Enterprise and Industry

EU Study on the specific policy needs for ICT standardisation

Executive summary of the final report

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Introduction

This is the executive summary of the Report on the Study on the Specific Policy needs for ICT Standardisation (ENTR/05/59). It contains an executive summary of the first parts of the full report, the complete text of a model for future EU ICT standardisation policy and a set of ten Recommendations.

The European Commission has expressed its wish to use standardisation as a policy tool for encouraging the competitiveness of European Industry, whilst taking global developments in the ICT sector into account. More specifically, the European Commission wishes to rely upon a European ICT standardisation system capable of responding to industrial and societal stakeholdersí expectations. Further, ICT standardisation should be a tool capable of supporting and complementing various related European policies such as the Lisbon agenda, Industrial policy, Health policy, eLearning, eAccessibility etc. The objective of the Study, therefore, is to provide a thorough analysis of current European ICT standardisation policy and to bring forward recommendations for its future development.

The Study has identified a number of issues that could arguably challenge the current system of EU ICT standardisation policy. These issues have been identified following an extensive survey in which relevant stakeholders were questioned, questionnaires sent out, position papers drafted by standardisation experts and four workshops, organised by the European Commission, held at which stakeholders could air their ideas and concerns.

This identification of issues was based on a broad survey of relevant players in the field through questionnaires, position papers drafted by individuals that are regarded as experts in their field and the outcome of four workshops organised by the European Commission in which relevant players could proactively discuss and come forward with their ideas and concerns.

1. Why is the EU interested in standardisation?

Standardisation plays a significant role in the economy. It ensures a level playing field between the different market players and improves the quality of products and services placed on the market. Technical standards act as a vital tool for structuring economic behaviour, whether these standards lay down quality and safety requirements or ensure compatibility. Legal systems rely extensively on standards in support of technical regulation and to ensure that overall policy objectives are met.

The European Union has always shown an interest in the role of standardisation as a means to support European Union policies on different levels and in different sectors. With the adoption of the New Approach model in the mid-1980s, the European Union has made increasing use of standards in support of EU policies and legislation.

Broadly speaking, EU policy focuses on standardisation as a means to reach two main policy objectives: firstly, to complete the Internal Market and secondly to support European policies such as competition policy, ICT, public procurement, interoperability, environment, transport, energy, consumer protection etc.

2. What are the characteristics of the current and future ICT landscape?

The fast changing ICT landscape is characterised by some very specific elements that oblige players in the field of standardisation to react and assess their position towards ICT standardisation. The characteristics of the current and future ICT landscape can be summarized as follows:

Globalisation and the *connected society* is rapidly becoming a reality due to the rapid spread of broadband, wireless technology and next-generation networks (such as optical fibre and wireless), allowing people and devices to be connected anywhere, anytime. Through integration and convergence, industry becomes part of a borderless digital ecosystem, where companies are increasingly defined by their role within the converged value chain, rather than by traditional market segments.

New computing paradigms such as *Software as a Service* and *Service Oriented Architectures* are being introduced. Computing resources are made available as independent services that can be accessed without knowledge of the underlying platform implementation. *Grid computing* takes advantage of many networked computers to solve large-scale computation problems.

Changes in delivery models and business models are being initiated by the use of the Internet. The Internet has changed traditional delivery methods, thereby boosting both disintermediation and re-intermediation.

As an ongoing trend, information technology is seen as a *commodity*. A related phenomenon is the *consumerisation* of IT, a trend whereby enterprises use computing technologies that have their roots in consumer applications.

Large investments in the ICT infrastructure, technological improvements to networks and enhanced hardware capabilities have enabled the development of advanced *digital content*, such as digital books, music and videos. Digital content is the driving force behind the knowledge economy, as a shift is taking place from the manufacturing of physical items to the manufacturing of intangible information.

Individuals are becoming more and more involved in information technology, not only in their role of passive end-users, but also in their role of active participant or information provider. The trend of *end-user involvement* has been booming with the advent of the Internet, in particular since the rise of peer-to-peer networks and the active participation through Web 2.0 applications allowing for collaborative working.

Increased computing power and further miniaturisation and integration have brought

computers and appliances into every human domain. *Ambient intelligence* and artificial intelligence go hand in hand with *ubiquitous networks*, whereby networked, mobile, seamless embedded objects invisible to the user provide real-time tracking, storing and processing of information related to persons and objects.

The use and development of ICT has, indeed, become a global and cross-sectoral matter. ICT is more and more focused on services: the use of ICT is becoming ubiquitous, hence the new term "the internet of things". Based on current trends it would appear that the same trend will continue over the coming decade.

Policy makers should take these premises into account when trying to use standardisation as an instrument for reaching their policy objectives. In other words a standardisation policy that remains focused on regional aspects, specific sectors and the mere standardisation of products (instead of services) will not be able to influence the market, and hence, will not be able to ensure industrial competitiveness. Nor, will It be able to reach EU policy objectives on innovation or consumer protection.

3. What are the characteristics of the current ICT standardisation activities?

In the field of ICT standards, the unique characteristics of the ICT sector means that we have been witnessing the rise of *de facto* standards, the creation of standards outside of the formal standardisation process, the increase of standardisation activities in Asian countries and the rise of non-formal ICT standardisation bodies with a global reach (IETF, W3C, OASIS). We have also seen the formal standardisation bodies adopting additional procedures and strategies in order to keep track of the demands that stem from the ICT evolution.

If the EU wishes to maintain its influence on ICT standardisation, it needs to ensure that current and future characteristics of the ICT landscape as well as the current and future characteristics of the standards development in the ICT sector are taken into consideration when developing and maintaining an ICT standardisation policy.

4. How does current EU ICT standardisation policy respond to the challenges imposed by the ICT landscape and the ICT standardisation landscape?

For a number of years both EU and ESO policy has been to adapt their rules and procedures to an ever changing ICT standardisation landscape. For ICT standardisation purposes, however, these efforts may not be enough to meet the overall policy objectives of the European Union. If, however, the EU wishes to continue benefiting from standardisation as a policy instrument, it must ensure that standardisation policy takes account of the new ICT challenges.

The European Standardisation Organisations (ESOs), together with European policy-makers are already intensively engaged in adapting their policies and procedures towards these changing demands. Examples of these efforts are the use of fast track procedures, the involvement of different stakeholders in the standardisation process, the installation of a dedicated platform (ICTSB), the delegation of representatives to Asian countries, the translation of standards developed by non-formal standardisation organisations into ESO standards, the funding of research activities in which standards are developed outside of the ESOs and the marketing of European standards on an international level.

