reconciliating the three on an interdependent base and not on a hierarchical base where economics dominate the two others.

Given this context, looking at the Information Society Technologies (IST) policy is key to understanding the European competitiveness. By competitiveness we understand here the notion in its holistic, multidisciplinary, multidimensional meaning i.e. understanding the essence of the European project. By acknowledging the "quantum shift" and the move towards a "knowledge society" (the so-called "Lisbon strategy"), the European Union seems to recognise the depth and urgency of the challenge. But is it really the case? Is the original vision of the Lisbon Strategy still dominant? What do the recent change in the EU policy mean for the future of the knowledge-based economy "capable of sustainable growth, with more and better jobs, and greater social cohesion"?

Understanding how the Lisbon vision is implemented is key to understanding the likely evolution of our societies. Analysing more specifically the European policy of Information Society allows us to study the emergence of a policy conducted in one of the most progressive political environments in the world. It also helps to anticipate the rationale behind the likely development of the Lisbon strategy and its implementation. Finally, it raises our awareness of the likely trends in emergence and new modes of governance in the European Union.

The first part of this report will be dedicated to the genesis and evolution of the European IS policy. A structuralist approach will be proposed.

The second part will analyse the Lisbon Strategy with a special focus on IS ("Information Society for All") and R&D ("European Research Area"). The third part will propose a meta-evaluation of the Lisbon Strategy. The Kok report has occulted the attention of the media but other evaluations have been conducted. The meta-evaluation will help identifying the roots of the current political division in Europe, which goes beyond the traditional political segmentation, and questions the "social contract" of the knowledge-society we want to build.

The final part will focus on governance issues providing examples of emergence and new modes of governance: shaping public policy more systematically involving stakeholders (White Paper on European Governance), experiencing new methods of collaboration (the Open Method of Coordination), and evaluating policies on a more transparent basis (Impact Assessment).

THE INFORMATION SOCIETY POLICY IN EUROPE

Genesis of the Notion of "Information Society"

Armand Mattelart dedicated his research to studying the genesis and development of the notion of "information society". According to him, the notion is still very ambiguous. This ambiguity comes from the different sources of interpretation.[1] It all started during the Cold War with the appearance of the artificial intelligence developed for military purposes. The Arpanet is then developed and would be the beginning of the future Internet.

The sociological side accompanying the technical and scientific development was developed in the 60s by one of the first theorists of the "post-industrial society" Daniel Bell.[2] The notion of "information society" itself is said to have appeared first in Japan in the 60s ("*Joho Shakai*"[3]).

In parallel, Zbigniew Brzezinski, would become adviser to the US President Jimmy Carter, developed the approach that the planet is becoming a "global society" and that America is the first to apprehend this new reality. The 70s marked the deployment of future studies scenarios developed by the *think tanks* and the popularisation of the concept with the publishing of *Future Shock* (1970) and *The Third Wave* (1979) by Alvin Toffler. By then the notion entered the field of public policy.

In the 80s the management theorists and practioners were the first to experience the move towards a new form of economy and society in which knowledge is central. The concept gave birth to an explosion of notions like "digital economy", "paradigm shift" (Don Tapscott), "cognitive economy" (Thierry Gaudin), society show ("société spectacle", Guy Debord), the era of creation and communication ("ère création-communication", Michel Saloff-Coste), "network society" (Manuel Castells).

The networks of communication and multimedia application constitute the base of the transformation of economic and social links. The "information society" would translate into a new model of industrial organisation and social relationships as the "industrial revolution" transformed societies based on agriculture.

The concept of "global information society" defined by the OECD and the G7 was originally linked to the concept of "global information infrastructure" developed at the time in the USA. The concept of "global information society" was adopted by the G7 in 1995.[4] Some experts see in the development of a "global information infrastructure" the premise of a "global information society". Others use the term "global information infrastructure" to put the accent on the technology aspect while using the notion of "global information society" to reinforce the sociological aspect.

Some analysts think that we are still in the industrial era and that the new information technologies just reinforcing the materialism of our societies described by the "hyper-industrialism", "neo-liberalism" and "techno-determinist" theses. Others defend that we are in a paradigm shift and in a strong mutation moving away from the industrial era towards an informational era. Among the latter, the analysis varies greatly depending on the nature of the arguments (political, economic, sociological, technological, philosophical).

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[1] Armand Mattelart, "Genèse de la notion de société de l'information", Revue de stratégie *Agir*, n°20, January 2005.
[2] Daniel Bell, *The coming of Post-Industrial Society, a Venture in Social Forecasting*, Basic Books, New York, 1973.
[3] "Regards prospectifs sur le Japon", *Futuribles*, numéro 216, janvier 1997, p. 48.
[4] OCDE, *Vers une société mondiale de la société de l'information*, 1997, p. 13.

The notion that best describes the current situation is the notion of the "information era" proposed by Manuel Castells. It underlines that we are in an *era* of deep change (technological, economic and sociological) where information is key but that the boundaries of this society are still not defined.[5]

In fact the notion of "information society" defines more a trend than an established reality.[6] The experience of the 90s and 2000s showed that the introduction of the technologies of information and communication in companies has often been a source of change management. It often requires the company to rethink its strategy and its organisation, structure, management, and culture. In the field of public policy, the TIC have also been a driver of change.

International Policies and Cultural Approaches

The first initiative of a political elaboration of "information society" began in the early 1970s in Japan. In 1971, a plan was elaborated by the Japanese Computer Usage Development Institute, which proposed "information society" as the "major objective for the year 2000."[7] The MITI aimed at stimulating the synergies between research and industry, public and private sectors, launched several projects including a central databank, software training, e-Health, information system for SMEs out of which the project *Computepolis* was the most symbolic. The results of this *avant-garde* project became visible with the strong presence of Japanese companies in chips, personal computers (launched in 1978) and the creation of mass educational TVs.

In the USA, beginning in the 70s, a new public policy emerged showing that "certain national problems could be resolved through the telecom sector" with the aim of developing a new market and application for the new technologies of information and communications. The priorities were: education, public heath, legal system and postal services. The arrival at the Presidency of Ronald Regan in 1982 halted this approach. The liberalisation of the communication system was linked to the "star wars" program and took on a military-defensive flavor (*Strategic Defence Initiative*). George Bush woul relaunch this initiative under the Strategic Computing Initiative in 1989. The original idea to use telecommunications and software for human and social development was abandoned to the benefit of defence interests. From this date on, military budgets assigned to ICT would be key to R&D funding.

In France, President Giscard d'Estaing (1978) asked the Commissariat Général du Plan to prepare a report (Rapport Nora-Minc) to anticipate the coming economic shift and propose some prospective analysis of the move towards an "electronic society". This report would coincide with the law on informatics and liberties and in the creation of the CNIL.

In the USA in 1991, the Clinton Administration launched the business community the idea of promoting the development of a national information infrastructure (*Agenda for Action on the National Information Infrastructure* and *Information superhighways*). The Clinton period would be a *parenthese* in the American presidency. Vice-President Al Gore engaged a very ambitious innovation and technology programme dedicated to business and research communities. This approach was very different than the one developed by the Bush Senior and Son Administrations primarily orientated towards defence projects. In 1996, the USA reinforced the deregulation of telecommunications (*Telecommunications Reform Act*).

This American policy will influence the European one that will itself embark on the deregulation of its telecoms sector. The liberalisation of the telecommunications sector engaged in 1984-1985 in the USA with the dismantlement of AT&T was perceived by the G7 as part of the move towards an "information society". A *Negotiating Group on Basic Telecommunications* is set up at the same time by the WTO. A second aspect of the "global information society" is the *Mutual Recognition Agreements* in the field of tests, patents

[5] Manuel Castells, *L'ère de l'information*, trois tomes, Libraire Arthème Fayard, 1999, 1998.
[6] Carine Dartiguepeyrou, "Les enjeux politiques de la "société de l'information": le cas de l'Europe", in Michel Saloff-Coste, *Le Management du troisième millénaire*, quatrième édition 2005.
[7] Armand Mattelart, *Histoire de la société de l'information*, Editions La Découverte, 2001, p. 80.

and standardisation. The competition opposing the USA and Europe in these fields is key to understanding the current policy of the European policy.

There is, in particular since September 11 and Echelon, a renewed concerns within Europe about the potential implications of US budget for defence and security related R&D for the relative position of European defence and commercial industries and the European science base in transatlantic competition and cooperation. According to the EURAB Working Group on the European Research Area, there is an increasing recognition that the large and growing gap between US and European spending on defence and security related R&D has implications for European aspirations in a number of policy areas. In 2004, the US budget represented USD 71Bn for defence and homeland security R&D representing 55% of the total R&D portofolio. [8] Only the UK is spending the same proportionally to GDP than in the US, other European R&D defence spendings representing one fifth of that spent by the US and most of European spending being fragmented in national programmes.[9] US federal funding of defence R&D plays an important role in financing the civilian sector. According to the EC, the RISC (microprocessor), the Windows icon pointer interface, the GPS have been heavily financed by defence budget.[10]

The approach towards the policy of "information society" varies greatly depending on the culture and the nature of the government in place. The Rand Corporation contributed significantly in identifying the major differences in perceptions of the "information revolution around the world. "[11]

The North American approach is characterised by a determinist attitude towards the "information society". The "information revolution" is perceived as inevitable. Inequalities inherent to the development process are accepted and conflicts in the field of private liberties are anticipated.

In Europe, the focus gives much more important to the necessity of achieving an economic value with the "information revolution" while maintaining and protecting cultural and social values. Europeans think they have to enforce a voluntary policy to achieve their goals. The political determination to limit inequalities is prevalent. The same applies to the defence of privacy rights and liberties.

In Pacific Asia, the emphasis is on leveraging the economic value that can bring the "information society". There is less concern with disparities and individual liberties. Other regions like Southern Asia, Middle East and Africa generally show a difference of interest between the elites and the rest of the population.

In India, there is a strong will not to stay outside the "information revolution". More so, as formulated Ashok Kar at the IST EVENT 2004, "in India, IT has become an act of faith, the *mantra*". ICTs have renowed the Indian "entrepreneurial spirit". The Indian IT market represented USD 20Bn in 2004 growing at a 17 per cent rate. In 2003, the IT sector employed 170,000 people; it is expected that it will employ 2.7 million people by 2012.[12]

While Indians give the sentiment that they participate quite holistically to the Information revolution, Chinese bureaucrats do not project the same image. Although Chinese delegations sent to Europe do now speak English, their communication is still very technical. It was interesting to notice at the IST EVENT 2004 the difference between the Chinese delegation very *technology* orientated, and the Indian delegation, very *business* orientated. On the Chinese side, you had different speeches about "grid, software, and security"[13]; on the Indian side, you had speeches about "skills, investments, and services". The strategic positioning is radically different.

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[8] Andrew James, *US Defence R&D Spending: an Analysis of the Impact*s, Prest, University of Manchester, January 2004.
[9] *The military balance 2001-2002*, The Institute of Strategic Studies, London, 2001.
[10] *European Defence-Industrial and Market Issues, Towards an EU Defence Equipment Policy*, COM (2003), 113 Final, March 2003.
[11] Collectif, *The Global Course of the Information Revolution: Political, Economic, and Social Consequences*, Rand Corporation, 2000, p XV.
[12] Madhukar Abhyankar, Ambassador of India to the EU, IST EVENT 2004.
[13] H.Jimpeng, Deputy President of Beihang University.

The Rand Corporation also identified differences in policies in the field of "information society". Several differences appeared at an early stage of the policy development process. For example, some countries like France and Germany try to have "control" over the "information revolution" while countries like the UK or Ireland (as well as Taiwan, Israel and Australia) tend to adopt a "voluntarist" approach. Others like the USA, Canada and the Scandinavian countries constitute the *avant-garde* and the front-runner of the "information revolution". As we will see Scandinavian countries are perceived as the most competitive and creative countries in the world. It is already interesting to note that there is a strong correlation between the attitude and policy in the field of "information society" and the level of competitiveness of some countries. A whole study was dedicated to that analysis in particular linked to the entry in the EU of the New Member States.[14]

The Early Stages of the European IS Policy

It is Jacques Delors, at the time President of the European Commission, who initiated the early stage of thinking and policy making in the field of "information society". In the early 90s, he was conscious of the need to go beyond the economic integration, which had been successful, and pursue a longer-term vision of European competitiveness and a more balanced development focusing on employment and growth. The White Paper on "Growth, Competitiveness and Employment" published in 1993 mentions the urgency of revising the current EU strategy. This White Paper recognised the implications of the development of the technologies of information and communication on employment and on economic growth. It promoted the necessity for Europe to become more competitive in the field.

Jacques Delors asked Martin Bangemann to prepare a report that was presented to the European Council in June 1994.[15] The report addressed the necessity to accelerate the liberalisation of the telecoms sector and to promote the role of the business community in financing the "information society" as well as the necessity to implement the deregulation. The position of the EC was to support and facilitate private initiatives. ICT were perceived as generating a "new industrial revolution" but the text refered many times to the notions of "information revolution" and of "information society".

In support of the preparation of the Bangemann report, *The Information Society Forum* was initiated in 1993 bringing together various stakeholders to define the scope of the "information society". The Forum report stressed that the information society was necessarily global in its scope but that Europe could distinguish itself (from the USA) by a specific approach, the "European Way", relying on values such as "liberty, equality, fraternity, solidarity and sustainability."[16] The access to technologies was conceived as essential implying the development of special attention to the confidence, trust and privacy of consumers. The report emphasized the necessity of follow-up on through the life-long education and self-training. It was already stressed that the "information society" could significantly contribute to sustainable development and that the cultural factors should not be neglected. The report mentioned the need to preserve cultural diversity and to develop services to the European citizens. Moreover it was stressed that information society would imply a change in the governmental culture and public services which would be required to evolve and operate as networks. Transparency and opening of the markets were identified as one of the most efficient instruments of economic competitiveness. Finally, to participate to the global change, it was made clear that new modes of governance would be required. The Forum initiative was a major step in the elaboration of the thinking and a first step to involve in the early stage a variety of stakeholders. The initiative was quite new and gave birth to a complete and interesting report. If very little of this thinking

[14] Carine Dartiguepeyrou, ""A Prospective Analysis of the New Member States' Contribution to the Knowledge-based Europe", issue "ICTs and Enlargement", *Communications&Strategies*, November 2004.
[15] High Level Group on Information Society, *Europe and the Global Information Society*, 26 May 1994.
[16] Forum Information Society, *A European Way for the Information Society*, publication des Communautés Européennes, 2000.

was kept in the Bangemann report[17], the Forum was a source of inspiration and the beginning of future initiatives like the White Paper on European Governance, the Scenarios of Europe in 2010, the European Chart of Fundamental Rights, and the launch of the European Convention.

After the departure of Jacques Delors in 1995 and his Commissaire Martin Bangemann, the EU policy in the field of "information society" started with the telecoms deregulation and focused on technical and legal aspects. The vision was driven by the will to deploy the information and communication technologies (ICT).

The *e*-Europe initiative was launched by the European Council in Helsinki (10-11 December 1999) under the direction of Commissaire for Enterprises and Information Society Erkki Liikanen and Robert Verrue, Director of the DG INFSO. It aimed at "accelerating the adoption of digital technologies in the whole of Europe and to develop the skills of all Europeans so they could use them."[18] Adopted at the Feira Summit in June 2000 the e-Europe Action Plan had three major objectives: "develop a cheap, rapid and safe Internet."

The European Council of Lisbon in March 2000 marked a step in the evolution of the policy of "information society" by engaging Europe in an ambitious strategy to "become 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."[19] This vision represented a major shift from the sectoral conception of the TIC sector to a global vision embracing the economic, social and environmental aspects of a "knowledge society". The EU was proposing to accelerate structural reforms to reinforce competitiveness and innovation of the internal market; to modernise the social model by investing in human resources and fighting against exclusion; and to carefully balance macro-economic policies.[20]

The Lisbon Summit also constituted a shift by proposing to "modernise the social model of Europe" in "investing in human resources and in creating a social active state." Beyond these ambitious political objectives, justified although not realistic in terms of agenda, the recommendations were offering a new approach to policy making and governance by proposing a "new Open Method of Coordination" (OMC). The goal of the EU presidency was to reinforce the orientation and coordination of the European Council and to help Member States to deploy a longer-term approach to economic policies. We will come back later in detail to the Lisbon strategy and its implementation.

The DG INFSO and the European Commission

Martin Bangemann (Dutch) was charged by Jacques Delors (France) to address the first steps of the policy in the field in 1993. He was then made Commissioner for Industrial Affairs and Information and Telecommunications Technologies Commissaire under the Santer (Belgium) Presidency from January 1995 to July 1999. Under the Prodi (Italy) Presidency (September 1999-November 2004), he was replaced by Erkki Liikanen (Finland) who was promoted as Commissioner for Enterprise and Information Society. He left his position in June 2004 and was replaced by Olli Rehn.

During the Erkki Liikanen mandate, Robert Verrue (Belgium) was Director-General of the DG INFSO and was replaced in 2002 by the current Director-General Fabio Colasanti (Italy).

With the recent changes of the Presidency and the replacement by Jose Manuel Barroso (Portugal) on 22 November 2004, a new Commissioner for Information Society and Media, Viviane Reding (Luxembourg),

[17] Martin Bangemann Report, The EU Committee of the American Chamber of Commerce in Belgium, *EU Information Society Guide*, 1996/1997.
[18] "Une société de l'information pour tous", rapport d'avancement pour le Conseil européen extraordinaire consacré à l'emploi, aux réformes économiques et à la cohésion sociale-vers une Europe fondée sur l'innovation et le savoir", Lisbonne, les 23 et 24 mars 2000.
[19] Conclusions de la présidence, Conseil européen de Lisbonne 23 et 24 mars 2000.
[20] Conclusions de la Présidence, Conseil européen de Lisbonne 23 et 24 mars 2000.

was nominated. Viviane Reding was a journalist before joining the EC. She was, under the Prodi Presidency, Commissioner for Culture and Education. With now 25 Commissioners, most DGs includingthe DG INFSO will inherit smaller portfolio of activities. The winner of the EC reorganisation is Günter Verheugen, Vice-President of the European Commission responsible for Enterprise and Industry. He will also have the responsability to implement the Lisbon Strategy. Under this new organisation the DG INFSO is anticipated to loose some of its activities in favor of the DG Enterprise and will try to anchor itself in the cultural domain.

