

**VODAFONE CONTRIBUTION TO THE POST I2010 ONLINE COMMISSION QUESTIONNAIRE**

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## 1) ICT for a growth and jobs agenda

### Overall priorities

One of the challenges is to build a clear rationale for ICT policies, including evidence of the economic and social impact, and reinforcing the impact of the open method of coordination through strengthened benchmarking.

1.1. Should ICT be a key area in the next European strategy for growth and employment? - single choice reply- (optional)

- Yes
- No
- Other please specify:

1.2. What could be the overall visionary focus for the post-i2010 strategy? -single choice reply- (optional)

- A vision with a strong focus on desired end results such as economic growth, productivity gains from ICT usage, impact on economy through innovation, etc.
- or rather a vision where the desired end results are broken down into more concrete and measurable targets such as targets on broadband coverage, investments in infrastructure etc.
- **or rather a vision where focus is on continuously creating a coherent and holistic approach to European ICT policies (regulation, research, etc.)**
- or rather a vision inspired by a stronger focus on user rights or user empowerment on the internet
- other please specify:

*Europe's economic future rests on the single market, because only with a single market can Europe build firms of sufficient scale to compete on the global stage. If we do not create a strong and vibrant digital marketplace within Europe, we cannot hope to compete effectively on the global stage.*

*Despite some significant progress, Europe still suffers from major disadvantages as a result of the fragmentation of key strategic markets. Europe still has too many sub-scale firms in sectors where scale matters. This is not only or mainly the case in relation to digital services markets, where useful proposals for reform are being made by the Commission and others, but also in the core underlying markets for communications infrastructures and platforms. Europe's mobile networks still remain too fragmented, and there has been virtually no cross-border consolidation in the fixed infrastructure market, despite 15 years of liberalisation.*

*Reducing fragmentation of the underlying platforms should be viewed as an essential part of creating a single digital services market (but is not fundamentally addressed by proposals for EU-wide spectrum policy):*

- *The Commission must continue to resist barriers to the development of greater scale in digital infrastructure, including economic nationalism. The Commission should critically evaluate any policies which appear to sustain fragmentation, including those which seek to promote inefficient entry at the expense of scale*
- *Reducing fragmentation in the underlying platform markets will enable the single market for digital services*

1.3. What do you consider to be the 3 most important ICT policy priorities for the next 5 to 10 years? -multiple choices reply- (optional)

- ICT for growth and jobs
- **Sustainable low-carbon economy**
- ICT research and innovation
- **High-speed and open internet for all**

- Online single market
- Users' creativity
- The international dimension
- **Public services**
- Quality of life of EU citizens
- Other please specify:

1.4. How should Europe's ICT and media policies be formulated in relation to other policy challenges facing Europe, such as ageing, energy efficiency and climate change? -open reply- (optional)

*First, there are some elements of European society where ICT can make a critical difference but where adoption has yet to be satisfactory. Europe should prioritise three areas in particular:*

- *ICT can make an enormous difference to the lives of Europe's elderly, by improving their economic productivity and contribution, by keeping them connected to the rest of society which will be increasingly digital, and by reducing the costs and improving the quality of public service delivery on which many are particularly dependent. The Commission should initiate further research to understand the barriers to adoption amongst the elderly and their needs. Healthcare delivery and support should be a particular priority, given cost inflation in that sector, the elderly client base, and the potentially large but as yet generally unrealised gains from ICT adoption in this field.*
- *Adoption of ICT amongst the public sector remains significantly behind the private sector. In the next period, the public sector will face acute financial challenges in most Member States, bringing with it the risk that the difference between the public and private sectors widens further instead of narrowing. For whilst ICT can improve the efficiency and quality of public service delivery in the long term, this often involves short term increases in capital expenditure. It is critical that Europe's Governments do not use budgetary pressures to further inhibit ICT adoption by public authorities in the next period*
- *SMEs will be a key driver for new applications, in particular creative applications by young entrepreneurs. In addition ICT can make an enormous difference to the productivity of Europe's SMEs. The barriers to ICT adoption amongst SMEs are already well understood. Many of these could be addressed if SMEs could create 'virtual scale' by combining with other SMEs to procure ICT services. In this way, they jointly purchase ICT systems and improve the economics of delivery to them, mimicking larger corporations where ICT adoption is already more extensive. Projects to create such 'virtual scale' (e.g. shared facilities) should be explored.*

*Second, there are some areas or sectors which affect Europe as a whole where strategic intervention is required to create new markets or to address global challenges. The most obvious and important of these is the market for smart electricity grids, where interventions by public authorities will be required to accelerate adoption and where the challenges of fragmentation also apply extensively. This has implications for institutional arrangements.*

- *Many traditional policy areas will converge in a digital Europe, as ICT enables other sectors. For example, smart metering will require action by both telecommunications and energy regulators, where arrangements for co-operation and cross-functional working are not well developed to date. The Commission should seek to identify these connections and begin to develop an appropriate regulatory response. This will in turn facilitate cross-sector working between industry and other players.*

1.5. Which instruments do you consider most useful for building up a knowledge base on ICT policies and their effectiveness? (choose maximum 3) -multiple choices reply- (optional)

- **Benchmarking**
- **Exchange of best practices**
- Stakeholder groups
- Consultations
- Others please specify:

## 2) ICT for a sustainable 'low carbon' economy

### A - Identifying the barriers

2.1. What are the main barriers to making the transition to an "ICT enabled" low carbon economy? (choose maximum 3) -multiple choices reply- (optional)

- Lack of accepted and transparent measurements
- **Ignorance of ICT potential**
- Outdated business models
- **Too few real-life examples**
- EU inaction
- **Member State inaction**
- Market failure
- Other please specify:

*Long investment cycles in smart technologies from the utilities and logistics sectors: under current investment cycles and regulatory frameworks, the 2020 EU targets could not be materialised before 2050.*

*In addition, the behavioural aspects of ICT adoption need further research. The implementation of homeworking and the substitution of physical products and travel with virtual alternatives will not come naturally to all segments of the public.*