Most of the actions undertaken have been described in policy documents such as Communication COM(2004)674 on "*The role of European standardisation in the framework of European policies and legislation*", the European Commissionís staff working document SEC(2004)1251 "*The challenges for European standardisation*", the eEurope Standardisation Action Plan (eSAP), and more recently the 2006 Action Plan for European Standardisation and the related 2006 ICT Standardisation Work Programme.

The picture that emerges shows an EU ICT standardisation landscape, that consists of EU policies, an ICT standardisation policy and a formal and Informal standardisation structure

EU ICT Standardisation Landscape

<table>
<tr><td colspan="8">EU POLICIES</td></tr>
<tr><td colspan="4">Some of them regulated (medical devices, R&TTE, data protection, eSign)</td><td colspan="4">Some of them not regulated (competitiveness, eHealth, i2010)</td></tr>
<tr><td colspan="8">EU ICT STANDARDISATION POLICY</td></tr>
<tr><td colspan="4">EU Formal Standardisation System</td><td colspan="4">EU informal Standardisation structure</td></tr>
<tr><td colspan="4">Direct impact</td><td colspan="3">Indirect impact</td><td>No impact</td></tr>
<tr><td>98/34
New Approach</td><td>Ad-hoc initiatives: Eg. eSign eInvoice</td><td>eHealth eAccessibility</td><td></td><td>Participation in non ESO activities</td><td>funding R&D</td><td>Referring to existing non-ESO standards</td><td>Hands off</td></tr>
<tr><td colspan="3">Support of legislation</td><td>Support of policy</td><td colspan="4">Support of policy and legislation (e.g. IDABC, safer internet, …)</td></tr>
<tr><td colspan="4">Players: ESOs and only to a limited extent non ESOs</td><td colspan="4">Players: non ESOs and only to a limited extent ESOs</td></tr>
</table>

5. Is the current approach the right approach for reaching the EU policy objectives?

EU policy and especially that of the ESOs has made considerable effort to adapt the rules and procedures to take account of the constantly shifting ICT standardisation landscape. It is, however, generally felt that these efforts are not sufficient enough to guarantee that the EU's ICT policy objectives are met.

One of the main reasons why the current approach is only moderately successful, in our opinion, is that , whilst it may be pragmatic, it is also very fragmented. Ad hoc initiatives have been taken to react to immediate concerns or symptoms without ensuring a long term approach. Not enough time is given to the proper establishment of existing standards within the legal framework. As a result of this organic, symptomatic approach, it has been difficult to gain a clear understanding of the EU ICT standardisation landscape.

We have noted the initiatives for structuring the different actions along the lines of a long term policy vision, such as the recent 2006 Action Plan for European Standardisation and the related 2006 ICT Standardisation Work Programme. The documents also identify the different actors (Directorates-General, ESOs) involved in taking up these actions. The proposed actions, especially the ones identified in the Work Programme, are very much

in line with some of the challenges identified , such as the uptake of new technologies (e.g., NGN and Grid computing) and supporting European policy outside of the New Approach (e.g., eInclusion, eHealth). Although we very much welcome these initiatives, we are of the opinion that this policy remains too focussed on restructuring efforts within the standardisation process. It does not consider other issues, such as the inclusion of participants, other than the ESOs, in the standardisation process. Nor is the matter of differing legal standardisation deliverables given much thought. Examples of such a symptomatic and fragmented approach can be seen in relation to electronic signature standardisation initiatives, funding R&D programmes, and the manner in which participants are involved in the formal standardisation process.

> An example of this pragmatic, though fragmented approach, is standardisation work on electronic signatures. In a bid to create an efficient internal market for electronic signatures, it was decided to rely, more or less, on the same instruments that characterise the New Approach. For example, reference to standards, mandating the ESOs to complete the standardisation work, publication of the recognised standards in the Official Journals etc. Yet electronic signatures is not an activity that falls within the scope of the New Approach. By using New Approach instruments in support of legislation falling outside of the scope of the New Approach (in this case, the eSignature Directive 1999/93), EU policy sought to broaden its influence on ICT standardisation , which historically would not have been part of the EU standardisation process. Thus, market end users and providers remain uncertain as to which electronic signatures standards they should rely on given that New Approach mechanisms have been used on the one hand, but the ensuing deliverables do not have the same value as New Approach deliverables on the other.
>
> A further example of this pragmatic, though fragmented, approach are EU initiatives to fund research projects in which non ESO standardisation organisations are also present. In funding standardisation work through R&D the EU is able to gain advantage from standardisation work undertaken by non ESOs. The disadvantage of this approach is that this kind of standardisation work happens on the sideline, and does not gain the same value as standards being elaborated within the ESOs. Moreover, the idea of funding standardisation related research projects is not supported by European legislation or a common European policy towards ICT standardisation, thus leaving too much room for diverging initiatives within the different Directorates-General of the European Commission.
>
> A third example is the initiative to involve stakeholders in the formal standardisation process through a consultation round before issuing a mandate to the ESOs. The European Commission, when preparing a mandate for standardisation to support legislation, often asks the opinion of relevant stakeholders. This consultation round, however, is neither legally, nor from a policy perspective, obligatory and depends very much on the good will of the Commission official responsible for a given file.

A second reason why we think the current EU ICT standardisation approach is not as successful as it should be, is that most past and present initiatives do not go far enough to finding an appropriate answer to the challenges imposed by the changing ICT landscape.

> By way of example, we refer to the establishment of the ICT Standards Board (ICTSB). Although this initiative is a very good first step for tackling some challenges imposed by ICT (the time issue and the market players issue), we feel that the time has now come to move the role and function of ICTSB on to a higher level. For the moment the ICTSB only acts as a co-ordination point and facilitates the exchange of views between the member

organisations and other interested parties. It only makes proposals and recommendations for consideration by the member organisations and other interest parties. The ICTSB does not, however, have the right to initiate standardisation activities having to always fall back on the three ESOís instead.

A further example is the introduction of alternative standardisation deliverables such as CEN Workshop Agreements (CWA). We note that many issues arise such as the non existence of a clear definition of the legal value of CWAs and of the CWA concept. Furthermore, CWAs are not assigned the status of a formal standard (EN). Hence, in the case of CWAs CEN Members are not obliged to withdraw pre-existing national standards conflicting with the CWAs.

