

[Weekly draft 2009-11-02 – See <http://www.ourvisbyagenda.eu/our-visby-agenda/>]

Our Visby Agenda

www.ourvisbyagenda.eu

This is a draft - please comment!

Contents

1	The form and purpose of an ICT-policy	3
2	Three perspectives on ICT-policy.....	4
2.1	ICT – Infrastructure as an empowering platform.	4
2.1.1	Developing the infrastructure	4
2.1.2	Internet Governance	5
2.1.3	Access	5
2.1.4	Security and trust.....	6
2.2	ICT – Empowering democracy and society	8
2.2.1	A transparent and interactive government.....	8
2.2.2	Digital memory - Preserving our informational heritage.....	9
2.2.3	Improving democracy, preserving freedom of speech.....	11
2.2.4	Privacy and data protection	11
2.3	ICT – Empowering business and innovation.....	13
2.3.1	Making sure that Internet is an open platform.....	13
2.3.2	Create an internal market for services.....	13
2.3.3	Access to public information	13
2.3.4	The use of Open Standards in government procurement.....	14
2.3.5	Simplify identification and authentication.....	14
2.3.6	Competitive regulation	14
3	Conflicting issues – The need for cooperation.....	15
3.1	Network neutrality.....	15
3.2	Intellectual property (IPR).....	16
3.3	Security vs. Openness	18
4	Is this the last ICT-policy?	18

1 The form and purpose of an ICT-policy

A discussion of the content of ICT policy requires some deliberations on its form and purpose.

We believe that an ICT-policy should focus on general issues and not comprise policies for each and every societal sector. Moreover, what is included and what is not included in an ICT-policy should not depend on the popularity of other policy areas.

This follows from the fact that ICT today affects almost every aspect of society, from traditional industrial enterprise to the social patterns of the European youth. Recognising the heterogeneity of Europe, we can still assert that Europe is an information society and ICT is an integral part of an information society.

Hence, the focus of an ICT-policy should be on long-term issues and infrastructural questions of general importance, paying attention to governance that stimulates innovation and use without endangering basic human rights and democratic values.

However, this does not mean that sectorial ICT-implementation should be disconnected from a general ICT-policy. It means that ICT in other policy areas should have the same visions as the general policy but be implemented within those areas, where the resources, problems and potentials are better known than on a general level.

{FIGURE}

From this figure it is possible to view an ICT-policy as a horizontal vision to be implemented in the vertical sectors of society.

Given the previous argument, the purpose of an ICT-policy for Europe should be to identify and flesh out general areas of importance for the information society, declare what issues within those areas are most urgent, and provide guidance for sectorial implementation. This must be done while making sure that the general infrastructure, in the form of both hardware and institutions, are developing. Of such an agenda, both visionary elements and more concrete suggestions are demanded.

2 Three perspectives on ICT-policy

As mentioned above, we understand information and communication technology to be general. In the same vein, it can be viewed as a platform, enabling development in which ever sector given. In this section, central in our Visby Agenda, we will draw out what we think should be the most important general aspects of an ICT-policy and give suggestions on sectorial implementation.

2.1 ICT – Infrastructure as an empowering platform.

It is important to uphold the open, decentralised and dynamic nature of the Internet and the development of technical standards that enable it's ongoing expansion and contribute towards innovation, interoperability, participation and ease of access. This will guarantee that ICT infrastructure continues to be an empowering platform for all parts of society.

2.1.1 Developing the infrastructure

The reach and quality of ICT infrastructure varies greatly between the different EU-countries and the problems differ, wherefore it is difficult to provide specific policy instructions on a EU-level of what has to be done in order to extend network reach and policy.

High capacity broadband networks reaching all residents are a prerequisite for all other areas of ICT-policy. It is therefore fundamental that EU member states make efforts to **ensure that broadband networks and services are developed to attain the greatest practical national coverage and use.**

In Europe, much of the Internet connectivity today is based upon the old telecom copper network. The capacity of this infrastructure is limited and there is a need for new infrastructure enabling more high capacity.

This next generation of network infrastructure will consist of several different technologies meeting the different needs in different areas of Europe. The base infrastructure will most likely be a fibre optic backbone connecting various end-user connections, which is a necessity for other access technologies.