2.1.1. Please explain why you consider your choices to be the main barriers: -open reply- (optional)

2.2. In order to move to a low carbon economy, the sustainable outcome needs to be the profitable outcome, for both businesses and consumers. What can help new, sustainable business models emerge? -open reply- (optional)

*Vodafone's low carbon connections research, supported by Accenture identified 13 specific mobile low carbon opportunities, in five major categories: Smart Logistics, Smart Grid, Smart Manufacturing, Smart Cities and Dematerialisation. The report identifies huge consumer and businesses benefits in form of cost savings as well as a big market potential. By 2020 in the EU-25 countries, the 13 specific opportunities identified have the potential to deliver:*

- a carbon saving of c. 113Mt CO<sub>2</sub>e
- c. €43 billion of energy cost savings by 2020
- c. 1 billion connections for operators

*Sustainable business models will emerge if:*

1. Europe develops regulatory frameworks that incentivise investment in smart technologies
2. Promotes interoperability and standardisation of services, which is essential to extend the use of wireless ICT for emissions reductions across different countries and different industries.

2.3. What factors today cause people to continue with unsustainable consumption patterns?  
-open reply- (optional)

More research is required to fill the knowledge gap about

- a) behavioural barriers to uptake of alternative, ICT-enabled, approaches to work and life (e.g. home-working versus office-based working)
- b) lack of awareness of ICT-based alternatives
- c) lack of awareness of the environmental costs / benefits of alternative options
- d) possible perception that there is a cost premium / greater complexity / technology set-up barriers.

#### **B - Immediate actions - quick improvements**

2.4. As regards the ICT sector, what are the most important measures through which policymakers can help speed up the transition to low carbon economy in the next 2-3 years? (choose maximum 3) -multiple choices reply- (optional)

- **Raise awareness about efficiency-enabling ICT solutions**
- Lead through green public procurement
- Set guidelines
- Promote research into green ICT solutions
- Support investments in key infrastructures
- **Support demonstration projects**
- Set fiscal incentives
- **Change regulatory environment**
- Set measurable targets
- Others please specify:

2.4.1. Please explain your choices: -open reply- (optional)

- *Raise Awareness: Often lack of awareness about what is possible and the size of the impact that actions can have on carbon emissions*
- *Support Demonstration projects: goes hand in hand with raising awareness*
- *Change regulatory environment: to create non-negotiable pressures to ensure adoption e.g. mandatory telematics in vehicles, domestic smart metering, increased energy labelling requirements, etc. create non-negotiable pressures to ensure adoption e.g. mandatory telematics in vehicles, domestic smart metering, increased energy labelling requirements and so on.*

2.5. ICT companies lead the rankings of the most energy-efficient industrial sectors. How can the ICT sector best lead by example? (choose maximum 3) - multiple choices reply- (optional)

- By committing to reporting all direct greenhouse gas (GHG) emissions and indirect emissions from consumption of purchased energy (GHG Protocol scope 1 and 2 reporting)
- By committing to reporting other indirect emissions, such as production of purchased materials and fuels, outsourced activities, waste disposal, etc. (GHG Protocol scope 3 reporting)
- **By changing business models**
- **Through partnerships (cities, regions, other sectors)**
- Others please specify:

*Changing business model is the most effective way i.e. ICT companies live the vision and are at the forefront of embracing the products they are trying to sell - home / flexible working, smart metering, efficient logistics, downloading applications versus new hardware*

2.6. In which areas can the ICT industry contribute most rapidly and usefully to reduction in energy use in the short term, i.e. next 2-5 years? (choose maximum 3) -multiple choices reply- (optional)

- Electrical power grid (including smart metering)
- New buildings
- Old buildings
- **Transport/Logistics**
- Manufacturing
- **Services delivery (public and general)**
- Process and behavioral change
- **Dematerialisation (process and product substitution)**
- Others please specify: -open reply- (optional)

### **C - Long term paths to low carbon economy**

2.7. What regulatory changes would promote transition to a low carbon economy most effectively? - **open reply**- (optional)

*In the area of smart grids / smart metering, the Commission and governments should explore more explicit timetables for the implementation of smart grid technologies to help accelerate the roll-out of smart meters, or consider the mandatory introduction of M2M modules into certain high value capital equipment and commercial logistics vehicles to ensure widespread diffusion of the technology.*

*Governments should pursue emissions trading schemes to allow companies to adjust over time to the inclusion of carbon as a priced commodity in cost valuation models. Progressively reducing free carbon allowances will gradually drive up the price of carbon, encouraging companies to be more proactive in addressing energy efficiency and, where relevant, to implement wireless telecoms solutions that enable carbon abatements. Achieving an appropriate price for carbon is the key step that will drive the emission reduction agenda.*

*From a telecoms regulatory point of view, it is likely that M2M SIMs will have longer life cycles than P2P SIMs and the planning of investment, and the licensing of mobile network infrastructure and spectrum may need to be undertaken over longer time horizons.*

2.8. How can investments in infrastructure for the low carbon economy be best stimulated? (choose maximum 3) - multiple choices reply- (optional)

- Market mechanisms
- **EU funding**
- Member State funding
- **Regulatory changes**
- **Partnerships with stakeholders**
- Others please specify: -open reply- (optional)

2.9. "Smart city" strategies: in which areas can ICT help most to reduce energy use in cities? (choose maximum 3) - multiple choices reply- (optional)

- **Urban planning**
- Making alternatives to cars more attractive
- **'Green' housing developments**
- **More efficient delivery of public services**
- Others

- if others, please specify: **-open reply-** (optional)

2.10. Where can ICT best contribute to reducing transport emissions? - single choice reply (optional)

- Rationalising logistics
- Reducing the need for air travel
- Combining various modes of transport ('multimodality')
- Others please specify: **-open reply-** (optional)

*It will be a combination of all of these options. Also ICT's biggest contribution to reducing transport emissions is as a facilitator of teleworking. The Carbon Connections report prepared by Vodafone supported by Accenture estimated that dematerialisation in the form of mobile telepresence, virtual offices and mobile delivery notifications for eCommerce could yield energy savings of €14.1bn and reduce carbon emissions by 22.1MtCO2 in 2020 (Vodafone Accenture: Carbon Connections, Jul 2009).*