Early 2005, the Barroso Commission set new priorities for the EC. Growth and jobs are at the core of its strategy. Its priorities are: effective internal market, free and fair trade, better regulation, improving European infrastructure, investing in research and development, boosting innovation, creating a strong industrial base, more and better jobs, adaptable workforce, better education and skills.[21] Three implications can already been anticipated. First, the EC will try to *empower* Member States in making explicit policy targets, which need to be implemented by national governments vs. EU level. Second, a major refocus of EU policy will be given to industry and business. Third, little specific attention will be given to ICT, which are presented as a contributor to growth productivity (part of the innovation package).

The IS policy of the DG INFSO has been traditionally supported by several instruments:

- Research programmes in the field of ICT around the framework programmes (FP6 (2002-2006) and the coming FP7),
- Regulation like for example the regulatory framework on electronic communications, and
- Deployment initiatives that tend to involve a large spectrum of stakeholders and new modes of governance.

IST is one of the 7 "priority thematic areas" of FP6 representing the largest budget with 31% of the total FP6 thematic areas funding i.e. EUR 3.5 Bn.

There are 5 areas of the IST Priority in FP6:

- Applied IST Research
- Communication, Computing & Software
- Components & Microsystems
- Knowledge & Interface Technologies
- IST Future and Emerging Technologies

Chapter summary

IS policy has been undergoing a significant evolution since its beginning. We can distinguish three phases: the "telco-regulatory" phase, the "sectoral-economic" phase and the current "socio-environment" phase. We will see later how IS policy is likely to become more "citizen-centric" in the future.

[21] http://europa.eu.int/growthandjobs/areas

THE LISBON STRATEGY

The Original Vision

The original agenda of the Lisbon strategy was drafted under the Portuguese Presidency beginning in 2000 with the objective to transform EU goals into policy action. The 15 leaders of the EU countries decided to meet on 24-25 March 2000 under the slogan: "Employment, economic reforms and social cohesion - towards a Europe based on innovation and knowledge."

Antonio Guterres, at the time the Portuguese prime minister, insisted the Lisbon summit would launch a "clear strategy" for improved European growth, competitiveness and employment. He believed that Europe's leadership was ready to accept the idea of "a new paradigm" in which innovation and knowledge will be the main source of wealth for nations, regions, businesses and individuals.[22]

The summit was aimed to define strategic goals and improved methods of implementing policies in three fields: development of the information society, structural reform of Europe's economies, and promotion of "social inclusion". According to Mr Guterres, "a strategic consensus" existed at the time among member states about how to turn its wide-ranging goals into policy action.[23] Mastering these issues was crucial for managing the shift to a knowledge-based society. In parallel, the Portuguese EU presidency decided to adopt a cautious approach to what it considered more sensitive social issues, such as population ageing and the consequent adaptation of pay-as-you-go pension systems. The Presidency knew that it would appeal to the different interests of leaders such as Mr Blair, who puts emphasis on structural economic reform, and Lionel Jospin, the French Prime minister, for whom social issues are a higher priority.

The European Union's campaign to make its economy the most competitive in the world by 2010 moved up on the agenda when Antonio Guterres, Portuguese Prime minister, embarked on a round of visits to EU capitals to prepare the special summit in Lisbon. High-level contacts among EU leaders took place at the time such as a meeting between Tony Blair, the UK prime minister, and Guy Verhoftstadt, his Belgian counterpart. Although governments were prepared to debate the issue at European level, solutions would have to respect national differences.

In promoting the information society, the summit was, by contrast, seeking to agree on concrete targets with deadlines. Lisbon was to set EU priorities, which will be translated first into so-called "reference indicators" to allow benchmarking, and implemented through national plans. An example of this approach was the UK suggestion that access to the Internet in the EU should be the fastest and cheapest in the world by 2003. EU leaders were unlikely to set similar deadlines for cutting unemployment, despite support for this idea in the EU Commission. (A Commission draft suggested setting a 2005 date for the EU jobless rate to fall to 6 per cent and a 2010 target for full employment.)

The So-Called "Lisbon Strategy"

The European Council held a special meeting on 23-24 March 2000 in Lisbon to agree on a new strategic goal for the Union in order to strengthen employment, economic reform and social cohesion as part of a

[22] "Portuguese Presidency Works to Transform EU Goals into Policy Action", Financial Times, 26/06/2000
[23] FT, 26/06/2000

knowledge-based economy. A "strategic" goal was set for the next decade and a "new challenge" identified and explicated.[24]

It is interesting to note that the Lisbon vision is often limited to the next decade goal i.e. to "become 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." In fact, the text itself stresses the depth of the change: "The European Union is confronted with a quantum shift resulting from globalisation and the challenges of a new knowledge-driven economy. These changes are affecting every aspect of people's lives and require a radical transformation of the European economy. The Union must shape these changes in a manner consistent with its values and concepts of society and also with a view to the forthcoming enlargement."

The second aspect is the recognition that the rapid and accelerating pace of change requires the EU to "act now", set a "clear strategic goal" and agree a "challenging programme for building knowledge infrastructures, enhancing innovation and economic reform, and modernising social welfare and education systems."

The Presidency conclusions then set the strengths and weaknesses of the EU by listing among others the underdevelopment of the services sector particularly in the areas of "telecommunications and the Internet" as well as the "widening skills gap", especially in "information technology" where increasing numbers of jobs remain unfilled.

Achieving the competitiveness goal requires an "overall strategy" aimed at:

- Preparing the transition to a knowledge-based economy and society by better policies for the information society and R&D, as well as by stepping up the process of structural reform for competitiveness and innovation and by completing the internal market;
- Modernising the European social model, investing in people and combating social exclusion;
- Sustaining the healthy economic outlook and favourable growth prospects by applying an appropriate macro-economic policy mix.

Several economic, social and political issues constitute the Lisbon strategy. The Lisbon Summit was enhanced with the Göteborg Summit, which agreed on a strategy for *sustainable development* and "added to the Lisbon process the sustainable dimension to employment, economic reform and social cohesion".[25] This is why the Lisbon strategy constitutes an overall and global strategy. It is one of the first times that the EU initiated such a holistic political framework. In that sense, we can speak about emergence and original initiative in public policy making.

The first set of objectives is to prepare "the transition to a competitive, dynamic and knowledge-based economy." This set of objectives includes: "the development of an information society for all; the establishment of a European Area of Research (ERA) and Innovation; the creation of a friendly environment for starting up and developing innovative businesses, especially SMEs; economic reforms for a complete and fully operational internal market; efficient and integrated financial markets; and coordination of macro-economic policies, fiscal consolidation, quality and sustainability of public finances.

The second set of policies deals with the "modernisation of the European social model by investing in people and building an active welfare state". We will not draw special attention to these policies although they represent significant social and cultural issues. Among other things they include a set of measures dealing with "education and training for living and working in the knowledge society", "more and better jobs for Europe: developing an active employment policy", "modernising social protection", "promoting social inclusion". Most of these objectives are directly connected to the move towards a knowledge-based society. In 2000, all these measures were not recognised as major priorities by Member States. In 2004, as we will see later, they have become top priorities of the Lisbon Agenda.

[24] The Presidency Conclusions of the *Lisbon European Council* are presented in annex 2.
[25] Presidency Conclusions, *Göteborg European Council*, 15-16 June 2001.

The third set of priorities concerns the need to establish a "more coherent and systematic approach" to policy implementation. The Presidency conclusions acknowledge that "no new process is needed" and that "the Luxembourg, Cardiff and Cologne processes offer the necessary instruments". Meanwhile, it was at this occasion that structural indicators were set. They would be among the elements the most criticised during the evaluation process.

The fourth aspect of the Lisbon agenda is the so-called "new open method of coordination" (OMC). This method is designed to facilitate the strategic goal by applying a new method of coordination relying on sharing and exchanging best practices and aiming at achieving greater convergence towards the main EU goals. The OMC is probably the most original ambition of the Lisbon Strategy. We will come back in details to the OMC in the next section.

The fifth section was dedicated to stressing the importance of "mobilising the necessary means" i.e. mobilising the resources available on the markets as well as efforts by Member States. The EU role is defined as "a catalyst" in this process. The European Investment Bank (EIB) also joins the effort by allocating a special lending programme of EUR 12 to 15 Bn (2000-2003) as well as a billion euros for venture capital operations for SMEs.

"An information society for all" and the European Research Area

The first two policies that are the most relevant to our research and probably the most strategic on the Agenda. The move to the knowledge-based economy is clearly stated as the overall strategic objective. The objective "an information society for all" is the first set of objectives. The Information Society experts and the Commission specifically initiated it. As we saw earlier, the Lisbon strategy finds its root in the Delors White Paper on "Growth, Competitiveness and Employment" as well as in the work of the DG INFSO, and the Department of Prospective of the Commission.

An information society for all

The shift to a digital, knowledge-based economy, prompted by new goods and services, has always been perceived by the EU as being a powerful engine for growth, competitiveness and jobs. In addition, it was anticipated to be capable of improving citizens' quality of life and the environment. Compared to the US digital government policy, the EU policy differentiates itself with a more citizen centric and holistic approach. In our interviews with American scientists we had the chance to confirm the difference in terms of the policy approach. In Europe, the policy is thought at the society level, "information society for all" while in the US it is more technology orientated. Americans seem to be ready to accept the cost of inequalities and that the IT' policy will benefit the few. Under the current Bush Administration, the technology is there to help the administration and to promote businesses. As we saw earlier, this policy approach was more social orientated under Al Gore.

As defined earlier, the Commission's Information Society policy stresses the necessity to offer to businesses and citizens an inexpensive access, world-class communications infrastructure and a wide range of services. The objective of the Lisbon agenda is that every citizen must be equipped with the skills needed to live and work in this new information society. Different means of access must prevent info-exclusion. The combat against illiteracy must be reinforced. Special attention must be given to disabled people. Information technologies can be used to renew urban and regional development and promote environmentally sound technologies. Content industries create added value by exploiting and networking European cultural diversity. Real efforts must be made by public administrations at all levels to exploit new technologies to make information as accessible as possible.

Realising Europe's full e-potential depends on creating the conditions for electronic commerce and the Internet to flourish, so that the Union can catch up with its competitors by hooking up many more businesses and homes to the Internet via fast connections. The rules for electronic commerce must be predictable and inspire business and consumer confidence. Steps must be taken to ensure that Europe

maintains its lead in key technology areas such as mobile communications. The speed of technological change may require new and more flexible regulatory approaches in the future.

In March 2000, the European Council proposed to:

- Adopt as rapidly as possible during 2000 pending legislation on the legal framework for electronic commerce, on copyright and related rights, on e-money, on the distance selling of financial services, on jurisdiction and the enforcement of judgements, and the dual-use export control regime; to consider how to promote consumer confidence in electronic commerce, in particular through alternative dispute resolution systems;

- Conclude as early as possible in 2001 work on the legislative proposals announced by the Commission following its 1999 review of the telecoms regulatory framework; to ensure that the frequency requirements for future mobile communications systems are met in a timely and efficient manner. Fully integrated and liberalised telecommunications markets should be completed by the end of 2001;

- Work towards introducing greater competition in local access networks before the end of 2000 and unbundling the local loop in order to help bring about a substantial reduction in the costs of using the Internet;

- Ensure that all schools in the Union have access to the Internet and multimedia resources by the end of 2001, and that all the teachers needed are skilled in the use of the Internet and multimedia resources by the end of 2002;

- Ensure generalised electronic access to main basic public services by 2003;

- Make available in all European countries, with the support of the EIB, low cost, high-speed interconnected networks for Internet access and foster the development of state-of-the-art information technology and other telecom networks as well as the content for those networks.

Establishing a European Area of Research and Innovation

Given the significant role played by research and development in generating economic growth, employment and social cohesion, the Union proposed to work "Towards a European Research Area". In the EC's communication it is suggested that research activities at national and Union level should be better integrated and coordinated to make them as efficient and innovative as possible, and to ensure that Europe offers attractive prospects to its best brains.

The EU is conscious of the importance of the brain drain and the attraction of the US market to young scientists. It also recognised that innovation and ideas must be adequately rewarded within the new knowledge-based economy, particularly through patent protection.

Several steps were proposed as part of the establishment of a European Research Area:

- Developing appropriate mechanisms for networking national and joint research programmes on a voluntary basis around freely chosen objectives, in order to take greater advantage of the concerted resources devoted to R&D in the Member States, and ensuring regular reporting to the Council on the progress achieved; maping by 2001 research and development excellence in all Member States in order to foster the dissemination of excellence;

- Improving the environment for private research investment, R&D partnerships and high technology start-ups, by using tax policies, venture capital and EIB support;

- Encouraging the development of an open method of coordination for benchmarking national research and development policies and identify, by June 2000, indicators for assessing performance in different fields, in particular with regard to the development of human resources; introducing by June 2001 a European innovation scoreboard;

- Facilitating the creation by the end of 2001 of a very high-speed transeuropean network for electronic scientific communications, with EIB support, linking research institutions and universities, as well as scientific libraries, scientific centres and, progressively, schools;

- Taking steps to remove obstacles to the mobility of researchers in Europe by 2002 and to attract and retain high-quality research talent in Europe;

- Ensuring that a Community patent is available by the end of 2001, including the utility model, so that Community-wide patent protection in the Union is as simple and inexpensive to obtain and as comprehensive in its scope as the protection granted by key competitors.

We will develop later the place of IST in the EC funded research.

IST Policy and the Lisbon Agenda

Information and communication technologies (ICTs) were identified as playing a key role in achieving the Lisbon goals. The e-Europe initiatives (2002-2005) represent a part of the European IS policy. As we have seen earlier, the IS policy was initiated prior to the establishment of the Lisbon strategy and inspired the definition of the Lisbon vision.

The EC launched the e-Europe initiative to give a political impulse to the development of the Information Society. The e-Europe Action Plan combined with the Commission's e-Europe initiative represent the base of the ICT policy.

The first e-Europe initiative[26] was launched by the EC in December 1999 with the objective to bring Europe on-line. Complementary to e-Europe, the Commission also presented a Communication on "Job Strategies in the Information Society"[27] in January 2000.

In the "e-Europe 2002 Action Plan" (June 2000), actions were clustered around three main objectives:

- A cheaper, faster, secure Internet
  - Cheaper and faster Internet access
  - Faster Internet for researchers and students
  - Secure networks and smart cards
- Investing in people and skills
  - European youth into the digital age
  - Working in the knowledge-based economy
  - Participation for all in the knowledge-based economy
- Stimulate the use of the Internet
  - Accelerating e-commerce
  - Government on-line: electronic access to public services
  - Health on-line
  - European digital content for global networks
  - Intelligent transport systems

The e-Europe targets were achieved following three different methods:

[26] http://europa.eu.int/comm/information_society/e-Europe/documentation/index_en.htm
[27] http://europa.eu.int/comm/commissioners/diamantopoulou/infosoc_en.htm

- Accelerating the setting up of a legal environment with the aim of speeding up the e-Europe adoption through setting tight deadlines for all the actors.
- Supporting new infrastructure and services across Europe. This activity depends mainly on private sector funding and may be supported with European funding, but much depends on action by Member States.
- Applying the open method of co-ordination and benchmarking, ensuring that actions are carried out efficiently, have the intended impact and achieve the required profile in all Member States. This process was co-ordinated with the general benchmarking linked to the special European Council each spring ("Spring council" meeting).

The current "e-Europe Action Plan" runs until the end of 2005. It followed the e-Europe 2002 Action Plan. *e-Europe* 2005 is the successor of the *e-Europe* 2002 Action Plan launched in June 2000 to support the Lisbon Strategy.

A parallel initiative, *e-Europe*+ 2003, was adopted by the Candidate Countries with the encouragement of the European Council. Then in 2002, building on the success of the first Action Plan[28] in meeting most of its 65 targets, the *e-Europe* 2005 Action Plan was launched.

Whereas the first Action Plan targeted Internet connectivity, *e-Europe* 2005 objective is to support economic growth and social cohesion through the take up of on-line services and e-business based on a secure broadband infrastructure.

The central goal of the current Action Plan *e-Europe* 2005[29] is to stimulate the creation and use of on-line services. The aim was that, by the end of 2005, Europe should have modern on-line public services (e-government, e-learning, e-health) and a dynamic e-business environment, based on widespread availability of broadband access at competitive prices and a secure information infrastructure.

The line proposed was for readjusting rather than revising *e-Europe* 2005. A significant part of the effort in the revision was dedicated to strengthening the connection with the Lisbon Strategy. In particular, extra effort was required social cohesion and environmental sustainability.

In the future it is anticipated that the ICT policy framework for the period of 2006-2010 will encompass major changes. They will take place in the context of the Lisbon mid-term Review of Spring 2005.

Among the possible themes could be the need for the EC to: have a regulation capable of adjusting to new developments in particular in the field of disruptive technologies; understand the globalisation trends in the ICT market and participate in the management of networks; support the need for R&D in ICTs; make sure that the EU regulatory framework for electronic communications in place since 2003 is fully and effectively implemented; identify and implement regulatory issues like the protection of copyright, the protection of privacy, the needs of law enforcement agencies; help dismantle sectoral boundaries and reinforce the networks; develop a comprehensive approach to exploit the potential of ICTs in the public sector while tailoring on-line services to the needs of businesses and citizens.

The EC will be proposing a number of issues that it considers relevant for the development of a European Information Society policy beyond 2005[30]: content and services, eInclusion and citizenship, public services, skills and work, ICT as a key industrial sector, Interoperability, Trust and dependability, ICT for business. We will come back later to the most recent trends of the European IS policy, the so-called i2010 initiative.

[28] *e-Europe* 2002 Final Report. COM(2003) 66 and *e-Europe* 2002: Progress made in Achieving the Targets SEC(2003)407.
[29] COM 380 Final, 17 May 2004,"e-Europe 2005 Action Plan: Update".
[30] COM draft September 2004, "Challenges for the European Information Society beyond 2005".

ICT and Competitiveness

The strategic challenge around Information Communication Technologies (ICT) and, more generally, the importance of the Information Society policy in the global EU strategy is generally justified by the EC with the following arguments:

First, ICTs are considered as central to boosting productivity, improving competitiveness and economic growth. 40 per cent of the productivity growth in the EU between 1995 and 2000 was due to ICTs.[31] Economic gains from ICT stem directly from growth and innovation in markets for ICT goods and services and from the use of ICTs in raising the performance of businesses. Also, ICTs increasingly form an integral part of all industrial and service markets, either through the embedding of ICT components in goods (for example in consumer devices, automobiles, medical devices) or as part of the service offer (tracking of parcel deliveries, e-banking). Empirical evidence suggests Europe's productivity gap with the US is to a large extent explained by its weaker investment in ICTs.

