

Standardisation policy demands of the capital goods sector

1. Introduction

VDMA (Verband Deutscher Maschinen- und Anlagenbau - German Engineering Federation) is the largest association for the capital goods sector in Europe. It is a representative body, service provider and contact point for more than 3,100 German and European companies in mechanical and plant engineering. This sector is the largest industrial employer, with around 986,000 employees in Germany and a turnover of 206 billion euros in 2013. The capital goods sector in Germany is characterised by primarily medium-sized firms. Around 87% of VDMA's members are small and medium-sized enterprises (SMEs).

With more than 75% of goods exported and accounting for approximately 16% of world trade, the German engineering industry is one of the leading suppliers of capital goods worldwide. Germany's mechanical and plant engineering sector is a global market leader in 16 out of 31 comparable specialised branches. This "success story" is based not least on approximately 3,000 national, European and international standards. These practical technical standards have made the harmonisation of market access conditions possible in the European Union and hence help to dismantle barriers to trade, a significant contribution to the leading international position of the sector.

In order to maintain and further expand this role of standardisation, so important for the international market, VDMA has been actively involved in standardisation policy for more than six decades with regard to participation of SMEs in standardisation and the elaboration of appropriate standards. VDMA is the responsible body for financial, personnel and organisational questions for the standards committees for mechanical engineering (NAM) and machine tools (NWM) at the Deutsches Institut für Normung e.v. (DIN - German Institute for Standardization). The main task of NAM and NWM is to include medium-sized industrial companies in standardisation work. Every year VDMA invests more than four million euros in order to coordinate, with approximately 45 full time employees, the standardisation activities of NAM and NWM at a national (DIN), European (CEN) and international (ISO) level. More than 2,000 experts in 27 specialist divisions at NAM with approximately 210 working committees and 67 working committees at NWM provide their professional input. NAM is responsible for approximately 1,300 national standards (DIN, DIN EN, DIN EN ISO and DIN ISO) and is also responsible for mirroring a further 1,600 international standards (ISO). NWM is responsible for approximately 304 national standards (DIN, DIN EN, DIN EN ISO and DIN ISO) and is also responsible for mirroring a further 210 international standards (ISO).

Further financial contributions to standardisation are provided by German companies from the mechanical and plant engineering sector to support participation in other standardisation committees and cover costs directly at DIN. In addition, the mechanical and plant engineering sector supplies 25% of the members of DIN, who also contribute to financing standardisation via its membership fees.

2. Demands of the capital goods sector

The current discussion covers several areas of standardisation policy which first have to be seen in context. However, individual aspects must also be examined separately in order to find an appropriate solution in every case. The focus is on the following aspects of standardisation policy:

- No precipitate revision of the standardisation regulation
- Consideration of the market relevance of standards
- Categorisation of interest groups in standardisation
- Involvement of interested parties in standardisation
- SME representation at a European level
- Speed: a stable consensus takes priority
- No overestimation of standardisation in connection with innovations
- Consistent standards within the European Union

No precipitate revision of the standardisation regulation

The European Commission announced a review and revision of the Standardisation Regulation (EU) No. 1025/2012 even before it came into force on 1 January 2013. The Communication from the Commission (COM) 2011/311 is named as one of the basic principles in order to reach strategic aims during a possible revision. These aims will focus on better functioning of the single European market, growth, innovation and maintaining the competitiveness of companies in the EU, especially of small and medium-sized companies.

The new Standardisation Regulation (EU) No. 1025/2012 was aimed at the consolidation and combination of previous regulations on standardisation. European and national standardisation organisations, including DIN, have submitted their reports on the new European standardisation system to the EU Commission.

Since standardisation makes a significant contribution to the functioning of the single European market clear, comprehensible and combined regulations are an important factor. The new Standardisation Regulation did not come into force until 1 January 2013. There is absolutely no reason for a precipitate review or revision. In order for a review and possible subsequent revision to be carried out meaningfully and appropriately, experience in the practical application of the current Standardisation Regulation has to be gathered first.