#### **D - Best practice**

2.11. The potential downside of greater efficiency is that it may encourage more of the unsustainable activity (e.g. more efficient/cheaper laundry may mean that you do more of it), eventually cancelling out the overall saving ('rebound effect'). Can you point to any evidence of measurable ICT enabled gains in energy efficiency that have managed to avoid this kind of rebound effect (i.e. increase in unsustainable patterns) and have produced net reductions in energy/resource use? -open reply- (optional)

#### **BGlobal**

*From the Carbon Connections report, page 19*

*[http://www.vodafone.com/etc/medialib/cr\\_09/carbon.Par.76396.File.tmp/carbon\\_web\\_2009.pdf](http://www.vodafone.com/etc/medialib/cr_09/carbon.Par.76396.File.tmp/carbon_web_2009.pdf):*

*Bglobal's energy management system will enable Vodafone to cut carbon emissions and save at least £2 million a year on its energy bills by installing smart metering at base station sites in the UK. Automated meter reading equipment provides a reading every 30 minutes and the data is transmitted over the Vodafone network to Bglobal's central data centre. Real-time data from smart meters enables Vodafone to monitor and put in place measures to reduce energy use, cutting costs and carbon emissions. This data can be used to identify and prioritise sites with higher energy usage for energy-saving measures. These include replacing air conditioning with energy efficient free cooling (using fresh air), which will save more than £1 million a year. Electricity to run Vodafone's 12,000 UK base stations costs around £20 million a year. Bills have previously been estimated for these sites as most are unmanned with restricted access, making it difficult to read meters manually. By providing accurate readings from smart meters to its energy provider, Vodafone will save 10% a year on electricity bills. Monitoring energy use remotely also eliminates the need for staff to access base stations for meter readings at a cost of between £50 and £100 per visit. The cost savings enabled by smart meters mean that Vodafone UK will recoup its initial investment in less than a year.*

#### **Isotrak**

*From the Carbon Connections report, page 25*

*[http://www.vodafone.com/etc/medialib/cr\\_09/carbon.Par.76396.File.tmp/carbon\\_web\\_2009.pdf](http://www.vodafone.com/etc/medialib/cr_09/carbon.Par.76396.File.tmp/carbon_web_2009.pdf)*

*: Isotrak's fleet management systems are helping UK businesses cut fuel costs and CO2 emissions, reduce fleet size and save time by enabling smart logistics. The company's Active Transport Management System combines satellite tracking and onboard telematics data sent over the Vodafone*

*mobile network using standard SIM cards. This enables businesses to monitor their fleets remotely and plan more efficient logistics based on where vehicles travel, what they carry and how they are driven. By changing driving styles, for example, fuel efficiency can be improved by 5–15%. In the UK, over 80% of all groceries, half of all road fuel and all residential mail are transported on trucks equipped with Isotrak systems. Isotrak expects to have connected 30,000 vehicles by the end of 2009. Among its customers are leading logistics companies and the UK's biggest supermarkets, including Asda, Tesco and Sainsbury's. The Asda fleet has already saved 18 million road miles – the equivalent to 28,000 tonnes of carbon dioxide – and cut fuel costs by 23% over three years using Isotrak's system. Asda drivers have changed their behaviour to improve fuel efficiency by 6.6%, and the system is also enabling the supermarket to 'backhaul' more waste and recyclable materials between stores and distribution centres, minimising the number of trucks running without full loads.*

2.12. Can you point at any relevant projects at regional/city/local level which are examples of successful transition to low carbon economy? -open reply- (optional)

2.13. What are the broader transformations needed to decouple economic growth from the use of material resources? What practical steps can we take to move in that direction? –open reply- (optional)

Further research in possible behavioural barriers to uptake of ICT enabled solutions (see the Carbon Connections report [http://www.vodafone.com/etc/medialib/cr\\_09/carbon.Par.76396.File.tmp/carbon\\_web\\_2009.pdf](http://www.vodafone.com/etc/medialib/cr_09/carbon.Par.76396.File.tmp/carbon_web_2009.pdf))

### **3) Improving Europe's performance in ICT research and innovation**

The European Commission's strategy for ICT R&D and innovation identifies three interlinked paths of action to raise Europe's ICT competitiveness:

#### **A. Channel more resources into ICT research and innovation**

Europe's ICT efforts are underweight: Europe represents 34% of the world ICT market but only 23% of ICT value-added is generated in Europe. The Commission has identified the need to double both private and public investments in ICT research and innovation by 2020.

3.1. Among the following sources of this increased funding, which are the 3 you consider most important? - multiple choices reply- (optional)

- Increased European research budget for ICT
- Increased European innovation funding
- Diverting other community funds, such as cohesion funds into R&D
- **More strategic and extended use of pre-commercial procurement**
- Increased national budgets
- Incentives to increase private research expenditure (such as new public-private partnerships or tax breaks for R&D)
- Others please specify: -open reply- (optional)

3.2. What would be the most important measures to reduce the fragmentation of ICT research and innovation efforts in Europe? (choose maximum 3) -multiple choices reply- (optional)

- **Political commitment to a fully integrated European innovation ecosystem**
- **Policy coordination to share visions, strategies and policies**
- Setting EU-wide ICT priorities for key technology sectors
- **Working on achieving a better policy mix: such as coordination of resources and instruments (e.g. grants, loans, risk capital) at different stages of the innovation process**

- Early engagement of wider innovation stakeholders (e.g. users, financiers, marketing and legal departments)
- Others please specify: -open reply- (optional)

3.3. What measures would be most important for promoting more innovation? (choose maximum 3) -multiple choices reply- (optional)

- **Stimulating market forces through open competition**
- Public private partnerships such as joint technology initiatives
- Reinforcing lead market initiatives (e.g. set-up of user-supplier platforms)
- **Public procurement of research and innovation**
- Targeted innovation infrastructures (e.g. specialised training, business expertise support, risk capital)
- Others please specify: -open reply- (optional)