- **Stimulate the establishment of new network infrastructure** replacing the elderly copper network without hindering competition, mainly by establishing stable regulation, which balances competition and incitements for investments.
- The EU should **encourage a more efficient use of the radio frequency spectrum** to facilitate access to the Internet and the introduction of new and innovative services, while taking into account public interest objectives. There is a need for deregulation in two areas as more intelligent devices lower the need for spectrum regulation. First it is important to provide open spectrum in order

to foster innovation. Secondly, as much spectrum as possible should be made technology neutral. Spectrum policy should be harmonized within the EU where possible in order to prevent fragmented markets.

- **Ensure that convergence benefits consumers and businesses**, providing them choices with respect to connectivity, access and use of Internet applications, terminal devices and content, as well as clear and accurate information about the quality and costs of services.
- Ensure that there is competition on all layers in the network.
- **Shared infrastructure** such as towers and other infrastructure is a way to lower the costs of establishing competition in rural areas. Shared infrastructure could be stimulated by regulatory frameworks or by government-sponsored infrastructure that network operators may utilize.
- The EU must **encourage the adoption of the new Internet protocol (IPv6)**. First as acting as a competent procurer making sure that all government services are reachable over IPv6. Secondly by stimulating private sector adoption by education, policy and finally, if necessary, create regulation enforcing IPv6 deployment to end-users both on service and product level.
- **Define what an Internet access provider is and its role.** An increasing amount of new regulation targets the various actors helping provide network access and services. Different regulation use different terms, both between various member states and within them. There is a need to clarify what we really mean and the different roles of these actors.
- Furthermore the principles of *Mere conduit* must be preserved. **The current directive on electronic commerce** is not clear enough on where these principles should be applied and not and therefore **needs to be reworked so that the principles mere conduit is preserved.**

2.1.2 Internet Governance

A working model for Internet Governance is fundamental for an efficient ICT platform. The EU has an important role to play.

The Internet Governance model utilised today is working ad should be supported. The EU should be an active participant in this multi-stakeholder environment, making sure that the openness, neutrality and uncensored nature of the Internet is supported even though this is seen as a threat to many governments, both within and outside the EU.

2.1.3 Access

As ICT rapidly is becoming a prerequisite to accessing public services and participating in the society the question of access becomes crucial.

- This development raises the question whether **Internet access should be declared a legal right**. Several countries have held such a development back as the liability to actually provide Internet access to all citizens would be burdensome. In the long run, this cannot be avoided and should be made a policy goal even though the timeframe and methods of achieving it will vary between member states depending on their local conditions.
- It is not only limited network reach that hinders the development; there is also a part of the population who are currently not using technology even though they might be able to. Since it is getting more and more difficult to participate in the society without ICT those who are currently not connected should be encouraged to learn.

In the short perspective there is *a need for more education and encouragement*, as Internet-based communication moves from a secondary to a primary mean of communicating *there might also be a need for special services or community offices assisting those in need*.

- Rightly designed ICT has the ability to deliver services and improve the quality of life for disabled and older people (e-inclusion), but this requires special considerations when designing products and services. **Member states should use its procurement procedures to set examples improving accessibility**. When governments procure accessible products these feature requirements will spill over to products in the private sector. The use of open standards may also enable third party software solutions targeting these user groups.

2.1.4 Security and trust

An open platform will always be sensitive to security problems and trust issues, therefore this is unavoidable as long as we want to keep the infrastructure open. As long as we allow anyone to use the network, anyone may do it both in a responsible and non-responsible way. Still, in order for ICT to remain an efficient tool, people must be able to trust it. We need to strengthen the resilience and security of the Internet and related networked ICT systems and devices to meet the increasing demands and needs of our economies and societies.

- As we increasingly rely on these services, a robust and resilient infrastructure is needed. Today few have a good understanding on how they depend on ICT and where the weaknesses are. There is a need for more research, education and contingency planning in order to improve our abilities to respond to attacks and other infrastructure disturbances. We need to secure critical information infrastructures.
- As several security related incidents involves multiple member states there is a need for cross-border co-operation in this area. This is something that has been improved during the last few years but needs to be further encouraged.

[Weekly draft 2009-11-02 – See <http://www.ourvisbyagenda.eu/our-visby-agenda/>]

- Security problems in hardware and software are mainly dealt with by the private sector. The EU should act as a responsible procurer and make sure that network connected equipment are configured to be secure by default, that security patches are offered for free and kept separately from feature updates.
- In order to protect personal data the level of information security must be improved. The importance of this is increased with the increased use of cloud computing and Web 2.0-services where information is increasingly stored not within organizations and governments but at different solution providers. Public organisations must ensure good procedures for information security management. One way to ensure this is to encourage compliance and certification of information security management standards such as the ISO 27000. Sufficient information security must also be a requirement in public procurement of ICT systems and in the design of new systems.
- Even with proper information security, breaches will occur. Currently, there are a number of instances each year where sensitive information, such as credit-card information or other personal information is leaked and stolen. In order to encourage good practices, enable problem mitigation and build better statistics **security-breach notification laws should be considered**. Such a law would require notification when information have leaked and would give citizens the right to know that their private information is at drift.
- Finally, all open systems are vulnerable to social engineering. Raising the knowledge level of the end-users may improve the situation.