The Communication from the European Commission (COM) 2011/311 mentions competitiveness and growth, to which standardisation can make an important contribution. This is best supported by stable rules that offer a reliable legal framework for European standardisation. Companies need certainty when planning their projects and commitments. This also applies to their voluntary participation in the standardisation process. Companies invest considerable means and resources in order to participate and offer their knowledge for the benefit of the standardisation process. A precipitate review or revision of the current standardisation regulation is not necessary at all, since it would evidently be carried out largely without including experience in its application.

Market relevance of standards

Only standardisation that is relevant to the market serves its purpose. Since the bottom-up approach, which is largely decisive for market-relevant and hence successful standardisation, is being replaced increasingly by a top-down approach, the evaluation of the market relevance of new standardisation projects before they are adopted is of paramount importance. With a bottom-up approach standardisation topics are initiated by interested parties, especially by industry, and the resulting standards are then applied practically on a voluntary basis. Standardisation would not satisfy its own requirements (see e.g. CEN and CENELEC's Ambitions to 2020) if the potential marketing chances of standards or the relevant business models play a decisive role with regard to certification or consultancy in the decision on the adoption or rejection of a new standardisation project.

There is a consensus among experts on the necessity of an improved and structured approach to evaluation of the market relevance of standards. Market relevance is addressed several times in the current Standardisation Regulation, but in a more general manner. The regulation does not explain how market relevance can be evaluated or even ensured. Considerations and evaluations to be included in decisions on the adoption of a new standardisation project (new work item proposal) are of key importance for market relevance. Initially, the party who submits a proposal for a new standardisation project should define the relevant groups to which this project is addressed and therefore who should play an active role. In particular, a statement on the relevant groups that are affected directly (groups who are to implement the intended standard practically on its completion) is of prime importance. On this basis these groups can be addressed specifically during public consultations by the national standardisation organisations. The opinions of the groups affected directly should be given special consideration in the vote of the national standardisation organisations on acceptance or rejection of a new standardisation project. If a clear "no" is returned by the special stakeholder group at a national level, then the national standardisation organisation must vote with a "no".

Categorisation of interest groups in standardisation

VDMA recommends compact categorisation of interest groups who orientate themselves according to the practical considerations of standardisation. This is why VMDA takes active part in current discussions in standardisation organisations. Based on practical experience, a division of interest groups into the following categories for standardisation has been made; this division was developed by VMDA and enjoys its express support:

Kategorie	Category	Explanations
Industrie und Handel; wenn erforderlich, sollte wie folgt unterschieden werden: <ul style="list-style-type: none"> • Großunternehmen • Klein- und mittelständische Unternehmen 	Industry and commerce; where appropriate, to be identified separately as <ul style="list-style-type: none"> • Large enterprises • Small and medium-sized enterprises (SMEs) 	More than 250 employees 250 employees and less
Öffentliche Hand	Government	
Verbraucher	Consumers	
Gewerkschaften	Trade unions	
Wissenschaft und Forschung	Academic and research bodies	

Nicht-Regierungsorganisationen	Non-governmental organisations (NGO)	Environmental protection, health & safety at work
Normenanwendungs-Geschäft	Standards application business	Test organisations, certification organisations, consultants

The proposed categories of interest groups are of prime importance for appropriate allocation of the groups involved in the standardisation process since all societal groups can be covered and allocated according to their interests.

Based on our practical experience we do not consider there is any need for further subdivision into more categories. Additional categories would not offer any further benefit that could offer the interested parties an advantage regarding standardisation work or their consideration.

Involvement of interested parties in standardisation

Interested parties can participate via their national standardisation organisations on the basis of the tried and tested principle of national delegations. National standardisation organisations are tasked to facilitate that all interested parties are able to participate in standardisation committees. This is made possible by providing information for these parties, in particular on new standardisation projects or on projects aimed at modifying or updating a standard. This is carried out by the provisions of the standardisation organisations via the representative of the interested or affected parties.

The collaboration of experts in standardisation is always voluntary and they provide their own funding for their work in the standardisation process; this makes it impossible to introduce legal provisions requiring the collaboration of individual experts or directing standards organisations to ensure the participation of all interested parties.

