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Creating a pro-active standard setting policy for innovation

EXECUTIVE SUMMARY

BUSINESSEUROPE supports the Council's intention to create a pro-active standard-setting policy to help aggregate demand for innovation activity. BUSINESSEUROPE is of the opinion that while standardisation is an essential means of facilitating innovation, it does not drive innovation.

The success of standardisation is based on the development of standards with active involvement of business based on market needs, and their voluntary use. This must remain unchanged. A pro-active standard-setting policy should in our view differentiate between formal and 'consortium' standardisation as they take place in different phases of the path from invention to successful innovation and are different in nature.

Consortium standardisation is best left to market forces with a minimum of regulation or intervention by authorities, as is the case at present. When there is a clear societal need or a large potential benefit to be gained from rapid and unified deployment of new technology, authorities can help speed up the convergence process by raising awareness and transparent articulation of the authorities views and plans.

Public authorities can support formal standardisation but should not direct the fields in which standards should be developed, nor encourage standardisation activities in the absence of a clear and up front market demand. The necessity to back up regulation by standards can in itself be such a demand. Authorities therefore should focus on streamlining formal standardisation by providing clear mandates for harmonised standards, promoting clarity on ownership in areas of overlapping scope of different European standardisation bodies, supporting those bodies and the industry for this important work, and raising recognition of the importance of standards, networking and innovation in the education process.

A balance of influence between stakeholders is important. BUSINESSEUROPE therefore supports the efforts towards more participation of SME's in standardisation.

BUSINESSEUROPE further emphasises the global dimension of standardisation. New economic powers arise and the different economic spaces do not all play to the same objectives and rules. The EU should be aware of this and avoid to unnecessarily compromise the interests of European industry in domains where different regional standards compete. European action on the standardisation playing field in rising economies can be helpful, such as promoting full reciprocity of standardisation participation rules and active invitation to these economies to participate in international standardisation and adopt international standards and standardisation processes.



INTRODUCTION

Innovation was one of the main themes of the Finnish Presidency of the European Council in 2006. At the Competitiveness Council meeting on the 4th/5th December 2006, Member State ministers confirmed the need to continue to support innovation as it is an “essential part of the Lisbon Strategy for Growth and Jobs”.

The Competitiveness Council (subsequently confirmed by the European Summit) outlined an innovation policy initiative¹⁾ to tackle the issue. In this policy initiative it identified a set of nine key actions to support innovation at the EU level, one of which being the creation of a pro-active standard-setting policy for Europe.

BUSINESSEUROPE supports the Council's intention to create a pro-active standard-setting policy. This can best be achieved in our view by treating different types of standardisation in the various stages of innovation in tailored manners, by support of standard development organisations and industry to do the necessary standardisation work well and on time with a good balance of participation between large and small stakeholders, to avoid adding superfluous regulation or setting of direction without clear market needs, and to keep an open eye for supporting European interests in the inter-regional standardisation dynamics.

BUSINESSEUROPE is of the opinion that standardisation is an important means of facilitating innovation, but it does not drive innovation. More innovation may often require more standards, but more standards does not necessarily lead to more innovation. On the contrary, excessive standardisation brings the clear risk that it can stifle innovation rather than support it.

If standards are to enhance our innovative competitiveness and contribute to the day-to-day life of Europe, then their development necessitates the active involvement of business. The success of standardisation is based on the development of standards based on market needs and their voluntary use. This must remain unchanged.

THE MANY FACES OF STANDARDISATION

Standardisation takes place in many organisations, for many purposes, and in many different forms. To understand the contribution to innovation it is useful to distinguish between the different forms of standardisation.

Formal standardisation is linked to regulation. Regulation focuses on protection of society and consumers by enforcing a certain lower threshold as to safety and basic performance of products onto all economic actors. The EU's ‘New Approach’ implies that conformity to the referred set of harmonised standards implies meeting the essential requirements of the applicable Directives. Thereby the product can be CE-marked and has access to the European market. The use of these standards is

¹ “A broad-based innovation strategy: strategic priorities for innovation action at the EU level”, Competitiveness Council (2769th Council meeting) press release, Brussels, 4th December 2006.



formally voluntary, but in practice this route is chosen for most products. In several countries outside the EU this works more or less the same. In many others regulation formally requires a number of standards to be adhered to.

Formal standardisation takes place in formal organisations, recognised by the authorities, and working to certain rules such as openness for all, full consensus, and usually representation via the national standardisation bodies. Authorities often mandate these organisations up front to develop certain standards, especially when required to fill a void within the regulatory framework. In addition standards that focus on certain interoperability issues are also developed by formal standardisation bodies. This may be in the ICT domain but can also relate to physical dimensions, e.g. of power plugs. Such standards are also voluntary but suppliers can only expect substantial demand for their products when they conform to such standards.

