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The role of government in standards setting; a European View

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Note on terminology²

For a number of years, intensive discussions on standardization have taken place between the US and the other regions of the world. Indeed, formal agreement has been achieved on the definition of a standard³. However there are still considerable differences regarding the very **nature** of what a 'standard' really is. These differences are often the result of legislation and/or jurisprudence. This paper will not try to bridge these differences.

Some features of standardization – hierarchy of rules

Standardization is a form of self-regulation. Interested parties come together and **agree voluntarily** on (usually technical) matters, which permit them to compete in the market more efficiently. Whether or not to abide by these agreements is a matter for the stakeholders themselves to decide.

Although there is an absence of conclusive scientific evidence about the impact of standards on the economy⁴, it would be difficult for anyone to claim that they do not have a positive influence on overall efficiency⁵.

In order to reach the agreements needed to produce standards, one needs **rules** and a specific **set of procedures** to be applied. In this way, we can ensure that a standard only results after a series of logical steps have been followed. Every participant in the standardization effort then has the right to object if the agreed rules have not been correctly followed.

There are, however, some **higher-level rules**, usually imposed by law or business ethos, which put some limits to the freedom of companies and individuals to come to their agreements. The laws on competition and IPRs come to mind in this respect.

This is why it is so important that the set of procedures for standardization, which I have just mentioned, remain **accessible and open**. If they are not, they will fall out of line with the higher-level rules.

Of course whilst talking about the law, it should be mentioned that the agreements achieved within the standards themselves must never be in **conflict with existing legislation or ethical values**.

¹ The views expressed here are those of the author; they do not necessarily represent those of his employer.

² For abbreviations used see the end of the paper

³ For example, in the framework of ISO/IEC, of the UN/ECE and of WTO/TBT Agreement.

⁴ Several efforts have been made worldwide in order find a model for evaluating the impact of standardization on the economy. This paper does not enter in this discussion; it assumes that standardization has positive influence in the economy as a whole.

⁵ A recent study commissioned by DIN concludes that for Germany standardization has a positive impact of the order of 1 % of GDP.

Government interest in standardization

Today, governments act on several levels. For example:

- They procure products or services
- They aim to boost the competitiveness of their economy
- They propose or adopt rules and regulations which support the interests of the public (for example safety, health, consumer protection, and protection of the environment)
- They promote trade on national, cross-border and international level
- They make sure that agreements they have entered into (at bi- or multi-lateral level) are honored
- They try, as a general rule, to simplify and reduce the unnecessary regulatory burdens on their citizens and on enterprises

The potential of standardization

Standardization can assist governments with all of these activities, for example:

- Standards, when agreed voluntarily by the interested parties, can be used in a non-controversial way for the government's procurement
- The technical agreements which standards provide can facilitate the interaction, co-operation and competition between economic actors. This promotes efficiency and competitiveness in the market
- The network of national, regional and international (worldwide⁶) organizations is now allowing the standardizing bodies to act as “**technical diplomacy**” bodies. It is, however, questionable in some cases if private bodies (such as the standardising bodies) trying to secure their financial survival can -and really do- act in the interest of their constituency without guidance and/or their government's support⁷.
- In WTO/TBT Agreement, clear reference is made to the obligation of WTO members to base their technical regulations on international standards⁸ except if these standards are ineffective or inappropriate for the pursuit of legitimate objectives.

Standards can also be used by government to support policies **even more directly**:

- Standards can be used to support a wide range of governments policy, legislative and other. Obviously this needs to be done in an appropriate legislative framework so that governments are then freed from a continuous effort to update their technical rules. Using standards in this way imposes some additional, and usually unknown, challenges. It is a new way to make laws and to design policies - it assumes a certain level of confidence in the standardization structures⁹.

⁶ Such as ISO, IEC and ITU

⁷ See also in footnote 11.

⁸ It should however be noted that there is no clear agreement on the meaning of “international standards”

⁹ See for example: “Methods of referencing standards in legislation with an emphasis on European legislation”, European Commission, [2002], Enterprise Guides. Also accessible on http://europa.eu.int/comm/enterprise/library/enterprise-guides/doc/guide_standards_en.pdf

- If governments are ready to confine themselves to essential issues in their legislation, then they can leave free space to the economic actors to agree on the technical details; the standardization structures can offer **one** of the possible solutions for compliance with the law.

