ICT Standardisation Steering Committee

Opinion on the use of fora/consortia specifications in EU policies

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Executive Summary

1. ICT infrastructures cannot be built without using global ICT specifications from fora/consortia. These specifications are complementary to the standards developed in formally recognised standards development organisations. They should not be considered as opposed.

2. Implementing ICT specifications from fora/consortia is critical for achieving interoperability in the ICT domain. Therefore, the Commission has addressed this issue with the revision of the ICT standardisation policy[1] which is now part of the draft Regulation. The importance of this revision was outlined in the Digital Agenda for Europe[2]. Interoperability has key economic impact on competitiveness and improves the freedom of choice for users.

3. Promoting interoperability via implementing ICT specifications from fora/consortia is of high importance for both public procurement and public policies. Policies may often have impact on procurement decisions and therefore the same basic rules and possibilities should exist. Otherwise there is a high risk for fragmentation.

4. ICT specifications from fora/consortia have major impact on policies, e.g. for the practical implementation of high profile innovation areas like smart grid, eHealth, eProcurement, Intelligent Transportation Systems, Cloud, etc. because these require such infrastructures in order to work. Effective innovation policy making, thus, depends on the ability to include ICT fora/consortia specifications alongside standards from the formal standards development organisations. And policies in these innovation areas are of increasing importance and with high impact to the European economy.

5. Today, due to the absence of documented rules, the Commission has is free to reference any fora/consortia specifications directly in policies and in non-New Approach legislation. Article 9 in combination with the criteria listed in Annex II of the draft Regulation will fill this gap by setting clear basic rules for the recognition of needed fora/consortia specifications.

6. By applying the requirements and criteria of Annex II in the same way for both policies and public procurement policy makers would have clear guidance for their selection and decision making in the area of ICT standardisation. It ensures that policy makers can rely on broad and balanced stakeholder advice regarding the use of ICT standards and specifications and that the same guidance is applied to both policy making and procurement.

[1] Previously covered by Council Decision 87/95/EEC promoting interoperability in ICT via the use of standards. Available at http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31987D0095:en:NOT.
[2] Available at http://ec.europa.eu/information_society/digital-agenda/publications/index_en.htm.

The need for global ICT specifications in EU policies

A large and significant number of standards and specifications in the field of Information and Communication Technologies (ICT) are developed in global fora/consortia and not in formally recognised standards bodies. These ICT specifications are widely used in the market place including by governments and in the public sector. They are critical for achieving interoperability in the field of ICT. Practically no ICT infrastructure can be built without using these global specifications from ICT fora/consortia.

It is, therefore, of high importance that relevant ICT specifications are available for referencing in policies by public authorities. They are required for ICT architectures and hence are referenced in National Interoperability Frameworks throughout Europe. And they are equally required for government initiatives and innovation policies where ICT plays a role. Essentially all areas around intelligent data transfer and smarter solutions need to rely, in parts at least, on such ICT specifications in order to make them usable in practice. Examples are eHealth, smart grid, intelligent transportation systems, eMobility, smart home, etc. Often are global ICT specifications from fora/consortia combined with other standards and specifications from the formally recognised standards organisations in order to develop and deliver innovative new systems and solutions. Moreover, policies often have impact on procurement decisions and therefore the same basic rules and possibilities should exist. Otherwise there is a high risk for fragmentation.

It is worth noting that also the ESOs produce a large number of specifications (Technical Specifications, Workshop Agreements, etc) which do not undergo the formal enquiry and voting processes at national level, and thus not become European Norms (ENs). In the ICT domain, this may be particularly the case. While in technology areas that belong to the regulated domain the number of ENs dominates, in areas where interoperability is the prime focus of standardisation the number of specifications outside the EN system is much higher.

This paper looks at the proposal from the European Commission for integrating global ICT standardisation from fora/consortia into the scope of the European standardisation system in order to make global ICT specifications available for direct referencing in EU policies in the non-regulated domain. It also provides some examples illustrating the need in the context of policy making in Europe.

The legal proposal from the European Commission

The legal package on standardisation[3] addresses the need to make reference to ICT specifications from standards setting fora/consortia in policies and in public procurement in order to promote interoperability. A pre-condition is that the respective specifications are recognised and meet the requirements laid down in Annex II of the draft Regulation. These

[3] The legal package presented by the Commission essentially consists of a Communication (COM(2011)311) and a draft Regulation (COM(2011)315) the European Commission. The documents are available at http://ec.europa.eu/enterprise/policies/european-standards/standardisation-policy/index_en.htm

changes in the ICT standardisation policy follow the directions outlined in the Digital Agenda.[4]

In the field of ICT the legal package now includes the topic areas that were formerly dealt with in a separate legal document, Council Decision 87/95/EEC. The focus of this Council Decision has been on promoting interoperability in the field of ICT by the implementation and use of standards and specifications. As ICT specifications from fora/consortia had been out of the scope of this Council Decision a review was needed.