Second, the EC considers that ICTs can provide a boost to citizenship and to the quality of life. Evidence-base shows that ICTs allow more and better services that can be provided to larger numbers of people. New information tools should help to improve transparency and openness as well as government relations with citizens. ICTs are also considered as a powerful tool for preserving and promoting the European diversity and its cultural heritage by making content widely available.

Finally, the ICT equipment and services sector is an important sector in its own right. It has grown from 4 per cent of EU GDP in the early 90s to around 8 per cent, and accounted for 6 per cent of employment in the EU in 2000.[32] It is one of the most innovative sectors, accounting for 18 per cent of overall EU spending in Research and Development (R&D).[33] It is also one of the most productive, with annual productivity growth of 9 per cent on average over the period 1996-2000.[34]

All these arguments converge to the fact that ICTs are presented by the DG INSFO as an essential tool and solution to the economic crisis and sustainable growth issue that Europe is facing. ICTs are strategic because they relate to different fields (technology, economy, sociology…) and are transversal to other political initiatives (employment, sustainable development, research…). They constitute an essential aspect of EU competitiveness.

The second and more profound reason is that ICTs give a terminology to a process and issue completely new to all decision makers. The world is moving, even the most conservative experts agree now that we are in a "paradigm change" of which the boundaries, scope and finalities are uncertain. The IS policy is probably the most appropriate field to iterative processes and deployment initiatives involving various stakeholders. Indeed, it is in the ICT and IS public policy fields that most of the innovation is taking place and where the weak signals of future trends can be intercepted.

Finally, the ICT and IS fields are key to achieving the objective of building a knowledge-based society. The competitiveness has changed in nature and traditional indicators are not sufficient to apprehend the complexity of the new "creative age". Moving to the post-industrial age, shifting to the knowledge-based economy implies in fact a new conception of metrology.

The Lisbon strategy is giving words to that challenge. Although very limited in certain ways, it tries to propose new ways of implementing a vision. More so, it intends to give a *body* (the tools and instruments being the arms) to the conceptual vision, to give it life.

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[31]The EU Economy: 2003 Review, COM(2003)729

[32] See "OECD Measuring the Information Economy 2002"; "OECD Information Technology Outlook" 2004

[33]IDATE Comparison, Final Report 08.04.02

[34] Own calculations based on data collected by GGDC (Groningen Growth and Development Centre), presented in a Economic Paper from ECFIN (European Economy - European Commission Economic Paper Number 208, July 2004)

Chapter Summary

IS policy has nourished the early stage of the Lisbon strategy.

The DG INFSO helped the EU to recognise IST as essential contributors to European competitiveness.

IS policy has from a very early stage promoted sustainable development. IS policy is not limiting growth to the economic parameter. It is promoting a sustainable way to look at growth (i.e. economic, social and environmental) and a vision to achieve a better quality of life.

THE EVALUATIONS OF THE LISBON STRATEGY

Evaluation by the European Commission

The report from the Commission to the Spring Council (February 2004) "Delivering Lisbon" presents the last available state of progress of the Lisbon Strategy implementation since 2000.

The analysis of progress made by the Union and by the Member States is based on the implementation reports of the Broad Economic Policy Guidelines and Employment Guidelines, and on the structural indicators proposed by the Commission and agreed on by the Council.

The different performance of the Member States

It shows a clear distinction between Member States with relatively better overall achievements to date (Denmark, Luxembourg, the Netherlands, Austria, Sweden and the United Kingdom) and those that — according to the latest data available — are performing relatively poorly (Greece, Spain, Italy and Portugal).[35]

After four years, Belgium, France and Greece have made rather good progress, while progress in Germany, Luxembourg, Austria and Portugal is considered rather disappointing.[36]

The detailed analysis indicates more clearly that there are still problems in all Member States and that all of them need to make a greater effort to achieve results.

Implementation, albeit partially, of the reforms under the Lisbon strategy seems to be starting to bear fruit as regards to employment. Although the interim goal for 2005 will not be attained, the employment target remains valid as long as in the seven years remaining until 2010 employment picks up at a similar pace to that at the end of the 90s. Spain, and to a lesser extent Italy, have successfully maintained relatively rapid job creation since 1999. The rate of employment amongst women has made fairly good progress, partly because of the improvement in childcare. This is not true of the rate of employment amongst elderly workers where the objective for 2010 is probably out of reach, even though Finland, France and the Netherlands in particular have managed to increase this rate since 1999. Austria and Portugal have recorded disappointing trends in employment since 1999.

As far as productivity is concerned, the trend has been fairly positive in the ICT sector but negative in more traditional services and industries. The Commission's analysis shows that there are four areas determining productivity trends which have a major influence in the European Union apart from workforce ageing. These are the level of regulation, the structure of financial markets, the level of integration of product markets and the degree of investment in knowledge. Growth in employment productivity has been particularly rapid in Greece and Ireland since 1999 but disappointing in Italy and Luxembourg over the same period.

An analysis of the indicators mentioned above shows that there has been fairly steady progress in reforming the financial markets, stagnation in integrating product markets and, in particular, an alarming

[35] *Delivering Lisbon*, 20 February 2004, COM (2004) 29 Final, Annex 1 "Presentation of structural indicators", graph 15 which summarises the performances of all the Member States for the fourteen structural indicators.
[36] *Delivering Lisbon*, 20 February 2004, Annex 1 "Presentation of structural indicators", graph 16.

trend as regards investment in knowledge, which has not only not increased at the same pace as EU main competitors, but has fallen over the past few years (although investment in businesses in Italy, Spain and Greece has increased relatively quickly since 1999).

The analysis also shows the need to implement integrated reform strategies in various areas. According to the EC, insufficient implementation of the Lisbon strategy could produce significant net costs for Europe: in terms of reduced growth, delayed improvements in employment levels, and a growing gap with some of EU large industrial partners in the fields of education and R&D. Studies and simulations conducted by the Commission conclude that simultaneous and integrated pursuit of these reforms can produce an increase in potential growth in the Union in the order of 0.5 to 0.75 of a percentage point of GDP within the next five to ten years.

Finally, while some progress, particularly on the legislation front, has been made with regard to sustainable development and taking better account of the environment in Community action, the Union is still finding it difficult to capitalise on the synergy between various policies, especially environment, research and competitiveness. At national level overall performance in preserving the environment has been disappointing, with standards falling in certain instances since 1999. Furthermore, although the progress made on social cohesion has been fairly good in Spain and France, it has been inadequate in Portugal.

Recommendations for the Future

The Union has still not managed to achieve all its objectives and strongly depends on the will of the Member States to implement reforms. The EC is strongly advocating the need for Member States to adopt an *integrated*, *coordinated* and *targeted* approach to policies and reforms implementation.

This assumes, in particular, that progress will be made in complying with the Stability and Growth Pact in 2004 and 2005, especially by the Member States carrying excessive deficits.

To boost productivity and employment, Member States and the social partners are encouraged to implement the European Employment Strategy and give immediate priority to: increasing adaptability of workers and enterprises; attracting more people to the labour market; investing more and more effectively in human capital; ensuring effective implementation of reforms through better governance.

In the field of Information and Communication Technologies Member States have been in particular asked to define and implement national strategies for broadband networks, as part of the e-Europe Action Plan for 2005.

Other recommendations include compliance in transpositions to achieve the internal market; to speed the implementation of the Action Plan on Company Law and Corporate Governance, which aims at strengthening shareholders' rights, reinforcing protection for employees and creditors and boosting confidence in capital markets; to reduce and redirect State aid and introduce the legislative framework allowing full implementation of the European anti-trust policy by the authorities and the national courts; to include social inclusion policy when setting overall expenditure priorities, including the expenditure of Structural Funds; to adopt the directive establishing the system of exchanging greenhouse gas emission quotas in the Community in order to keep up with the Kyoto proposals; to secure a successful outcome to the Doha process and broadening and strengthening our Positive Economic Agenda with the United States which is important for export-led growth.

Apart from the progress made in certain domains, the report clearly highlights that measures taken at the European level are only part of the formula for putting the Lisbon strategy on the right track; numerous reforms and investments, which are the responsibility of the Member States, have yet to be achieved.

The most important delays have been identified in three strategic domains, which are crucial for growth: knowledge and networks, industrial and service sector competitiveness, and active ageing. The

Commission is thus proposing that the European Council take the necessary decisions, while emphasizing the importance of swift action, in the following three priority areas:

- Improving investments in knowledge and networks, by implementing the Growth Initiative' giving greater priority to the level and quality of investments in research, education and training;
- Strengthening the competitiveness of European enterprises, by applying better regulation – particularly for the industrial sector – and by adopting both the proposal for the Framework Directive on Services and the proposal for the Environmental Technologies Action Plan;
- Finally, promoting active ageing by encouraging older workers to remain in the work force and through a modernisation of educational systems for lifelong learning, of work organisation, and of prevention and health care systems.

The mid-term Review of the Lisbon Strategy of 22-23 March 2005 should also bring important recommendations for the future.

The Dutch Presidency Contribution

The new report presented by the Dutch Presidency[37] proposed "ten ICT breakthroughs" to stimulate economic growth in the EU and catch up with leading Information and Communication Technology countries such as Korea, India, China, USA and Japan.

The report, prepared by PricewaterhouseCoopers for the Dutch Ministry of Economic Affairs, argues that these countries "outperform the EU in many respects" because they have launched "bold initiatives and dare to improve their position in the field of ICT with proactive industrial policies."

The report is meant to inspire re-thinking and revitalize the Lisbon agenda and especially the European ICT agenda. Over the past years important results have been achieved with relatively modest means: the implementation of the ONP-guidelines and the exchange of innovative ideas and best practices (as part of the e-Europe Action Plans). It brought a more open market for electronic communications, and stimulated the roll out and take up of new ICT infrastructures and services. It made clear once more how tight the take up of ICT is related to innovation and sustainable economic growth. But the targets will not be met by merely continuing in these tracks.

The burst of the IT-bubble, new Member States, new technological possibilities and the rise of competing powers from Asia to America – they all require a fresh look at European targets and the way to achieve them. The report stresses that "time is right to enter a new phase in the integration of ICT in our economy and society. From the period of roll out and installation of ICT-infrastructures and applications Europe is moving towards the "phase of deployment." Europe has moved away from a technology-push approach and has emphasized the importance of now better reaping the benefits of ICT.

"Europe too can be successful," the report goes on, but only if issues that hamper ICT growth are identified and new policies are adopted. It thus proposes "ten ICT breakthroughs" that have the potential of delivering more economic growth for Europe:

- Shift policy from connectivity to investment in skills and back-office (re)organisation;
- Achieving standardised and interoperable ICT environments to trigger new business;
- Accelerating introduction of new (disruptive) technologies like smart tags and Internet telephony (VoIP);

[37] *Rethinking the European Agenda, 10 Breakthroughs for reaching Lisbon goals*, Dutch Ministry of Economic Affairs, PWC, August 2004.

- Introducing multiplatform access for content to realise anytime, anywhere access (through new Digital Rights Management Systems);
- Stimulating a new European standard policy in co-operation with the market to achieve global leadership (e.g. 3G mobile);
- Responding to job migration towards low-wage countries;
- Removing barriers to investments in next generation networks;
- Devising a new, more flexible model for spectrum allocation;
- Enforcing structural solutions to gain consumer confidence and improve network security (in response to cybercrime, viruses and spam issues);
- Adopting new e-skills policies for broader consumer use of ICT and redefine the current universal service obligation.

This analysis, although ICT centered, is mainly addressing technological issues. It is not discussing the Lisbon strategy, the EU competitiveness in its complexity nor does it address the difficulty of the strategy implementation across 25 Member States.

The Kok Report

Wim Kok, former Prime Minister of The Netherlands, was asked by the European Council of March 2004 to chair the High Level Group on the Lisbon strategy. The Group was composed of a dozen experts from the business, social and academic fields. The French representative was Anne-Marie Idrac, President of the RATP.

The report *Facing the Challenge*[38] concludes that the disappointing delivery of the strategy has been due primarily to a lack of determined political action. The agenda has been overloaded, coordination has been poor and there have been conflicting priorities.

The message from the High Level Group is that, while all three pillars of the Lisbon strategy – economic, social and environmental – remain valid, the priority now is for Europe to boost its economic growth rate and increase employment. Europe faces two enormous challenges – increasing global competition and a rapidly ageing population. In the face of these challenges, if Europe is to safeguard and strengthen its distinctive economic and social model, it must adapt. The status quo is not considered as an option.

According to the report, achieving higher growth and employment would require more committed and convincing political leadership, at national and European levels, combined with a greater effort to engage Europe's citizens with the case for urgent change. Communication of the Lisbon strategy and its relevance to every household in Europe must be drastically improved.

Despite the ambitious targets were established at Lisbon and at subsequent Spring European Councils, halfway to 2010 the overall picture is very mixed. However, Lisbon is not a "picture of unrelieved gloom" stresses the Report. There has been significant progress in employment between the mid-1990s and 2003. European governments have introduced measures that cumulatively have attempted to remove obstacles to the employment of low-paid workers, stepped up their active labour market policies, and permitted the growth of temporary employment. The employment rate rose from 62.5 % in 1999 to 64.3 % in 2003, although not only full-time employment. Seven Member States of the EU-15 are set to meet the interim target of 67 % by 2005. The overall female employment rate rose to 56 % in 2003. Some countries have been successful in implementing policies targeted at raising the employment rates of older workers, now reaching 41.7 %.

[38] *Facing the Challenge, The Lisbon strategy for growth and employment*, Report from the High Level Group chaired by Wim Kok, November 2004.

Furthermore, there has been progress beyond employment. Member States have progressed in the spread of ICT and Internet use in schools, universities, administration and trade. Household Internet penetration, for example, has risen rapidly, with 12 Member States meeting the targets.

On a more pessimistic note, net job creation largely slowed down considerably in recent years and the risk is apparent that the 2010 target of 70 % employment rate will not be reached. The same applies to the target of 50 % for older workers. On the R&D target, only two countries currently have R&D spending exceeding 3 % of GDP; in these same two countries business is achieving the goal of spending the equivalent of 2 % of GDP on R&D. The rest are behind on both scores. Progress in providing every teacher with digital training is very disappointing. Only five countries have exceeded the target for transposing EU internal market directives.

On the environment, the decoupling of economic performance from harmful environmental impacts has been only partly successful. For example, the volume of traffic in Europe is rising more rapidly than GDP and congestion is worsening, as are pollution and noise levels, and their continuing damage to nature. Most European countries are below their Kyoto targets regarding greenhouse gas emissions with only three countries since 1999 recording visible progress in their reduction.

European enlargement, while welcome, has made European-wide achievement of the Lisbon goals even harder. The new Member States tend to have very much lower employment rates and productivity levels; achieving the R&D goals, for example, from a lower base is even tougher than for the EU of the original 15 who signed Lisbon.

Facing the Challenge calls for determined action to be taken urgently across five key policy areas:

- The Knowledge Society – increasing Europe's attractiveness for researchers and scientists, making R&D a top priority and promoting the use of ICT;
- The Internal Market – completing the Internal Market for services, especially financial services and removing obstacles to the free movement of goods;
- The Business Climate – reducing the total administrative burden; improving the quality of legislation; facilitating the rapid start-up of new companies; and creating an environment that is more supportive to businesses;
- The Labour Market – rapidly delivering on the recommendations of the European Employment Taskforce; developing strategies for lifelong learning and active ageing and partnerships for growth and employment;
- Environmental Sustainability – stimulating eco-innovation, building leadership in eco-industry and pursuing policies, which lead to long-term and sustained improvements in productivity through eco-efficiency.

To ensure greater political ownership of the Lisbon strategy, the report calls for:

- The European Council to take the lead in driving the strategy forward;
- The Member States to prepare national action programmes to commit themselves to delivery and engage citizens and stakeholders in the process;
- The European Commission to review, report on, facilitate and communicate progress and to support it by its policies and actions;
- The European Parliament to play a more proactive role in monitoring performance;
- The European social partners to take up their responsibility and actively participate in the implementation of the Lisbon strategy.

Having each Member State draw up national action programmes will serve three purposes – it will ensure governments are more engaged in driving the Lisbon process forward; it will increase the involvement of national parliaments and social partners at national level and it will ensure that measures taken fit into a coherent and consistent strategy.

The report proposes an interpretation of the Lisbon Strategy: "the Lisbon reform programme has sought to marry economic dynamism to create higher growth and employment rates with longstanding European concerns to advance social cohesion, fairness and environmental protection." Lisbon aims to:

- *Raise private and public research and development spending as the centrepiece of a concerted effort to increase the creation and diffusion of scientific, technological and intellectual capital.*
- *Foster trade and competition by completing the single market and opening up hitherto sheltered and protected sectors.*
- *Improve the climate for enterprise and business.*
- *Secure more flexibility and adaptability in the labour market by raising educational and skill levels, pursuing active labour market policies, and encouraging that Europe's welfare states help the growth of employment and productivity rather than hinder it.*
- *Promote a growth environmentally sustainable.*

We can notice that the *overall* strategy (economic, social and sustainable) is targeted to growth. The Kok report addresses the Lisbon strategy in its global aspect and covers both economic, social and sustainable issues. Meanwhile, it is a lot more exhaustive on economic issues and focus on two key priorities: growth, to a lesser extent employment. Despite a presence of social partners in the Group, the voice of the economic reform is more present. We contacted Madam Idrac, the French representative of the High Level Group who declined our invitation to interview her on the subject.