2.2 ICT – Empowering democracy and society

The further expansion of ICT-usage have the potential to support the free flow of information, freedom of expression, and protection of individual liberties, as critical components of a democratic society and cultural diversity. ICT enables new forms of civic engagement and participation that promote diversity of opinions and enhance transparency, accountability, privacy and trust.

2.2.1 A transparent and interactive government

Transparency is not a one-dimensional or linear issue. That is to say, it is not in any way clear that more transparency is always better or worse. Transparency in and of itself lacks value, so when discussing transparency it is necessary to put it into context – in our case: what do we mean by making information transparent and why do we want to do it? The case for a transparent government is really the case for a revitalization of political participation as well as for democracy in the information society in general. However, it is not a case for full disclosure of governmental information, nor is it a case for a completely transparent government.

When addressing transparency issues in the ICT policy area, it is important to be clear about what it means to make information transparent. On the one hand it is a question of making information available so that every citizen who so pleases can access and take part of it. This is a form of *visual transparency*, which already today exists in most democracies where citizens can apply for access to governmental information that is not classified. On the other hand, transparency can also be interpreted so that every citizen should be able not only to access but also to interact with, make copies of and manipulate copies of information. This second definition of transparency – an *interactive transparency* - has been more or less purely theoretical before the breakthrough of digital information, when the thresholds for gathering, copying and handling information decreased significantly.

The idea that citizens should be able to access information about governmental procedures and decisions is in no way new to democratic societies. In many ways, this is simply a question of replacing outdated policies for such access and making use of the potential increase in interactivity and efficiency that ICT provides. Personal or otherwise classified information does not by definition need to be disclosed to the public in order to establish a more transparent government.

Transparency is furthermore an issue of complexity and categorization. The amount of information that could be made available within a single government, or even more so within the European Union, is far to too large for a single citizen to sort through to get an overview of it. In order for governments to be transparent, information must not only be available and interactive, it must also be searchable and the information infrastructure must be visualized.

It is primarily governmental processes, and not so much their explicit content, that first and foremost needs to become more transparent to citizens. The thresholds for taking part of what questions are being addressed, what the processes and political decision-making looks like, as well as what the outcome of those questions and decisions are should be kept as low as possible for all citizens.

ICT not only enables direct and active political participation, it also catalyzes an increased awareness of current political issues and politics in general by lowering the threshold for citizens to access information. Although much focus is being put on the active political participation of a few, it is necessary not to trivialize the silent participation of all those who access information and share it in discussions or social interactions elsewhere.

In a democratic transparent government, interactive transparency should be the norm for all unclassified non-personal information, and any exceptions from this norm should be explicitly motivated.

Summarizing, on our way to a democratic transparent government, we need to address the following issues:

- Remove legal restrictions on paper-only communication.
- Electronic communication should replace paper-form communication as default within governments and public sector organizations. Paper forms should only be used when citizens are not able to communicate and participate electronically.
- Establish digital procedures, including enabling electronic signatures, for all communications that so far have required paper procedures.
- Governments and public sector organizations should use open formats for storing information.
- Unclassified non-personal information should be made available and interactive.
- All available information should be made searchable.
- Public information infrastructure should be clearly visualized.
- Civic engagement and political participation should be encouraged, and decisions-processes should be clearly visualized with their respective deadlines.
- Establish procedures for benchmarking efficient public information management and documenting best practises.

2.2.2 Digital memory - Preserving our informational heritage

Ironically, at the same time as we are experiencing a unprecedented overflow of information, we are also witnessing a decreasing capacity to store and “remember” information. Archiving and preserving documents in the digital world is a challenge yet to be addressed. If actions are not taken we will lose large parts of our heritage. Also, the

fundamental characteristics of ICT enable large amounts of information to be gathered, categorized, stored and made available and searchable in ways that used to be unthinkable. Hence, addressing the issue of our digital memory is not only a question of preventing negative consequences such as information loss, it is also a question about promoting positive effects such as increased efficiency and access to our cultural, political and informational history. Archiving printed books and documents is no longer enough to preserve history as it unfolds.