A further example are the international agreements that allow standards developed by one body to be approved by parallel voting in both. The Vienna Agreement between CEN and ISO, for example, only concerns the development of European Norms. It is not sufficiently clear whether products other than ENs may be developed under the Vienna Agreement. One opinion is that it is generally possible to integrate other deliverables under the Vienna Agreement but procedural guidance may be necessary on a case-by-case basis.

In summary, although it has been the policy of both the EU and ESO to undertake a number of initiatives in response to such challenges, they have led to a scattered range of often halfway measures. Moreover, some of the initiatives miss a legal basis. More specifically, they are not supported by Directive 98/34 and Council Decision 87/95. In other words, the current legal framework has not adapted to the current practices that have been legitimately undertaken by the EU policy makers and ESOs in their need to adapt to the changing demands of the ICT sector.

We think that an ICT standardisation policy based on pragmatic but fragmented, and on occasion half-way measures, that are not always covered by a legal basis, is not the best basis for building a strong and competitive European ICT standardisation policy. We, therefore, think that, even after the extensive and valuable work already carried out by EU policy-makers and the ESOs, some challenges, nevertheless, still remain.

6. What are the remaining challenges?

The following issues have been identified as the most pertinent challenges for the EU standardisation policy in the field of ICT.

- **Regional character** – EU ICT standardisation is confronted with different challenges regarding its role and influence on a global market. A first challenge is how to ensure that EU standardisation initiatives can take stock of standardisation processes and deliverables created outside of the EU standardisation system. A second challenge is to marry the regional policy objectives of the EU with the global nature of ICT standards. A third challenge is to find ways to create global acceptance of EU standards
- **Mandating** – Currently, the EU ICT standardisation legal framework does not allow mandates to be issued to non-ESOs. By not being able to mandate to non ESOs, the EU takes the risk that it will not gain advantage from the know-how and expertise that is being built up outside of the ESO community. It also runs the risk of not being able to influence their activities in Europeís favour.
- **Standardisation organisations** – EU ICT standardisation does not take sufficient stock of standards developed outside of the standardisation system. The procedures for incorporating these standards into the EU standards is regarded as cumbersome and user unfriendly.
- **ICT Users** – Although consumers and SMEs are formally represented in the EU standardisation process, it is felt that because of the huge impact of ICT on the user (consumer/SME), the representation of these stakeholders is

currently not sufficient. When discussing user representation, the level of involvement should be balanced against the specificity of the user needs (direct/indirect) and the standardisation context (support of legislation, of policies, of competitiveness or of other areas).

- **ICT producers** – SMEs, although ICT producers, are not well represented in the ICT standardisation process, in spite of the fact that the EU market centres on SMEs. SMEs should be encouraged to engage in standardisation activities. Also here, the level of involvement should be balanced against the producer needs of the SME's-within a standardisation context. When defining standards the size of SMEs should be taken into account. For example, defining sub-systems that can be built by smaller actors and not just the larger players. General access to standards should be facilitated by taking the specific needs of SMEs into account.
- **R&D** – European Research and Development does not pay sufficient attention to a future standardisation track, risking a delay in bringing standards to the market (standardisation gap). This could raise problems concerning the EU's competitiveness.
- **Exploitation of EU ICT standards** – Although many EU standards success stories can be recounted, it is nevertheless true that existing EU ICT standards have gained wider market acceptance.. Indeed, the most widely implemented ICT standards have been drafted by non-formal standardisation organisations.
- **Transparency** – The current EU ICT standardisation landscape is blurred and lacks clearly defined and mapped out borders. Feedback from the participant' survey and discussions between the relevant players indicates that a lot of confusion relating to the standardisation processes, procedures and deliverables exists. This lack of clarity is due to the EU's and ESO's organic response towards the challenges imposed by the ICT landscape. As a result of this organic approach, it is difficult to gain a clear understanding of the EU ICT standardisation landscape.

If the EU wishes to continue having an impact on standardisation efforts in the ICT area, these challenges need to be addressed.

Model for a future EU ICT standardisation policy

1. General

We propose a model for developing an EU ICT standardisation policy capable of responding to the challenges imposed by the changing ICT and ICT standardisation landscape. This model encompasses the issues identified in Part III of the Report, with respect for the European and international standardisation principles as laid out by the Council Resolution on European standardisation of 1999 and the WTO TBT agreement.

To recall, EU standardisation principles confirm that standardisation is a voluntary, consensus driven activity, carried out by, and for, the interested parties. It is based on open, transparent procedures, conducted within independent and recognised standards organisations that lead to the adoption of voluntary standards. The WTO considers transparency, openness, impartiality, consensus, effectiveness, relevance and coherence as key principles that must apply to international standardisation.

The proposed model centres on these EU and WTO standardisation principles. The proposed model ensures that:

- all interested parties can have their say in the standardisation process, from the policy and strategy stage right through to the operational level, as well as from the drafting to the implementation phase (openness, transparency and consensus, carried out by the interested parties);
- standards are developed by the most appropriate party, on condition that the relevant

quality criteria for EU standardisation are met (effectiveness, relevance, independent and recognised standards organisations, impartiality);

- European and international standardisation work well together in terms of effectiveness and relevance;
- agreed standards are properly implemented, not through obligatory use, but rather through promotion and educational activities (voluntary compliance); and
- an efficient, clear and easily understood standardisation mechanism is established.

2. Elements of the proposed model

The current reality of the EU ICT standardisation policy can be described as covering both the formal standardisation system (i.e. an "institutional" part) and a whole range of loose activities relating to standardisation (i.e. an "informal" part).

The informal part is becoming more and more important. As a result, EU ICT standardisation policy should give greater attention to the more informal application of standards. We think that the best way to synchronise the new tendencies is to integrate informal standardisation elements in to the institutional part, i.e. using the standardisation system as the basis for European standardisation efforts, but adapting it to the new reality.

We would, therefore propose the establishment of a level decision making process. This process would include, inter alia, adopting an open mind regarding the role of European standardisation globally, the direct participation of standards setting bodies other than the ESOs. in the formal standardisation process and to promote adoption of voluntary standards by making them freely available.

Public oversight on critical standards setting would be maintained within the proposed new model. The new model would also define the European strategy for standards setting, help increase the rate at which EU standards are adopted world-wide and facilitate the establishment of political consensus to pave the way for the introduction of new products in a multinational region. Direct market intervention would be kept to a minimum in a bid to make EU businesses more competitive globally.