The Kok report is also interesting in that it provides a definition of "knowledge society". Knowledge society is defined as "a larger concept than just an increased commitment to R & D": *it covers every aspect of the contemporary economy where knowledge is at the heart of value added — from high-tech manufacturing and ICTs through knowledge intensive services to the overtly creative industries such as the media and architecture. Up to 30 % of the working population are estimated in future to be working directly in the production and diffusion of knowledge in the manufacturing, service, financial and creative industries alike. A large proportion of the rest of the workforce will need to be no less agile and knowledge based if it is to exploit the new trends. Europe can thus build on its generally strong commitment to create a knowledge society to win potential world leadership.*

ICTs are recognised as the core of the Knowledge society : *the possibilities for wider economic structures to create the network economy and society and a fundamental re-engineering of business processes are being opened up by ICTs. They permit every step in value generation to become smarter. Value is being created less in the simple transformation of inputs into outputs but more in fundamentally enlisting the new capacity and competences created by ICTs to meet individualised and complex customer needs — whether business-to-business or business-to-consumer relationships.*

We choose to provide an exhaustive analysis of the Kok report. The reason is that the Kok report significantly influenced the policy of the Barroso Commission. The roots of the "strategic objectives for growth and employment" of the new President of the Commission can be found in this report. If the growth and employment priorities have received a major echo in the new Commission, it is, at the time we speak, unclear what will be reserved to ICTs and how IS strategy will fit in the Lisbon Strategy to be reviewed in March 2005.

Lisbon Revisited: The European Policy Centre Report

The European Policy Centre (EPC), based in Brussels, published in March 2004 a report *Lisbon revisited*[39] with the cooperation of Accenture. The report was published in parallel to the Spring Council 2004. A high-level Advisory Group was established under the chairmanship of Poul Nyrup Rasmussen, former Prime Minister of Denmark. The Group is composed of representatives from the academic, social and business communities. The objective of the report is to provide to key decision makers a multidisciplinary perspective on Europe's economic and social models. The fact that this report draws upon the empiricall experiences of the Scandinavian model makes it particularly interesting.

According to the report, the increasing gap between policy proposal and delivery is beginning to undermine the credibility of the whole Lisbon process. Faster delivery of the Lisbon objectives will require

[39] *Lisbon Revisited, Finding a new path to European growth*, EPC and Accenture, March 2004.

a better strategic match between objectives and the policy "bag of tools" available to the EU and Member States, as well as a more systematic involvement of all different stakeholders including business and civil society. More specifically, the report recommends that:

- The European Council gives the process greater dynamism and provides a sharper focus for the Lisbon Agenda, in particular by reviewing the EU Stability and Growth Pact, the EU Structural and Cohesion Funds, and EU competition policy and industrial policy, and ensuring that Member States deliver on their commitments;
- The European Commission should assume stronger leadership of the Lisbon process, ensuring that best practices from one Member State are replicated in others, and improving both quantitative and qualitative comparison across Member States;
- The European Parliament should participate more directly in the Lisbon process to ensure the fulfilment at Member State level of Lisbon commitments. This means working with national Parliaments to monitor their implementation of Lisbon policies;
- The Committee of the Regions should ensure that best practice and technical know how is passed on to the new accession countries as quickly as possible.

Progress towards the Lisbon objectives could be accelerated through improved co-ordination of procedures within the Commission and between the EU institutions. Equally important to the success of Lisbon is identifying elements of economic and social reform, which are best carried out at a European level, and those which are best performed at a national, regional or local level. The Committee of the Regions can play a key role in defining this balance of responsibilities.

European economic and social reform must be supported by Europe's citizens. More active and imaginative forms of communication are needed to make Lisbon meaningful to the lives of ordinary citizens. The Commission should actively consider a Europe-wide "re-branding" exercise for Lisbon with a focus on key elements such as opportunity, quality of life and social justice. The Economic and Social Committee should create a framework for carrying forward the recommendations to social partners and civil society, most especially by ensuring a continued dialogue and debate between the various stakeholder groups. Likewise, European civil society must work towards balancing greater competitiveness with social inclusion and cohesion, and should become more widely involved in policy discussion and implementation.

Lisbon is a multidisciplinary process, and as such it must remain coherent. Viewing policies – and their funding – as an integral whole is key.

The report puts the emphasis on the achievement of the Nordic example, which combines strong economic performance with social cohesion and sustainable development. The Nordic model offers many interrelated examples of best practice which are potentially transferable to other economies across Europe – such as the focus on life-long learning as the key to innovation, labour mobility, and knowledge-based productivity growth; high levels of investment in research and development; the potential for entrepreneurial opportunity in the social and environmental fields; and the importance of incentives for investment and entrepreneurship.

The European capacity for knowledge-based growth, already an important element of the Lisbon agenda, should be vastly expanded by accelerating the development of information technologies across the EU and their application within the workplace. A new focus on life-long learning is needed, as traditional distinctions between work and education increasingly begin to blur, and job creation increasingly depends on labour adaptability and the development of entrepreneurship. Employers and trade unions should promote access to continuing training in the workforce without which a system of life-long learning cannot be achieved.

In a new "post-fordist" era of economic growth, Europe should seek to foster new areas of entrepreneurial opportunity, for example by exporting social and environmental expertise.

Another substantial analysis is dedicated to migration that, according to the authors, needs to be replaced by a more strategic approach to acknowledge the complex economic and social dimensions of migration. Far little attention has been given to the role of migration in addressing the effects of an ageing EU population and future skills shortages. A starting point should be a detailed EU-wide analysis of current and future labour requirements by occupation, skill levels and industry sector. Longer term there is a need for positive integration policies – particularly in areas such as labour market and social policy – and greater efforts to secure international agreements on the global management of migration.

This analysis contrasts with the Kok report in the sense that it emphasizes social factors. It rebrands the Lisbon strategy around three key values: opportunities, quality of life, and well-being. It strongly favors the Scandinavian social-economic model. Meanwhile, this model does not address cultural differences in the field of IS policies, cultural diversity which may impact differently countries. Attitude towards change is not the same and we will see that some countries are more conservative than others. Some are less well prepared towards IS. Lessons from scandinavian countries may be useful to establish good practices in balancing social and economic factors. They may not be adapted to most Member States, which have democrately embarked on neo-liberal policies. Rather than establishing the same national policies in all Member States, EC challenge in the Information Age can be summarised as such: How to transform national diverse development models and paths into a EU competitiveness?

The Lisbon Review by the Word Economic Forum

The Lisbon Review 2004[40] provides a review of progress made by Member States in their move to reaching the Lisbon targets. It is interesting to note that this evaluation has been made outside the EC and that the EU did not fund the research.

The Word Economic Forum is well known for its yearly *Global Competitiveness Report*. Their core activity, the Davos Forum, led them more recently to develop research in the field of public policy. The *Lisbon Review* also benefits from the Executive Opinion Survey of Business Leaders conducted on a yearly basis. All the data collected is not limited to the EU Member States but encompasses more than 100 countries.

The Lisbon Review Rankings 2004 provides the scores for the EU 15. Some countries, particularly the Nordic countries, receive high scores in all areas, while others, particularly those in Southern Europe, trail behind. Finland comes first in the overall ranking, followed by Denmark and Sweden. Finland ranks first in five of the eight categories being assessed and is either second, third or fourth in the other three. The three Nordic member countries are thus seen as being the most competitive as measured by the Lisbon criteria. All three of these countries score high across the board, particularly in such areas as the readiness of network industries and measures of sustainable development.

Within the middle rankings, countries show more mixed performances, with strengths in some areas, balanced by weaknesses in others. For example, the United Kingdom ranks second in the dimension of financial services – indeed the country has the lowest interest rate differential between borrowing and lending rates in the world, a proxy for the efficiency of financial intermediation. It also ranks first in terms of the quality of the business and regulatory environment for the enterprise sector; however, its overall score is brought down by weaknesses in the areas of social inclusion, innovation and R&D. Nevertheless, the United Kingdom has the highest rank outside the Nordic countries and among the four EU members of the G-7. Germany scores well in several dimensions, such as the readiness of its network industries and in aspects of sustainable development, but does less well in areas such as the enterprise environment and liberalisation. It is suprising to see that Germany performs quite poorly in the dimension of social inclusion given its tradition of collective bargaining.

[40] Jennifer Blanke and Augusto-Lopez Claros, *The Lisbon Review 2004: an Assessment of Policies and Reforms in Europe*, World Economic Forum, 2004.

Finally, it is clear from the scores in the bottom rankings that much has yet to be done within a number of EU countries, across all dimensions, in order to bring them to the level of competitiveness intended by the Lisbon agenda. This is particularly true of the four southern European countries, which perform comparatively poorly across all eight dimensions. Another surprising result is that Spain outperforms Italy (a member of the G-7) in six of the eight categories assessed.

The research conducted by the WEF is particularly interesting when comparing the EU to the US. Comparing these scores with those of the EU countries we see that, based on the Lisbon criteria, the US does not score as well as the three Nordic countries, but has a higher score than all other 12 EU members, both overall, and across almost all dimensions. And in the areas of innovation and the enterprise environment, both areas widely recognized as critical for economic growth and competitiveness, the US has higher scores than all countries, including the Nordics.

To better summarize the relative performance of the EU and the US, we see that as a whole, the EU performs less well than the US, often much less well, in almost all dimensions. However, there are three areas in which the EU as a whole outperforms the US: in modernizing social protection, in implementing policies and practices that are supportive of an environment for sustainable development, and in the area of telecommunications, where the EU has better scores for such indicators as cellular telephone use and subscriber numbers.

These arguments are useful when trying to assess the competitive advantage of the EU compared to the USA. This in particular explains why they are used by the Barroso Commission in order to support a more economic orientation for the next term of the Lisbon Strategy. The relatively good positioning on the EU on social and environment aspects is used against the EU. This is even more surprising when considering that the sustainable targets under Lisbon have not yet been achieved.

These arguments are not relevant to the new competition coming from India and China. Moreover, they can strongly vary depending on the indicators and the method used to measure a performance.

The Lisbon Scorecards of the Centre for European Reform

The Lisbon scorecards are produced every year since 2001 by Alasdair Murray, director of the business and social policy unit at the Centre for European Reform (CER) in London.

According to the 2002 Barcelona Scorecard established by the Centre for European Reform[41], overall the EU enlargement should reinvigorate the Lisbon agenda. In 2002, the heroes of the Lisbon process were Sweden, Spain and the European Commission, the villains being France and Germany. According to the 2003 *CER Lisbon scorecard*, the heroes were Denmark and Finland while the villains Germany and Italy.

In 2004, the *CER Lisbon scorecard* indicates that the 2 heroes are Ireland and Sweden while the villain is Italy.[42]

The Nordic Member States, Denmark, Finland and Sweden, score well in almost every aspect of the Lisbon agenda. The World Economic Forum (WEF) Global Competitiveness Index places Finland top for the second consecutive year. Third-placed Sweden and fourth-placed Denmark recorded marked improvements in their overall scores, with Sweden almost overtaking the US in second place. The report stresses that a country can achieve high levels of competitiveness without importing wholesale the Anglo-saxon economic model.

[41] Edward Bannerman, *The Barcelona Scorecard, The status of economic reform in the enlarging EU*, May 2002.
[42] Alasdair Murray, *The Lisbon Scorecard IV, The status of economic reforms in the enlarging EU*, Working Paper, Centre for European Reform, March 2004.

A second group of countries, including Britain, Ireland, the Netherlands and Spain, are highly committed to the Lisbon process and perform well on many, although not all, measures. Ireland, in particular, has made remarkable progress in raising both its employment and productivity levels over recent years: it now has the highest productivity level (measured as output per hour worked) in the EU. However, Ireland cannot yet match the Nordic countries in terms of its innovation record, while its rising wealth is not shared evenly across the country.

The third group includes the eurozone's two largest economies, France and Germany. Both countries possess several strengths and remain among the richest EU Member States. The WEF Competitiveness Index ranks Germany 13th ahead of the UK. Both countries introduced reforms in 2003 but are unlikely to ensure the two countries achieve their Lisbon goals.

Finally, Greece and Portugal score poorly on most Lisbon measures but are pushing through some reforms. Italy, Europe's fourth largest economy, appears to be sliding backwards. Its employment rate is now the lowest in the EU-15. Italy has slipped from 33rd to 41st in the WEF ranking not only the lowest among the EU-15, but also behind the three Baltic states as well as Slovenia, the Czech Republic and Hungary.

It remains hard to provide a definitive assessment of the performance of the new accession countries. The new entrants are starting from a much weaker economic base than the existing EU Member States and there are still gaps in the data. However, several accession countries are in better shape than some of the existing members. Estonia scores highly in a range of surveys. For example, the WEF competitiveness survey ranks it 22nd, ahead of France and Spain.

The *CER scorecard* recognises Ireland rapid progress over recent years, and its ongoing commitment to the Lisbon agenda. One of this year's heroes come from the Nordic three, on account of their uniformly strong performance. The 2004 scorecard selected Sweden, for its unparalleled record in tackling labour market exclusion and poverty, and its success in improving the overall competitiveness of its economy. Italy is the villain of the 2004 scorecard. Under the current Berlusconi governement, Italy economic performance is steadily deteriorating.

As a whole, the *CER Lisbon scorecard* and the WEF Competitiveness Index confirm the advance of the Nordic countries Finland and Sweden as knowledge-based economies. These rankings tend to confirm the success of an alternative model to the Anglo-saxon one. We have choosen to compare these two sources of information because they were coming from two institutions known for their difference in political sensitivities. Both analysis demonstrate the lack of performance of the Anglo-saxon model in the knowledge and creativity fields.

In the Field of Information Society

Four years on, the new "economy hype" may have faded but the importance of new technologies to the long-term health of the European economy continues to increase. The EU is half way through its second *e*Europe Action Plan, a series of measures designed to encourage businesses, consumers and governments to adopt new technologies. On many aspects the e-Europe Action Plans have been successful. The proportion of the EU- 15 households with Internet access more than doubled between 2000 and 2003 to 47 per cent, according to Commission data. In Sweden and Denmark, 64 per cent of the population have Internet access at home, compared with 54 per cent in the United States (Iceland has the highest rate in the world at 69 per cent). Even in Greece, which has the lowest level of Internet access among existing EU members, the number of households on-line has tripled to 16 per cent since 2000. Two of the accession countries, Cyprus and the Czech Republic, have household Internet penetration rates above those of Greece.

Over the last year, the EU has also seen a rapid spread of other cutting-edge technologies, such as broadband and 3G (third generation) mobile phones. After a delay companies have started to offer 3G services in five Member States. Meanwhile, the number of households with broadband doubled to 17.5 million in the year to July 2003. Denmark, Belgium and Sweden all have broadband penetration rates of more than 10 per cent. Belgium is the first Member State to have complete coverage, meaning its citizens can access broadband as easily as the telephone. On the other hand, less than 1 per cent of people in Ireland and Greece have access to broadband.

Despite these encouraging developments, overall the EU continues to lag behind the US in the use of new technologies. There are, however, large differences between the individual EU countries. On the network readiness index of the World Economic Forum (WEF) measure of new information technology use the US continues to lead, followed by Singapore. The EU Nordic members occupy the next three places on the list. Among the accession countries, Estonia is placed a credible 25th, ahead of four existing EU members: Spain, Italy, Portugal and Greece. The WEF ascribes Estonia's relative success to the government heavy investment in new technology, although Internet usage among businesses and individuals remains relatively low.

A number of EU Member States are also at the vanguard of providing government services electronically. New technology should enable governments to offer cheaper and more efficient services, such as on-line tax forms or licensing applications. The United Nations ranks Sweden 2nd, Denmark 4th and the UK5th, behind the United States, in its 2003 survey of global e-government readiness. Estonia again scores relatively highly: the UN ranks the Baltic state at 16th.[43] A separate e-government survey by Accenture, the consultancy firm, produces similar results. Accenture ranks Denmark most highly among the European countries although it still lags behind Canada, Singapore, and the US.[44]

Cap Gemini Ernst & Young, the IT consultancy firm, has conducted more detailed research into on-line government services for the European Commission. It found that although most EU Member States offer a wide variety of services on-line, their scope and sophistication varies greatly. Sweden comes out on top in terms of sophistication, followed closely by Denmark and Ireland. Denmark offers the greatest range of government services electronically (90 per cent of all available services), followed by Austria and Sweden. Austria is the Member State, which has made the greatest improvement over the last year: 68 per cent of services are now available fully on- line compared with just 20 per cent in October 2002. In contrast, Luxembourg provides just 15 per cent of government services on-line and is also ranked bottom for sophistication. Generally, businesses enjoy a wider range of services on-line than private citizens, including on-line VAT returns, customs declarations and corporate tax returns.

The EU also continues to lag behind the US in terms of its total expenditure on information technology. In 2003 average IT spending in the EU stood at 3 per cent of GDP, unchanged from 2002, but below a high of 3.3 per cent in 2000. The United States meanwhile spent 3.6 per cent of GDP on IT, a slight rise from 3.5 per cent in 2002. Both Sweden and the UK spend more on IT than the US, 4.4 and 4.0 per cent of their respective GDPs. Spain and Greece are the laggards among the EU-15, with IT spending of only 1.6 per cent and 1.2 per cent respectively. Some of the new accession countries, notably the Czech Republic and Estonia, already spend more of their (albeit much lower) GDP on IT than the EU average.

Of course, IT expenditure only provides a crude measure of a country technological development. The figures do not indicate whether spending goes towards games consoles and other consumer electronics or towards productivity-boosting investment. Moreover, the economic impact of IT spending depends on how effectively technology is used in practice.

In the Field of R&D

[43] *UN Global e-Government Survey 2003*, United Nations, 2004.
[44]Accenture, *E-Government Leadership: High Performance, Maximum Value*, May 2004

Worried about the EU low overall R&D spending, EU leaders used their Barcelona summit in March 2002 to add another target to the list of Lisbon indicators: annual spending on R&D should reach 3 per cent of GDP by 2010. However, this overly ambitious has since attracted widespread criticism.

The Organisation for Economic Cooperation and Development (OECD) points out that the target remains out of reach for most EU countries, and that the EU as a whole would have to double its R&D expenditure between 2000 and 2010 to achieve the objective. The OECD argues that the EU should focus on improving the effectiveness of its R&D spending, rather than rushing to meet the 3 per cent target. The Commission, however, insists the 3 per cent growth is realistic. It estimates that meeting the target could help create an extra 400,000 jobs each year after 2010.

Although EU R&D spending is on a modestly rising trend, it remains well short of the 3 per cent target. In 2002, the EU-15 spent an average of 1.99 per cent of GDP on R&D, compared with 1.92 per cent in 1999. In 2002 the US spent 2.67 per cent and Japan 3.06 per cent of GDP on research and development.

