Washington Journal of Law, Technology & Arts

Volume 5 | Issue 3 Article 1

1-1-2009

Standardization in the European Information and Technology Sector: Official Procedures on the Verge of Being Overhauled

Patrick Van Eecke

Maarten Truyens

Information and Technology Sector: Official Procedures on the Verge of Being Overhauled, 5 SHIDLER J. L. COM. & TECH. 11 (2009), *available at* <http://www.lctjournal.washington.edu/vol5/a11VanEecke.html>

STANDARDIZATION IN THE EUROPEAN INFORMATION AND TECHNOLOGY SECTOR: OFFICIAL PROCEDURES ON THE VERGE OF BEING OVERHAULED

Dr. Patrick Van Eecke and Maarten Truyens[1]

Abstract

As the European Commission pushes for a reform of traditional procedures in the Information and Communications Technology ("ICT") sector, the standardization process is intensely debated on the European Union level. This Article provides a concise overview of the past and future European Union policies on ICT standardization and the issues such policies raise.

Table of Contents

Introduction
The Rise of Informal Standardization Procedures
ICT Characteristics
The Way Forward
Conclusion

INTRODUCTION

Standardization is a voluntary effort among industry, consumers and public authorities to develop consensus-based technical specifications in a certain domain.[2] Standardization has evolved from an engineering tool to a business tool.[3] When standards are properly implemented, they can play an important role in the economy by bringing predictability and compatibility to market players, thereby ensuring a level playing field.[4] Standards can also further public interest by imposing safety, health, security and quality requirements.[5] Moreover, despite the fact that innovation tends to be associated with exclusivity and a desire for change, standards actually encourage innovation by providing a solid base for further development.[6]

It is therefore not surprising that legal systems use standards as a tool for reaching various policy objectives.[7] On the European Union ("EU") level, for example, these policy objectives consist primarily of diminishing technical trade barriers between Member States to improve

the EU Single Market and increase innovation and competitiveness among EU industry players.[8]

Recognizing the importance of standards, the EU has introduced a formal legal framework to support the EU-level standardization process in certain areas. The current European standardization framework[9] — referred to as the "New Approach" despite being over two decades old— formally recognizes and financially supports three organizations, each with its own specific area of expertise: the European Committee for Standardization ("CEN"), the European Committee for Electrotechnical Standardization ("CENELEC"), and the European Telecommunications Standards Institute ("ETSI"). These three European standards organizations are complemented by national standards bodies.[10] Together, they form the center of gravity for the official standardization process, although public interest stakeholders and EU public authorities are also involved in the process.

This Article discusses general efforts taken by standardization bodies and then comments on the ongoing trend of moving from formal to informal standardization platforms, driven primarily by characteristics specific to the Information and Communications Technology ("ICT") sector. Finally, the Article provides insight into current initiatives to strike a balance between formal and informal standardization as the sector moves forward.

THE RISE OF INFORMAL STANDARDIZATION PROCEDURES

While the formal EU standardization bodies' past efforts have generally reached their objectives of developing high-quality standards and respecting the principles of openness and neutrality,[11] only a few EU ICT standards have been taken up by the market.[12] In contrast, the most widely implemented ICT standards, such as Wifi[13] and XML,[14] have been drafted by informal standardization organizations.

Several factors have undermined the legal standardization monopoly of formal EU standardization bodies. The decline of standards created by these formal standardization bodies is attributed to the following; (1) the ICT sector witnessing the rise of *de facto* standards;[15] (2) the creation of hundreds of standardization bodies outside the formal standardization process; (3) the increase of standardization activities in Asian countries; and (4) the rise of informal ICT standardization bodies with a global reach. As a result of these developments, informal bodies are more likely to have the necessary know-how and technical expertise for future ICT standardization.

The increasing participation of informal bodies has led to a fragmentation of the standardization landscape in which formal bodies are no longer the *only* relevant initiators.[16] Although the formal standardization bodies have tried to adapt themselves to these new initiatives, it cannot be denied that the standardization center of gravity has shifted.

ICT CHARACTERISTICS

The rise of the informal standardization initiatives should not come as a surprise in light of the specific nature and requirements of the ICT sector.[17] Despite certain efforts taken by the formal standardization bodies, specific characteristics of the ICT sector have played a role in the increasing shift to informal standardization initiatives.