By adopting elements of this model, we believe that the current valuable EU standardisation system ñ including its mechanism of co-regulation ñ can respond best to the fast-changing market conditions as described in Part III of the Report.

2.1 Introduction of levelled decision making platforms

Decisions regarding ICT standardisation should be taken at three levels: at the policy level, at the strategy level and at the operational level. We will assume first that each level is distinct from the others and call them platforms.

2.1.1. Policy platform

In order to create a coherent and efficient ICT standardisation policy, an open discussion between the national and EU policy makers, especially within the European Commission itself, will have to be initiated. This initiative could formally take place in a high-level policy platform for ICT standardisation. This platform would be hosted by the European Commission and consist of European Commission officials and national representatives who could together define a long term EU ICT standardisation policy.

Participants – The policy platform would set future agenda points and resolve (possible) political problems. It should, therefore, consist of the European Commission and the Member States only. ESOs, industry and public interest stakeholders could be asked to provide relevant input to the platform.

Tasks – The policy platform will be responsible for setting long term European policies. Its tasks would be:

- to identify and differentiate policy areas where different degrees of intervention should be exercised (e.g., legislation, regulation, pub-

lic procurement, digital signatures, eHealth, etc.);

- to clarify areas that fit entirely or partially into the public policy domain and to clarify the fields that do not. The latter being defined under market/competitiveness matters;
- to set short, medium and long term priorities in the various policy areas, taking account of industrial policies (such as European industry's ability to respond to the requirements) as well as Member States' commitment to help promote the implementation of the various standards;
- to identify areas where further integration of the internal market must be pursued; and
- to identify problems where the application of (European) standards (in public sector) are not being adequately followed.

2.1.2 Strategy platform

The strategy platform would be more formal; a place where stakeholders and public authorities could discuss the future of standardisation efforts based on the strengths and interests of the stakeholders and based on the envisaged short, medium and long term policy objectives.

Another objective of this platform is to establish consensus between the various players necessary to create the right conditions for launching new initiatives. After all, the market, acting alone cannot always make technical evolutions due to "chicken-and-egg" situation.

Consider the following two examples. One of the successes of GSM was the agreement on frequency bands throughout Europe, and the agreement and the commitment of the operators on the yet to standardise technology. Another example refers to the Internet. In technical terms, the Internet is blocked. For a number of years now, standards on IPv6, IntServ, DiffServ, Mobile IP, etc. have already been defined, but their deployment will not happen due to a lack of investments on the part of the ISPs. One ISP will not start an investment because it cannot take advantage of it if all the other ones do not invest. All the recent evolutions of the Internet are performed by overlay networks, in order to not demand changes at the core. The strategy platform can then be a forum where concertation can be achieved and programmed to enable long step endeavours.

Participants – The strategy platform would be composed of the Member States, the European Commission, ESOs, non-formal SDOs, specification providers, public stakeholders (e.g. ANEC and NORMAPME), and industrial stakeholders. The inclusion of the non-formal SDOs and the specification providers is subject to their willingness to participate and the approval from the European Commission that they follow the EU or WTO TBT standardisation principles in their procedures. The inclusion of the public and industrial stakeholders is subject to their willingness to participate and the approval of the European Commission.

Tasks – Once the major lines of activity have been defined, as well as the main guidelines regarding horizontal aspects such as interoperability, user participation, etc. by the policy platform approved, it will then be up to the strategy platform to come up with requirements and conditions on how next to proceed in order to implement the policy objectives.

The main tasks of the strategy platform would be:

- to create the necessary consensus between the Member States, the European Commission and other represented players for the creation of a unique vision of the solution to the problem to resolve (e.g., in terms of requirements and commitment);
- to recognise that the requirements due to the diversity of the European reality are turned into advantages for the products and standards and not regional handicaps. For example, if a product or standard is capable of incorporating differing interests in a multinational region such as Europe, that standard is well placed to gain global coverage;
- to synchronise work with international standardisation organisations;

- to improve the interoperability of the standards being developed (various scenarios can be considered, ranging from an overambitious one where an open infrastructure can be created to support *all kinds* of services, up to vertical infrastructures per sector controlled by alliances or associations);
- to promote arrangements that go beyond the framework of industrial standardisation but that depend on the agreements concluded in particular fields of professional activity and contribute to the efficient exchange of information (e.g., travel agency transactions, money transactions, etc.);
- to manage the work programmes;
- to propose global and regional co-operation activities in the standardisation area; and
- to monitor the implementation of standards belonging to approved policy areas, identify obstacles and propose solutions to eliminate them.

It would also have a duty to propose future lines of action that have already been approved by the policy platform. Amongst them are the following:

- preparation of work programmes and proposal of priorities; and
- preparation of reports describing the execution of the activities in the field of ICT.

It is important to note that we see this platform as having an advisory role. Decisions taken at this level should always be approved by the policy platform, the European Commission, or even in a more formal way (Council, Parliament).

In Practice – From a practical viewpoint, the policy platform and the strategy platform could be part of one organisational entity. This entity could be called a High Level Strategy Group on ICT Standardisation. The above called policy platform would be a sub-group of this High Level Strategy Group on ICT Standardisation whose participation is limited to public authorities discussing policy issues. It would convene less frequently.

2.1.3 Operational Platform

The operational platform is an execution body, but it has also an advisory role concerning operational issues.

Participants – The operational platform would be composed of the European Commission, ESOs, non-formal SDOs, specification providers, public interest stakeholders (e.g. ANEC and NORMAPME), and industrial stakeholders. The presence of the Member States, at the operational level, would not seem relevant. The inclusion of the non-formal SDOs, the specification providers, and the stakeholders would rely on the same procedure as that of the strategy platform and it makes sense that the same entities are represented at both platforms.

Tasks – The operational platform would be responsible for working on decisions approved at a higher level. One type of decision, for example, could be pursuing a standardisation activity without a mandate if there has been a willingness to proceed at a higher level. This can be the result of a consensus on a general policy area where it was decided that the market should have the lead. The operational platform will be responsible for deciding which standardisation body (or a joint effort of more than one) should specify the standard. This is very much a co-ordination task of the standardisation activity.

Another task relates to finding consensus to mandate on a certain subject. The operational platform should propose the text of the mandate and suggest the target organisation (or organisations) for that mandate. The final decision to issue the mandate lies within the European Commission.

