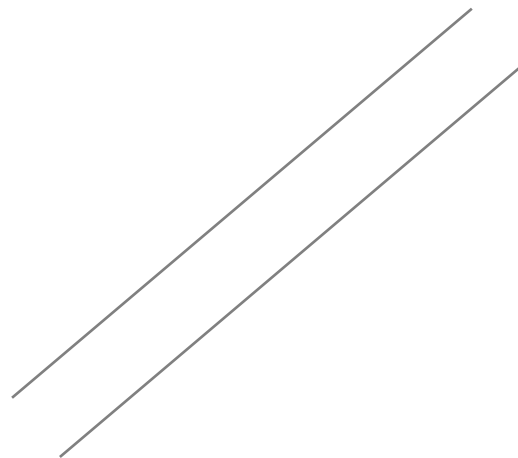


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**Internet of the future: Europe must be a
key player**



Future of the Internet initiative of the Lisbon Council

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Ladies and Gentlemen,

Thank you to the Lisbon Council for giving me this opportunity to present my views on the future of the internet.

Setting the Scene

It is now well recognized that the Internet as we know it today, defies traditional regulatory theories and governance practices. The main reasons are linked to the blurring of the concepts of territory and sectors. But as we consider the future of the Internet, we see even greater challenges ahead, with many questions related to privacy, security and governance of the Internet. It is also the moment to initiate a global reflection on an improved, more effective and inclusive Internet. All these dimensions of the future of the internet are of crucial interest for Europe - and I believe for the rest of the world. For this reason, the European Commission will step-up from 2009, its efforts and its involvement on all these dimensions: increase in the R&D elements, active participation in discussions on the regulatory approach to applications and services, proposals on governance issues, active promotion of IPv6 rollout. Now that the "dot

eu" has surpassed the 3 million domains mark, the European Union has an even stronger legitimacy to be a key player in the future of the internet.

The Internet Economy is changing

The internet underpins the entire economy in an increasing part of the world – and I remind you that ICT contributed to 40% of overall productivity growth in the economy for the ten years up to 2004. The networking effect has made possible an accelerated and global diffusion of innovation. The ensuing changes to our economy as well as to the life of our citizens have been remarkable.

The diversity and sheer number of applications and business models supported by the Internet have also largely affected its nature and structure – as you know, the internet traffic increases by 60% every year!

Could one say that the Internet has become a mature infrastructure, which has exhausted its innovation and growth potential? I am deeply convinced that this is not the case.

My aim today is to share with you, not only why I believe that we are at the start of a new phase of internet driven innovation and growth, but also what we have to do to

unleash this potential, which is even more necessary in times of economic trouble.

Indeed, to get out of the economic downturn we need to stimulate a solid and sustainable business growth in high value goods and services that respond to real market needs. And we in Europe need to make full use of the economic potential of the single market that is still locked up in our fragmented national markets. This should apply primarily to services based on the internet, which has by nature a cross-border dimension.

Internet Drivers

Let's look at current drivers and future perspectives. I see at least three main drivers: social networks, the Internet of Things and the mobile Internet.

1- Social Networks

A first driver clearly emerging is a shift from "Web 2.0 for fun" to Web 2.0 for productivity and services. "Web 2.0 for fun", is all about social networking. It is today one of the fastest developments of the Internet and, has the potential to also connect usages, minds and creativity for business, on a scale never before attained or even imagined. The sheer power of networking that the Internet offers, makes it possible to reach unprecedented levels of

intelligence regarding the collective behaviour and needs of entire populations.

Web 2.0 networking in the business world holds the prospect of interoperability across different business segments. This is an important opportunity especially for SME's, because more and more sophisticated and high added value products and services will be delivered through opportune collaboration of a multiplicity of business actors.

In order to develop the online Internal market, many challenges must be tackled. As Commissioner for Information society and the Media, I am for instance encouraging progress on the creative content market by enhancing good practices for online distribution of content. But obviously this is a heavy task and this is only one among many in order to fulfil the promises of the Internal market. It will have to be continued and amplified by the next Commission.