### ***Promote interoperability and standardisation***

*Interoperability and standardisation of services is essential to extend the use of wireless ICT for emissions reductions across different countries and different industries. A patchwork of different technologies adopted in various Member States will be an obstacles in Europe-wide roll out of smart applications.*

### ***Facilitate the formation of consortia***

*Large scale carbon reduction opportunities, such as smart grids, are complex systems which cannot be implemented by single players. They require input from a number of service and technology providers, and often demand significant capital expenditure.*

*ICT providers and other relevant industry sectors, must work in partnership to develop standards for operating and compatibility, in particular for:*

- *Smart meters*
- *Traffic management systems*
- *Embedded M2M modules in tradable products.*

## **B - Make Europe the home for a number of ICT world-class poles of excellence**

3.4. Of the current ICT research priorities, what are the 3 areas in which you think Europe excels most today? - multiple choices reply- (optional)

- **Network equipment and services**
- Software products and services
- Media technologies
- Cognitive systems and robotics
- Micro/Nano-systems and electronics
- Photonics
- Organic electronics
- Embedded computing systems
- Web-based services
- Systems for healthcare and inclusion
- Systems for transport
- **Systems for energy and the environment**
- Systems for education and culture

- Systems for security
- Others please specify: -open reply- (optional)

3.5. Of the current ICT research priorities, what are the 3 most important areas that Europe is in risk of losing its comparative advantage? -multiple choices reply- (optional)

- **Network equipment and services**
- Software products and services
- Media technologies
- Cognitive systems and robotics
- Micro/Nano-systems and electronics
- Photonics
- Organic electronics
- Embedded computing systems
- **Web-based services**
- **Systems for healthcare and inclusion**
- Systems for transport
- Systems for energy and the environment
- Systems for education and culture
- Systems for security
- Others please specify: -open reply- (optional)

3.6. Of the current ICT research priorities, what are the 3 most important strategic areas of ICT research for Europe's future? -multiple choices reply- (optional)

- Network equipment and services
- Software products and services
- Media technologies
- Cognitive systems and robotics
- Micro/Nano-systems and electronics
- Photonics
- Organic electronics
- Embedded computing systems
- Web-based services
- **Systems for healthcare and inclusion**
- **Systems for transport**
- **Systems for energy and the environment**
- Systems for education and culture
- Systems for security
- Others please specify: -open reply- (optional)

3.7. What is the main barrier to world class clusters emerging in Europe? -single choice reply- (optional)

- Insufficient framework conditions (e.g. research facilities, innovation support, company growth conditions)
- Weak public financial support
- Difficulties to access private financing
- Unattractive research careers
- Other please specify: -open reply- (optional):

*Private funding*

3.8. What are the 3 key policy steps to create the conditions for new poles of excellence to emerge? -multiple choices reply- (optional)

- **Creating growth conditions for start-ups and SMEs (incubator sites, easier access to loans, shared research facilities, etc)**
- **Creating conditions for self-organising innovation (specialised knowledge hubs, facilities for open innovation communities, etc)**
- Unlocking the talents of people and attracting talented researchers/entrepreneurs, identification of skill gaps and concerted actions to address them
- Inward investment incentives (grants, logistical support, training, tax incentives, stable macro economic regime)
- Increased efforts to reinforce Europe's place in the global research & innovation system
- Others please specify: **-open reply-** (optional)

3.9. Do you see the need for more actively supporting open and disruptive research structures and models in Europe? How can bottom-up innovation be better encouraged? - multiple choices reply- (optional)

- Schemes for engaging users in the innovation process
- **More emphasis on peer to peer/ open innovation processes**
- Support for development of promising early stage ideas from research to deployment (hothouses/incubators)
- Other please specify: **-open reply-** (optional)

### **C - Trigger the take-off of new markets for innovative ICT products and services**

3.10. Among the factors below, which 3 (maximum) are most needed before such take-off can take place? - multiple choices reply- (optional)

- **Achieving the single market for ICT innovations to be able to capitalise on the size of our economy**
- Pro-innovation public policy backed by real spending commitments (inter alia projects that cut across the innovation chain and use of pre-commercial public procurement)
- **A pro-innovation legal and regulatory framework (IPR, streamlined adoption of EU standards, proinnovation state aid rules, consumer policy)**
- **EU actions that combine innovation and policy decisions so as to establish the key framework conditions for innovation (e.g. EU eID standards or electronic health records)**
- Pilot actions to test a number of priority projects at a scaleable level and to support interoperability
- Steps to encourage more effective commercialisation of research results
- Others please specify: **-open reply-** (optional)

### **4) Creating a 100% connected society and economy through a highspeed and open internet for all**

#### **A - Upgrading to future-proof infrastructures:**

4.1. How can the EU best maintain incentives to invest in fixed and wireless networks? (choose maximum 3) - multiple choices reply- (optional)

- By relaxing access obligations
- By tightening access obligations
- **By emphasizing the opening of markets to competition**
- By end-users paying a higher subscription
- By fostering a change in business models (e.g. safeguards against anti-competitive behaviour following vertically integrated business models)
- By limiting the technological neutrality principle and privilege technologies or architectures that may create higher overall welfare benefits, e.g. being more pro-competitive, more future proof or with a greener profile
- By allocating spectrum differently, e.g. how much bandwidth is needed for effective wireless web or what is the cost of non-harmonised spectrum
- Others please specify: **-open reply-** (optional)

*Although often debated, the greatest challenges for Europe's digital future now lie not in the provision of basic infrastructure but in the delivery of services and the connection of users and citizens to those networks. Nonetheless, the further extension of broadband infrastructure to achieve the universal connectivity which must be at the heart of a competitive, sustainable and inclusive Europe. Europe will also require a clear and ambitious policy for network development. The key elements of this policy should be:*

- *Completion of plans to release the spectrum, particularly UHF spectrum, needed to extend low cost broadband and support the next phase of growth in data services and M2M devices*
- *Commencement of planning for further release of UHF spectrum as consumption of video services migrates to fibre networks over time*
- *Adjustment of regulatory framework to facilitate new models involving greater collaboration amongst infrastructure providers (e.g. active RAN share in mobile networks, co-investment in fibre networks)*
- *Commencement of planning for 'copper switchover' to provide a roadmap for the transition from copper to fibre, including withdrawal of existing USO subsidies which sustain old technologies rather than promoting new ones*

