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For a sustainable future, think ICT!

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

Paradiso Conference : ICT for a Global Sustainable Future

Brussels, 22 January 2009

Ladies and Gentlemen,

Honourable President of the European Parliament,

Distinguished Members of Parliament,

Excellencies, Distinguished Guests,

I am delighted to welcome all of you to the PARADISO conference, a crucial event to address issues of paramount importance for the future of our society.

The need to ensure a global sustainable future is indeed a major concern and a top priority for policy makers worldwide.

The presence of so many distinguished speakers and the impressive attendance is a sign of the importance that this issue has taken.

Let me warmly thank all of you, especially those who have travelled from other regions of the world. I wish you a most enjoyable stay in Brussels.

Facing the economic crisis: lessons and opportunities

Let me start with some general considerations on the current socio-economic context.

Our society is facing increasingly complex issues, unprecedented in the history of mankind. We are

witnessing a period of instability that has called on Member States and International Institutions to invest considerable budgets to face the ongoing financial and economic crisis. These remarkable efforts were necessary to contain the economic downturn. But, what can we do more to ensure that these interventions will generate lasting and structured effects on our economies and societies?

I believe that there are three essential lessons we can already draw from the ongoing crisis:

Firstly, we need to build solid and sustainable businesses and economies based on real high-value goods and services and responding to real market needs.

Secondly, we must reinforce our investments in research to improve our future capacity to innovate and grow. It is only through research that new technologies and innovation can be developed for the benefit of all businesses and citizens around the world.

Lastly, we need to work all together not only to find short term remedies, but also for achieving ambitious goals that no country or region alone is strong enough to tackle by itself.

Ladies and Gentlemen, history tells us that global economic crises often occur in the context of socio-economic transformations that bring us not only risks, but also opportunities to build more solid foundations for a new phase of growth and prosperity. These opportunities lie in our capability to fully reap the benefits of scientific and technological innovations.

Because of their increasing pervasiveness in our society, I believe that Information and Communication Technologies (ICTs) are main drivers of this epochal change, impacting at least three dimensions: economic, social and environmental.

ICT driving the economic transformation

ICT is the enabling technology underpinning the entire economy. Recent OECD studies have shown that ICT has contributed to more than 25% of GDP growth in the last 10 years.

One of the main vectors of this impressive impact is the Internet. A new economy of Internet-based services is flourishing, characterised by new trends in content creation and delivery, where services are paid as they are consumed. The emergence of Web 2.0 as a business tool and as a way of delivering government services will further accelerate this trend. In the near future, we will see the

advent of a mobile and wireless Internet and of the Internet of Things connecting not only computers but also cars, machines of all sorts, household appliances, energy meters, lights, they can all be connected. The Internet will be the highway to connect and better manage all type of critical infrastructure in the field of transport, power supply, health, banking, enabling consistent cost savings and increasing quality of services.

All these new applications and services will create new opportunities and even more structural market changes that need to be tackled at global level.

To address these challenges and ensure economic sustainability, new business and economic models are required that combine the need to build and maintain an open, secure and reliable network and service infrastructure with the need to ensure a free competition on the future Internet-based services market.

It was stated in last year's OECD Ministerial Declaration on the Future of the Internet Economy that all these developments will have to be articulated with appropriate regulatory environments that protect and empower users and ensure a level playing field for competition.

ICT driving the social evolution

But the importance of ICT cannot be measured only in economic terms: think of the impact that mobile telephony, e-mail, electronic databases, and of course the Internet, has had on our way of living and interacting, on our access to knowledge, on our political choices.

ICT played its role during the last US electoral campaign, when President Barack Obama used Web 2.0 technologies to communicate with millions of Americans.

In most industrialized countries, new generations cannot even conceive a world without the Internet, and their lifestyle is strongly dependent on the Internet developments. I cannot stress enough the key role of Internet, in connecting the citizens of the world, allowing them to share knowledge and opinions.

Social networking has emerged as a phenomenon changing our lives and contributing in particular to shaping people's participation to communities and groups of interest for professional reasons, for entertainment and knowledge sharing. According to some sociologists, this provides the extraordinary opportunity to our society to go beyond individualism and pure quest for material wealth, for building together the world of tomorrow.

However, this increased freedom of communication and networking is jeopardised by two factors:

Firstly, the increased ability of hackers, organized crime and terrorists to attack people's identities and their online lives in cyber-space. It is detrimental to the trustworthiness of the Internet.

Secondly, the increased anti-terrorist measures based on massive gatherings of data on individual basis poses concerns related to civil liberties and privacy protection.