Another important facet of social networks is the so called "Gov 2.0". This is evidently an important way of engaging citizens into political life, through social networking, at a time where many people express criticism towards, if not rejection of, politics. But, as the Obama campaign has demonstrated, the point is not to find a replacement for

representative democracy. This does not work, and the attempts of "let the voters draft my programme" in the recent French Presidential election campaign failed. The point is not to ask citizens to decide instead of their representatives but to engage them, to make them feel part of the campaign and of the government in support of the policy makers. It is on this point that the Obama campaign was impressive, more than on the widespread use of ICT.

2- The Internet of Things

A second important driver of the Internet of the future is the emergence of an "Internet of Things". Soon the Internet, which today merely connects personal computers, servers and web pages, will start connecting myriads of objects and devices of all kinds.

What will be the implications of such an extended nervous system? Surely new classes of applications will come to life, combining information of the virtual world with a perception of the physical world. Economic prospects are very significant, with an estimated market of 30 billion Euro by 2016 for the sole segment of RFID enabled applications. The increased intelligence and connectivity of objects and devices will be of prime relevance to the citizens as it opens new prospects for greater accessibility

and control of their life. Tremendous payoffs can also be realised in terms of energy distribution and consumption, environmental control, urban transportation, health and care services etc.

But to achieve the promises of the Internet of Things, both the policy makers and the industry need to work intensively, be it in terms of architectures, of standards, of security or of governance. We cannot just ignore the privacy and governance issues related to the internet of things. So my intention for 2009 is to set certain principles for the EU, to give legal certainty to the industry and to have a sound dialogue with our main trade partners on the public interest issues at stake.

Open Service Infrastructure

Reaping the benefits of these promising applications, will not be possible without a powerful open service infrastructure. The trend towards deployment of server farms with distributed "cloud" computing capability goes in that direction. An interesting characteristic of these "cloud" service infrastructures is that they lower the market entry barriers and enable small companies – even micro companies- to develop their own on-line commercial offers with zero infrastructure investments.

A second aspect regarding these “cloud” services, that needs careful consideration, is associated with operational business risks as well as the potential for serious data storage risks. To what extent will businesses accept to move truly mission-critical applications out of their firewalls? How should the governance of data migration be handled? Again here, questions where industry and public authorities need to speak to each other.

3- Mobile Internet

Third key trend: the Internet goes mobile. The emergence of a wireless web is becoming a reality, under the combined influence of two factors. The availability of smart phones, whose penetration is increasing very fast, is boosting the mobile Internet, with Internet usage more than ten times higher than that measured with less sophisticated terminals. This is enabled by the advent of true broadband mobile networks. Operators having implemented the 3G high speed options – and there are more than 220 networks in 100 countries having done so - have seen their data traffic skyrocket in no time – and you can imagine how it would be with more affordable prices, notably when roaming in the Internal market!

Today, the volume of data traffic in high speed mobile networks is on average three to four times larger than that of voice traffic. It will therefore be crucial to release the necessary spectrum for high speed wireless Internet, to ensure an adequate level of competition and to foster coordinated allocation to generate economies of scale. To make a mobile Internet become a reasonable economic reality for Europeans, we must also devote great attention towards ensuring that the “roaming borders” which still exist in Europe, are progressively brought down.

Other key Issues at Stake

Let me now make some comments on key principles related to the future of the Internet.

1. Openness of the Internet

First we will only be able to reap the full social and economic benefits of a fast moving technological landscape if we manage to safeguard the **openness** of the Internet. Openness is one of the key ingredients that made the Internet so successful as an innovation place, and we have to make sure that it is not compromised.

In its Communication on future networks and the Internet adopted at the end of last year, the European Commission outlined three key areas where we have to ensure that openness remains preserved.

Net Neutrality

- In the first place, "Net Neutrality" has to be guaranteed. New network management techniques allow traffic prioritisation. These tools may be used to guarantee good quality of service but could also be used for anti-competitive practices. The Commission has taken additional steps, through measures proposed to reform our telecom package, to better prevent such unfair abuse to the detriment of consumers.

Open Standards

- Another important issue relates to open standards. We need to take advantage of the win-win of open interfaces and standards such that the market can grow for all. Dominant players may try to use proprietary standards to lock consumers into their products or to extract very high royalties, ultimately stifling innovation and foreclosing market entry by new players. EC competition rules have here an important role to play in tackling such practices.