*The effective delivery of services over these networks will require that services can be effectively monetised. Without this, creators of content will not be remunerated and the market will not develop. The most immediate challenge for the digital services market is the widespread piracy of some content. This is a case of market failure – failure on the part of suppliers to develop legitimate content that they can monetise and failure on the part of the policy framework to create sustainable rules for the market.*

4.2. Building high-speed broadband infrastructure ('Next Generation Access'): should public authorities routinely invest in passive infrastructure in synergy with other facility deployment (transport, energy, water etc.) when deploying new infrastructures? -single choice reply- (optional) –

- Yes
- No
- Others please specify: -open reply- (optional)

see answers above

4.3. Which other European policy measures could promote the deployment of high speed broadband infrastructure? - open reply- (optional)

*Traditional 'top down' regulation and enforcement simply does not work in the digital environment where there are multiple players in the value chain, and millions of users, many of whom are also publishers, all operating across many geographic boundaries. In this sense, the 'internet' cannot be regulated. Effective policy in this context must approach issues in a different way, seeking 'bottom up' changes in social and cultural expectations, with enforcement often being undertaken by peers and communities rather than by public institutions or firms. In this context, users will assume greater rights and responsibilities, whilst firms and public institutions will be responsible for providing education, information and the tools to govern acceptable behaviour.*

*Regulation has not kept up with change and this form of policymaking is often not well understood by policymakers themselves, so we face a huge task in first reorientating the basic assumptions behind how we develop policies in the digital environment and then in applying them to create desirable*

*behavioural change amongst users and firms. This will be absolutely critical if we are to develop the climate of trust and confidence which also be essential to the effective delivery of services.*

- *European policymakers need to fundamentally revisit the basic assumptions about how regulation and policy can be applied in a digital environment with complex value chains across disparate geographic boundaries. A new approach to policymaking then needs to be applied to the immediate challenges of piracy and privacy. This will require a reorientation of the expectations of both policymakers and consumers about how regulation can work and what it can deliver*
- *European policymakers need to identify and establish the global institutional framework that will be required to address the challenges of the global digital services marketplace. Whilst this is being created, policymakers will need to work closely with their counterparts to develop ad hoc policy responses to near term challenges*

4.4. As regards a potential need for a European right of access to the internet, which type of targets would you consider most useful? (choose maximum 3) Targets on: -multiple choices reply- (optional)

- Speed
- Latency
- Packet-loss
- Technological platform
- Non-discrimination of services
- **Transparency**
- Others please specify: -open reply- (optional)

4.5. Should targets rather be on desired end-results which may appear less concrete such as promoting usage, innovation, new business models, productivity in companies etc? –single choice reply- (optional)

- **Yes**
- No
- Others please specify: -open reply- (optional)

4.6. Should targets be differentiated between Member States? -single choice reply- (optional)

- Yes
- **No**
- Other please specify: -open reply- (optional)

## **B - The future of the sustained internet services growth - internet to drive innovation**

4.7. Should the principle of openness be the key policy priority for the EU in the field of internet? -single choice reply- (optional)

- Yes
- No
- Others please specify: -**open reply**- (optional)

*Openness in general can not be the basis of policies. Policy in this area needs to be much more specific and practical. It is critical that Europe avoids rhetoric which simply confuses and deters innovation and investment instead of facilitating it, as was the case in the US.*

4.8. Which areas should policy makers emphasise most to promote growth of internet services? (choose maximum 3): -multiple choices reply- (optional)

- Net neutrality
- End-to-end connectivity (access any point from any point)
- Interoperability/portability of services

- Open standards
- Others please specify: -open reply- (optional)

*No specific policy measures required other than continuing to promote the deployment of high capacity broadband access. It must be noted that the internet developed without policy intervention and there is no obvious reason why intervention would help or is necessary now*

4.9. European industry should gain more momentum in innovation in products and services for future networks and internet, when competing with other regions of the world (see section 7 on the international dimension): can stronger harmonisation at the EU level promote this goal? -single choice reply- (optional)

- Yes
- No

*The internet is global. Therefore the related Internet services markets can not be seen separately from the rest of the world. It is vital that we recognise that the market for digital services is already a global market. A key task in Europe's policymakers in the coming years must be to engage with other regions in order to develop a global policy framework on many of the key policy issues. European policymakers need to avoid the risk of taking actions that do not effectively safeguard consumers or creators in Europe, and which may instead simply disadvantage European interests in global markets.*

4.10. To promote their take-up and active usage of internet based services, which is the most important group of stakeholders? - single choice reply- (optional)

- SME's
- **Consumers**
- Large enterprises
- Public services
- Other please specify: -open reply- (optional)

## C - Promoting an internet for users

4.11. As regards a potential adaptation of user rights as a means of safeguarding the end-user, should the EU provide the citizens with rights regarding (choose most important 3): - multiple choices reply- (optional)

- Net neutrality
- Interoperability of services
- **Managing online privacy**
- **Managing online identity**
- A right to be "left alone" from the information society
- **Universal access to the internet**
- Others please specify: -open reply- (optional)

4.12. What is the most important way to enforce user rights, in general? -single choice reply- (optional)

- EU regulation
- Soft law (Recommendations, guidelines)
- Self-regulation
- Other forms of legislation: e.g. constitutional law please specify: -open reply- (optional)

*It is not clear how rights would be created or enforced in these areas, especially without corresponding responsibilities. Many of these issues will involve one user harming another, not firms harming users. How will these rights be enforceable as between users? Much more thought needed in these areas before policy makers move to action*

4.13. Today, some services are offered for "free" but subject to consent to process personal data for profiling and advertising purposes. Should consumers be provided with options other than simply to "take it or leave it"? -single choice reply- (optional)

- **Yes**
- No
- Others please specify: -open reply- (optional)

4.14. Should the principle of "users' informed consent" to disclosure and use of personal data: -multiple choices reply- (optional)