The Member States have agreed that most of the increase in R&D should come from the private rather than the public sector. Accordingly, the EU hopes to increase the share of private sector R&D spending from 55 per cent at present to 66 per cent by 2010. However, many Member States are unsure about how to encourage private businesses to spend more on R&D. The Commission advocates fiscal incentives, such as tax breaks for companies that invest in R&D. It has also promised to modify its guideline on state aid to support R&D expenditure by small businesses.

In addition, the Commission wants the EU to leverage its own R&D spending by encouraging researchers from different countries to work together. For this purpose, the Commission has proposed the establishment of technology platforms networks for researchers to share information in key areas such as nanotechnology, plant genomics and hydrogen technologies. The Commission is also examining ways in which the EU could stop the brain drain of many top researchers to the US. Finally, it has recommended that the EU shift more of its common budget towards R&D spending during the next budget period that runs from 2007 to 2013. In particular, it wants EU R&D spending to rise to EUR 10Bn, which would amount to 10 per cent of total EU public spending. It also wants EU countries to spend more of the structural funds for disadvantaged regions on R&D.

The EU seemingly reached agreement in 2003 on a community patent some two years after the original 2001 deadline. The Commission estimates that the new patenting system could save European businesses up to EUR 500 million a year because companies will no longer need to register their inventions in every national patent office.

Nevertheless, the OECD reckons that European businesses would still face patenting costs twice as high as competitors in Japan and the US. Companies would still have to translate the first few pages of the patent, which define its legal scope, into all EU languages - an expensive proposition for smaller businesses. But in early 2004 Member States were still fighting over the details of the agreements, leaving its final outcome in doubt. Even if the EU manages to conclude a deal the new patenting system will not become fully operational until 2010 when the EU establishes a patent court in Luxembourg. The Commission concludes that the community patent may not be sufficient to overcome the EU's rather poor innovation record.

The relatively low number of patents that European companies file at home and abroad reveals how the EU still fails to keep pace with the US. European companies led 161 patents per million of population at the European Patent Office (EPO) in 2001, while US firms took out 170. The gap is far larger at the United States Patent Office, where US companies filed 322 patents per million of population, compared with just 80 by European businesses.

The EU continues to lag behind the US in most other aspects of innovation policy. According to the Commission annual innovation scoreboard the EU is ahead of the US in just one of the 12 indicators examined, namely the total number of science and technology graduates. But even this small success is qualified by evidence that the EU does not make good use of its human resources. Many of the EU best

and brightest move to the US, where research budgets are larger and researchers are likely to get substantially higher pay packages. The Commission estimates that around 400,000 EU science graduates are working in the US at present. In 2001, the US had eight researchers for every 1,000 people, compared with five in the EU-15. And the gap is growing. The OECD reports that the number of researchers in the EU is rising by 3 per cent a year. In the US, the growth rate is twice as high, at 6.2 per cent.

In terms of output, EU scientists appear to beat their US counterparts: EU-based scientists account for 41 per cent of all scientific papers published worldwide, compared with 31 per cent for the USA. However, the quality of scientific work matters at least as much as the quantity. One indicator of quality is how often a scientific paper is referred to in other works. Here, the US is in the lead, with papers by European scientists receiving one-third fewer references than US papers. The gap is largest in those disciplines that are most directly relevant to economic development, such as medicine, physics, chemistry and computer sciences. Another indicator of the quality gap is the number of Nobel prize laureates. Over the last two decades (1980-2003), US scientists won more than twice as many prizes as their EU colleagues (154 to 68).

Scientific achievement is not evenly distributed throughout the EU. Sweden and Finland are matching or even out-performing the US. Both countries spend more on R&D than the US (4.3 and 3.5 per cent of GDP, respectively, in 2002). Swedish firms filed 367 patents per million of population at the EPO in 2001, and Finland 338. This stands in stark contrast to the EU Mediterranean members. Greek and Portuguese companies file less than 10 patents per million of population at the EPO and spend less than 1 per cent of GDP on R&D.

Among the larger Member States, Germany remains in the lead, with respectable figures for both patent applications (310 per million inhabitants) and above-average R&D spending (2.51 per cent of GDP). This contrasts with Italy, where R&D spending is low and falling (to just 1.07 per cent in 2000, the last year for which it supplied data).

Among the New Member States, the Commission ranks the Czech Republic, Hungary and Slovenia higher than existing EU members such as Greece and Portugal in its innovation scoreboard. Spending on research and development has suffered from the major budget cuts applied by many Central and East European governments over the last decade. But in the better performing countries, R&D spending has started to recover. In the Czech Republic, it has raised from around 1 per cent of GDP in 1995 to 1.3 per cent in 2001. Some of the accession countries also outperform the EU Mediterranean members when it comes to patents: Slovenian companies, for example, filed 41 patent applications at the EPO per million of population in 2001.

Eastern Europe now boasts a significant number of dynamic, high-tech companies, thanks partly to large-scale privatisations, and partly to the rapid growth in numbers of start-up companies. But the overall picture remains mixed.[45] Most New Member States continue to suffer from a strong shortage of funding for new ventures. R&D spending in the private sector is much lower than in the EU, while stretched government budgets do not allow for significant new R&D investment. New Member States will need to improve their innovation and creativity if they want to find a place in the European knowledge society.

Other Initiatives and Reports

Although these reports are not directly relevant to the evaluation of the Lisbon strategy, they provide interesting inputs to the discussion.

The EPC Task Force

[45]Pal Gaspar, *Factors and Impacts in the Information Society*, International Center for Economic Growth, December 2004.

The European Policy Centre published the *Ten Do's and Don'ts for sustainable growth in Europe*[46] by the European EPC Task Force mainly composed of business experts. The Task force is chaired by Nick Clegg, deputy of the European Parliament and member of the British Liberal Democrat Party.

The report, addressed to key decision makers, stresses that economic growth is not an end in itself. Rather, economic growth is there to serve a greater ambition: the creation and maintenance of a vibrant, socially inclusive and environmentally sustainable European society. The challenge, then, of boosting the growth rates of the European Union is part and parcel of the challenge of creating the necessary balance between economic prosperity, social justice, the development of intellectual capital and respect for the shared environment. Without higher growth rates in the European Union, none of these aspirations will be realised.

The interim report of the EPC's Task Force on the European Growth Initiative underlines that the successes of the European economy cannot disguise persistent shortcomings. The total employment rate in the EU still lags almost 10% below the proportion of the US labour market engaged in work. The EU would have to employ almost 17 million more people to close this gap. Productivity in the EU has stagnated in recent years, now at almost 20% lower per employed person than in the US.[47] These are the main reasons why, today, US GDP per capita is more than 30% higher in the US than in the EU.[48] To that picture, one should add the low fertility rates in the EU and the impending explosion in the retired population in Europe.

The EPC Report takes the novel form of a list of 10 "Do-s and Don't-s" highlighting a number of issues:

A careful balance must be maintained between the role of the European Union itself and the duties and responsibilities of the Member States. A failure by Member States to implement commitments made at EU level is a persistent shortcoming in the pursuit of greater economic growth and competitiveness. On the other hand, the freedom of Member States to compete and exploit national advantages must not be threatened by excessive harmonization at EU level.

In an enlarged EU with greater political and commercial diversity, new EU regulation must be ever more intelligently crafted in order to be effective. This is especially so in view of the EU's recent enlargement to twenty-five members. Regulation, which provides incentives for individuals and companies alike to operate on a level playing field, is most likely to succeed.

For the EPC Task Force, raising productivity and increasing job creation should go hand in hand. At present, high productivity levels are often accompanied by low employment rates, and higher employment rates by low productivity. Such a choice is not inevitable, and there are good examples in the EU of economies that possess both high levels of employment and impressive productivity levels. A relentless emphasis on innovation, intellectual capital and the fostering of dynamic, new economic sectors is needed.

Job security and labour market flexibility must also go hand in hand. The assumption that one opposes the other is false. Job security for those in work by excluding those out of work is unacceptable. Lowering barriers for those wishing to enter the labour market does not necessitate the lowering of generous social security support, as long as that support does not act as a disincentive to seeking employment.

The conclusions of the EPC Task Force are particularly interesting when comparing to the Kok report. They advocate that a balanced socio-economic policy is possible when economic interest does not dominate the social and environmental ones.

The Demos Report

[46] *Ten Do's and Don'ts for sustainable growth in Europe*, Interim report, EPC Issue Paper 18, 27.10.2004.
[47] Structural Indicators, EU15, EC.
[48] Structural Indicators, EU15, EC.

The report *Europe in the Creative Age*[49] was co-published by Demos in Europe and Carnegie Mellon in the US. The report argues that creativity has become a driving force of economic growth. The ability to compete and prosper in the global economy goes beyond trade in goods and services and flows of capital and investment. Instead, it increasingly turns on the ability of nations to attract, retain and develop creative people.

The Report extends the concepts and indicators introduced in *The Rise of the Creative Class* to the European context. It develops new indicators for the "creative class" and competitiveness that are based on the 3Ts of economic development —Technology, Talent and Tolerance — for 14 European, Scandinavian and Nordic countries and compares them to the United States. While these measures differ in significant respects from the indicators in *The Rise of the Creative Class,* the findings are compelling.

The "creative class" makes up more than 25 percent of the work force in seven of 14 European countries, and comprises nearly 30 percent of the workforce in three —the Netherlands, Belgium and Finland. "Creative class" workers outnumber blue-collar workers in these three countries, and also in three others: the United Kingdom, Ireland, and Denmark.

The "creative class" is growing at a fairly rapid pace in a majority of the Member States. Ireland outpaces all nations in Creative Class growth, with a 7 percent annual growth rate since 1995.

Not all nations, however, appear to have made the shift to a "creative economy" and a "creative" occupations structure. Italy and Portugal, for example, have less than 15 percent of the workforce in the "creative class".

According to the survey, while the United States remains the world leader in technology and in its ability to attract top talents, a cluster of Northern European countries —Finland, Sweden, Denmark, the Netherlands, and Belgium —appear to have distinctive assets with which to compete. These countries have considerable technological capabilities, have invested and continue to invest in developing creative talent and also appear to have the values and attitudes that are associated with the ability to attract creative talent from the outside. The US is not prepared to future leardership requirements. According to a survey conducted by the Rand Corporate, US institutions (not-for -profit, for-profit and government) are not ready to promote leaders with a greater sense of innovation, creativity, and international exposure.[50] The US "is producing too few future leaders who combine substantive depth with international experience and outlook" stresses the report.

A number of these countries, notably Sweden and the Netherlands have liberalised their immigration policies and have attracted concentrations of foreign-born people. These nations and others still suffer from an inability to assimilate immigrants as quickly and seamlessly as the United States and to create the environment for their rapid upward mobility as has occurred with various groups in the U.S. and Canada. The fact the English is spoken widely across the population in these countries provides an additional asset in the global competition for creative people and they will continue to benefit from the freer flows of people across EU members states.

Within Europe, the epicentre of competitiveness is shifting from the traditional powers, especially France, Germany and the United Kingdom, to a cluster of Scandinavian, Nordic and northern European counties. Sweden is the top performer on the Euro-Creativity Index, outperforming not only all of the other European countries, but the United States as well. Finland is also well-positioned to compete in the Creative Age with a high level of overall creative competitiveness and rapid growth in its creative capabilities. The Netherlands, Denmark and Belgium also appear to have considerable assets with which

[49] Richard Florida and Irene Tinagli, *Europe in the Creative Age*, Demos, February 2004.

[50] Gregory F. Treverton, Tora K. Bikson, *New Challenges for International Leadership, Positioning the United States for the 21st Century*, RAND Corporation, 2003.

to compete. Ireland stands out as an up-and-coming nation, with significant growth in its Creative Class and its underlying creative capabilities since 1995.

The ability to attract people is a sensitive and dynamic process. New centres of the global creative economy can emerge quickly and established players can lose position. For years the United States possessed an unchallenged competitive advantage in its ability to attract the best from Europe, Scandinavia and around the world. A number of countries in Europe and elsewhere (notably Canada and Australia) have liberalised their immigration policies and increased their efforts to attract and retain talent. But it also lies in the fact that the climate for creative talent in the United States has chilled somewhat both as a result of direct policies which restrict scientific information and make it harder for people to get into and out of the country and also because of a widening perception of the US as unilaterally aggressive and less friendly toward foreign-born people.

The Demos report is particularly interesting when compared with the *Global Competitiveness Report* from the World Economic Forum. It highlights important issues directly relevant to the knowledge society and takes a step ahead in providing a measurement for "creativity". It also raises the importance of values. Values influence the environment in which a change or reform can or not take place. It also confirms the results provided by the structural indicators of the Delivering Lisbon's agenda. It explains why some Member States face difficulties in implementing reforms or respecting the Common Agenda.

The Euro-Creativity Matrix combines the relationship between how a country scores on the European Competitiveness Index and its trend, the Euro-Creativity Trend Index.[51] Based on the analysis, four groups emerge:

- "Leaders" combine strong ECI scores with high growth rates in creative capabilities. The top performers include Finland, Sweden and Denmark. Their competitive position overall is as good or, in the cases of Finland and Sweden, better than that of the United States. A second tier includes the Netherlands and Belgium. These countries are proving successful and are likely to continue to do well in the Creative Age;
- "Up and Comers" have lower ECI scores but relatively high rates of creative growth. Their position is improving. Ireland stands out among this group. It combines a reasonably high ECI score with extraordinary growth in its underlying creative capacities;
- "Losing Ground" —These nations have relatively high ECI scores but are failing to sustain growth in their creative capabilities. They are falling behind in competitive terms. Germany and the UK fall into this group;
- "Laggards" have low ECI scores and low rates of creative growth. They will find it hard to compete in the Creative Age. Italy is the classic case, although Spain, Austria, Portugal and Greece also appear to be in a difficult position. France also falls in this group, due to a relatively poor performance on the Euro-Creativity Index and to some of the lowest growth rates in both Talent and Technology.

These various analysis and reports show that competitiveness ranking can substantially differ depending on the index used. It shows that competitiveness in the field of Knowledge Society is taking into consideration factors such as ICT penetration, IS related, R&D, socio-economic indicators but also factors such as creativity, innovation and values that are more difficult to measure. Second, it shows there is divergence on prioritising economic factors over social and environmental ones. Consequently these factors explain why there is no one single definition of what the Information Society strategy and Lisbon vision are. Implementing Lisbon implies that a decision on a certain conception and representation of a "knowledge economy" is made. Europe is divided on this definition. This explains by itself why the Lisbon strategy is difficult to implement. The original vision of Lisbon was developed to answer to competitiveness via a sustainable path (not only economic) to reach a better quality of life for Europeans. Under the current Barroso reorientation, it is unlikely it will continue on that path and will probably focus more on economic issues. On the other side, European IS policy may defend a more sustainable approach to IST as it is doing since 2000.

[51] Methodology and Index definitions are available in Annex 3

Chapter Summary

The different evaluations of the Lisbon strategy tend to show two broad conceptions of the social and economic model of growth and competitiveness in Europe. The economic orientation promotes employment as a major driver of growth. The second promotes a more balanced and systemic approach where social and environmental growth are considered as a major source of value creation.

The first model is influenced by a classical neoliberal approach; the second is more empirical in trying to leverage the experience in the Scandinavian countries.

In both models ICT are recognised as key. None of the evaluations directly relating to the Lisbon Strategy question in depth the meaning of the European ambition (to become a "knowledge society").

NEW MODES OF GOVERNANCE

Etymology of the term "governance"

The Greek verb *kubernân* (to pilot a boat or a char) was used, for the first time, as a metaphor by Plato for governing people. It gave birth to the Latin verb *gubernare*, which meant the same thing and generated many derivatives such as *gubernantia. Gubernantia* is the origin of *gouverner, gouvernement, gouvernance* in French and *to govern, government, governance* in English.[52]

The word *gouvernance* was first used in France in the XIII century as an equivalent to *government* (art and manner of governing) and reached England in the XIV century. The word governance in English was used again in the 1990s by Anglo-saxon economists and political scientists and by international institutions such as the UN, the WB, and IMF as a way to express the art of governing with two additional meanings. First, to draw the distinction with the word *government*, representing the institution. Second, to promote a new mode of public affairs based on the participation of civil society at all levels (local, regional, national and international).

The White Paper on European Governance

The EC identified the reform of European governance as one of its four strategic objectives in early 2000. "Promoting new forms of governance" was one of the top priorities set by the Prodi Commission when it started its term in 2000.[53] The White Paper on European Governance, not without some difficulties, was approved in July 2001 by the Commission.[54] The effort was led by Jérôme Vignon, a French fonctionnaire, who is now working at the DG Employment.

The originality of the White Paper was in opening up the policy-making process to get more people and organisations involved in shaping and delivering EU policy. It promoted greater openness, accountability, and responsibility for all stakeholders involved but was primarily addressed to the Member Sates. Four priorities were set:

- Better involvement and more openness;
- Better policies;
- Regulation and delivery;
- Global governance and refocused institutions.

The first set of policies included in particular some proposals from the EC to establish a stronger interaction with regional and local governments and civil society, a more systematic dialogue with the different stakeholders at an early stage in shaping policy, and a greater flexibility in how EC legislation was implemented.

Part of the White Paper recommendations were also to simplify the legislative process, make policies and measures more effective and get the EU closer to its citizens. The initiative of the Convention on the Future of Europe was answering part of the will to develop participative forums representing stakeholders

[52] The etymology of the word governance is developed in the Europa web site:
http://europa.eu.int/comm/governance/index_fr.htm
[53] COM (2000) 154, 9 February 2000.
[54] COM (2001) 428 Final, 25 July 2001.

in their variety. The idea to hold referendums in the Member States around the European Constitution also conforms to the new forms of governance and making the EU closer and more interactive with the citizens.

The EC was organising forums for some time. What was new was the more "systematic" proposal to reinforce the participation of different stakeholders in shaping policy. Hélène Michel[55], who studied in particular the role of civil society in the Livre Blanc, presents the reform of governance as a mean to reinforce the EC legitimity. In fact, one should distinguish the fact that the EC was not (and is still not) communicating enough around its policies and actions, and the fact that the EC was trying to leverage the participation of all stakeholders (civil society, Member States, administration etc.). The two are different issues. Communication by the EC is still very limited and has made little progress according to the polls.