One of the most visible problems in the changing nature of information infrastructures is the increasing problem of “dead links”, links that are referring to information or documents that have been moved or removed. In the process of preserving digital memory, an important step is to enable permanent stable links through archived information, so that it is possible in the future to go back and see what information a certain link was referring to in the past.

There are already promising initiatives, such as *Archive.org*, that address the issue of storing information and making it traceable with respect to time. There is no need to form a specific government body to replicate what these initiatives are doing, but there is a need for support, endorsement and cooperation between European governments and these initiatives. In a long-term perspective, such cooperation could form the basis for either a stronger independent initiative or a European organization to continually work with these issues and improve the handling of our collective digital memory.

All the information previously stored in other analogue or proprietary formats needs to be continuously reconverted to open digital formats, before the technology used to read the information or the media itself is outdated and/or degraded.

It is crucial that the work to preserve information history is conducted so that all data is stored in open formats to make it accessible and retrievable publicly without restrictions due to incompatible formats or platforms. This is important for two reasons: first to make it broadly available, and second to make it available over a longer time-span. This applies not only to text-documents, but also to audio and visual data.

Libraries and other public archives, which together contain vast amounts of information – for example large repositories of newspaper microfilm - that is not easily accessible to the wide public today, must be included in our digital memory. In order to preserve this information, as well as to make it publicly available, the contents of our public archives and library archives should be digitalized, and all the information should be made publically available and searchable. Cooperation with and support to initiatives such as the Open Content Alliance should be encouraged and prioritized.

Not only would digitalized public archives make our informational heritage more readily available, it would also benefit research and innovation to be able to access and build upon this data.

There are many public archives within the European Union, all of which have gathered an impressive amount of knowledge. These archives should be connected using ICT, so that citizens can access all of them instead of just one at a time.

In addition, access to research information and data can help to spur further research and innovation. The European Union should encourage such *open access* initiatives by making all publicly funded research-data available to the public and searchable. Every such research project should be obliged to submit their research-data within six months upon completion of the funded project.

In order to make the different types of information that comprise our collective digital memory publicly available in digital form, adjustments will have to be made, for example concerning copyright legislation (see separate section on IPR).

In order to preserve, improve and add to our digital memory, the following issues need to be addressed:

- Enable permanent and stable links by preserving historical digital information and making it available and searchable
- Only open formats should be used for storing digital memory.
- Support initiatives such as Archive.org to preserve our digital history.
- Continuously reconvert information stored on analogue and proprietary media formats and make it available in open formats and searchable.
- Digitalize public archives and library archives, and make the information available and searchable.
- All publicly funded research-generated data within the European Union should be made publicly available and searchable.
- Support initiatives such as the Open Content Alliance to digitalize and make information available to the public.

2.2.3 Improving democracy, preserving freedom of speech

- Whistleblowing
- New forms of participative democracy
- What should the public access to official documents look like (en ny offentlighetsprincip?)
- ICT is an important tool for protecting citizens rights.

2.2.4 Privacy and data protection

“Ensure the protection of digital identities and personal data as well as and the privacy of individuals online.”

Internet of things?

Review all new legislation from a privacy and integrity perspective?

The need for a more proactive data protection governance?

New regulation has been introduced over the last few years which has severe effects on privacy and data protection. These laws, such as the data retention directive (2006/24/EG), needs to be evaluated both individually and their combined impact to make sure that they are proportional and motivated.

2.3 ICT – Empowering business and innovation

ICT have the potential to empower business and innovation and lead to increased economic growth in several areas. This can be achieved by better competition, by new products and services and by the creation of new markets.

2.3.1 Making sure that Internet is an open platform

- The open nature of the Internet where individuals and companies may build and launch new products and services on the edge on the network without asking for any permission first significantly lowers the barriers of entrance and increases the levels of innovation compared to previous more closed networks where only licensed services were allowed.
- **Therefore, maintaining Internet as an open platform, supporting permission-free innovation and a free flow of information is a prerequisite for flourishing entrepreneurship and an innovative Europe.**

2.3.2 Create an internal market for services

- **The internal market is currently not fully functional for services in the same way as it works for products.** One example is the on-line music services where different services are only allowed in different regions. This limits competition and must therefore be resolved so that the EU becomes one single dynamic market.
- This requires **harmonisation of laws, regulations and processes.** It will also require definitions of various terms, which are different used and understood within different contexts.
- This regulation, in the same way as all other regulation should be made as general as possible and **should not be ICT-specific** where it could be avoided.
- A fully functioning cross-border service market will also require **improved consumer protection** in order to ensure effective dispute resolution and other measures in order to make sure that consumers can trust cross-country online transactions and purchase services with low risk.