The benefits of formal standardization for governments

The statements just made are clearly valid for what is called “formal” standardization. However, other forms of co-operation have developed over the years such as *Fora* and *Consortia*. The primary aim of such groups is to produce agreements (“standards”). To do this they have had to tailor their procedures and conditions to suit the specific situation they are working on. The result has been a multitude of efficient but sometimes overlapping, contradicting or competing groups.

Governments have to check the compatibility of these activities with the law, e.g. in relation to competition rules. But if they need to use the results of these activities in their regulatory activities, the governments also have to check the results i.e. the content of the agreements resulting from these groups.

It is confusing when all documents, regardless of where and how they are developed, take the **form and/or the name** of a standard. It is difficult for the user of a document to understand the difference between a document that has been developed by a group of narrow interests and one that has been developed by a larger sphere. The user has to understand the different levels of legitimacy and validation between formal standardization and *consortia* standardization. Only then can they make an informed decision on when to use which type of document.

It is therefore important to distinguish between standardization structures, which aim at producing deliverables just for the authors (as is usually the case in *consortia*), and those standardization structures, which produce deliverables for the wider ‘unknown’ audience.

In other words, the problem of every document having the **form or name** of a ‘standard’ is that its real value (moral, economic and technical) cannot be evaluated. The non-expert user would have to examine the originating body of the standard before being able to decide on its value.

However, the motivation behind every *ad hoc* standardization structure such as a *forum* or *consortium* is not always easy to find. Their ‘standards’ are a means to an aim, which is not usually known to the user.

This is the reason why **accountability** and **transparency** of standardization structures are essential requirements for public authorities if they are to accept, and in some way use, the results.

How do we deal with standardization in Europe?

The European Union is a special case. It should not be compared with a single country. Member States remain independent and only act together on subjects they have agreed upon.

We believe that standardization offers the same benefits at the European level as it does to the national governments (as highlighted earlier). The same potential exists for standards to play a positive role in a wealth of European policy areas including those affecting our economic, social and environmental situations. In other words, we think that standardization can play a role in helping us to achieve the European goal of sustainable development.

In the European Commission, we have a dedicated unit dealing specifically with standardization policy for the EU. The other institutions such as the European Parliament and the Council of Ministers give political support to the work of this department.

The existence of this department is not an attempt to change the European standardization system in any way but; instead, it has two approaches:

- Firstly, we try to support the European Standards Bodies in their efforts to maintain an open, and transparent system, which satisfies the needs of all stakeholders. In other words we continually check and help to enhance their accountability and transparency.
- Secondly, we can then confidently promote the voluntary use of their work (i.e. European Standards) into a wide range of European policy areas.

A very common fallacy outside Europe is that the European Commission is dictating or even drawing up the European Standards. The European Commission plays no role in relation to the technical choices made in the European Standards; it is only interested in ensuring that the standardization structures and procedures remain efficient, accountable and transparent.

Should governments invest in (formal) standardization?

Maintaining a rather complicated machinery which is able to produce good standards is a costly operation. Such a machinery is difficult to be financed solely through the sales of ‘products’ i.e. the standards and related services. The size of the relevant market¹⁰, and the need to satisfy the obligation of accountability and transparency, usually makes this impossible. In Europe where 20 or so different national standards have to be superseded by a single European one, the possibilities of the standards bodies to generate income are even more reduced. Nevertheless, as it is made clear earlier, there are important governmental interests, which can be supported and served by these same standardization structures¹¹. This is the reason why the financial viability of these structures is carefully monitored in Europe.

In 1999, the European Council of Ministers discussed and arrived at some conclusions on the future financing of the standardization activities in Europe. Based on these conclusions, one of the three European standardization organisations, CEN has commissioned a study¹² on the subject and the graphic¹³ is an extract from the resulting report. It is interesting to see here that the European Commission (together with the EFTA Secretariat) “invested” an amount equivalent to 2 % of the total costs in CEN in 1999. This amount can be practically interpreted as the material encouragement, given to the national standards bodies to work together instead of continuing in an individual nation-based ‘mode’¹⁴.