It is also important to stress that the reform of governance although initiated by the EC was not dedicated only to improve the EC governance. The goal of the White Paper was to develop a stronger interaction between the EC, regional and national governments, and stakeholders. Too often critics are addressed to the EC. The European governance is not limited to the EC. A lot of the improvement needs to be made at the regional and national levels, and in their interaction with European regional and national levels.

According Laurent Sorbier, ICT advisor to the Prime Minister, there are still a lack of communication and technology infrastructures to leverage cooperation between Member States: "cooperation is perceived as a coopetition."[56] Moreover, the particularism of the EC language makes it difficult for national bureaucrats to interfer with EC bureaucrats. Meanwhile, some significant progress has been made to incorporate more stakeholders in the monitoring and shaping of public policies. An interview with Daniel Kaplan, member of the eAdvisory Group, confirmed that, in his sub-group (e-Inclusion), variety is important and that discussions are transparent and open.[57] Discussions with members of Advisory and Panel Groups, and EC members, tend to suggest that the difficulty is not to reach a variety of representatives but to find people with a high level of expertise ready to invest some of their time in EU politics. We will see later how some measures were implemented in particular at the DG INFSO.

The last set of policies of the White Paper aimed at designing an "overall policy strategy" to ensure policy coherence and long-term objectives". The Lisbon strategy constitutes the materialisation of that objective.

Moreover the White Paper influenced the way the EU wanted to work and several initiatives such as the Impact assessment and the OMC find their root in this initiative. A critical analysis of the OMC and an example of Impact Assessment (the RTD in IST) will be presented in the following chapters.

In 2002, the EC adopted a new method of impact assessment for all major initiatives of the EC. This method was taking into consideration the economic, social and environmental impact of the proposed policy and measure. After the first year of implementation, i.e. by the end of December 2003, 50% of the impact assessments were achieved. The improvement was due to the fact that this method improved the transparency of the process. It also reinforced the analysis and the content of the proposals. It encouraged coordination and dialog between services of the EC. The genesis of impact assessment will be further discussed later.

A Critical Analysis of the OMC

One of the original ideas of the Lisbon strategy was the creation of the Open Method for Coordination (OMC). The Lisbon strategy was to be achieved by improving the existing processes, introducing a "new

[55] Hélène Michel, "Les groupes d'intérêt au secours de la démocratie européenne. Elaboration et mise en oeuvre de la "démocratie participative" à la Commission européenne". Colloque, January 2005.
[56] Interview with Laurent Sorbier, December 2004.
[57] Interview with Daniel Kaplan, January 2005.

open method of coordination" at all levels, coupled with a stronger guiding and coordinating role for the European Council to ensure more coherent strategic direction and effective monitoring of progress.

This method already, originally applied to the field of employment policy, was designed to help Member States to progressively develop their own policies. It involved:

- Fixing guidelines for the Union combined with specific timetables for achieving the goals which they set in the short, medium and long terms;
- Establishing, where appropriate, quantitative and qualitative indicators and benchmarks against the best in the world and tailored to the needs of different Member States and sectors as a means of comparing best practice;
- Translating these European guidelines into national and regional policies by setting specific targets and adopting measures, taking into account national and regional differences;
- Periodic monitoring, evaluation and peer review organised as mutual learning processes.

The Method is also aimed at empowering all actors (governments, enterprises and civil society). A fully decentralised approach was proposed in line with the principle of subsidiarity in which the Union, the Member States, the regional and local levels, as well as the social partners and civil society form various forms of partnership. The method of benchmarking of best practices was proposed to promote the management of change. Companies were invited to promote corporate sense of social responsibility regarding best practices on lifelong learning, work organisation, equal opportunities, social inclusion and sustainable development.

As we saw previously the Method was first answering the will towards engaging the EU in an ambitious vision while at the same time maintaining national sovereignties. In a way, from the beginning the OMC was born with the intent to overcome the differences in vision and strategic priorities. It was designed as a constructive answer to complexity. The necessity of adaptating to a knowledge-based economy was recognised. The OMC would offer a step towards a most effective European governance.

The OMC was designed as an *iterative process* between the EU and national levels, which combines an intergovernmental dynamic with a EU community logic. The objective was to enhance Member States' political commitment in EU decision-making and to better adjust to the national diversity of institutions and policies. It was a way to put into action the "soft" diplomacy as described by Joseph Nye and establishing a consensual process between EU and Member states.

A third advantage of the OMC was to allow the implementation of a *global strategy* taking into account economic, social and political policies, and actors. The Method was a first step towards a new multi-level governance process.

The OMC by outlining targets and objectives was allowing Member States to project their policies in a longer-term perspective. It was supposed to help political and administrative authorities to take some distance from their immediate national constraints and political contingencies. Benchmarking, evaluation, monitoring were at the core of the method.

However, the OMC holds negative downsides. For the EC, the Method was difficult to be enforced because of the lack of real sanctions over Member States. It seems that national governments are not equally prepared to work on a collaborative basis. Working on a collaborative basis is difficult for people used to operate in a hierarchical environment. This requires a change of culture. A report (not released yet) on the evaluation of the OMC confirms that the implementation of this "new method at work" differs according to countries and to ministries.

The difficulties came also from the arbitration between the policy priorities i.e. economic over social, industrial over sustainable etc…The third major limit was that the indicators which were often quantitative did not take into consideration the qualitative issues (in particular in terms of social and cultural issues).

The OMC was put in place in 2000 and is relatively well received by Member States and the EC despite some critics and identified elements requiring improvement. The "common agenda" is generally very useful at national levels although the Guidelines and Action Plans require being constantly adapted globally and at national levels. The "benchmarking exercise" is considered useful but need to have the right indicators in place (which is causing most of the critism). The "sharing of best practices" is not really understood. Member States would tend to prefer peer review that leads to recommendations.

Meanwhile with the OMC the complexity remains. The Lisbon strategy certainly increases the interconnection of policy fields, the multiplicity of actors involved in the various EU coordination policies, and the multiplicity of discussion/negotiation forums and coordination procedures.

The OMC is thus facing the challenge of not limiting the emergence of complexity but instead mastering the process of accepting uncertainties, changes and increased complexity. The current challenge of the OMC is also to keep moving and producing cohesion among a recently enlarged Union.

In that context, the analysis of evaluation is important and will dictate the strategic orientation of the Lisbon Agenda, the nature of priorities and programmes in the coming five years.

Impact Assessment and the European Commission

Impact assessment can be defined simply as a method for identifying the anticipated or actual effects of development activity. The aim of impact assessment is to improve the evidence-base on which decisions are made, and thereby improve the quality of decision-making.[58]

In the public sector, policymakers can use impact assessment as a means of informing public policy and rule setting choices. Public regulation, whether in the form of policy or rules, can provide 'goods' or 'bads', and it is unlikely therefore, that the case for or against a regulatory measure can be convincingly made from first principles or on an *a priori* basis. An underlying rationale for impact assessment, therefore, is that public interventions need to be assessed on a case-by-case basis.

The development of a methodology for assessing the impact of policy or rules is still at a formative stage, and the use of such methods in public decision-making is only beginning to gain acceptance. The case for applying impact assessment at the project level is well established, and the methods of economic impact assessment (cost-benefit analysis) and environmental impact assessment, for example, are widely known. The development of a methodology for impact assessment at the strategic ("policy, plans and programmes") level is at a much earlier stage, however, and has acquired a range of nomenclatures, including strategic impact assessment, regulatory impact assessment, integrated impact assessment, and sustainability impact assessment.

All are concerned with assessing the positive and negative effects of potential (ex ante) and existing (ex post) interventions at the policy level. The impacts of the intervention under consideration will be recorded in terms of the outcome(s) that the decision-maker is concerned with. In the context of the public sector, the decision-maker may be interested in assessing the economic impact, social, or environmental impact of the policy measure which will involve the application of the appropriate method for economic, environmental or social impact assessment. Increasingly, however, policymakers are required to consider the impact of their decisions on economic, environmental *and* social development. In this case, sustainability impact assessment (SIA) will be the appropriate method for assessment. Sustainability impact assessment (SIA) can be defined as a methodology for identifying and assessing the likelihood and scale of the economic, social and environmental impacts of a policy change or rules-measure. The purpose is to ensure that those charged with making policy have the most complete information possible to guide them in their decision-making.

[58] Clive George, Colin Kirkpatrick and Sarah Mosedale, "Participation in European Governance Reform: the Role of Sustainability Impact Assessment", January 2003.

To achieve this, SIA should include processes of consultation and participation with stakeholders and other interested parties because people's differing values, perceptions, and judgements affect their response to policy and therefore affect policy impact. Policy therefore needs to be shaped by an accurate perception of what those values, perceptions and judgements are. Failure to involve the people whom policy will impact has in the past led to many undesirable consequences which might have been avoided had those concerned had effective input into the policymaking process

The European Commission has been at the forefront of developing Impact Assessment. From 2003, the Commission will begin implementing an IA process for *all* major initiatives, which are presented in the Annual Policy Strategy or in the Work Programme of the Commission. This was agreed at the Göteborg (June, 2001) and Laeken (December, 2001) European Councils, where the Community made commitments to implement sustainable development and to establish a tool for sustainable impact assessment. Impact assessment was then used in all other fields of public policy. In every DG, a unit has been assigned to monitoring and evaluation. We will now comment one of the most recent evaluations made evaluating all IST research programmes from 1999 to 2003.

RTD in IST: Five Year Assessment (1999-2003)

Launched at the Lisbon European Council of March 2000, the European Research Area project has established a reference framework for research in Europe. At the Barcelona European Council of March 2002, the European Union set the objective of increasing the European research effort to 3% of the European Union's GDP by 2010, two-thirds coming from private investment and one-third from the public sector. The European research effort represents today 2% of GDP and lags behind the efforts of the United States (2.8%) and Japan (more than 3%).

The European Commission restated the 3% objective in June 2004.[59] The EC is proposing six major objectives to reinforce ERA:

- Creating "European centres of excellence" through collaboration between laboratories;
- Launching European technological initiatives such as the "technology platforms" in the field of energy, mobile communications, transport; etc.
- Stimulating creativity of fundamental research by competition at European level;
- Making Europe more attractive to the best researchers;
- Developing research infrastructures of European interest such as ESFRI (European Strategic Forum for Research Infrastructures);
- Improving the coordination of national research programmes.

The ambition is now to leverage the potentials offered by Europe-25 and to complement the action of the Structural funds. Research will play an important role in two new areas for the Union, space and security.

We can thus anticipate that consensus building will be required in the following areas. Which thematic and research programmes will be prioritised? What will be the financial modalities of the European research funding? How will the arbitration between the EC and the MS be implemented? It is possible that a series of structures and agencies could emerge. The FP7 which will presented beginning of 2005 by the EC should partly answer and take into consideration the 5-year assessment of Research and Technology Development in IST.[60]

The *RTD in IST Assessment* report assesses the effectiveness and achievements of IST research and development under FP5 and FP6 for the period 1999-2003. The report was written by a High-Level Panel

[59] Science and Technology, the key to Europe's Future- Guidelines for future European Union Policy to support Research, COM (2004) 353 Final.
[60] Research and Technology Development in IST, Five-Year Assessment, Final Report, 17 January 2005.

of independent experts chaired by Professor J.M. Gago, former Portuguese Science Minister and one of the authors of the Lisbon strategy. The high-level group stressed the vital contribution of IST to the Lisbon ambition, the IST research and development budget representing over EUR 1 billion per year.

The key recommendations of the panel are the following:

- Increasing funding for IST RTD, as a unique driver for collaboration between firms and academia;
- Reducing bureaucracy which aims for greater accountability, tighter controls on funding procedures and reduced risk, but now threatens to kill research;
- Stepping up the involvement of small and medium-sized enterprises, and new Member States, to bring them more into innovation networks;
- Improving communications, and target them by audience to broaden take-up of research results;
- Assessing the need for additional human resources in IST research in Europe.

The report is promoting the development of an "improved IST policy-mix". Several points are proposed and are very likely to be adopted by the EC. First priority will be given to improving the implementation of IST research, for example: leveraging complementarities and synergies between the IST themes within the Framework programme; developing policies and regulation with a view to creating new markets, providing incentives to the public and private sectors to perform new RTD; developing measures aimed at improving the efficient uptake of RTD results and scientific breakthroughs by industry. Second, two research areas will become in particular priorities in the IST programme: ICTs for public services and socio-economic research relating to ICT challenges.

According to Grégoire Postel-Vinay, French representative of the High-Level Panel, some issues will require consensus building and negotiation in the future. Some contradictions still exist. Among the most serious, different representations exist between Member states. On one side, some countries defending an industrial policy and technology platforms. On the other side, others promoting the development and support to SMEs and NMS. These two conceptions of innovation and competitiveness are likely to remain. They place in general, countries like France and Germany in opposition to smaller countries like the Scandinavian, the Netherlands and the Baltic states.

This analysis confirms the conclusions of a research conducted on the New Member States' contribution to the Lisbon strategy.[61] The European Union is divided between countries keen to defend their key national and competitive advantages and those more open to investigate new forms of value-creation by promoting SMEs generally considered as key source of innovation. This opposition reflects different interpretations of what is innovation and competitiveness. It also shows a different reaction to the absence of economic growth: a more protectionist vs. a progressist attitude. It is possible to anticipate that this difference will remain in the short and medium term and that some negotiations will take place on these issues at the EU level.

The difficulty will be reinforced by the uncertainties of the coming month regarding the adoption or not of the European Constitution. It will be up to the British Presidency, traditionally known for its lack of commitment towards the EU industrial and R&D policies, to help through the decision process during the autumn 2005. All these parameters tend to suggest that a mild consensus on economic and pragmatic priorities will be adopted. Attention will be given to improving the efficiency, monitoring and assessment of programmes and policies.

[61] Carine Dartiguepeyrou, "A prospective analysis of the New Member States' Contribution to a knowledge-based Europe", *Communications&Strategies*, issue 56, 4th Quarter 2004.

Implications for the DG INFSO and IS Policy

The EC is facing a period of deep change and of raising levels of consciousness. The borders of this change are not set. The EC challenge is that it has traditionally been very active in inspiring and leading the thinking of the on-going changes in Europe. In particular, the DG INFSO has been at the heart of the reflection on the Information revolution and ICT even if it did not communicate around it.

It is thus expected that the EC will continue to provide inspiration and animation, helping in the consensus while reinforcing the subsidiarity rules. Since ICT are recognised as key to the Lisbon strategy and that some programmes like e-Europe have received positive echoes inside the EU, the EC will have to assess what the IS policy could propose in the second term of the Lisbon implementation.

The second implication is linked with the on-going changes in the field of governance. Since May 2004, the EU is now composed of 25 Members which implies that modernisation and changes need to be urgently implemented to ease the decision making process. This modernisation is under way, and although nobody can make any prognostic on the outcome of the ratification of the European Constitution, some changes are expected to take place whether or not the European Constitution is ratified.

In that context, one could anticipate that the EC will have to react quickly and adapt to the change. Some trends can be anticipated. For example, it is very likely that the EC will be asked to continue to provide inspiration and vision guidance to MS. It will also be a place where experimentation and pilot projects can take place including bottom-up approach and multi-stakeholders parameters.

Invited to the Microsoft Forum in Prague, Viviane Reding insisted to reinforce partnerships with the private sector and expressed her will to double IST research, which currently represents only 20% of total EU R&D budget.[62]

With all these changes going in parallel, the level of complexity is increasing. The DG INFSO is at the core of this complexity. It also has the responsibility to design and inspire medium-term IS policy of the EU.

Until now the e-Europe initiatives (2002-2005) have represented a major part of the European IS policy. The e-Europe Action Plan combined with the Commission's e-Europe initiative represented the base of the ICT policy. 4 years after the beginning of the Lisbon strategy, e-Europe is perceived as a successful element in its implementation.[63]

e-Europe in the Member States is characterised by general objectives and orientations at a national level, usually encapsulated in a formal national plan, and largely along the lines of existing national policies and priorities; and lightly coordinated by ministries or other structures with designated responsibility but little or no powers.

IST continues to be seen as of central economic importance in most economically advanced Member States and continues to receive considerable political attention. IS policy development is a growing or continuing priority in the less economically advanced states (Greece, Estonia, Slovakia) and regions (of Spain, of the UK, of Ireland, and of Italy).

In the future it is anticipated that the ICT policy framework for the period of 2006-2010 will encompass major changes and will propose a multi-layer approach taking into consideration an evolving environment.

[62] Viviane Reding, "i2010: the EC New Programme to Boost Competitiveness in the ITC Sector", Speech 05/61, 31 January 2005.

[63] *Tavistock Institute, Net Effect Limited, Istituto per la Ricerca Sociale,* The Analysis of Impacts of Benchmarking and the e-Europe Actions in the Open Method of Co-ordination*, Draft report, December 2004.*

There will be a continued need for IS policies. Among the possible themes could be: to have a regulation capable of adjusting to new developments in particular in the field of disruptive technologies; understand the globalisation trends in the ICT market and participate to the management of networks; support the need for R&D in ICTs; make sure that the EU regulatory framework for electronic communications in place since 2003 is fully and effectively implemented; identify and implement regulatory issues like the protection of copyright, the protection of privacy, the needs of law enforcement agencies; help dismantle sectoral boundaries and reinforce the networks; develop a comprehensive approach to exploit the potential of ICTs in the public sector while tailoring on-line services to the needs of businesses and citizens.[64]

The EC has proposed a number of issues that it considers relevant for the development of a coherent and forward-looking European Information Society Policy beyond 2005[65]: content and services, eInclusion and citizenship, public services, skills and work, ICT as a key industrial sector, Interoperability, Trust and dependability, Exploitation of ICT by business.

If the responsibility of the DG INFSO has been so far to promote a large number of projects dealing with technology, security, research issues just to mention those few, the recent nomination of the new Commissioner Viviane Reding gives the opportunity to the DG INFSO to rethink its strategy and decide which priorities and levers it wants to propose in the coming years.

Several strategic options are considered but it is already possible to anticipate certain trends based on the early communication of the Reding Commissioner. In her hearing at the European Parliament[66], the Commissioner stressed that she would aim to be the "Commissioner for innovation, inclusion and creativity." In her words, innovation is a driving force in the Lisbon process; inclusion should combat the digital divide and strengthen European identity and its cultural diversity; media pluralism will provide free expression for creativity.