The operational platform should also take care of other operational issues. The main tasks, them, are:

- to co-ordinate standardisation activities identified by the strategy platform that are not subject to mandates;
- to propose texts and target organisations for the mandates that the European Commission is willing to perform;

- to execute the work programmes;
- to prepare detailed reports describing the execution of the activities and the practical results of their implementation; and
- to propose new areas where general policies should start.

2.2 Open minded and realistic approach towards a global position of EU standards

ICT standardisation takes place in a global environment, with the involvement of different players and different interests at stake. Failure to take this reality into account and failure to adopt coherent actions towards these players risks European interests becoming sidelined. EU ICT standardisation could become irrelevant on the world stage.

Therefore, an open minded and realistic approach towards the role of EU ICT standardisation in a global environment should be part of the EU ICT standardisation policy. This approach should be coherent with policy objectives and not rely on ad hoc initiatives.

Currently, different initiatives have been undertaken to maximise the impact of EU standardisation efforts at a global level, such as entering into co-operation agreements on different levels and with different players, or delegating EU representatives to standardisation organisations or regions.

Still, we think that more work needs to be done to strengthen the role of EU ICT standardisation on a global level. Certain agreements are valuable, should remain and even get stronger. Others were performed as a symptomatic reaction and are probably better handled in a different way.

Cooperation with formal SDOs – ESOs play an important role in the EU's standardisation process. They have established agreements with international SDOs, which should continue and be strengthened. As is the case with the Vienna Agreement, the Dresden agreement and the MoU in the Telecommunications Sector. There are areas of ICT where these arrangements respond quite well to the requirements of the reality.

Cooperation with non ESOs – However, as far as certain sections of the ICT sector are concerned, the reality is that ICT standards no longer follow the usual pattern of approval – i.e. the creation of standards by experts, their implementation by the industry and revision following feedback after their use. The Study has shown that industry prefers to drive the process and create what has been called non-formal SDOs and specification providers to define the standards. This development has had implications that are relevant to this section namely, the starvation of expertise from the formal organisations, and the creation of standards outside of the formal system.

It has already been noted that the reaction to this development was an attempt to somehow integrate the non-formal system into the formal system. In the case of the ESOs, co-operation between the formal system and the "non-formal" system was based on agreements. "Fast track" procedures were also defined within ESOs and within international SDOs. As the Study has already demonstrated though, it is a complex and cumbersome solution. We do not believe that it will stand the test of time. Rather than relying on the use of co-operation agreements, a better way forward would be to integrate the "non-formal" system into the platform solution outlined above. It may not be a global solution (because the institutions are European institutions), but it would allow Europe to take more advantage of the "non-formal" world in a coherent way and possibly bring "action" to the region.

NSB cooperation – The role of the National Standardisation Bodies (NSBs) in these specific areas of ICT seems to be somehow emptied due to these choices of the industry to perform the standards. In future terms it is difficult to identify a clear role for NSBs in these areas: they might change dramatically and start acting based on the rules of consortia to attract the action. This seems unrealistic due to the impact on their structural organisation that works very well for other areas. Our opinion is that NSBs should focus on the areas where their work is valuable instead of aiming at covering the whole reality using the same rules and procedures.

Regional cooperation – Another level includes world-wide regional co-operation. There are different aspects here: certain consortia are already active at a global level and their willingness to participate in the European platforms provides a global dimension. Another form of co-operation is between formal organisations from other parts of the world ñ for instance, China, India, Korea, United States, Australia, etc. Europe already has a standardisation representatives in China. Such initiatives should continue and cover other regions, but it should be borne in mind that its importance might be more relevant for the formal system of standardisation and the issues that work well under its scope. Once again, as for NSBs, different problems and realities should be addressed differently. Strategic co-operation based on the identification of areas where the European industry can actively participate and gain from mutual endeavours should be one objective of the action of the representatives.

2.3 Transparent and diversified use of mandates

The use of mandates is a very valuable tool in the hands of the European Commission helping it to exercise an active role in the standardisation process in public policy areas. Without mandates, the European Commission would not be able directly to initiate standardisation initiatives in those areas and its role would be restricted to a more persuasive, more passive, one.

Therefore, we think that the mechanism of mandates should continue to exist, although in an updated form.

- Currently, the mandating mechanism is formally restricted to New Approach standardisation activities, although, in reality mandates are also being used outside of the scope of the New Approach on an ad hoc basis (e.g. eHealth, electronic signatures, eInvoicing). We think that the model should formally allow the use of mandates outside of the scope of New Approach.
- Currently, mandates are restricted to ESOs only. We think that the model should allow for some standardisation related activities and in some circumstances the European Commission to mandate other organisations than ESOs.

We would argue for a differentiated approach towards the use of mandates, based on the policy objectives that need to be met, the work to be mandated and the players to whom the mandate can be issued.

Who to classify? – The existence of the platforms defined above can help put the various problems in perspective and provide different answers to different problems.

Regarding the ICT sector, it is expected that market oriented policies will gain an ever growing share of the total activity which makes the reaching of consensus at the strategy platform more relevant than the concrete issuance of mandates. For the non-regulated part of ICT, mandates should be issued with very precise objectives. It is expected that their numbers tend to be small.

This is an area that is unquestionably outside the New Approach. For each objective, the best organisation (the one which proves to have more expertise in the field) should be chosen, regardless of being an ESO or not. It is important to note that mandates are not orders given to organisations, and their acceptance by non-ESOs organisations should imply their commitment to the spirit of the legislative acts. Ex-post assessments of these initiatives would be valuable to understand the efficiency and the benefits of mandating non-ESOs organisations.

The proposed model should incorporate a classification of policy areas (New Approach, Public interest, other policy areas) and then define what level of involvement could be necessary (Studies, Recommendations, drafting of standard, etc) by which entity (ESO, non-ESO). The classification should be drawn up by the policy and strategy platform and could take into account the following differentiation as a starting point:

Type of standardisation area Type of mandated work	New Approach	Public interest	Other policy areas
Studies	ESOs	ESOs Other organisations	No mandating
Recommendations for standardisation work	ESOs	Other organisations	No mandating
Standardisation	ESOs	Other organisations	No mandating

2.4 Increase the voluntary adoption of European standards

2.4.1 Marketing efforts

A parallel effort to the creation of global standards, is to support their implementation in Europe and, where relevant, in other regions of the world. Without any doubt the standards need to have technical merits and need to have caught the attention of the market as a first step. It is always easier to "sell" a good product. Throughout Part III of the Report, a series of recommendations were written on this respect. They are summarised below.