First, the ICT sector is characterized by a fast-changing landscape. For instance, hardware doubles in performance and capacity every eighteen months and major software releases are often issued at least once per year. Technical requirements are thus quickly needed to satisfy the ever decreasing time-to-market of ICT services. However, creation of standards through formal standardization bodies takes significant amounts of time because they are legally required to consult all stakeholders.[18] Informal fora and consortia of companies, often composed of major industry players, can react much quicker and can produce a standard in a fraction of the time required by the formal bodies.[19]

Second, given the ICT sector's global reach, local standards become almost irrelevant. While the formal EU standardization bodies are primarily focused on standards for the EU region and there are formal procedures for incorporating global standards into EU standards, these procedures are regarded as cumbersome and not user friendly.[20] Global organizations such as the Internet Engineering Task Force ("IETF") and the World Wide Web Consortium ("W3C") have, therefore, been able to gradually take over the role of the formal EU bodies in several specific ICT segments. Further, the ever-increasing importance of Asian manufacturers of ICT products has also intensified standardization activities outside Europe.

Third, ICT products and services are highly susceptible to network effects,[21] i.e. their value increases exponentially with the number of users. From the moment a considerable number of users (e.g., 40%) use a certain IT product or service, a tipping point can be reached where the use of this product or service becomes compelling to all other parties, even on the sole basis of the number of users. Such successful IT products or services can then drive the direction of the industry, rule out competing products or services, and become the basis of future development— effectively becoming a de facto standard. There are many examples of de facto standards in the ICT industry, such as the USB port and several technical protocols used by Microsoft. Although the de facto standards are not officially recognized, they are followed by most industry players.[22]

For a number of years, the formal EU standardization bodies have adapted their rules and procedures to address the demands stemming from the ICT evolution. Examples of these efforts include: the use of "fast track" procedures to speed up the standardization process;[23] the involvement of different stakeholders in the standardization process; the installation of the ICT Standards Board ("ICTSB");[24] the delegation of

representatives to Asian countries;[25] the translation of standards developed by non-formal standardization organizations into formal standards; the funding of research activities in which standards are developed outside of the formal bodies; and the marketing of European standards on an international level.

However, these efforts are not enough to meet the EU's standardization policy objectives. Most measures were taken on an ad hoc basis to react to immediate concerns, leading to a scattered range of often halfway measures without paying attention to a long-term strategy.[26] Moreover, some of the initiatives lack legal underpinnings. While the EU policymakers and formal bodies have adapted to ICT sector demands with changing practices, the underlying legal framework has been slow to adapt.

Now that the dust has settled, several other aspects of the current EU standardization process are also being criticized. Prominent criticisms include: (1) the lack of consumer involvement, which is particularly relevant in a sector known for its consumer involvement;[27] (2) the underrepresentation of Small-to-Medium Enterprises ("SMEs");[28] (3) the insufficient attention for future standardization tracks by European research and development;[29] and (4) most painfully, the limited number of true EU ICT standard success stories (the Global System for Mobile communications ("GSM") cell phone standard[30] being a noteworthy counterexample).

Of course, some of these criticisms are not restricted to the European standardization arena. The predominance of private consortia and fora is, for example, a global phenomenon for the entire ICT industry. Still, these concerns are felt more acutely in Europe due to the presence of formal standardization bodies that were specifically created to take the lead in standardization initiatives.

THE WAY FORWARD

The European Commission has firmly recognized the undervaluation of European standards and the tension between formal and non-formal standardization tracks.[31] Through an independent study and various action plans and seminars, the European Commission is trying to turn the tide.[32]

Following the recommendations of the independent study, the European Commission now proposes to launch a permanent, high-level policy dialogue platform where *all* standardization stakeholders would be represented and which would meet several times a year.[33] This platform should then provide the European Commission with expert advice regarding matters concerning ICT standardization policy and its implementation.[34] Presently, stakeholders do not seem to contest the proposal to install such platform, likely due to its intent to mainly provide expert advice.

More contested, however, is the integration of non-formal

standardization initiatives into the formal procedures.[35] This would also allow official bodies, such as the European Commission, to reference non-formal standardization initiatives in policies, legislation, and public procurement, at least in those areas where there are no formal ESO standards.[36]

Although the European Commission recognizes the importance of private fora and consortia, it worries that the standards resulting from non-formal bodies may not offer sufficient guarantees of eligibility.[37] These guarantees, which are also upheld by the World Trade Organization ("WTO"),[38] require the standardization process to be built on an open decision-making process, based on collaborative and consensus-based activity and accessibility to all stakeholders on a non-discriminatory basis. In addition, all technical information must be made available in a transparent way for free, or at a reasonable fee, and with associated intellectual property rights being licensed on a reasonable and non-discriminatory basis. The standards developed should also respond to market needs and regulatory requirements and should not distort the free market. Finally, standardization bodies should commit to the long-term maintenance of the standards they develop.[39]

While the formal standardization bodies meet all these guarantees of eligibility—and in doing so fail to satisfy the ICT sector's need for speed—the European Commission doubts whether the informal bodies can sufficiently meet all of them.[40] In fact, meeting all these requirements openly undermines several of the advantages currently claimed for the informal bodies. It is thus likely that only some informal standardization bodies will be represented in the formal procedures.