Other data from the study reveals that, on a national level, the Member States of the European Union support the work of their national standards bodies and express this in the form of some

¹⁰ The major limiting factors being language, size of the relevant economy, the varying behaviour of the economic actors vis-à-vis standardization, the need for proximity etc.

¹¹ It is for example questionable if the role of ‘technical diplomacy’ can be best served by the standards organizations if they have to jealously protect their IPRs on their standards by not permitting their broader use in the framework of other (e.g. international) standardization bodies.

¹² To the consulting firm Ronald Berger & Partners

¹³ At the end of this paper.

¹⁴ There is however also a ‘legal’ motivation since Directive 83/189/EEC obliges them to exchange their annual work programmes and give the possibility to every national standards body to ask that a given standardization project is carried out jointly at European level.

kind of financial support. What is particularly interesting is that, between the Member States, there are widely varying degrees of funding for their national standards systems.

Some Member States fund their national standards body to a value of 50% of the costs; others are below 10%. This variation is, no doubt, due to a number of historical, political and economic reasons. However it means that in Europe, collectively, there is a wide experience of the advantages and disadvantages of different levels of government support to standardization.

In any case, it is evident that the investment of the European taxpayer in European standardization represents good value. Standardization done at the European level mobilizes other resources (up to 50 times more). This, in turn, allows more scope for Member States to work together therefore promoting the harmonization of technical requirements throughout the European Union and EFTA.

Is ICT standardization a special case?

ICT industry has some well-known characteristics. The most relevant ones in the context of the discussion on standardization are its high innovation rate and the short lifetime of its products.

ICT industry cannot, in the majority of the cases, be well served by standardization structures needing extremely long time to produce a standard, by far longer than the expected lifetime of the relevant products. However, this statement has to be qualified. Not all products have a short lifetime; especially those dealing with aspects of the infrastructure of ICT. The GSM standard, for example, is born to stay for long and, to be historically correct, it took long time to be established¹⁵. Therefore, the importance of short elaboration periods for a standard lays more in the need of (short) ‘time to market’ than in the reality of the short lifetime of products.

Standardization in ICT takes therefore more the form of agreements on choices of technologies than the traditional form of ‘consolidation of technologies’. The products in ICT usually do not exist in the market before a standard has covered them. Standardization in ICT is therefore **anticipative**.

Fortunately, the ICT sector is rather unregulated. Thus there is only a limited need for public authorities to use ICT standards in support of legal requirements. This clearly distinguishes ICT standardization from other areas, where the protection of citizen's safety and health plays a crucial role. As a result there are fewer incentives to develop formal standards in support of public interest.

But this is only one reason that makes ICT standardization rather special. Others are the following:

- Although limited, there are nevertheless in Europe some legal frameworks that make use of ICT standards to be effectively and efficiently implemented such as the Directive on Radio and Telecommunications Terminal Equipment, R&TTE. But in most cases, the reference to ICT standards is usually different from that used in the field of internal market legislation. The e-Signature Directive, for example, calls for standards without, however, specifying which standards shall be developed and by whom. However, it is evident that legal effect can only be given to those standards that result from an open, transparent and inclusive standardization process. In response, the private sector launched in co-operation with CEN and the European Telecommunication Standardisation Institute, ETSI the “European Electronic Signatures Standards Initiative” (EESSI), to produce the required consensus

¹⁵ Work on mobile telephony started in Europe at the beginning of 80's in the framework of CEPT with the establishment of the ‘Groupe Spécial Mobile’.

documents. The results of this voluntary standardization initiative will now be referenced by the Commission as an acceptable solution to implement the legal requirements of the e-Signature Directive. However, it should be born in mind that by this reference the legislator “approves” for application the contents of the standard. This constitutes an interesting case of “co-regulation”.