- **Meet higher requirements (more transparency, simpler and more understandable privacy notice)**
- Have clearer guidelines on how to apply this concept to new services
- Be only better enforced
- Others please specify: -open reply- (optional)

4.15. Should the EU develop differentiated policies based on the different needs of users (e.g.: SMEs, large businesses, individual users etc.)? -open reply- (optional)

## 5) Consolidating the online Single Market

### A - Creating a level playing field in the European online market

5.1. Do you think further harmonisation of national regulations would be a way towards an easier access of consumers and businesses to a barrier-free European digital single market? - multiple choices reply- (optional)

- No
- **Yes, in the field of consumer protection**
- yes, in the field of payment transaction costs
- yes, in the field of VAT
- yes, in the field of waste of electrical and electronic equipment
- Other please specify: **-open reply-** (optional)

*Effective policy in this context must approach issues in a different way, seeking 'bottom up' changes in social and cultural expectations, with enforcement often being undertaken by peers and communities rather than by public institutions or firms. In this context, users will assume greater rights and responsibilities, whilst firms and public institutions will be responsible for providing education, information and the tools to govern acceptable behaviour.*

5.2. Do you think businesses, in particular SMEs, should be provided with more practical support to take advantage of the European digital single market? -single choice reply- (optional)

- No
- Yes, by harmonising access conditions
- **yes, by providing legal support**
- yes by providing other kind of support
- please specify: -open reply- (optional)

### B - Improving consumers' trust and confidence in online services

5.3. How do you think transparency for consumers can be increased? -multiple choices reply- (optional)

- Further standardisation of terms and conditions
- Easily understandable information summing-up legal information
- Encouraging consumer feedback (Web 2.0 style) informing about service provider's practices
- Others please specify: **-open reply-** (optional)

5.3.1. Please give examples of how transparency for consumers can be increased. -open reply- (optional)

5.4. How do you think consumer trust and confidence in the digital single market can be increased? -multiple choices reply- (optional)

Through self-regulation such as codes of conducts

- **Through trustmarks aimed at disclosing the commercial practices of the online service provider**
- Through new regulatory measures
- Other please specify: **-open reply-** (optional)

5.5. If you believe trustmarks would increase consumers' trust and confidence, do you think they should: - multiple choices reply- (optional)

- Be established EU-wide
- **Be controlled by a third party**
- Be subject to sanctions
- Compliance with rules should be checked regularly
- Other success criteria you would suggest please specify: -open reply- (optional)

5.6. Do you see other ways to increase consumers' trust and confidence? -open reply- (optional)

*1) Putting public services on line is key in order to increase citizen's trust and confidence in the online world. Public online services need to be easily accessible and user friendly with the aim to foster transparency of public sector towards citizens.*

*2) As usage of ICTs becomes increasingly prevalent in all aspects of day to day life – including education, business and socialising – and as capabilities and services multiply rapidly, it is of growing importance for users to understand how to manage potential risks associated with ICTs (e.g. privacy concerns, access to inappropriate content) and how to use ICTs responsibly (e.g. educating children that actions in the virtual world are not without impact or consequence in the real world).*

*For example the Department for Children, Schools and Families (DCSF) in the UK has a number of programmes in place to encourage “e-awareness” – in the sense of responsible and appropriate use of ICT – and also to protect children from potential risks relating to ICT usage. Vodafone has long been active in this area, via the Parents Guide to Mobile Phones and the teachtoday programme, along with initiatives such as the CUT it out campaign – aimed at countering bullying and “cyberbullying” – aligned with the “responsible usage” objectives of the DCSF.*

5.7. What are the main other challenges faced by online service providers to develop a digital single market? - open reply- (optional)

## 6) Promoting access to creativity at all levels

### A - Affirming users' rights in the participative web

6.1. How can users be empowered through transparent information? -multiple choices reply- (optional)

- **Warrant new forms of transparency obligations for standard terms and conditions imposed by web 2.0 services to ensure that end-users are aware and understand their rights and obligations**
- **Reshape privacy rules to guarantee that users have access and can effectively control over their personal data stored online**
- Promote self-regulation
- Adopt stricter measures aimed at protecting minors in the social networking web
- Others please specify: -open reply- (optional)

6.2. How can creativity be stimulated by building EU-wide easily accessible mechanism to allow users to clear rights and be free to work on existing content for non-commercial purposes? -multiple choices reply- (optional)

- **Ease the complexity of copyright management**
- Establish a rights clearance database to facilitate creation and distribution of content online
- Make copyright law more flexible as regards non-commercial uses
- **Promote alternative open licensing schemes**
- Others please give examples: -open reply- (optional)

6.3. A "fair" non-commercial use of licensed content should be free of technological restrictions in terms of interoperability. Should interoperability of content be left to the market or should users have a clear statutory right to play the content they paid for anytime, anywhere and on any platform? -single choice reply- (optional)

- **Market**
- Statutory right

### B - Ensuring sustainable copyright

6.4. How could the EU assist the creative industries in shifting towards more sustainable business models? -open reply- (optional)

### C - Making digital content overcome borders across the EU

6.5. What would facilitate the emergence of business models not based on territorial copyrights? -open reply- (optional)

### D - Development of ICT sector and of European content industry to reinforce each other

6.6. How can we contribute to ensuring that the European content industry is able to meet the demands of audiences for a diverse digital content offering? -open reply- (optional)

*The effective delivery of services over broadband networks will require that services can be effectively monetised. Without this, creators of content will not be remunerated and the market will not develop. The most immediate challenge for the digital services market is the widespread piracy of some content. This is a case of market failure – failure on the part of suppliers to develop legitimate content that they can monetise and failure on the part of the policy framework to create sustainable rules for the market.*

*6.7. Considering that a growing number of countries worldwide share Europe's approach regarding the need to actively promote online creative content and digital creative industries, how can we initiate or reinforce synergies with these like-minded countries in order to improve our competitiveness in this sector? -open reply- (optional)*

*It is vital that we recognise that the market for digital services is already a global market. A key task in Europe's policymakers in the coming years must be to engage with other regions in order to develop a global policy framework on many of the key policy issues. European policymakers need to avoid the risk of taking actions that do not effectively safeguard consumers or creators in Europe, and which may instead simply disadvantage European interests in global markets.*