Past success stories can be recounted. However, where success was achieved it was achieved under very specific conditions: New Approach standards got market acceptance due to their legal framework. Although the New Approach standards referenced in legislation are to be adopted on a voluntary basis, the market usually chooses to implement these standards because of the presumption of conformity with the essential requirements of the law. The GSM case is very much a result of unique conditions and it is unlikely to be repeated. For areas where some co-regulation or no regulation exists, new approaches need to be defined. However, one condition seems to be necessary: the (European) market has to accept the standard in the first place. Products following the standard will then be made and sold.

As a main measure, a European industrial policy for ICT must be defined to identify and select areas where Europe is in an advantageous position and prepare other areas where work must be done to improve them and place them at global level. The policy and strategy platforms seem to be the best places to discuss these issues. Means to improve them can be investment in R&D programmes, the trial of new initiatives of associating know-how (Integrated Projects, European Technological Platforms, etc.), industrial alliances on vertical issues, etc.

Once standards have been identified as being potentially successful on a global level, they should then be subject to promotional activities involving commercial policies and the representative for standardisation issues in other regions.

Public procurement is an area where public administrations are direct clients and can force the establishment of the market for European products and standards. Once again, consensus at the policy and strategy platforms can induce a positive drive for the market.

2.4.2 Intellectual Property Rights

The relationship between Intellectual Property Rights and Standards is complex and the different players have not achieved a satisfactory framework that avoids most of the current problems. It is expected that the problem will not disappear with time - becoming rather more complex as time proceeds.

ESOs are active in clarifying the rules and procedures they follow but clearly these rules cannot solve the more serious problems when (and if) they happen. Just to name the more relevant ones: ambushes; unwillingness of an organisation (Member

or not) of licensing an IPR; knowledge about essential patents; behaviour towards IPR claims after a reasonable long time when the technology is really launched under the assumptions that the IPRs were different.

The European Commission should take the initiative to launch a global study on IPR, standardisation and ICT. There are already some different proposals and studies at different stages of maturity at different regions and a global position should be pursued.

2.4.3 Free availability of standards

Certain areas of ICT involve an interested community that can add value to the standardisation process without being formally involved in it. This is not seen in other areas of ICT and surely not in other standardisation areas (construction, transportation, security, etc.).

The research community, in particular, has a history of bringing standards to the global discussion and of improving them in ways that many enterprises can not afford (aspects of the internet, for example). This is probably an excellent way to provide visibility to a standard, the cost of which would have to be compared to the income provided by the collection of fees from the NSBs or other SDOs.

The proposed model, therefore, would permit the free availability of standards developed by SDOs operating in Europe in the ICT area. Clearly this would have an impact on the business model of SDOs whose income is dependent on the sale of standards. Therefore, a discussion should be launched with all relevant stakeholders, possibly in the policy and strategy platform to find an appropriate business model including new forms of income.

Recommendations

Recommendation 1

The European Commission, together with the Member States, should establish an innovative and consistent ICT standardisation policy that should subsequently be implemented in a coherent and co-ordinated manner. The new ICT standardisation policy should pay attention to the policy context in which standardisation takes place. Policy should, therefore, differentiate between:

- standardisation efforts in support of New Approach legislation (e.g. At&T directive, EMC directive);
- standardisation efforts in support of non-New Approach legislation (e.g. eSignature directive, Communications Framework directive);
- standardisation efforts in support of EU policies in the public interest domain (e.g. eHealth policy, eAccessibility);
- standardisation efforts outside of the legislative or public interest policy area (e.g. competitiveness, innovation).

Depending on the policy areas, different actions for the EU ICT standardisation policy should be defined.

The policy should be fully in line with the standardisation principles laid out by the Council Resolution (1999), the WTO TBT agreement (1995) and the Global Standards Collaboration (GSC) open standards Resolution (2005).

Why: The current ICT standardisation policy is characterised by symptomatic responses to evolving challenges, and has lost its holistic approach. Furthermore, EU decision makers, within the European Commission, do not always look in the same direction when defining their vision on ICT standardisation. Hence it is difficult to speak of one clearly delimited EU ICT standardisation policy. The characteristics of the standardisation procedures and the involvement of the European Commission varies depending on the classification of a certain policy (New Approach, public interest, or addressing competitiveness). A clear definition of these aspects will help define the rules for all.

How: In order to create a coherent and efficient ICT standardisation policy, an open discussion between firstly, the national and EU policy makers and secondly, within the European Commission itself, needs to be initiated. This open discussion between Member States and EU decision makers could take place formally in the policy platform for ICT standardisation outlined in the proposed model (and below). The open discussion within the Commission could be based on the conclusions of the former. European Commission participation in a certain policy area should depend on area classified in accordance with the above mentioned metrics.

Recommendation 2

The European Commission should reinforce dialogue between the European Council and the European Parliament about ICT standardisation policy and the subsequent use of ICT standards in EU policies.

Why: Current discussion on future ICT standardisation efforts remains restricted to a limited group of standardisation experts and stakeholders, who are directly involved in standards setting activities. The ICT standardisation discussion should now be broadened to a higher political level. The challenges that have been identified and the actions proposed for adapting the current EU ICT standardisation policy should be encapsulated in the broader policy needs of the EU. They therefore need to be put on the agenda of those EU policy makers who are currently not active in the field of standardisation.

How: The European Commission could submit a progress report (including a work programme) to the European Parliament and the Council on standardization activities in the ICT sector. This information exercise could for example be done based on article 9 of Council Decision 87/95, requiring the European Commission to report to the Parliament and the Council every two years on, amongst others, the implementing arrangements adopted within the Community, the results obtained, and the application of those results in public procurement contracts.

Recommendation 3

The European Commission should foster a high level strategy dialogue between Member States, technology providers, technology users, public interest organisations, SDOs and specification providers. Dialogue should focus on the effective implementation of ICT standards, identify policy priorities for standardisation, advise on international relations, and potential co-operation, with a view to making effective use of all available resources and providing policy makers with the required standards. The organisational implementation of this dialogue should allow an institutional dialogue between Member States and the European Commission on matters within their specific responsibilities.