- The high innovation rate and the usually short lifetime of the products of ICT do not necessarily call for formal standards. There is, however, a well-identified need for consensus as demonstrated by the existence of *consortia* and *fora*. The ESO's have recently identified a list of active consortia in the ICT domain; there are some 200 consortia on the list¹⁶! This may result in a lack of interoperability between various solutions and applications. But not all problems call necessarily for policy action. The consumers are free to choose whatever solution they may want. And if they are too confused none of them will find a market. Where standardization fails, the normal competition rules apply. However, in some cases the lack of interoperability may become also a matter of political concern, as for example in the field of Digital TV. The Digital TV case is a border case. Public Authorities should not select “winning technologies” but leave it to the private sector to define open standards that can guarantee user's freedom of access to those new services. But in order to create favourable conditions for investments in this future technology the need for interoperable solutions has to be ensured by legal provisions or other government intervention.
- ICT has become ubiquitous; a part of business processes in general. Nearly all enterprises are now using PC's and e-business is increasingly becoming the norm. Technical interoperability is no longer the only problem to be addressed; the issue has become more complex. For instance, in the domain of e-business there is an urgent need to establish e-catalogues for products and services in order to buy and sell online. ICT standardization is therefore leaving the traditional area of technologies and is increasingly dealing also with e-business processes and practises. Consequently, ICT solution providers are not anymore the main players. More and better involvement of IT user industries is needed in order to allow electronic business to flourish, integrating IT fully into the process of ordering, fulfilment and payment. This may result in new organisational forms of standardization and a new balance between generic solutions such as the use of XML as the new business language for the transmission of data (which has to be standardised at global level) and specific IT applications (which have to be tailored to sectoral needs).

Contrary to other areas of technology, Intellectual Property Rights play a crucial role in most of the ICT standards. The existence of carefully followed and applied rules on IPRs becomes an extremely important factor with regard to the accountability and, in some cases the very legality of the relevant standards developing structure. It is however questionable if a standardization structure with a limited membership can fully satisfy the needs related to IPRs since its IPR rules, if any, apply to its members only. The effort to solve the IPR questions in a standardization structure seems to be, at least in theory, contradictory to the very need to have standards not stifling innovation. In every grouping one member has the IPR on a specific aspect and the others ‘have not’. This could naturally guide the ‘have nots’ –being the majority- to include in the standard, probably non-essential requirements in order to have easier access (on the basis of the ‘fair, reasonable and non-discriminatory conditions’ imposed by all IPRs rules) to the IPRs of the member who has it. This may be one explanation of the usually voluminous ICT standards...

¹⁶ It is therefore questionable if these *fora* and *consortia* better serve the participating interests than the more traditional concentrated standardization structures.

From what was said above, it seems evident that in the ICT area standardization has been used to give solutions to problems it was not designed for. On the other hand, no better system has been found for it yet.

Conclusion – The role of government

The question of the session is “A proper role of government: follow or lead?”. There is no single answer.

Governments can be **users** of standards both for their procurement and in support for their legislative or other policies. They are therefore interested in having **good** standards available for use.

The quality of the standards is not based only in their technical content. It is also built on their broad acceptance, on their accessibility for implementation (including IPR questions), on their simplicity, and on their market potential.

The governments, as users, have every interest in ensuring that standards originate from structures, which are able to guarantee that all of these qualities are built into the system.