2.3.3 Access to public information

Creates business opportunities by building new services using Public Sector Information (PSI)

XXX: Joakim skriver

2.3.4 The use of Open Standards in government procurement

- EU should continue its current effort to modernise ICT-Standardisation as detailed with the latest whitepaper (COM(2009) 324 final) but needs to go even further.
- The use of Open Standards stimulates competition, encourages information exchange and reduces vendor lock-in. **Therefore, Open Standards should be the natural choice for government procurement.** It should be considered the main alternative, and the use of proprietary standards should only be allowed when no open alternatives exist.
- The use of Open Standards enables SMEs to provide extensions and provide add-on services for parts of the processes. It also gives better abilities to adapt and develop the processes.
- **The governments should be active participators in the open standard making process** as one of many stakeholders making sure that open standards are established in order to fulfil their needs.

2.3.5 Simplify identification and authentication

- Cross-country identification and authentication mechanism are needed in order to simplify both cross-border movements (eg. applying for education in other countries), and simplify business transactions (eg. knowing who you are shipping your products to).
- It is important that such a mechanism is built in a federated way, built on open standards that are easy to integrate, available on all platforms and are operated in a way so that it have low transaction costs.

2.3.6 Competitive regulation

XXX: Joakim skriver

3 Conflicting issues – The need for cooperation

Any vision of change comprises contradictory aims. In certain areas, conflicting interests are easy to work around. In others they are severe and seem insolvable. On a general policy level, conflicts are problematic. That is why they are not articulated. We believe, however, that it is wise to recognise that the information society is facing a number of issues where there are strong conflicting interests. The possibility of development rests partly on our ability to find ways of resolving these conflicts.

3.1 Network neutrality

At the heart of every ICT policy discussion is Network Neutrality (NN). At least when ICT professionals are in the room. Less so when ‘ordinary folks’ discuss ICT. The latter group seldom know of or experience the problems NN relate to, at least not in most of Europe, and at least ‘not yet’. In the US, however, there is a very different competitive situation when it comes to consumer choice, and there have been issues with secret discrimination against destinations and particular types of Internet traffic inside major ISP (Internet Service Provider) networks.

The discussion of NN in Europe is future oriented and has to do with innovation climate, investment incentives, the right to free speech and more. Who will pay for extending the reach of and upgrade the capacity of ICT infrastructure, and what control can these infrastructure owners have over ‘their infrastructure’ in terms of managing access, prioritise traffic etc. What about providing security, prioritisation for real time traffic types, or abilities to get paid for content or services, produced in-house or by ‘partners’?

“Will capacity be built” even if society requires that the Internet services are always non discriminatory and clearly labeled? Will market based competition be enough to allow choice for the consumers? Will there always be opportunity for new services to grow on merit by reaching every possibly interested customer, uninhibited by traffic management “inside the network”, or can bundling of services create beneficial scenarios for everyone involved, now and into the future?

The NN discussion is very polarised with loud demands for action or no action on either side. As is the case with the question of IPR (below), taking the discussion forward is a crucial part of any ICT agenda. But, in our view, “taking a decision” at this time would be premature. The market has clearly provided us with open ICT infrastructure to date, and this has clearly benefitted innovation in society as a whole. But ‘True Internet’ (as defined by NN advocates) reaching only a few is clearly not beneficial to those left out, or to those ventures that are left with fewer potential customers.

Society should monitor the situation and develop a strategy to apply if a non-optimal development from society’s long term perspective should happen. Such a situation might be defined as a point in time when: more than xx percent of ISP customers in a certain

region choose to buy limited ICT communications services, effectively limiting their exposure for new innovative services. At such time, ISPs might be required to promote more open products/bundles.

- Education: consumers should better understand the specifications and limitations of the services they buy. Only then can market based consumer choice be the guarantee society need
- At what 'level' do customers require choice? Do customers only need to be able to access all services from everywhere, or does choice have to happen at the conduit level, or at the ISP level, or?

But most important, it must be recognized that this is a multi-dimensional question involving several different themes such as:

- Freedom of speech
- Innovation
- Incitements to invest
- Methods for Network Management
- Security
- Ability for Internet to evolve

3.2 Intellectual property (IPR)

It is time to start re-visiting the principles of Intellectual property and start a discussion about the role of these types of regulation in the knowledge society where digital technologies challenge several assumptions underlying the IPR regulation.