#### **E - Digitisation of cultural resources**

6.8. Which of the following issues are the most important to improve the digitisation of cultural resources and their enjoyment by users? (choose maximum 3) -multiple choices reply- (optional)

- **Adapting copyright legislation**
- Increasing funding, also through public-private partnerships
- Providing large-scale digitisation facilities
- **Improving access to content, by encouraging digitisation at national and local level**
- **Facilitating rights clearance for in-copyright material, orphan works and works out of print or distribution**
- Providing multilingual search and retrieval
- Making sure that digitisation of cultural resources is not left only in the hands of private partners
- Others please specify: -open reply- (optional)

#### **F - Steps to open access to content to people with disabilities**

6.9. For persons with disabilities, accessing cultural resources is not always possible as their right of access is often in conflict with copyrights. What can be done to ensure equal access to content for persons with disabilities? -multiple choices reply- (optional)

- The exception foreseen in the Copyright Directive for ensuring access by persons with disabilities should be stronger
- The right of access of persons with disabilities should prevail over the rights of the owner of the content
- Other please specify: -open reply- (optional)

## 7) Strengthening EU's role in the international ICT arena

### A - Openness as a global issue

7.1. Which are the most important issues for future European policy on the global scene? (choose maximum 3) - multiple choices reply- (optional)

- Internet free of traffic restrictions
- Internet free of censorship
- **Security and protection of critical infrastructure**
- Standards
- **Fight against inappropriate content and malpractice (SPAM, virus etc)**
- **International protection of children**
- Global technical challenges (multilingual issues, address space etc)
- Others please specify: -open reply- (optional)

### B - European dimension in international research

7.2. What are the most important areas where Europe's international role should be strengthened? (choose maximum 3) -multiple choices reply- (optional)

- Internet governance
- **International research cooperation**
- **ICT competitiveness**
- **ICT trade agreements**
- Stronger European representation in international ICT fora
- Others Please specify: -open reply- (optional)

### C - European voice in international fora

7.3. How can Europe's voice and presence be best strengthened? -single choice reply- (optional)

- Establish clearer European representation in international ICT and internet fora
- **Strengthen information society representation within the EU delegations across the world**
- Develop a clear mandate for the European Commission to coordinate the European voice on global issues
- Others Please specify: -open reply- (optional)

### D - New models for internet governance

7.4. What could be the most important initiative Europe should take to modernise the international governance of the internet? -single choice reply- (optional)

- **Support existing ICT and internet governance structures**
- Support the reform of international governance bodies
- Promote multilateralism
- Others Please specify: -open reply- (optional)

### E - Other global challenges

7.5. Should the EU be a leader in developing ICT solutions for global challenges such as: (choose up to 3 most important areas) -multiple choices reply- (optional)

- **Environmental issues**
- Fight against poverty
- **Ageing society**
- Cybersecurity
- Other please specify: -open reply- (optional)

7.6. How should the international dimension and global challenges be addressed in a future information society strategy? -open reply- (optional)

*See above 6.7*

## **8) Making modern and efficient public services available and accessible to all**

### **A - Avoiding new digital divides**

8.1. What are the key ways to increase take up of eGovernment services by citizens? (choose maximum 3) - multiple choices reply- (optional)

- Increase awareness (marketing)
- Strengthen multi-channel delivery
- **Switch off "traditional" channels**
- Strengthen security
- **Strengthen accessibility and usability**
- **Provide incentives**
- Others please specify: -open reply- (optional)

8.2. Do you think there is a need for a common European understanding on quality delivery of ICT-enabled public services, in view to improve access and participation for everyone? - single choice reply- (optional)

- User charter
- Common guidelines
- **Common minimum standards**
- Other please specify:
- No need

### **B - Challenges of participatory web**

8.3. In the delivery of public services, including education and health, do you think that web 2.0 presents: -single choice reply- (optional)

- **More opportunities than threats**
- More threats than opportunities
- Balanced opportunities and threats

8.4. What should Europe's role be in the transition to Gov 2.0? -single choice reply- (optional)

- Passive observer
- Financial contributor
- Coordinator
- Leader
- **Catalyst**
- Other please specify: -open reply- (optional)

8.5. In what aspects can web 2.0 improve public service delivery and governance? (choose maximum 3 most important) -multiple choices reply- (optional)

- **By increasing transparency**
- By increasing trust
- By increasing accountability
- By increasing engagement
- **By reducing costs**
- **By developing new services**
- Others please specify: -open reply- (optional)

8.6. What are the main possible risks of web 2.0 in the delivery of public services (if any)? (choose maximum 3) - multiple choices reply- (optional)

- No risks
- Boundaries between public and private spheres are too blurred
- Roles and responsibilities are not clearly defined
- **Concerns over ownership of personal data**
- **Concerns over emergence of new digital divides**
- Other please specify: -open reply- (optional)

8.7. What kind of ICT-enabled solutions are needed to engage citizens in the policy formulation and decision making processes, and how can governments stimulate their use? - **open reply**- (optional)

### **C - Electronic procurement and electronic identity management**

8.8. In addition to the large scale pilots already launched in this area, what other challenges relating to the single market should be addressed? -**open reply**- (optional)

### **D - eHealth**

8.9. In your opinion, what would be the most useful action to overcome privacy and security concerns in the field of eHealth? -single choice reply- (optional)

- Providing greater legal clarity on rights and duties within the existing legal framework at European and national level (e.g. legislation on data protection, on privacy and electronic communications ...)
- Providing greater legal clarity through new EU legislation
- Information and awareness campaigns on rights and duties at European level
- **Information and awareness campaigns on rights and duties at national level**
- Others please specify: -open reply- (optional)

8.10. As a potential user, what ICT-enabled medical service would you be most willing to use? (choose 1) -single choice reply- (optional)

- Making appointments online
- Online ordering of health products
- **Telemonitoring**
- Alarm systems
- Other please specify: -open reply- (optional)

8.11. In your opinion, what should be the focus of efforts on interoperability and standardisation in the field of eHealth? (choose 1) -single choice reply- (optional)