Why: The specific characteristics of ICT call for the establishment of dialogue platforms amongst the participants. Currently, the only committee on standardisation that is convened is the 98/34 committee. It has a wide range of concerns, covers issues related to the New Approach legislation, and does not fulfil the needs of the ICT sector (the incorporation of relevant players for setting up consensus, etc.). Therefore, a platform with interested stakeholders is seen as a valuable tool for setting strategies and achieving consensus in a multinational region such as Europe. Nevertheless, political tasks – such as the definition of high level policies and their prioritisation – should remain a task for the Member States, with help from the European Commission. This calls for a more restricted platform that should convene less frequently. We recommend it to be a sub-committee of the first one. This subcommittee, named a policy platform, is therefore restricted to the European Commission and the Member States. A general description of the tasks of the committees is included in Part IV (Model) of the Report.

How: The "spirit" of the Council Decision 87/95 remains very relevant, but in practical terms is rarely implemented. Rather than simply revitalising the Decision, some minor changes can be made to upgrade it to the current reality. Some clauses must be assessed vis-à-vis their long-term relevance and some amendments should be adopted to incorporate the platforms mentioned in this Recommendation. This work could be performed as a work package to be included in the next version of the ICT standardisation work programme. Meanwhile, it is probably worth mentioning that

the SOGITS committee can be invited to convene again by simple invitation of the European Commission, and participants other than Member States' representatives can be invited such as experts or advisers. Putting this recommendation in practice using such a technicality should only be considered as a transient mechanism towards a more systematic, cleaner legal framework.

Recommendation 4

The high level strategy dialogue should be complemented by a platform permitting an organisational dialogue between SDOs and specification providers, technology users and providers, and public interest organisations. The platform should decide on practical matters and co-operation issues in view of implementing the standardisation priorities and possible accompanying measures.

Why: In the past, Europe has had (indeed still is having) a positive impact on co-operation in the field of standardisation that needs to be valued and strengthened. For Europe to have a real impact, strategic decisions taken at higher level should be followed up at operational level, in an institutional way. Activities such as the monitoring and control of the decisions need a platform more specific than the high level strategic one. Part IV of the Report describes the main tasks assigned to this operational platform.

How: The legal framework for the operational platform should come by updating Council Decision 87/95. As this may take some time, one possible interim mechanism could be to make more use of the current ICTSB. Almost all players proposed for the operational platform have currently a seat on ICTSB.

Recommendation 5

To respond rapidly to standardisation needs set by i2010 and the innovation policy, the new ICT standardisation policy of the European Commission should build upon the synergies provided by a better integration of European Standardisation Organisations and relevant consortia and fora activities in the domain. A further integration of fora and consortia by including deliverables within the EU standards catalogue or by direct mandating of fora and consortia, should, however, take into account the specific requirements set by Public Authorities for standards to be used in association with EU legal and policy acts. A differentiation of criteria for this integration and the use of the deliverables should be carried out in accordance with the differentiation suggested in Recommendation 1.

Why: Relevant ICT work is being done by non-formal SDOs and specification providers outside of the formal standardisation system. This Study shows that to ignore such work at a policy level and to leave it to the market to regulate is not an optimal approach from the EU's perspective. Informal ad hoc contacts between the European Commission already take place. It Is time they become part of the EU ICT standardisation policy. The incorporation of the non-formal system raises some problems that must be solved (their procedures, the degree of incorporation of their deliverables, the conditions for mandating, etc.). Some of these were thoroughly analysed in this Study. A complete clarification must be done in order to integrate their efforts speedily into European ICT standardisation policy.

How: The inclusion of consortia & fora must always be based on their willingness to participate. Their involvement and participation should always go via the strategy platform, in order to ensure their alignment with the strategic lines of

Europe. Responsibility for defining the requirements needed to participate at this level should be left to the European Commission. These requirements should be based on the set of internationally accepted standardisation principles (Council Resolution, WTO TBT and GSC). The Commission should define and propose to Parliament the guidelines for the changes needed on the legal framework to incorporate the work of consortia & fora. It is recommended that their work will always be performed outside the New Approach initiatives, which minimizes legislative change. The operational platform should advise the European Commission on the assignment of tasks (including mandates) to consortia and fora.

Recommendation 6

The European Commission should respond to the growing "user" impact on the effective implementation of standards. In its response, the European Commission should differentiate between:

- industrial users of ICT solutions; and
- other indirect users of ICT solutions and standards such as consumers and SMEs.

The concept of "inclusive standardisation process", in particular, is one of the European standardisation principles, that could benefit from further clarification in accordance with the specific needs of each category.

Why: A large gap exists between, on the one hand, the inclusive aims of European standardisation policy and, on the other hand, the low level of actual user participation. SMEs and consumers are under-represented in standardisation activities, whereas industrial ICT users' efforts are limited to sector specific standardisation involvement.

To bridge this gap, attempts have been made to mould practice to standardisation principles. These attempts have largely failed. Where user involvement is necessary, a more substantive and active inclusive approach is needed. From the European point of view, a focus on strengthening indirect user participation at the European level would seem most effective.

But even where favourable conditions for user participation exist, a lack of users in the standardisation process remains. This is caused to a large degree by a lack of awareness in the importance and benefits of standards. Therefore, the overall level of awareness, knowledge and expertise needs to be raised.

How: Examples of policies that strengthen the participation of political minorities in European standards committee have been outlined in the Report. We would, also, recommend that larger organisations organise themselves on a cross-industry level for representing their interests as ICT users in the standardisation area. As to awareness creation, the European body of expertise needs to be strengthened and disseminated in a structural way by introducing standardisation in regular and advanced education.

On a policy level, the EU ICT standardisation policy will need to be much more differentiated than is currently the case. Depending on the context in which standardisation takes place (see recommendation 1), user involvement may be deemed more necessary than in other areas. ICT standardisation policy measures must also distinguish between direct and indirect users of standards, and between implementation and adoption of standard-compliant products, respectively. It must take account of the differences between categories of users (e.g. SMEs and consumers who may have different interests with respect to the importance of design), and standards development and implementation (e.g. with respect to the needs of ICT-SMEs). Arguably, effective policy on standards implementation may ultimately be more decisive for the European information society than involving users in their development.

Recommendation 7

The European Commission should include, within the new ICT standardisation policy, a clear vision on the desired impact of the EU ICT standardisation efforts on a global level and focus on the protection of EU cultural interests in international standardisation work and on the promotion of European standards at an international level for reasons of competitiveness.