To ensure the sustainability of our Internet-based society, it is therefore important to stimulate the development of new technologies that provide the required security and trust for organisations and the citizen, while respecting human values and supporting privacy.

ICT enabling a new revolution in energy efficiency and environmental sustainability

ICTs and the Internet are also bringing about several other possibilities to tremendously improve the sustainability of our environment: think of the applications of ICT for improving energy efficiency, for monitoring environmental changes, for implementing smart power grids, for integrating new sources of renewable energy in the power supply.

The Commission has recognized that ICT provides cost-effective means to achieve the 2020 targets (by 2020,

Europe must cut greenhouse gas emissions by 20%, produce 20% of its energy from renewable sources and increase energy efficiency by 20%) , in particular in respect of improving energy efficiency and reducing carbon emissions. We are currently aiming at creating a policy framework that will allow the energy-saving potential of ICT to be widely recognized and exploited.

The opportunities for energy-savings are clear and wide-reaching, but there are challenges that we need to overcome.

The production and use of ICT currently accounts for about 8% of electrical power consumption in the EU and about 2% of carbon emissions. However ICTs are becoming more pervasive and their energy consumption will continue to grow. We need to take measures to ensure that as their use increases, their carbon footprint does not.

Perhaps more significantly, we can exploit ICTs to increase energy efficiency across the whole economy and thus help reduce the other 98% of carbon emissions. ICTs can be used for monitoring and controlling complex infrastructures and societal interactions to achieve more energy-efficient use of resources.

Furthermore, ICTs can enable changes in business models, working practices and lifestyles that are inherently

more energy-efficient. The Internet, for example, has enabled the substitution of physical products and processes by digital ones. However changes in behaviour are unlikely to happen where the advantages are not clear to all concerned.

The European commitment towards a sustainable future

Ladies and Gentlemen,

The European Commission has undertaken several actions to ensure a strong contribution to a more sustainable future.

Firstly, let me illustrate an important policy initiative we are taking on energy efficiency.

According to a recent consultation made by the Commission, there exists an "information deficit" among consumers about the possibility offered by ICT in terms of energy efficiency. What cannot be measured cannot be managed! Making energy and carbon footprints visible, transparent and measurable is one of the key pre-conditions for meeting the 2020 targets. The technologies that enable us to collect, manage, analyse and share energy information, are a crucial part of the solution. It is clear therefore that ICT-based innovations are essential to

provide the tools that enable business and citizens to really begin the process of reducing their energy and carbon footprints.

To this end, the Commission is currently working on concrete measures in the form of actions addressed to the industries concerned and to the Member States in the very near future.

We plan to announce these actions in the context of a high-level event in March this year under the auspices of the Czech Presidency.

Secondly, in our research programmes we have recognised the Internet as a fundamental catalyser to ensure a future sustainable economy and society. Its role is crucial not only to foster innovation and competitiveness of European industry, but also as a fundamental tool to enable social networking, enhancing e-democracy, allow the participative development of knowledge and more equal sharing of resources.

The Future Internet Assembly (FIA) has been set-up, consisting of more than 90 projects and 6 related European Technology Platforms. It represents a collective European investment in the order of 400 M€, a very significant amount compared to the programmes launched in other regions of the world.

One of the main contributors to these endeavours is the initiative **FIRE - “Future Internet Research and Experimentation”** which includes strategic research on Future Internet with high attention to socio-economic issues, which are so difficult to assess without a real experimental environment. FIRE puts together a very ambitious research programme that is essential for real innovation, with industrially driven experimentation to enable early testing and assessment of new technologies and solutions. The project organising today’s event, PARADISO, has been launched under the FIRE initiative.

Conclusions: a new path to growth and prosperity

Honourable guests, dear colleagues,

I have made a clear statement today of my belief that, especially in these days of economic uncertainty, we must continue to invest in our future, and that our future lies in our capability to fully reap the benefits of Information and Communication Technologies, and in particular of the Internet.

Combining future Internet research with experimentation, as remarkably done within the FIRE initiative, is crucial to better understand the transformative effect of the Internet on our economies and societies. However, research needs to be done hand-in-hand with policies to ensure that the

new technologies will meet the expectations of the future economy and society. From our side we will, through the ongoing European Research Framework Programme, put greater emphasis on technologies which will have a positive social, economic and environmental impact contributing to future growth and prosperity.

The subject addressed by this conference, global sustainability, calls for a global dialogue. I hope your work today and tomorrow, will lead to significant progress in the understanding of these issues and in identifying common targets to ensure a more sustainable world.

Thank you for your attention.