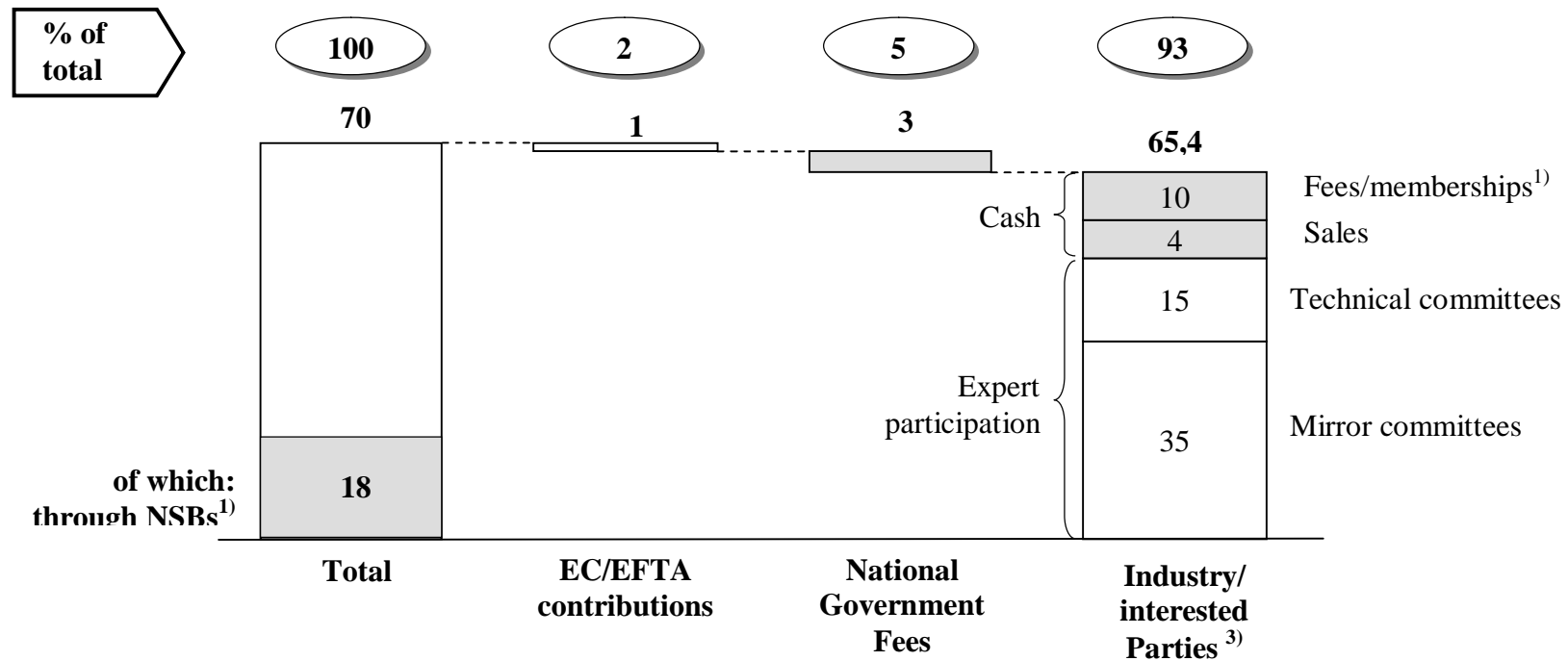
Governments, on the other hand, hardly have the required expertise for fully influencing the actual contents of the standards.

Therefore, in order for governments to **use** standards, they have to be the **leaders** when it comes to the accountability of the system. They have to ensure, through encouragement or motivation, that the standardization bodies have the broadest possible constituency, the widest possible consultation structures, a more balanced representation of interests, and, of course, the most efficient elaboration procedures.

The role of **leader**, in this respect, is however a delicate one. There should be safety valves in case the power of government can start influencing the very content of the standards.

The solution found in the European Union, through the legislative technique of the ‘New Approach’, demonstrates perfectly that the responsibility for safety and other public interest matters lies with governments. It is for the government alone to define the objectives on these issues and to show the essential targets. However, it is for all the interested parties, together, to find the ways to **achieve** these and thus define the content of the standards.

Financing of European standardization in CEN in 1999



¹⁾ Including other organizations ²⁾ Industry, trade, consumer organizations, etc. ³⁾ Including other organization EUR 37 m

Source: BSI; Roland Berger & Partners analysis

Abbreviations

BSI	British Standards Institution
CEN	« Comité Européen de Normalisation » – European Committee for Standardisation
CENELEC	« Comité Européen de Normalisation Electrotechnique » – European Committee for Electrotechnical Standardisation
CEPT	Conférence Européenne des Postes et Télécommunications
DIN	« Deutsches Institut für Normung » – German Institute for Standardization
EESSI	European Electronic Signatures Standards Initiative
EFTA	European Free Trade Association
ESO	European Standardization Organization
ETSI	European Telecommunications Standards Institute
EU	European Union
GDP	Gross Domestic Product
GSM	<i>Initially:</i> Groupe Spécial Mobile (french)
ICT	Information and Communication Technology
IEC	International Electrotechnical Commission
IPR	Intellectual Property Rights
ISO	International Organization for Standardization
ITU	International Telecommunications Union
NSB	National Standards Body
R&TTE	Radio and Telecom Terminal Equipment
TBT	Technical Barriers to Trade
UN/ECE	United Nations' Economic Commission for Europe
WTO	World Trade Organization