Why: ICT is already a global activity, and the justification and market importance of regional products is hard. Failure to adapt to the global environment by failing to participate actively in global standardisation activities, may result in European standardisation work, (including its safeguards), becoming both sidelined and irrelevant. The strategy to participate in global standardisation activities should stress the regional character of standardisation when it comes to safeguarding typical European values. The complex multinational structure of the European region should be seen as an advantage rather than a hindrance. Having gone through a multi-lateral process at a European level these standards can be all the more easily integrated on a global scale. After all, European standards of excellence that can be easily deployed globally will provide European industry with a head start and a clear competitive edge.

How: A global impact strategy should be developed by the EU and national policymakers, together with ESOs and relevant industry and public interest stakeholders. This strategy should include a methodology for classifying standardisation activities according to their regional and global impact. The classification should identify, firstly, those international standardisation activities (performed by international standardisation bodies but also by consortia or fora) that do not fully take account of European regional interests (culture, economy) and secondly all EU standardisation activities that could benefit from global acceptance. The criteria to be used for the classification should be carefully chosen (global impact criteria such as uniqueness, interoperability, or advantage for EU industry; regional impact criteria such as data protection, consumer protection issues). Only those standardisation activities with a high score, (for example efforts for influencing the international standardisation activity or for upgrading a European standard to a global level) should be considered.

Recommendation 8

In order to promote the implementation of European standards and in order to increase the interoperability of European applications and services, the European Commission, the Member States and all public administrations should refer to European standards in the procurement of ICT products, services and applications. The reference to European standards needs to be re-enforced in general through European public procurement legislation.

Why: Public administrations are important market players when buying ICT related products and services. If public administrations were to refer to European standards in their public procurement procedures, a market uptake of European standards could certainly be expected.

European public procurement legislation obliges public administrations to refer to European standards, unless they can explain that other standards are more relevant for a specific circumstance (Council Decision 87/95, public procurement directives). In reality, however, it looks as if many Member States have forgotten to apply this rule. They often refer to standards developed outside of the EU standardisation system, although an EU alternative standard could have been followed. Furthermore, as to the use of European standards by European institutions, public procurement procedures would not always seem to refer to European standards either.

How: Public authorities should be reminded of the legal rules and their implications on the use of standards in the public procurement processes. This reminder could be carried out through official communications from the European Commission to the national authorities, but also internally on an EU administrative level. Furthermore, information workshops and publications should be initiated on the use of standards in public procurement procedures. It would, however, be important to organise a consultation of public authorities that considers why it is that public authorities do not refer to European standards in tendering documents (lack of knowledge about existence of relevant European standard?, deliberate choice to use other standard?). This consultation could be launched as a new Work Package in the next version of the Standardisation Action Plan.

Recommendation 9

The European Commission should re-enforce the relationship between R&D on the one hand and standardisation on the other; the results of the COPRAS and INTEREST projects need to be further analysed and integrated into the new ICT standardisation policy.

Why: R&D projects that are being sponsored by European money, are not delivering the kind of benefits European industry needs – the kind of benefits that could help shape European standards on new markets. Moreover, in cases where European R&D projects do lead to standards, the knowledge gain seldom finds its way onto (European) standards bodies. It is often fed, without overt recognition, into the committees of non-European standards bodies Another, closely related, problem has recently emerged, which in first instance concerns the ESOs, but will soon impact upon the whole of the EU. That is, acquiring the necessary technical expertise for European standardization. Already sparse, the current lack of technical experts will, in the near future, become an even more serious problem as those technical engineers, who are now shouldering most of the standardisation work begin to retire. In areas where there is a need for standardisation, it is a waste of resources not to use the results of EU research for standardisation purposes.

How: As a recommendation for closing the gap between R&D activities and standardisation work, we would support the recommendations made by the COPRAS (COoperation Platform for Research And Standards) project. COPRAS proposes early contacts between the standardisation groups and the R&D projects. Furthermore, it suggests that some dedicated support be integrated at the end of projects, through separately funded calls for tender, with "standards support" as a specific set of calls for tender. It further concludes that additional ways of identifying requirements from standards organisations to IST research at an early point in time, could greatly improve the standardisation potential of research output.

Further, in a bid to improve the relationship between Research and Standardisation in Europe and standardisation, we recommend that the guidelines produced by COPRAS and INTEREST (INTEgrated REsearch and STandardisation) are used. These guidelines are the "Standardization guidelines for IST research projects interfacing with ICT standards organizations" and the INTEREST manuals for Integrating Research and Standardisation. The European Commission should enable (horizontal) support actions building upon the achievements of the two projects. EU pilot projects should be instigated and supported that implement and evaluate these guidelines in standards bodies and research organisations.

Recommendation 10

The European Commission should include, in the new ICT standardisation policy, tools that promote the use and implementation of European standards. It is recommended to The following measures could be considered:

- a coherent and harmonised (free) availability policy for standards/specifications established by all standards/specification producing organisations within the European standardisation system;
- a thorough study on the relationship between the intellectual property rights (IPRs) and ICT standards to be initiated by the European Commission, the purpose of which should be to launch a global discussion with other global regions.
- a coherent, transparent accessibility and participation policy for all standards/specification providing organisations within the European standardisation system;
- an evaluation on the effect of partition of systems via the standardisation definition in order to make them more accessible to SMEs;
- specific measures that allow increasing trust and stability prior to the implementation of standards such as: conformance testing, certification aspects, interoperability testing, mandatory implementation prior to the final acceptance of the standards (either simple coding implementation or reference implementation), etc.

Why: The market uptake of standards and the subsequent construction of products has never been so complex. Strong user, operator, ISPs investments in the ICT sector are hindering the swift deployment of new standards. This is not a problem restricted to Europe. However, we are of the view that certain actions can be taken in order to enlarge the visibility of European standards and make the European standardisation system more competitive. This Study has identified a number of proposed actions. SMEs must also be taken into consideration, when defining standards, given that they form the bulk of the European economy. A policy that has proved successful in the telecommunications sector.

How: The practical suggestions of this recommendation are indeed diverse. They have, however, been identified as key to future EU ICT standardisation policy. By way of example, studies need to be commissioned in order to investigate new business models for national standardisation bodies, should there be a case for making the delivery of standards free. Other studies should consider the link between IPR and standardisation. Discussion should be launched by the European Commission on different levels and with different participants in a bid to stimulate the debate on how to promote the use and implementation of European standards.

European Commission

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