Chapter IV on " Standards in the field of ICT" contains Articles 9 and 10. Article 9 provides for the process to recognise a specification from fora/consortia as an ICT standard and thus creates a common base for all global ICT specifications and their use by public authorities. In addition, Article 10 explicitly complements the current rules of the Procurement Directives 2004/17 and 2004/18 by giving recognised ICT standards the same status as common technical specifications according to the Procurement Directives.

Currently the Commission is free to reference any fora/consortia specification in EU policies and non-New Approach legislation. With the two distinct articles in the Regulation it would mean that the same criteria – namely those listed in Annex II – apply in the same way for the use of ICT specifications from fora/consortia in EU policies as well as in public procurement. This, in fact, will limit the flexibility of the Commission regarding policy making. Consequently, with the process of recognising, a clear basis will be created for the use of fora/consortia based ICT specifications.

The process for recognising ICT specifications

The process foresees that ICT specifications from fora/consortia that are needed for interoperability in relation to public policy and public procurement are assessed against the requirements and criteria listed in Annex II of the draft Regulation.[5] This will be done on request by a public authority.

A key role in the process lies with the ICT multi-stakeholder Platform which the Commission will implement as an Expert group and in which all stakeholders will be represented including the Member States, the European Standardisation Organisations (ESOs), SMEs, the societal stakeholders, and industry.[6] It is worth noting that the ICT Standardisation Steering Committee which has continuously been in place since 2006 has developed into a role model for the future ICT multi-stakeholder Platform, and has performed a lot of preparatory work on procedures and processes which the ICT multi-stakeholder Platform may take up.

[4] Previous to the Digital Agenda the Commission had summarised the proposals for changes in the ICT standardisation policy in a White Paper (COM(2008)324). It is available at http://ec.europa.eu/enterprise/newsroom/cf/_getdocument.cfm?doc_id=3152.

[5] Annex 2 lists requirements and criteria that need to be met when a specification from fora/consortia is to be recognised as an ICT standard in Europe.

[6] See COMMISSION DECISION of 28 November 2011 setting up the European multi-stakeholder platform on ICT standardisation (2011/C 349/04)

On the assessment of ICT specifications from fora/consortia against the criteria the ICT multi-stakeholder Platform will perform an analysis and provide the Commission with a formal statement of advice. Given the representation of all stakeholders in the ICT Multi-Stakeholder Platform this will ensure that all interested and affected groups are informed and can, if need be, raise concerns. The advisory role of the ICT multi-stakeholder Platform will furthermore guarantee transparency of the process because the Platform will consist of a wide range of organisations.

Promoting interoperability by including reference to ICT fora/consortia specifications in EU policies

As the Commission outlines in the Communication there is an increasing need for referencing ICT standards from fora/consortia in policies in order to achieve interoperability.
The Commission's proposals with Articles 9 and 10 lays the ground for creating clarity regarding the requirements on ICT specifications from fora/consortia in this respect – for the policy maker, for industry and all other stakeholders.

The referencing of recognised ICT standards will have positive effects for promoting interoperability and fostering innovation and competitiveness. On the basis of recognised ICT standards policy makers can drive interoperability and innovation in a respective policy priority area by referencing the appropriate ICT specifications. Likewise industry can contribute innovative technologies and bring forward competitive offerings.

The following examples illustrate the importance of a clear basis for referencing recognised ICT standards in policies. And they show which problems can arise on the market when this clear basis is not given, most notably the negative consequences of fragmentation.

SAMPLE CASE A: Specifications for eProcurement systems

One example where the issues become easily visible are standards for procurement systems. Electronic transactions for public procurement purposes have increasingly moved towards automating the exchanges in some way. This requires the transaction to be inter-operable, i.e. the different IT systems involved need to be able to transmit, read and automatically process the data.

Many analyses divide interoperability issues into different “levels” each with their own specifics. The French RGI, for instance, identifies six levels:

- Political
- Legal
- Organizational
- Semantic
- Syntax
- Technical

Concerning in particular the last three levels, numbers of different specifications are relevant for each level. Few of these are formal standards, most are from global ICT fora/consortia. Testing these transactions for interoperability can be time-consuming and an issue, although CEN and NIST in the US have a joint project "Global eBusiness Testing Methodologies" that is seeking to define recommended testing architectures and process.

These specific interoperability issues can involve a large number of specifications from different organisations. At the infrastructure level there are fewer specifics – i.e. the normal arrangements for electronic communications can be applied, although issues such as security require especial attention. At the semantic and syntax levels, there is a range of different requirements, ranging from modelling through languages to issues such as data archiving. These will involve especially specifications from OMG, UN-CEFACT, OASIS and W3C, using XML in particular, but also the old UN/EDIFACT and ANSI X12 EDI systems, and some others such as Dublin Core or graphic standards systems where these are required. There is also another raft of specifications involved where procurement is being carried out using web services, and presumably yet another if the cloud will be used.

The challenge is to persuade people to use a common system, i.e. transactions can and are be made interoperable between two contracting entities, easily happening using XML, but a common approach enables correct interoperability.