Some trends can be thus anticipated in terms of the strategy the Commissioner may deploy for the DG INFSO. First, a stronger citizen centric approach should be given to the IS policy implying more visible actions from the EC. Second, cultural and social factors such as media pluralism, content and cultural diversity are likely to become dominant in the deployment of IS policy. Thirdly, the EC is likely to propose a platform to help resolve issues such copyright and privacy rights and leverage the contribution of business sector in the field of research as well as partnerships.

The new initiative i2010[67] presented in February 2005 is proposing 3 key policy objectives:

- Promoting a European information space with the aim of establishing an internal market for electronic communications and digital services;
- Stimulating innovation through investment in research, the development and deployment in ICT and by encouraging the industrial application of ICT;
- Making the European Information Society as inclusive and accessible as possible.

In the coming year the IS strategy will be refined and transformed into Action Plan. The early stage of the new i2010 initiative already suggests that the IS policy of the DG INFSO will be aligned with the new priorities for growth and employment of the Lisbon strategy. Sustainable ICT, which used to be important in the DG INFSO are likely to become very limited in scope. Most of programmes involving sustainable issues will be spread among DGs and specific environment related projects will go the DG Environment. The priority will be given to promoting the usage of ICT and the economic competitiveness of business communities. It is not clear at the time we write (January 2005) whether IST research will remain in the

[64] COM (2004) 757 final, 19 November 2004, "Challenges for the European Information Society beyond 2005".
[65] COM (2004) 757 final, "Challenges for the European Information Society beyond 2005".
[66] Hearing of 29.09.2004
[67] 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*, 3 February 2005.

DG INFSO hands or whether it will move to DG Research. The DG INFSO should keep some responsabilities in the social field in particular with the digital divide.

Chapter Summary

IS policy has been contributing to the implementation of new modes of governance. Both IS policy and reform of governance depend on each other.

Both challenge the balance of power in place in promoting bottom up approaches, multi-actor forums, multi-layer policies taking into account complexity, peer review and intergovernmental collaboration, and involvement of European citizens.

They generally defend a series of values including but not limited to transparency, accountability, responsibility, collaboration, solidarity (ageing, gender, minorities…) and sustainability (environmental and non-environmental).

CONCLUSION

The Lisbon strategy, originally envisioned as an *overall* strategy recognising growth as the alchemy of economic, social and environmental ingredients is likely to become in the second term (2005-2010) more targeted, less holistic in its vision and more *economic* than *knowledge* orientated. The economic downturn in Europe and the increased pressure from globalisation are given as the major reasons for that *reorientation.*

The major questions are: what will remain of the IST, which were originally perceived as key in the Lisbon Strategy? What will be the impact on the European IS Policy? What will be the scope of work of the new DG Information Society and Media? What are the chances that the new modes of governance will continue to emerge and cristallise?

The evaluation of the first term of the Lisbon strategy's implementation (2000-2004) recognised the necessity to adapt to the early objectives. Some were already satisfied, others not realistic which needed to be abandonned. Others adapted but which needed more time to be achieved. It is an important signal of a turn of EU politics towards short-term priorities and less strategic orientations. The Dutch Presidency followed by the nomination of the New Commissioner Cabinet gave the signal of this reorientation.

We can anticipate a certain number of trends:

- A more pragmatic approach focusing on easy-to-achieve consensus building with the aim of making progress on non sensitive i.e. less strategic issues; the focus will be on *growth* and *employment* as stressed by the Kok report;
- Issues such as innovation, competitiveness, creativity, which are subject to different conceptions and representations, are not likely to be transposed into a common EU ambition. Division is expected to remain in the short-run. Research policy is likely to focus on key priorities;
- A revised approach to subsidiarity with more power going back to Member States in designing policies and implementing action plans. Regional and national governments will be empowered;
- The EC role is likely to be reinforced in the setting up and animation of networks, plaftorms, infrastructures and identification of good practices that can be leveraged at the EU level. One of the governance tools, monitoring and impact assessment of programmes and policies, will be reinforced. The EC will play an important role in guiding the cohesion and convergence of the EU-25 making sure New Member States are included;
- It is thus expected that social and environmental issues will be given less attention in the short run. Indeed they will not disappear from the EC DGs but will focus on longer-term objectives.

Until some progress is made in the governance field including the ratification of the European Constitution and, more importantly, the reform of the European Council, the EC is likely to remain close to paralysis. The Europe "à la carte" will be dominant with little progress expected in the field of common policy.

On the other side, the focus on short-term economic coordination and performance might allow longer-term impact and more strategic-orientated programmes to develop like research in the field of satellite, security and socio-environment technologies. That said, this would also depend on the budget that will be assigned to these projects and the will from Member States to progress on these topics. We can also anticipate that the EU will promote an optimisation of the funding rather than new funding.

Early 2005, the DG INFSO expressed its will to propose deployment of a new European Information Strategy. Three main options were considered by the DG INFSO: no new initiative after the expiration of the current Action Plan in 2005; business as usual and continuation with another Action Plan and the current OMC approach, or an alternative OMC mechanism with various layers: a top-level multi-annual strategy, a general action level with flexible roadmaps. The DG INFSO will propose to pursue a multi-layered strategy. The new Commissioner Reding has already expressed her will to build an Information Society for the citizens of Europe and to make more visible the benefits of such a policy.

Europe is currently balanced between regression and progress in the field of governance and implementing its ambitious vision to "become the most competitive and knowledge-based economy in the world (by 2010), capable of sustained economic growth with more and better jobs and greater social cohesion." Europe made progress in expressing its vision and its necessity for change but has had difficulty to implement the change.

A series of questions remain: when will the governance reform take place at the council level? How will Europe address key issues such as ageing, digital divide and sustainable development? Which weight will be given to the Information Society policy?

One of a major achievements of the Lisbon vision was to raise the awareness at the EU level. European competitiveness was originally dedicated to achieving a better quality of life. This vision is more relevant than ever even though conceptions and finalities of competitiveness remain varied sometimes even contradictionary. We have two sets of representations. One, looking at growth in its holistic approach (economic, social, sustainable). The other one, defending traditional, although eprouved policy priorities, like growth and employment. It is surprising to note that no debate occurred on what a *knowledge society* means. This report tried to show that Europe is divided and that this division impacts its innovation, creativity, and competitiveness.

We have seen that new modes of governance promoting transparency, diversity, and collaboration (just to mention those) were taking place. More regressive paths are also taking place, in particular, due to the absence of reform at the level of the European Council.

The solution is probably -- not in denying this diversity of cultural views -- but in overcoming the contradictions. The key question is thus how can we transform the European diversity into value and competitiveness?

FOLLOW UPS

The research presented was conducted from 1st October 2004 to 12th February 2005. All sourcing materials have been acquired outside France Télécom. A number of interviews (formal and informal) were conducted in France and in the rest of Europe. A final draft version of the report was delivered on 14th February 2005 to Dominique Cardon. The final report was submitted on 21th February 2005.

The research was introduced beginning 2005 to a limited number of persons of France Télécom R&D including Yves Ruggeri, Françoise Colaitis and Lionel Levasseur.

There is a general recognition that these research themes are important to France Télécom R&D for at least 3 major reasons. First, researching on these topics prepare the field of strategy deployment and positioning of France Télécom R&D at a European level, to a certain extent at a worldwide level. Second, there is a growing requirement to look at technology trends in their social, economic and political environment. Third, the research is of particular interest if it nourrishes strategic operations of France Télécom R&D.

Based on these preliminary discussions and on the preliminary research analysis, there will be interest to continue the research on the following topics.

- European Information Society Policy
- European Industrial Policy
- European Innovation Policy
- European Research Policy
- European Sustainable Technology Policies
- Research Technology Development in IST
- Technology Plateforms (Mobile Communication, Ambient Assisted Living…)
- Possible Impacts of RTD on Regulation
- Reorientation of the Lisbon Strategy and its follow-up (2005-2010)
- Governance in the field of Information Society (regulation, deployment, research)
- Governance's Implementation Mecanisms: Open Method of Coordination and its follow-up; new rules of subsidiarity between the EC, the EU and the Member States; reform of the European Council (European Constitution)
- Integration of New Member States into European projects

All the above topics could have direct impacts on France Télécom strategy and its R&D.

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Development Gateway

ANNEXE 1: PARADIGM CHANGE, JCR EC

ANNEX 2: PRESIDENCY CONCLUSIONS (EXTRACTS), LISBON EUROPEAN COUNCIL, 23 AND 24 MARCH 2000

The European Council held a special meeting on 23-24 March 2000 in Lisbon to agree a new strategic goal for the Union in order to strengthen employment, economic reform and social cohesion as part of a knowledge-based economy. At the start of proceedings, an exchange of views was conducted with the President of the European Parliament, Mrs Nicole Fontaine, on the main topics for discussion.

I. EMPLOYMENT, ECONOMIC REFORM AND SOCIAL COHESION

A STRATEGIC GOAL FOR THE NEXT DECADE

The new challenge

1. The European Union is confronted with a quantum shift resulting from globalisation and the challenges of a new knowledge-driven economy. These changes are affecting every aspect of people's lives and require a radical transformation of the European economy. The Union must shape these changes in a manner consistent with its values and concepts of society and also with a view to the forthcoming enlargement.

2. The rapid and accelerating pace of change means it is urgent for the Union to act now to harness the full benefits of the opportunities presented. Hence the need for the Union to set a clear strategic goal and agree a challenging programme for building knowledge infrastructures, enhancing innovation and economic reform, and modernising social welfare and education systems.

The Union's strengths and weaknesses

3. The Union is experiencing its best macro-economic outlook for a generation. As a result of stability-oriented monetary policy supported by sound fiscal policies in a context of wage moderation, inflation and interest rates are low, public sector deficits have been reduced remarkably and the EU's balance of payments is healthy. The euro has been successfully introduced and is delivering the expected benefits for the European economy. The internal market is largely complete and is yielding tangible benefits for consumers and businesses alike. The forthcoming enlargement will create new opportunities for growth and employment. The Union possesses a generally well-educated workforce as well as social protection systems able to provide, beyond their intrinsic value, the stable framework required for managing the structural changes involved in moving towards a knowledge-based society. Growth and job creation have resumed.

4. These strengths should not distract our attention from a number of weaknesses. More than 15 million Europeans are still out of work. The employment rate is too low and is characterised by insufficient participation in the labour market by women and older workers. Long-term structural unemployment and marked regional unemployment imbalances remain endemic in parts of the Union. The services sector is underdeveloped, particularly in the areas of telecommunications and the Internet. There is a widening skills gap, especially in information technology where increasing numbers of jobs remain unfilled. With the current improved economic situation, the time is right to undertake both economic and social reforms as part of a positive strategy which combines competitiveness and social cohesion.

The way forward

5. The Union has today set itself a ***new strategic goal*** for the next decade: *to become 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.* Achieving this goal requires an ***overall strategy*** aimed at:

- preparing the transition to a knowledge-based economy and society by better policies for the information society and R&D, as well as by stepping up the process of structural reform for competitiveness and innovation and by completing the internal market;
- modernising the European social model, investing in people and combating social exclusion;
- sustaining the healthy economic outlook and favourable growth prospects by applying an appropriate macro-economic policy mix.

6. This strategy is designed to enable the Union to regain the conditions for full employment, and to strengthen regional cohesion in the European Union. The European Council needs to set a goal for full employment in Europe in an emerging new society which is more adapted to the personal choices of women and men. If the measures set out below are implemented against a sound macro-economic background, an average economic growth rate of around 3% should be a realistic prospect for the coming years.

7. Implementing this strategy will be achieved by improving the existing processes, introducing a ***new open method of coordination*** at all levels, coupled with a stronger guiding and coordinating role for the European Council to ensure more coherent strategic direction and effective monitoring of progress. A meeting of the European Council to be held every Spring will define the relevant mandates and ensure that they are followed up.

PREPARING THE TRANSITION TO A COMPETITIVE, DYNAMIC AND KNOWLEDGE-BASED ECONOMY

An information society for all

8. The shift to a digital, knowledge-based economy, prompted by new goods and services, will be a powerful engine for growth, competitiveness and jobs. In addition, it will be capable of improving citizens' quality of life and the environment. To make the most of this opportunity, the Council and the Commission are invited to draw up a comprehensive *e-Europe* Action Plan to be presented to the European Council in June this year, using an open method of coordination based on the benchmarking of national initiatives, combined with the Commission's recent *e-Europe* initiative as well as its communication "Strategies for jobs in the Information Society".

9. Businesses and citizens must have access to an inexpensive, world-class communications infrastructure and a wide range of services. Every citizen must be equipped with the skills needed to live and work in this new information society. Different means of access must prevent info-exclusion. The combat against illiteracy must be reinforced. Special attention must be given to disabled people. Information technologies can be used to renew urban and regional development and promote environmentally sound technologies. Content industries create added value by exploiting and networking European cultural diversity. Real efforts must be made by public administrations at all levels to exploit new technologies to make information as accessible as possible.

10. Realising Europe's full e-potential depends on creating the conditions for electronic commerce and the Internet to flourish, so that the Union can catch up with its

competitors by hooking up many more businesses and homes to the Internet via fast connections. The rules for electronic commerce must be predictable and inspire business and consumer confidence. Steps must be taken to ensure that Europe maintains its lead in key technology areas such as mobile communications. The speed of technological change may require new and more flexible regulatory approaches in the future.

11. The European Council calls in particular on:

- the Council, along with the European Parliament where appropriate, to adopt as rapidly as possible during 2000 pending legislation on the legal framework for electronic commerce, on copyright and related rights, on e-money, on the distance selling of financial services, on jurisdiction and the enforcement of judgements, and the dual-use export control regime; the Commission and the Council to consider how to promote consumer confidence in electronic commerce, in particular through alternative dispute resolution systems;
- the Council and the European Parliament to conclude as early as possible in 2001 work on the legislative proposals announced by the Commission following its 1999 review of the telecoms regulatory framework; the Member States and, where appropriate, the Community to ensure that the frequency requirements for future mobile communications systems are met in a timely and efficient manner. Fully integrated and liberalised telecommunications markets should be completed by the end of 2001;
- the Member States, together with the Commission, to work towards introducing greater competition in local access networks before the end of 2000 and unbundling the local loop in order to help bring about a substantial reduction in the costs of using the Internet;
- the Member States to ensure that all schools in the Union have access to the Internet and multimedia resources by the end of 2001, and that all the teachers needed are skilled in the use of the Internet and multimedia resources by the end of 2002;
- the Member States to ensure generalised electronic access to main basic public services by 2003;
- the Community and the Member States, with the support of the EIB, to make available in all European countries low cost, high-speed interconnected networks for Internet access and foster the development of state-of-the-art information technology and other telecom networks as well as the content for those networks. Specific targets should be defined in the *e-Europe* Action Plan.

Establishing a European Area of Research and Innovation

12. Given the significant role played by research and development in generating economic growth, employment and social cohesion, the Union must work towards the objectives set out in the Commission's communication "Towards a European Research Area". Research activities at national and Union level must be better integrated and coordinated to make them as efficient and innovative as possible, and to ensure that Europe offers attractive prospects to its best brains. The instruments under the Treaty and all other appropriate means, including voluntary arrangements, must be fully exploited to achieve this objective in a flexible, decentralised and non-bureaucratic manner. At the same time, innovation and ideas must be adequately rewarded within the new knowledge-based economy, particularly through patent protection.

13. The European Council asks the Council and the Commission, together with the Member States where appropriate, to take the necessary steps as part of the establishment of a European Research Area to:

- develop appropriate mechanisms for networking national and joint research programmes on a voluntary basis around freely chosen objectives, in order to take greater advantage of the concerted resources devoted to R&D in the Member States, and ensure regular reporting to

the Council on the progress achieved; to map by 2001 research and development excellence in all Member States in order to foster the dissemination of excellence;

- improve the environment for private research investment, R&D partnerships and high technology start-ups, by using tax policies, venture capital and EIB support;
- encourage the development of an open method of coordination for benchmarking national research and development policies and identify, by June 2000, indicators for assessing performance in different fields, in particular with regard to the development of human resources; introduce by June 2001 a European innovation scoreboard;
- facilitate the creation by the end of 2001 of a very high-speed transeuropean network for electronic scientific communications, with EIB support, linking research institutions and universities, as well as scientific libraries, scientific centres and, progressively, schools;
- take steps to remove obstacles to the mobility of researchers in Europe by 2002 and to attract and retain high-quality research talent in Europe;
- ensure that a Community patent is available by the end of 2001, including the utility model, so that Community-wide patent protection in the Union is as simple and inexpensive to obtain and as comprehensive in its scope as the protection granted by key competitors.

Creating a friendly environment for starting up and developing innovative businesses, especially SMEs

14. The competitiveness and dynamism of businesses are directly dependent on a regulatory climate conducive to investment, innovation, and entrepreneurship. Further efforts are required to lower the costs of doing business and remove unnecessary red tape, both of which are particularly burdensome for SMEs. The European institutions, national governments and regional and local authorities must continue to pay particular attention to the impact and compliance costs of proposed regulations, and should pursue their dialogue with business and citizens with this aim in mind. Specific action is also needed to encourage the key interfaces in innovation networks, i.e. interfaces between companies and financial markets, R&D and training institutions, advisory services and technological markets.

15. The European Council considers that an open method of coordination should be applied in this area and consequently asks:

- the Council and the Commission to launch, by June 2000, a benchmarking exercise on issues such as the length of time and the costs involved in setting up a company, the amount of risk capital invested, the numbers of business and scientific graduates and training opportunities. The first results of this exercise should be presented by December 2000;
- the Commission to present shortly a communication on an entrepreneurial, innovative and open Europe together with the Multiannual Programme in favour of Enterprise and Entrepreneurship for 2001-2005 which will play an important role as catalyst for this exercise;
- the Council and the Commission to draw up a European Charter for small companies to be endorsed in June 2000 which should commit Member States to focus in the abovementioned instruments on small companies as the main engines for job-creation in Europe, and to respond specifically to their needs;
- the Council and the Commission to report by the end of 2000 on the ongoing review of EIB and EIF financial instruments in order to redirect funding towards support for business start-ups, high-tech firms and micro-enterprises, as well as other risk-capital initiatives proposed by the EIB.

Economic reforms for a complete and fully operational internal market

16. Rapid work is required in order to complete the internal market in certain sectors and to improve under-performance in others in order to ensure the interests of business and consumers. An effective framework for ongoing review and improvement, based on the

Internal Market Strategy endorsed by the Helsinki European Council, is also essential if the full benefits of market liberalisation are to be reaped. Moreover, fair and uniformly applied competition and state aid rules are essential for ensuring that businesses can thrive and operate effectively on a level playing field in the internal market.