Most formal standardisation nowadays takes place at international levels, supporting the global economy. The EU has its mechanisms to ensure correspondence between National and European levels, and the Dresden and Vienna agreements promote correspondence between European and IEC / ISO standards. However the rise of new economic powers such as China, India and Russia introduce an element of diversity into this landscape with the possibility existing that some of these new players may wish to use standardisation as a trade policy instrument. While the EU shapes regulation to create a single open market with a level playing field, not all economic areas have the same policy.

Businesses themselves also engage in standardisation, partly in formal standardisation, partly in Industry Associations or in Consortia. *Business driven standardisation* plays to the participants self made rules. It often aims to create conditions for new technologies and / or applications to be further developed and accepted in the market place. Alternatively, it may focus on guidance how to use already existing standards by adding clearer definitions so as to meet the needs of a specific sector (for example profiles of data formats and communication specifications).

For work related to new technologies or applications a consortium is usually established by the leading parties who aim to attract more parties to join and support the initiative. Guidance documents are more often developed by Industry Associations. Different sectors developed different habits.

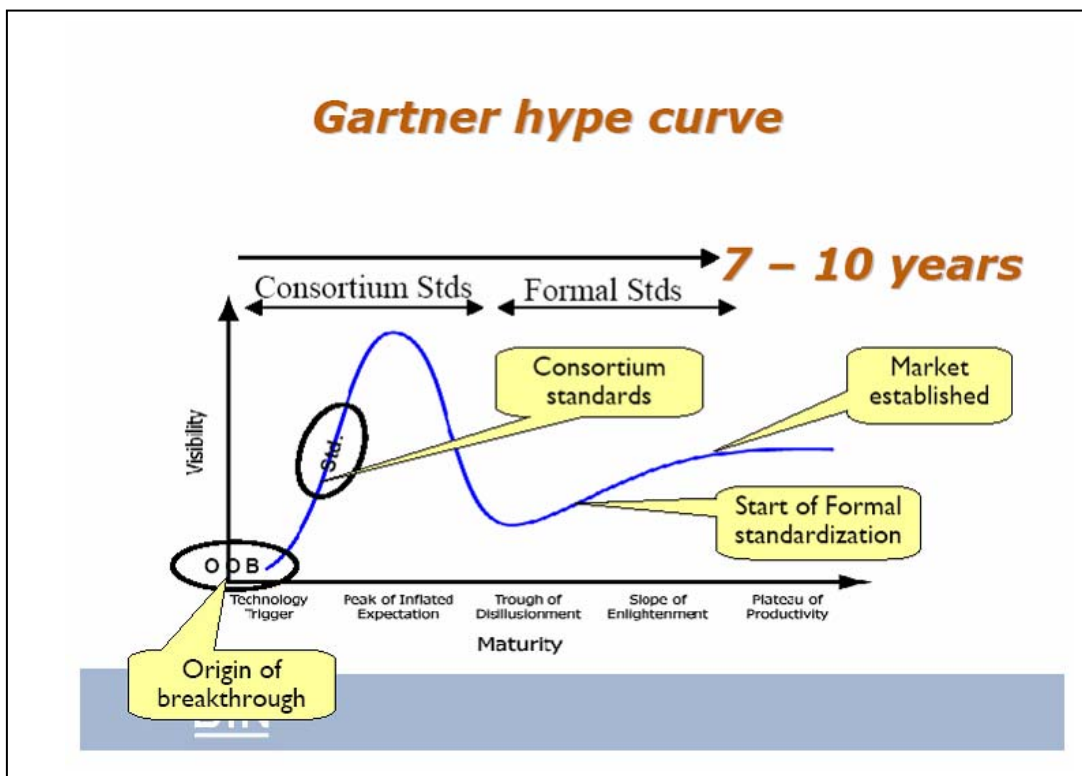
Business driven standardisation in sectors dominated by publicly held companies is a special case in that governmental authorities at national or regional levels hold the real stake and decision making powers and therefore can and do direct standardisation to achieve certain goals, for example as an instrument of industry policy. Successful examples from the past decades can for example be found in European telecommunications. In the EU this phenomenon seems to have less impact nowadays. However in strongly regulated domains, such as services of general public interest (and products supporting such services), it remains a factor of influence.



In addition to the above it is worth noticing that different sectors have different needs as to standardisation. Working methods need to be flexible enough to adapt to the different requirements that exist in the different sectors.