- Terminology
- Electronic Health Records systems
- **Telemonitoring and personal health systems**
- Other please specify: -**open reply**- (optional)

### **E - Impact of ICT on teaching and learning**

8.12. In your opinion, what are the barriers faced by education systems to complete the transition from pure ICT skills development to the use of ICT across different learning disciplines? -**open reply**- (optional)

8.13. In your opinion, which actions and instruments would be most useful for achieving this goal? (choose maximum 3) -multiple choices reply- (optional)

- **Making ICT skills a priority in teacher training (both pre-service and in-service)**
- **Promoting exchange of best practices**
- Supporting research on the impact of ICT for learning

- Setting common EU-wide targets
- Adopting soft law (guidelines, recommendations ...)
- Other please specify: **-open reply-** (optional)

*Supporting the education system, promoting business skills and promoting media literacy and e-awareness.*

### ***Best practice Teachtoday***

*An online resource for teachers in the European Union (<http://www.teachtoday.eu/>) to help them understand technology, and how children and young people are using technology, so that they can assist their pupils in using ICTs safely and responsibly. Vodafone one of the driving forces behind the initiative and successfully brought together many of the leading ICT players in Europe (including MySpace, Microsoft, Orange, T-Mobile, Yahoo!) and European Schoolnet in order to create the resource*

***Further examples include Vodafone UK work on various initiatives in the national education framework:***

#### ***“CUT it out” campaign:***

*Anti-bullying campaign, run in partnership with Bliss magazine and the Beatbullying charity, involving a competition to make a film about bullying - see <http://www.bullyingcutitout.co.uk/> for details.*

#### ***E-Skills:***

*Vodafone UK has worked closely with the e-skills UK - the employer-led Sector Skills Council for IT and Telecoms - on various initiatives designed to help prepare the country's future IT professionals (including the Diploma for IT).*

#### ***Diploma for IT:***

*The Diploma is a qualification for 14 - 19 year olds, developed in partnership with employers and universities. Vodafone is supporting the Diploma for IT (one of 14 Diplomas) and has invested £1m in the programme.*

#### ***ENTHUSE***

*Vodafone co funded a programme for science teacher to ensure continued professional development. Through Project Enthuse, every state school in the UK can apply for an award to attend a four-day residential course with total costs of around \$3,600 per delegate, Also pays for the cost to schools of providing teaching cover. Variety of immediate aims from teachers who attended the programme: changes to own teaching practice (45%), improvements in pupils learning (25%), working with colleagues in improving practice across the department or school (20%), introduction of new activities (20%), improving pupils' motivation (10%), improving leadership skills (6%). The programme helps to encourage high quality learning and improve quality of education of teachers. In 2008/2009 Project ENTHUSE paid for 6,534 training days, which is 99% of the target, and there were 53878 teachers registered to the portal (94% of the targeted teachers).*

## 9) Using ICT to improve the quality of life of EU citizens

### A - Bridging the gaps

9.1. What are the three most effective ways to meet the Riga targets? -multiple choices reply- (optional)

- **Providing more deployment**
- Providing more funding for research
- Encouraging self-regulation
- Adopting soft-law
- Adopting hard-law making the "Riga targets" compulsory
- **Promoting standards**
- Other please specify: -open reply- (optional)

### B - Improving digital skills

9.2. How could formal training and certification schemes (e.g. training on-the-job) take into account new ways of learning and get a greater recognition in the labour market? -open reply- (optional)

See Diploma for IT initiative under 8.13

9.3. What actions should be pursued at European level to encourage recognition and validation of informal learning? Please choose the most important one -single choice reply- (optional)

- Adopting common principles and guidelines
- **Promoting exchange of good practices**
- Agreeing on common assessment measures
- Other please specify: -open reply- (optional)

### C - Enhancing the economic dimension of inclusion

9.4. What is the most effective way to get more investments in inclusive ICT services and goods? -single choice reply- (optional)

- Tax incentives
- Further harmonisation of national laws
- New EU legislation
- **Standards**
- Other please specify: -open reply- (optional)

## **D - Enforcing rights of people to go online**

9.5. What is the most important way to guarantee rights of people to go online? -single choice reply- (optional)

- Granting rights at European level
- Encouraging users' and consumers' feedback and action
- Through tailored actions for specific users (e.g. the elderly, the migrants, the minors, the children from a poor background and people with disabilities)
- Other please specify: -open reply- (optional)

*Universal, affordable broadband access is key to ensuring the rights of people to go online. Mobile is well placed to support this because of its high penetration and ability to roll out to rural areas more cost effectively than fixed line. Penetration reached 121% in Europe in 2008, and the World Bank estimates that rolling out a mobile network in rural areas can be up to ten times cheaper than rolling out a fixed-line network (World Bank: World Development Indicators 2006).*

## **E - Coping with an ageing society**

9.6. How can ICT better address the challenges associated with ageing and how can ageing populations be enabled, through ICT and e-accessibility solutions, to benefit from independent living and personalised care, and continue to participate actively in the society and to generate wealth? -open reply- (optional)

*ICT can make an enormous difference to the lives of Europe's elderly, by improving their economic productivity and contribution, by keeping them connected to the rest of society which will be increasingly digital, and by reducing the costs and improving the quality of public service delivery on which many are particularly dependent. The Commission should initiate further research to understand the barriers to adoption amongst the elderly and their needs. Healthcare delivery and support should be a particular priority, given cost inflation in that sector, the elderly client base, and the potentially large but as yet generally unrealised gains from ICT adoption in this field.*

## **F - Promoting a holistic approach**

9.7. What would be the most important steps to guarantee a better integration of digital inclusion into social inclusion policies and a clearer division of responsibilities? (choose maximum 3) -multiple choices reply- (optional)

- Restructuring and redistributing of competences within public authorities at European level
- Restructuring and redistributing of competences within public authorities at national and local levels
- **Utilisation of coherent policy tools, to monitor and benchmark national actions at EU level**
- **Promoting exchange of good practices**
- **Showing the business case for more integrated policies**
- Other please specify: -open reply- (optional)