17. The European Council accordingly asks the Commission, the Council and the Member States, each in accordance with their respective powers:

- to set out by the end of 2000 a strategy for the removal of barriers to services;
- to speed up liberalisation in areas such as gas, electricity, postal services and transport. Similarly, regarding the use and management of airspace, the Council asks the Commission to put forward its proposals as soon as possible. The aim is to achieve a fully operational internal market in these areas; the European Council will assess progress achieved when it meets next Spring on the basis of a Commission report and appropriate proposals;
- to conclude work in good time on the forthcoming proposals to update public procurement rules, in particular to make them accessible to SMEs, in order to allow the new rules to enter into force by 2002;
- to take the necessary steps to ensure that it is possible by 2003 for Community and government procurement to take place on-line;
- to set out by 2001 a strategy for further coordinated action to simplify the regulatory environment, including the performance of public administration, at both national and Community level. This should include identifying areas where further action is required by Member States to rationalise the transposition of Community legislation into national law;
- to further their efforts to promote competition and reduce the general level of State aids, shifting the emphasis from supporting individual companies or sectors towards tackling horizontal objectives of Community interest, such as employment, regional development, environment and training or research.

18. Comprehensive structural improvements are essential to meet ambitious targets for growth, employment and social inclusion. Key areas have already been identified by the Council to be reinforced in the Cardiff process. The European Council accordingly invites the Council to step up work on structural performance indicators and to report by the end of 2000.

19. The European Council considers it essential that, in the framework of the internal market and of a knowledge-based economy, full account is taken of the Treaty provisions relating to services of general economic interest, and to the undertakings entrusted with operating such services. It asks the Commission to update its 1996 communication based on the Treaty.

Efficient and integrated financial markets

20. Efficient and transparent financial markets foster growth and employment by better allocation of capital and reducing its cost. They therefore play an essential role in fuelling new ideas, supporting entrepreneurial culture and promoting access to and use of new technologies. It is essential to exploit the potential of the euro to push forward the integration of EU financial markets. Furthermore, efficient risk capital markets play a major role in innovative high-growth SMEs and the creation of new and sustainable jobs.

21. To accelerate completion of the internal market for financial services, steps should be taken:

- to set a tight timetable so that the Financial Services Action Plan is implemented by 2005, taking into account priority action areas such as: facilitating the widest possible access to investment capital on an EU-wide basis, including for SMEs, by means of a "single passport"

for issuers; facilitating the successful participation of all investors in an integrated market eliminating barriers to investment in pension funds; promoting further integration and better functioning of government bond markets through greater consultation and transparency on debt issuing calendars, techniques and instruments, and improved functioning of cross-border sale and repurchase ("repo") markets; enhancing the comparability of companies' financial statements; and more intensive cooperation by EU financial market regulators;

- to ensure full implementation of the Risk Capital Action Plan by 2003;
- to make rapid progress on the long-standing proposals on takeover bids and on the restructuring and winding-up of credit institutions and insurance companies in order to improve the functioning and stability of the European financial market;
- to conclude, in line with the Helsinki European Council conclusions, the pending tax package.

Coordinating macro-economic policies: fiscal consolidation, quality and sustainability of public finances

22. As well as preserving macro-economic stability and stimulating growth and employment, macro-economic policies should foster the transition towards a knowledge-based economy which implies an enhanced role for structural policies. The macro-economic dialogue under the Cologne process must create a relationship of trust between all the actors involved in order to have a proper understanding of each other's positions and constraints. The opportunity provided by growth must be used to pursue fiscal consolidation more actively and to improve the quality and sustainability of public finances.

23. The European Council requests the Council and the Commission, using the existing procedures, to present a report by Spring 2001 assessing the contribution of public finances to growth and employment, and assessing, on the basis of comparable data and indicators, whether adequate concrete measures are being taken in order to:

- alleviate the tax pressure on labour and especially on the relatively unskilled and low-paid, improve the employment and training incentive effects of tax and benefit systems;
- redirect public expenditure towards increasing the relative importance of capital accumulation – both physical and human – and support research and development, innovation and information technologies;
- ensure the long-term sustainability of public finances, examining the different dimensions involved, including the impact of ageing populations, in the light of the report to be prepared by the High Level Working Party on Social Protection.

MODERNISING THE EUROPEAN SOCIAL MODEL BY INVESTING IN PEOPLE AND BUILDING AN ACTIVE WELFARE STATE

24. People are Europe's main asset and should be the focal point of the Union's policies. Investing in people and developing an active and dynamic welfare state will be crucial both to Europe's place in the knowledge economy and for ensuring that the emergence of this new economy does not compound the existing social problems of unemployment, social exclusion and poverty.

Education and training for living and working in the knowledge society

25. Europe's education and training systems need to adapt both to the demands of the knowledge society and to the need for an improved level and quality of employment. They will have to offer learning and training opportunities tailored to target groups at different stages of their lives: young people, unemployed adults and those in employment who are at risk of seeing their skills overtaken by rapid change. This new approach should have three main components: the development of local learning centres, the promotion of new basic skills, in particular in the information technologies, and increased transparency of qualifications.

26. The European Council accordingly calls upon the Member States, in line with their constitutional rules, the Council and the Commission to take the necessary steps within their areas of competence to meet the following targets:

- a substantial annual increase in per capita investment in human resources;
- the number of 18 to 24 year olds with only lower-secondary level education who are not in further education and training should be halved by 2010;
- schools and training centres, all linked to the Internet, should be developed into multi-purpose local learning centres accessible to all, using the most appropriate methods to address a wide range of target groups; learning partnerships should be established between schools, training centres, firms and research facilities for their mutual benefit;
- a European framework should define the new basic skills to be provided through lifelong learning: IT skills, foreign languages, technological culture, entrepreneurship and social skills; a European diploma for basic IT skills, with decentralised certification procedures, should be established in order to promote digital literacy throughout the Union;
- define, by the end of 2000, the means for fostering the mobility of students, teachers and training and research staff both through making the best use of existing Community programmes (Socrates, Leonardo, Youth), by removing obstacles and through greater transparency in the recognition of qualifications and periods of study and training; to take steps to remove obstacles to teachers' mobility by 2002 and to attract high-quality teachers.
- a common European format should be developed for curricula vitae, to be used on a voluntary basis, in order to facilitate mobility by helping the assessment of knowledge acquired, both by education and training establishments and by employers.

27. The European Council asks the Council (Education) to undertake a general reflection on the concrete future objectives of education systems, focusing on common concerns and priorities while respecting national diversity, with a view to contributing to the Luxembourg and Cardiff processes and presenting a broader report to the European Council in the Spring of 2001.

More and better jobs for Europe: developing an active employment policy

28. The Luxembourg process, based on drawing up employment guidelines at Community level and translating them into National Employment Action Plans, has enabled Europe to substantially reduce unemployment. The mid-term review should give a new impetus to this process by enriching the guidelines and giving them more concrete targets by establishing closer links with other relevant policy areas and by defining more effective procedures for involving the different actors. The social partners need to be more closely involved in drawing up, implementing and following up the appropriate guidelines.

29. In this context, the Council and the Commission are invited to address the following four key areas:

- improving employability and reducing skills gaps, in particular by providing employment services with a Europe-wide data base on jobs and learning opportunities; promoting special programmes to enable unemployed people to fill skill gaps;
- giving higher priority to lifelong learning as a basic component of the European social model, including by encouraging agreements between the social partners on innovation and lifelong learning; by exploiting the complementarity between lifelong learning and adaptability through flexible management of working time and job rotation; and by introducing a European award for particularly progressive firms. Progress towards these goals should be benchmarked;
- increasing employment in services, including personal services, where there are major shortages; private, public or third sector initiatives may be involved, with appropriate solutions for the least-favoured categories;
- furthering all aspects of equal opportunities, including reducing occupational segregation, and making it easier to reconcile working life and family life, in particular by setting a new benchmark for improved childcare provision.

30. The European Council considers that the overall aim of these measures should be, on the basis of the available statistics, to raise the employment rate from an average of 61% today to as close as possible to 70% by 2010 and to increase the number of women in employment from an average of 51% today to more than 60% by 2010. Recognising their different starting points, Member States should consider setting national targets for an increased employment rate. This, by enlarging the labour force, will reinforce the sustainability of social protection systems.

Modernising social protection

31. The European social model, with its developed systems of social protection, must underpin the transformation to the knowledge economy. However, these systems need to be adapted as part of an active welfare state to ensure that work pays, to secure their long-term sustainability in the face of an ageing population, to promote social inclusion and gender equality, and to provide quality health services. Conscious that the challenge can be better addressed as part of a cooperative effort, the European Council invites the Council to:

- strengthen cooperation between Member States by exchanging experiences and best practice on the basis of improved information networks which are the basic tools in this field;
- mandate the High Level Working Party on Social Protection, taking into consideration the work being done by the Economic Policy Committee, to support this cooperation and, as its first priority, to prepare, on the basis of a Commission communication, a study on the future evolution of social protection from a long-term point of view, giving particular attention to the sustainability of pensions systems in different time frameworks up to 2020 and beyond, where necessary. A progress report should be available by December 2000.

Promoting social inclusion

32. The number of people living below the poverty line and in social exclusion in the Union is unacceptable. Steps must be taken to make a decisive impact on the eradication of poverty by setting adequate targets to be agreed by the Council by the end of the year. The High Level Working Party on Social Protection will be involved in this work. The new knowledge-based society offers tremendous potential for reducing social exclusion, both by creating the economic conditions for greater prosperity through higher levels of growth and employment, and by opening up new ways of participating in society. At the same time, it brings a risk of an ever-widening gap between those who have access to the new knowledge, and those who are excluded. To avoid this risk and maximise this new potential, efforts must be made to improve skills, promote wider access to knowledge

and opportunity and fight unemployment: the best safeguard against social exclusion is a job. Policies for combating social exclusion should be based on an open method of coordination combining national action plans and a Commission initiative for cooperation in this field to be presented by June 2000.

33. In particular, the European Council invites the Council and the Commission to:

- promote a better understanding of social exclusion through continued dialogue and exchanges of information and best practice, on the basis of commonly agreed indicators; the High Level Working Party on Social Protection will be involved in establishing these indicators;
- mainstream the promotion of inclusion in Member States' employment, education and training, health and housing policies, this being complemented at Community level by action under the Structural Funds within the present budgetary framework;
- develop priority actions addressed to specific target groups (for example minority groups, children, the elderly and the disabled), with Member States choosing amongst those actions according to their particular situations and reporting subsequently on their implementation.

34. Taking account of the present conclusions, the Council will pursue its reflection on the future direction of social policy on the basis of a Commission communication, with a view to reaching agreement on a European Social Agenda at the Nice European Council in December, including the initiatives of the different partners involved.

PUTTING DECISIONS INTO PRACTICE: A MORE COHERENT AND SYSTEMATIC APPROACH

Improving the existing processes

35. No new process is needed. The existing Broad Economic Policy Guidelines and the Luxembourg, Cardiff and Cologne processes offer the necessary instruments, provided they are simplified and better coordinated, in particular through other Council formations contributing to the preparation by the ECOFIN Council of the Broad Economic Policy Guidelines. Moreover, the Broad Economic Policy Guidelines should focus increasingly on the medium- and long-term implications of structural policies and on reforms aimed at promoting economic growth potential, employment and social cohesion, as well as on the transition towards a knowledge-based economy. The Cardiff and Luxembourg processes will make it possible to deal with their respective subject matters in greater detail.

36. These improvements will be underpinned by the European Council taking on a pre-eminent guiding and coordinating role to ensure overall coherence and the effective monitoring of progress towards the new strategic goal. The European Council will accordingly hold a meeting every Spring devoted to economic and social questions. Work should consequently be organised both upstream and downstream from that meeting. The European Council invites the Commission to draw up an annual synthesis report on progress on the basis of structural indicators to be agreed relating to employment, innovation, economic reform and social cohesion.

Implementing a new open method of coordination

37. Implementation of the strategic goal will be facilitated by applying a new open method of coordination as the means of spreading best practice and achieving greater

convergence towards the main EU goals. This method which is designed to help Member States to progressively develop their own policies, involves:

- fixing guidelines for the Union combined with specific timetables for achieving the goals which they set in the short, medium and long terms;
- establishing, where appropriate, quantitative and qualitative indicators and benchmarks against the best in the world and tailored to the needs of different Member States and sectors as a means of comparing best practice;
- translating these European guidelines into national and regional policies by setting specific targets and adopting measures, taking into account national and regional differences;
- periodic monitoring, evaluation and peer review organised as mutual learning processes.

38. A fully decentralised approach will be applied in line with the principle of subsidiarity in which the Union, the Member States, the regional and local levels, as well as the social partners and civil society, will be actively involved, using variable forms of partnership. A method of benchmarking best practices on managing change will be devised by the European Commission networking with different providers and users, namely the social partners, companies and NGOs.

39. The European Council makes a special appeal to companies' corporate sense of social responsibility regarding best practices on lifelong learning, work organisation, equal opportunities, social inclusion and sustainable development.

40. A High Level Forum, bringing together the Union institutions and bodies and the social partners, will be held in June to take stock of the Luxembourg, Cardiff and Cologne processes and of the contributions of the various actors to enhancing the content of the European Employment Pact.

Mobilising the necessary means

41. Achieving the new strategic goal will rely primarily on the private sector, as well as on public-private partnerships. It will depend on mobilising the resources available on the markets, as well as on efforts by Member States. The Union's role is to act as a catalyst in this process, by establishing an effective framework for mobilising all available resources for the transition to the knowledge-based economy and by adding its own contribution to this effort under existing Community policies while respecting Agenda 2000. Furthermore, the European Council welcomes the contribution that the EIB stands ready to make in the areas of human capital formation, SMEs and entrepreneurship, R&D, networks in the information technology and telecom sectors, and innovation. With the "Innovation 2000 Initiative", the EIB should go ahead with its plans to make another billion euro available for venture capital operations for SMEs and its dedicated lending programme of EUR 12 to 15 Bn over the next 3 years for the priority areas. (…)

ANNEX 3: EUROPE IN THE CREATIVE AGE, DATA AND METHODOLOGY

Talent Measures:
Creative Class: The measure of creative occupations is drawn from the International Labour Organization (ILO) database for the European countries and from the Bureau of Labor Statistics for the United States (BLS) and includes professionals, artists, musicians, scientists, economists, architects, engineers, managers and other workers whose jobs deal with creative, conceptual tasks. All the ILO data used in this work have been classified according to the international standard ISCO-88.This ensures a good degree of homogeneity and comparability of the data across European countries. Comparisons between European countries and the United States require more caution as data comes from different sources (ILO and BLS,respectively).

The Human Capital Index is based on the percentage of population age 25-64 with a bachelor 's degree or above (=degrees of four years or more)and is based on OECD data.It is worth noting that national differences in the educational systems may affect the comparability of the data.

The Scientific Talent Index is based on the number of research scientists and engineers per thousand workers and is based on data from the European Commission.It is based on the Frascati manual definition (paragraph 5.4.2.2) expressed in full time equivalents or FTEs.

The Euro-Talent Index combines these three measures. It is based on a 0-15 point scale where the best performing country is assigned 15 points and the other countries are assigned a number of points that reflects their relative distance form the top.

Technology Measures:

The **Innovation Index** is based on the number of patents per million people and is based on data from the U.S.Patent and Trademark Office (USPTO).

The **High-Tech Innovation Index** is based on the number of high-tech patents per million people and is also based upon USPTO data.

The **R&D Index** measures R&D expenditure as percentage of GDP and is drawn from European Commission data.

The **Euro Technology Index** combines these three measures. It is based on a 0-15 point scale where the best performing country is assigned 15 points and the other countries are assigned a number of points that reflects their relative distance from the top.

Tolerance Measures:

The **Attitudes Index** is an indicator of attitudes toward minorities based on the results of the Eurobarometer Survey conducted by the European Monitoring Centre on Racism and Xenophobia (EUMC) and on the classifications made for the EUMC by the SORA Institute for Social Research Analysis. SORA classifies the population of the European countries subject to the EUMC survey into four categories: intolerant, ambivalent, passively tolerant and actively tolerant. The Attitudes Index is the percentage of the respondents that have been classified by the EUMC as actively and passively tolerant.

The **Values Index** measures to what degree a country reflects traditional as opposed modern or secular values. It is based on a series of questions covering attitudes toward God, religion, nationalism, authority, family, women's rights, divorce and abortion.

The **Self-Expression Index** captures the degree to which a nation values individual rights and self-expression. It is based on questions covering attitudes toward self-expression,quality of life, democracy,

science and technology, leisure, the environment, trust, protest politics, immigrants and gays. Both the Values Index and the Self-Expression Index are derived from the World Values Survey conducted by Ronald Inglehart (see Inglehart and Baker 2000). The survey covers the period 1995-1998 and is based on data for 65 countries. The survey sample is quite large, with an average of 1,400 respondents per country. The data was made available to us by Professor Inglehart and are available from the Inter-university Consortium for Policy and Social Research (ICPSR) survey data archive at the University of Michigan.

The **Euro-Tolerance Index** combines these three measures. It is based on a 0-15 point scale where the best performing country is assigned 15 points and the other countries are assigned a number of points that reflects their relative distance from the top.

The **Global Creativity Index** is the sum of the scores on these three indexes — Talent, Technology and Tolerance — divided by the maximum possible score.

ANNEX 4: MEMBER STATES SPECIFIC ACHIEVEMENTS AND SHORTCOMINGS IN VIEW OF LISBON OBJECTIVES[68]

Annexes Delivering Lisbon and Kok report

[68] The following tables present a brief picture of select Member State performances – both achievements and shortcomings – in view of the objectives of the Lisbon strategy. An entry is made for a Member State if it is amongst the three best or three less good performers in the EU, according to the shortlist of 14 Structural Indicators. Other entries are based on the country-specific assessments made in the following reports: *the Broad Economic Policy Guidelines Implementation Report (Com(2004) 20) and the Country Notes (SEC(2004) 44), the Internal Market Implementation Report and notably the Scoreboard (Com(2004) 22), the Education and Training 2010 Report (COM(2003) 685), and the Environmental Policy Review (COM(2003) 745).*