ROLE OF STANDARDISATION IN INNOVATION

To understand the role of standardisation in innovation it seems appropriate to use the phases of innovation along a time axis as a starting point. The model below by Gartner (<http://www.gartner.com/pages/story.php.id.8795.s.8.jsp>) is useful. It shows the relevant phases through which most innovations move before they get adopted (if ever) by the market.



From left to right the diagram illustrates that after the first initial ideas phase attention and investments are attracted. This is followed by a fall back phase when it becomes apparent that early promises does not easily materialise. After this phase the innovation either fades away or it regains momentum and steadily moves towards uptake by the market. Sometimes, however, when there are mandates from the European Commission on issues of safety, the start of formal standardisation can be earlier.

At the far left end of this diagram innovative ideas and entrepreneurship are of paramount importance. During the decline phase, persistent work and continued investments is needed to improve and add realism to the basic ideas with a view to



overcoming roadblocks and turning early promises into reality. During the steady upturn part of the diagram, business and market development are essential. This includes the creation of necessary conditions for broad roll-out such as proven interoperability, competing offerings and a level playing field.

For successful innovation all phases are essential as failure in any one of them breaks the chain. In each phases standardisation plays an important role:

- a) Business driven (consortium) standardisation in the initial phase, aiming at further developing novel technology and applications and setting basic conditions for interoperability and economies of scale;
- b) Formal standardisation in the growing phase, aiming at developing regulation, establishing proven interoperability, and creation of a level playing field, and;
- c) Sector driven (Industry Association) standardisation in the mature phase, aiming at closer definition of the use of standards to meet the needs of specific sectors. This step may sometimes be in the initial phase of an entirely new set of applications of existing and already standardised technology.

CONSORTIUM STANDARDISATION

Business driven 'consortium' standardisation is a form of pre-competitive collaboration. Unlike formal standardisation it is usually limited consensus based standardisation, only consortium members have a say. Each participant can therefore tune its influence to its actual interests within reasonable limits.

Due to such mechanisms consortium standardisation can move reasonably fast. The main obstacle for progress often lies in the existence of too many competing candidate solutions, each advocated by a group of participants having an interest in that particular option. While this may sometimes paralyse the process it is not clear how authorities can help resolving such deadlocks without interfering in the delicate balance of competitive positions in the industry, let alone how authorities could make a better judgement on the pro's and con's of competing solutions in a better way than industry itself.

Consortium standardisation happens 'before the fact'. It aims at further development of novel technologies and applications at an early stage. It tries to create consistency and interoperability by sufficient unity of purpose and means to enable broad acceptance, yet allowing differentiation and competition. Unification is of particular importance to broad acceptance for aspects related to interoperability. It is also to the benefit of society and consumers because it is the single most important way in this phase to facilitate the later emergence of economies of scale. This is often a condition for innovation to become economically feasible in the first place.



Consortium standardisation is as a result instrumental in industry driven innovation and for the value creation that goes along with it. Participants' policies on the generation, appropriation and exploitation of intellectual property play an essential role as well.

For the above mentioned characteristics consortium standardisation is best left to market forces with a minimum of regulation or intervention by authorities, as is the case at present. Consortium standardisation must and does operate within the boundaries set by anti-trust rules.

Authorities may in this phase support innovation by focusing industry policy instruments including research, development and subsidy programs. Such programs may demand equivalent actions on the part of from industry. This may include information supply and actual work contributions on standardisation issues fitting with the innovation program.

When there is a clear societal need or a large potential benefit to be gained from rapid and unified deployment of new technology, authorities can help speed up the convergence process by facilitating it, especially when there are large uncertainties in the market that block investments from being made – such as multiple competing solutions to a problem requiring the economy of scale of a single interoperable approach; or uncertainty about future regulatory choices by the authorities.

Such facilitation may include making stakeholders more aware of an upcoming market need and of the importance attached to it by the authorities; clear up-front indication of subsidy or other support programs in preparation; and early articulation of a whether or not, and if yes what kind of draft regulatory framework and international policies that will set the boundary conditions for the new domain. This can take the form of publishing white papers together with relevant stakeholders, organising work shops and seminars, publishing authority's position statements, and indicating standardisation needs for a regulatory framework under development.

While all these may help speeding up the necessary unification process through standardisation and focussed innovation, the main decisions on the direction should be left to the market.