The publication of a common European reference list of specifications which includes the specifications for electronic procurement systems originating from global ICT fora/consortia will help considerably in facilitating Governments and enterprises to achieve the savings that electronic procurement can provide.

SAMPLE CASE B – Standards and specifications for eAccessibility

Although there is a major standardisation activity being performed jointly by the ESOs in response to mandate M/376 to support EU accessibility requirements for the public procurement of ICT products and services which is being carried out in alignment with the reform of the U.S. regulation, this second example on eAccessibility illustrates the need for a global standard and for a clear basis for referencing this standard or specification in a policies in order to avoid fragmentation.

This has also been reconfirmed and reinforced in the Digital Agenda: "There is also need for concerted actions to make sure that new electronic content is also fully available to persons with disabilities. In particular, public websites and online services in the EU that are important to take a full part in public life should be brought in line with international web accessibility standards".[7]

[7] Digital Agenda, p. 26 (chapter 2.6.2).

It is widely agreed that global standards facilitate affordable development of accessible websites, browsers and media players, assistive technology, and tools that support the creation of accessible websites. eAccessibility is of public interest in the context of eInclusion. The Web Accessibility Guidelines developed in W3C, the World Wide Web Consortium, are considered to be the global standard to refer to in this context and are supported by all stakeholders including industry, governments, users.

The issue arises in practice because of the lack of a clear rule for making ICT specifications from global fora/consortia available in a precise, transparent and clear way for referencing in the public sector. Due to this lack in clarity fragmentation arises. While some Member States reference Web Accessibility Guidelines so that the policy is current with the latest versions of the specification others have copied the requirements into their policies which creates versioning conflicts. Often the requirements also modified during that process creating essentially conflicting standards. Other Member States have a completely different approach to Accessibility through the legislative framework.

As a consequence, the single market in the area of Web Accessibility and its surrounding ecosystem of tools is hindered. This is a policy issue resulting from a lack of clarity regarding the availability of ICT specifications from fora/consortia for referencing in policies. The policy question can not easily be addressed by the ESOs and NSOs because they do not have the expertise, nor the recognition in Web Accessibility. Not only can any national government now create new rules, but also all local standardisation organizations.

The European Commission has long supported W3C in order to improve accessibility on the world wide web. A clear basis for referencing the Web Accessibility Guidelines in policies and other recommendations will help to avoid and reduce the current fragmentation and promote the creation of a single market for Web Accessibility and to connect this single market to the global market in the area.[8]

SAMPLE CASE C – Framework Directive for electronic communications services and networks (Directive 2002/21/EC on a common regulatory framework for electronic communications amended by Directive 2009/140/EC)

The following example illustrates the gap that exists in policies and non-new Approach legislation when ICT specifications from fora/consortia cannot be included in

[8] The following are sample instances where the W3C web accessibility guidelines were already referenced in Commission documents: [1] Communication from the Commission on web accessibility (Com(2001) 529: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2001:0529:FIN:EN:PDF;
[2] Communication of the Commission (COM(2005) 425: http://eur-lex.europa.eu/LexUriServ/site/en/com/2005/com2005_0425en01.pdf:; [3] Riga Declaration from 2006: http://ec.europa.eu/information_society/events/ict_riga_2006/doc/riga_decl_en.pdf

referencing. This has serious impact on the completeness.

The objective of article 17 on standardisation of the framework directive[9] is to "*encourage the use of the standards and/or specifications referred to in paragraph 1, for the provision of services, technical interfaces and/or network functions, to the extent strictly necessary to ensure interoperability of services and to improve freedom of choice for users".*

For this reason – according to article 17 - the Commission "*shall draw up and publish in the Official Journal of the European Communities a list of non-compulsory standards and/or specifications to serve as a basis for encouraging the harmonised provision of electronic communications networks, electronic communications services and associated facilities and services."*

Currently the article 17 list of standards only contains deliverables from CEN, CENELEC, ETSI, IEC, ISO and ITU. Specifications relating to e.g. internet (IETF, W3C), wireless technologies (IEEE) and service/application enabling technologies (OASIS, W3C, OMA) that are not dealt with by these recognized standards bodies are not included in this list. A prime example to illustrate the issue are standards that are required in the context of Voice over IP technologies and applications. This shows the limits that are put to the scope of the Framework Directive and to effective and comprehensive policy making.

The changes proposed in the draft Regulation, especially Article 9, will lay the ground so that in the future specifications from fora and consortia can be included in equivalent policy documents and lists like the Article 17 list of standards. Even though the specific issue with Article 17 in the Framework Directive will not immediately be solved with the new Regulation an important gap will be closed for the development of new policies and for future revisions of existing ones.

These are just three examples illustrating the importance of referencing recognised ICT standards from fora/consortia in policies and of having clear rules to avoid fragmentation. Article 9 in the draft Regulation provides a clear basis for recognising ICT specifications from fora/consortia. This will help to increase clarity from which all sides will benefit.

[9] The Framework Directive is available at http://ec.europa.eu/information_society/topics/telecoms/regulatory/new_rf/index_en.htm