CONCLUSION

The current ICT standardization landscape in Europe is divided between the formal and non-formal standardization bodies. The formal standardization bodies are reliable, open, neutral, and stable, but are also inherently slow and seem insufficiently equipped to meet the ICT sector's demands. The informal bodies, on the other hand, are often lightweight, do not need to take into account transparent processes, and do not need to reconcile different opinions from opposing stakeholders. They are thus better suited to address the ICT sector's specific concerns, although they have important shortcomings in the area of democratic legitimacy.

Irrespective of how the European Commission solves these issues, most likely through the installation of advisory bodies and the partial integration of some informal bodies,[41] it should be recognized that the focus of the ICT sector's standardization efforts have already shifted to a global level, where Europe's influence will be limited. It is doubtful whether any new initiative can undo this trend.

<< Top

Footnotes

1. Dr. Patrick Van Eecke is a partner at the law firm DLA Piper in Brussels, who has undertaken a study on the specific European Union policy needs for ICT standardization at the request of the European Commission. Dr. Van Eecke also teaches ICT law at the University of Antwerp, King's College London and Queen Mary University of London. Maarten Truyens is an associate lawyer at DLA Piper in Brussels.

2. No agreed definition of a "standard" exists for the present. Definitions can be found in public policy documents, legal texts and normative documents adopted by standards setting organizations. According to the International Organization for Standardization definition, a standard is "a document established by consensus and approved by a recognised body that provides, for common and repeated use, rules, guidelines or characteristics for activities or their results, aimed at the achievement of the optimum degree of order in a given context." Int'l Org. for Standardization, Standardization and Related Activities: General Vocabulary (1998).

3. Sherrin Bolin, The Golden Mean § 1 (2007).

4. *Discussion Paper Towards an Increased Contribution from Standardisation to Innovation in Europe*, at 3, COM (2008) 133 final (Mar. 11, 2008), *available at* http://www.europe-innova.org/servlet/Doc?cid=8205&lg=EN.

5. *See, e.g.*, Council Directive 2004/108, 2004 O.J. (L 390) 24 (EC) (detailing the standards adopted in the framework of the Electromagnetic Compatibility. These standards provide for clear requirements of electromagnetic compatibility for equipment intended to be connected to radio or telecommunications networks or electrical supply networks in order to prevent electromagnetic disturbance); *see also* Council Directive 93/98, 1993 O.J. (L 290) 9 (EC); *see also* Council Directive 93/68, 1993 O.J. (L 220) 1 (EC); *see also* Council Directive 92/31, 1992 O.J. (L 126) 11 (EC); *see also* Council Directive 91/263, 1991 O.J. (L 128) 1 (EC); *see also* Council Directive 89/336, 1989 O.J. (L 139) 19 (EC).

6. Council Directive 2004/108, 2004 O.J. (L 390) 24, 6 (EC).

7. *See generally* European Comm. for Standardization, *CEN Compass: The World of European Standards*, at 2, http://www.cen.eu/cenorm/aboutus/compass.pdf (last visited Aug. 14, 2009).

8. European Commission, Standardisation, http://ec.europa.eu/enterprise/standards_policy/index_en.htm (last visited Aug. 8, 2009).

9. *See* Council Directive 98/34, Laying Down a Procedure for the Provision of Information in the Field of Technical Standards and Regulations, 1998 O.J. (L 204) 37 (EC). *See*

also Council Directive 87/95, On Standardisation in the Field of Information Technology and Telecommunications, 1987 O.J. (L 36) 31 (EC).

10. Council Directive 98/34, Annex II, 1998 O.J. (L 204) 37, 46-47 (EC) (listing of recognized National Standardisation Bodies).

11. *Id.* at 39 (consideration 24).

12. *See, e.g.*, Jacques Pelkmans, *The GSM Standard: Explaining a Success Story*, 8 J. Euro. Pub. Pol'y 432 (2001).

13. Developed as a family of standards (802.11*a/b/g/n*) by the Institute of Electrical and Electronics Engineers Local and Metropolitan Network (IEEE LAN/MAN) Standards Committee.

14. An open standard adopted as a recommendation of the World Wide Web Consortium (W3C).

15. Harm Schepel & Josef Falke, Legal Aspects of Standardisation in the Member States of the EC & EFTA 97 (2000).

16. European Commission Discussion Paper, *supra* note 4, at 5.

17. Patrick Van Eecke, EU Study on the Specific Policy Needs for ICT Standardisation 14-16 (2007).

18. Council Directive 98/34, art. 4, 1998 O.J. (204) 37, 41 (EC) (where the formal national standardization bodies must publish their draft standards in such a way that comments may also be obtained from parties established in other Member States, and must ensure that the national standardization bodies of Member States can also be passively or actively involved in the drafting process).