ICT policy definitely needs to include an IPR perspective. There inevitably will be winners and losers, as IPR has consequences at every level (and in every vertical) of a societal ICT system. The way forward is a multi-stakeholder process, and lot's of education on many levels, to really understand what current legal frameworks can accommodate, and what, in earnest, really needs to be added or subtracted. We think current system is certainly the best start; no need to tear down everything and start from scratch.

IPR is not only a business-to-business legal framework today, as it mostly used to be, in the pre-digital age. We propose that educational initiatives are initiated and funded within the EU. Basic understanding for everyone involved in the debate is fundamental to avoiding many of the misunderstandings and exaggerations that have plagued the debate to date.

We also need to look at harmonising IPR across national borders and across industries. IPR come in many forms: copyright, patent, trademark and more. Different industries

use different IPR to allow for different dynamics. Convergence has former ‘industries’ collapse and merge, and thus we need to look at establishing more common ground to allow for more predictability as this process continues across previously not affected sectors.

The ‘solution’ will not only involve law, but increasingly lean on emergent norms and sustainable behaviours of the digital age. Younger generations have lived with a deep and natural understanding of consequences of ‘the perfect copy’ for a relatively long time now, and they also live in tough economic times ”for friend and foe”. They are growing to understand that a balance needs to be struck between freedoms, rights, and the reach of those IPR rights for society to be sustainable in this aspect. No area of society is perfectly and totally codified in law, but law has its roots in generally agreed upon norms. It is our belief that new norms of balance are emerging, slowly but surely. No new regulation or upheaval of current system should pre-date this relative maturation.

There are a number of different issues that could be considered in the coming educated discussion:

- The speed of the economy is increasing. Hence the time a certain innovation carries economic value is decreasing. But protection times are generally increasing. Is this good?
- Non-commercial uses such as digital access for libraries must be discussed. Is it reasonable that copyright concerns in the form of DRM limit access for private use? The concept of e-inclusion is important in this debate, and allowance for format-shifting.
- IPR is based on the assumption that all intellectual property is equal. However, the use of eg. patents in different industries differ. One industry use trademarks or copyright, where another industry use patents. Is it then reasonable that different industries with different “innovation paces” have the same protection-times?
- How do we create an allowing culture that encourages innovation and re-use while still protecting the rights of the original innovators. (Should IPR protection for instance lead to an obligation to license?)

Also note that much of what is considered “wrong with IPR” today is not dependent on the actual regulation but instead has much to do with the way IPR-holders are (over)using their rights. A more modest use of IPR-rights, allowing participation and certain balanced cases of format-shifting, could mitigate a lot of the current criticism.

A radical change in the way we regard IPR might be necessary, but will not come smoothly. We must therefore proceed both with care and thought, while not hesitating to make radical changes affecting a large part of society.

3.3 Security vs. Openness

Is it fine to ask for increased Security everywhere at all levels in the same ICT policy that also applauds Openness and Transparency? We think not. There is a tradeoff.

The ICT infrastructure cannot in every aspect be accountable, and also allow for privacy and integrity. Every time security is mentioned, it must be stated: in relationship to what? At what cost? What benefit is received? How much more cumbersome does this or that action gets, because of the proposed security measure? Etc.

It is certainly true that the reach of Internet make the potential loss occurred if security is breached, that much larger. Many security problems, in the ICT infrastructure, and elsewhere, arise when the user has a deficient security model, or see no incitement to understanding risks vs. rewards. We believe this is a crucial area of increased effort - the education of risk, reward, potential loss and consequences.

Security should not be hidden out of sight so that users of ICT infrastructure get a false sense of security. At the same time, general 'trust' in the system, the systems ability to recover after a mishap or breach, is important to establish to maximise the usage and societal benefit from a modern ICT infrastructure.

4 Is this the last ICT-policy?

If ICT is general, as we have argued, for how long is there a need for a specific ICT-policy? When have ICT been implemented to such an extent and depth that it has become integral to the specific sector and hence belongs to the visions and policies of that particular sector? Is it possible that this is the last ICT-policy?

Given the fact that the nations of the European Union face different challenges, we might still need ICT-policies on a European level in the future. Broadband access, digital literacy and innovation climate varies across nations as does individual security and GNP per capita. The goal, however, should be to work for a society in which ICT is used just as any other technology and to which our normal laws and norms apply.