Another domain where openness is key is the one of the "Internet of Things". Here, we are almost starting from a virgin territory. We can, if no coordinated action is taken, expect multiple architectures, standards, intellectual property models to proliferate. The RFID domain already gives us an example where, due to a lack of openness, standards are being produced with significant intellectual property access costs. On the other hand, if we want these systems to be integrated with all sort of business or entertainment processes, market entry barriers need to be lowered in such a way that SMEs can play their role as the economy boosters.

Applied to governments, it would certainly foster the emergence of the "Gov 2.0" paradigm that I referred to before. Still, a lot remains to be done before these platforms can be integrated with complete enterprise systems, because use of proprietary solutions hampers interoperability. In this field, governments have a key role to play as "interoperability and openness" pathfinders. This is what we are currently doing in the Commission, with the IDABC initiative that proposes an interoperability and openness framework for Pan European Governmental Services.

2. Globalisation

There is no doubt that the Future Internet will be global, and reach populations that have so far not been concerned with it. China is already today the largest country in terms of Internet users. This trend can only accelerate, with a clear consequence: the claim for a certain shift of the Internet "power" from the developed regions to the developing regions.

This has far reaching consequences and it is not certain that we can understand them all today. Multilingualism is one of them. Seventy percent of the Internet users do not have English as their native language. We need to prepare for a future Internet that takes languages and local cultures into account in a much better way. This is another form of openness, but a crucial one in my view.

Globalisation may hence bring about a "Balkanisation" of the Internet, for all sorts of reasons: security, cultural preservation, economic model preservation being illustrative examples. Again, this must reinforce our commitment to work in global partnerships to defend the open model that we want.

3. Economic Recovery

My third message is that, in these times of economic trouble, we must **keep up the economic investments** in areas that are essential for our short to medium term recovery and our long term future.

Let me address the longer term first. We debate today on how the Internet will evolve to support an ever larger number of applications, business models, users and environments. There is however no guarantee that the current Internet architecture, which was designed more than thirty years ago, is going to sustain these changing usage scenarios. In Europe, we are moving forward with the 7th Framework Programme and our ICT research initiative. Under this umbrella, European industrial and academic research actors have got together and have launched a large scale co-ordinated effort of some 400 million Euro addressing the future of the Internet. This effort must be maintained. At its meeting last November, the Council welcomed our intention to move towards an industry driven Public-Private-Partnership (PPP) in this domain. Industry from its side, is very committed. Within the next months, I will call for the creation of such a PPP.

High speed fixed and mobile broadband networks are the arteries of the emerging web-based economy. All the capabilities I have spoken about today depend on having

access to a seamless network infrastructure. Investments are huge. These investments need to be optimised and maximise their return capability. Today our network provision stops at borders, which is preventing a true single market for telecommunications to emerge.

In these times of economic downturn, it is also our responsibility to invest into promising technologies that will give us the much needed competitive edge that will accelerate the economic recovery. The Commission proposed a "Recovery Package" last November. Infrastructure investment is clearly identified as a priority and one billion Euro has been earmarked for high-speed broadband deployment support. In order to maximize Internet reach in Europe, we have proposed this money to be used to support high speed broadband infrastructure deployment in rural and peripheral regions, as these tend to be ignored by traditional commercial deployment plans.

Conclusion

I hope I have convinced you that we must continue to invest in our future and that our future lies in a web-based economy primarily based on openness and on global partnerships.

Many European States have already taken initiatives towards the future of the Internet, which very much complement ours. President Sarkozy has launched his "plan numérique", the "IKT 2020" initiative in Germany includes a strategy towards the future Internet. Sweden is launching the "Ambient Sweden" initiative, with the objective of becoming a "leading Internet nation" by 2015. The newly appointed UK telecoms minister Lord Carter is launching his Digital Britain campaign. The common point of all these national initiatives is that they all capitalise on future developments of the Internet. It is now our responsibility to make sure that a common vision and approach emerges from these multiple initiatives. Governments need to be able to cooperate with each other in Europe and at the global level to fulfil these responsibilities.

Thank you for your attention