19. *See* Council Resolution of October 28 1999 on the Role of Standardisation in Europe, 2000 O.J. (C 141) 1-4 (considerations 22-29 address the efficiency requirements of standardization).

20. As a result, apart from ETSI, no other European Standardization Organization has entered into agreements with non-formal standardization organizations. *See, e.g.*, *Commission Staff Working Document: The Challenges for European Standardisation*, at 10, SEC (2004) 1251 final (Oct. 18, 2004).

21. *See generally* Carl Shapiro & Hal R. Varian, Information Rules: A Strategic Guide to the Network Economy (1st ed. 1998).

22. For example, a statement made in 2005 before the House Science Committee of the US Congress showed that there are more than 450 independent specification providers active in the US. Approximately 20 of them developed about 80% of the standards in the United States.

23. Schepel & Falke, *supra* note 15, at 97.

24. The ICTSB has been created as a response to the need for speed in creating ICT standards and the need to take stock of the know-how and experience of other players than ESOs in the standardization process. The aim of the ICTSB is to co-ordinate specification activities in the ICT-area. *See* ICT Standards Board, The Board's Terms of Reference, http://www.ictsb.org/About/ToR.htm (last visited Aug. 14, 2009).

25. *See, e.g.*, ebXML, http://www.ebxml.org (last visited Aug. 3, 2009) (highlighting ebXML, on which CEN, ETSI and an Asian committee jointly collaborated to test interoperability).

26. The most remarkable example is the policy objective of integrating all stakeholders in the standardization process. Although the openness of formal ESOs has improved, their relation with the informal standardization bodies remains particularly troublesome.

27. *See*, *e,g.*, European Association for the Co-ordination of Consumer Representation in Standardisation, Questionaire; Market Stakeholders 36 (2006) (stating that *"the national opinions are often determined by business interests and minority views (e.g. from consumers) are filtered out by the system."*), *available at* http://www.anec.org/attachments/ANEC-ICT-2006-G-044.pdf.

28. Firmly acknowledged by the European Commission. *See, e.g.*, Gunter Verheugen, Vice President, European Commission Responsible for Enterprise and Industry European Standardisation, World Standards Day Speech: A Key for the Success of SMEs, Skilled Crafts and Trades (Oct. 16, 2006), *available at* http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/06/599&type=HTML&aged=0&language=EN&guiLanguage=
.

29. *See Commission Staff Working Document: The Challenges for European Standardisation*, at 9, SEC (2004) 1251 final (Oct. 18, 2004). *See also* European Commission Discussion Paper, *supra* note 4, at 9.

30. *See* 3GPP, 3GPP Specifications, http://www.3gpp.org/specifications (last visited July 30, 2009).

31. European Commission Staff Working Document, *supra* note 28, at 6.

32. Van Eecke, *supra* note 18.

33. *European ICT Standardisation Policy at a Crossroads: A New Direction for Global Success* (Feb. 12, 2008). *See also Commission White Paper on Modernising ICT Standardisation in the EU - The Way Forward*, COM (2009), 324 final (July 3,

2009).

34. *Commission White Paper on Modernising ICT Standardisation in the EU - The Way Forward*, at 10-11, COM (2009), 324 final (July 3, 2009),

35. *European ICT Standardisation Policy at a Crossroads: A New Direction for Global Success*, at 8 (2008).

36. European Commission White Paper, *supra* note 34, at 6. The current European standardisation policy restricts official bodies to refer to standards established by the ESOs.

37. European Commission Policy, *supra* note 35, at 9 (stating that "[m]ost of the consortia and fora are not equipped to submit standards to an open consultation or a public enquiry process and deal with the subsequent comments in a neutral and balanced manner. Open consultations and public enquiries are costly and complex activities which are in principle not included in the objectives and terms of reference of consortia."); *see also* European Commission, *supra* note 24, at 5-7.

38. *See* Agreement on Technical Barriers to Trade, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1A (1994); *see also* Code of Good Practice for the Preparation, Adoption and Application of Standards, Apr. 15, 1994, Results of the Uruguay Round of Multilateral Trade Negotiations, Annex 3 (1994). These principles are further elaborated by the Committee on Technical Barriers to Trade, Note by the Secretariat, *Decisions and Recommendations Adopted by the Committee on Technical Barriers to Trade Since 1 January 1995*, G/TBT/1/Rev.9 (June 8, 2008).

39. Agreement on Technical Barriers to Trade, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1A (1994).

40. European Commission, *supra* note 35, at 9 (stating that "[f]urther integration of consortia and fora standardization in the European ICT standardisation policy is not straightforward. It is a complex issue with legal and political consequences. It therefore calls for careful consideration by all the stakeholders involved.").

41. *Id.* at 13–15.