FORMAL STANDARDISATION

Formal standardisation has relatively slow processes which cannot speed up at will due to the full consensus condition. This and other conditions for formal standardisation are essential for the legitimacy and acceptance of future regulations that will refer to the formal standards. Formal standardisation usually comes 'after the fact' of innovation itself, aiming to set the rules to deploy existing solutions to broader use. It thereby most frequently focuses on finding compromise rather than finding or



promoting novelties. A formal standard is by its very nature the state of the art and cannot be experimental.

Nevertheless formal standardisation plays a role in innovation in that it may support appropriate regulation, it ensures proven interoperability, and it creates a level playing field for already created innovations to be rolled out broadly and prosper.

Public authorities can support the creation of harmonised standards politically and financially but should not engage in directing the fields in which standards should be developed. Neither should they support, encourage or initiate standardisation activities that are not in response to a clear and up front market demand, notwithstanding the fact that the necessity to back up regulation by new, modified or extended standards can in itself be such a demand.

Attention needs also to be paid to overlapping requirements that can arise in the standardisation process in various sectors. The border lines between the scopes and ambitions of the European Standardisation Organisations are becoming less distinct as a result of technology integration, for example the mutual convergence of telecom and IT technology and with other sectors. If left uncoordinated this may lead to duplication of work, inconsistencies and worst of all a more complex and slower standardisation process which demands more horizontal coordination and resources and creates lower quality results.

Authorities therefore should focus on streamlining formal standardisation by providing clear mandates, helping to resolve lack of clarity on ownership in areas of overlapping scope of different European standardisation bodies, and supporting those bodies and the industry for this important work. It is important also to create an understanding for the need for standards, networking and innovation in the education process.

Formal standardisation can also benefit from adopting accelerated processes for the creation of innovative standards. Some European standardisation bodies have already started to set up workshop agreements and other so called *New Deliveries*. This can be of value in certain areas. However such *New Deliveries* should not be used in connection with legislation, as there is no wide spread consensus on them nor has there been a wide consultation process linked to their development. In our view *New Deliveries* could serve as a starting point for standardisation work in specific areas. They cannot and should not be the final word. The distinctions between formal standards and other standards should be kept very transparent for harmonised standards referred to by regulation.

**BALANCE OF CONTRIBUTION AND INFLUENCE BETWEEN STAKEHOLDERS**

Standardisation work is expensive in terms of competence, man power, and money. Despite the great value these investments create for society, with the exception of the supportive structures in the standardisation bodies these costs have to be borne. At this moment to a large extent they are born primarily by business.

It is very hard for many stakeholders, in particular Small and Medium Enterprises, to be and remain involved. This in turn may compromise the condition of full consensus between all stakeholders.

BUSINESSEUROPE acknowledges the efforts made by the Commission in order to bring SME's closer to standards and the standardisation process. In this respect we believe that the report presented at the World Standards Day, Brussels, 16th October 2006 providing 23 good practices to promote the participation of craft and SME enterprises in standardisation and the use of standards to be very useful.

Awareness raising, information and training are important elements. SME's should also be encouraged to participate actively in work towards future harmonised standards through appropriate, impartial SME representative bodies. This will help to give voice to the SME's interests and to provide guidance in the interpretation and use of the often very complex and comprehensive documents and conformity assessment procedures.

INTERNATIONAL PROMOTION OF REGIONAL INTERESTS

Not all economic spaces share the EU's aims to create a single open market with a level playing field for local and foreign companies alike. Therefore the issue of defending or advancing regional interests may sometimes be at stake, both in consortium and in formal standardisation. Support by authorities is a very delicate matter but can make a difference in a situation of competing options, when organised appropriately.

BUSINESSEUROPE is of the opinion that the EU should be aware of such circumstances and actively and very carefully establish its policies on a case by case basis. On one extreme a simple minded promotion of local interests almost never makes sense since it will likely keep economies of scale from developing resulting in a lack of interoperability, thereby lowering the value and increasing the complexity for society and consumers. On the other extreme, policies that naively drive an open European market for all, work to the strong advantage of foreign companies. In any case, when other regions promote own regional standards while a world standard is achievable and beneficial, European authorities can help by countering such moves at the political level and by supporting the European standardisation arena at the technical level.

Another international element which needs to be considered is the development of and access to standards and regulations of new economic powers such as China. For



European innovations to be able to reach such markets, they must take into account the applicable standards and regulations, and ideally be able to take part in their definition. European action in this field, a.o. within WTO TBT can be very helpful for European innovation. This should include efforts to promote a more open international participation to the development of such standards, aiming at full reciprocity of standardisation participation rules; and active invitation to such upcoming economic powers to participate in international standardisation and adopt international standards and standardisation processes as much as possible.