The aim of any legal regulations must be for national standardisation organisations to create a framework that allows a new type of expense-optimized participation of interested and affected parties. Furthermore, participation must ensure that information on standardisation projects, especially on content and deadlines, is made available. Utilisation of modern IT technology that allows free access to information as well as a subscription to the pertinent information portals should be progressed swiftly. Since standardisation is based on the principle of voluntary participation, provisions which exceed this principle, e.g. mandatory participation of certain groups in the standardisation process, are counter-productive. The legislator and standardisation organisations should therefore be influencing incentives so that interested groups take part as fully as possible in standardisation projects that are relevant to them. VDMA demands standard general conditions for the collaboration of interested groups in standardisation and information. Furthermore, no obligations should be introduced that force certain groups to participate in the standardisation process, since this would contradict the principle of voluntary participation.

SME representation at a European level

Representation of small and medium-sized enterprises (SMEs) is best achieved via the national delegation principle (committees of national standards organisations). Limited resources often prevent SMEs from participating at a European and international level. Standardisation often deals with complicated technical facts; experts are able to express themselves efficiently in this regard in their mother tongue. This is one of the advantages of the national delegation principle.

SMEs also belong to different interest groups (e.g. manufacturers, operators, service providers) in relation to the value added process. This results in very heterogeneous interests with regard to a specific standardisation project. Therefore representation of SMEs as a homogeneous interest group at a European level does not reflect the true state of affairs. SMEs often need the support of the associations of industry and commerce so that they can participate effectively in standardisation; these associations prepare information for practical application and make it available via an appropriate network or standardisation infrastructure. The specific interests of SMEs can be represented effectively at a European level via these specialised associations of industry and commerce.

Speed: a stable consensus takes priority

The progress made to date in accelerating the standardisation process is impressive. Other ways to secure a continual improvement process should be considered. A point of vital importance is, however, the quality of the content of standards; this is expressed not least by the stable consensus on content. The prompt elaboration of high quality standards should therefore be the desired objective and not speed for speed's sake.

All parties involved must be able to subscribe to the consensus achieved during negotiations in the standardisation process. Therefore different interests must be given sufficient consideration during the standardisation process. On page 2 of the "Note to the Members and Observers of the Committee on Standards" dated 13 November 2013 the following citation can be found:

"Standards are the result of the consensus between those participating in its development. In order to make sure that the developed standards are well accepted by industry and by the users or consumers, it is essential that there is a sufficiently wide range of participants to the development process."

And these discussions and negotiations need time because the different positions of individual groups often vary considerably. Furthermore, the contents of standards can be extremely complicated. Similar to negotiations when elaborating statutory provisions where the interests of all societal groups must be considered, standardisation committees are also required to find a widely acceptable consensus. The demand for further acceleration of standardisation processes would inevitably lead to shortcomings in the consensus process and to diminished quality of content. This would seriously call into question the ultimate goal of every standardisation process, namely securing the intended benefit by broad, voluntary application of the standard in practice. Therefore VMDA argues against issuing further demands for a general shortening of the time to elaborate standards.

No overestimation of standardisation in connection with innovations

As a general rule standardisation is subordinated to the innovation process and after the market launch of innovations serves as a means to describe state of the art.

Even though the supportive role of standards and standardisation of the innovation process, especially for convergent technologies and complex systems with numerous interfaces, must be acknowledged, their potential to promote innovation must be analysed realistically and should not be overestimated.

In the case of convergent technologies and complex systems it can be important to take a proactive role early in the standardisation process in order to ensure economies of scale which are a necessary prerequisite for successful market penetration. An example from mechanical engineering: market potential in connection with standardisation of modules for lithium-ion batteries for e-mobility (study by VDMA/Roland Berger). Furthermore, the creation of a standard terminology as well as measuring and test processes using standards as the basis for further developments can be of use.

A prerequisite for the success of such activities is, however, that all decisive stakeholders from industry are involved, as well as those from science. This is the only way to ensure that standards are created that are relevant to the market and are applied on a wide basis and hence develop their envisaged potential in the marketplace.

Numerous examples of practical experience in mechanical engineering show that establishing innovations in the market often does not require standards. In these examples from specific companies or sectors a top-down “decreed” standardisation would tend to result in negative effects and weaken the innovative potential of the industry.

Protecting innovations is an important aspect for companies. Companies must invest significant financial means and resources in order to implement innovations. If there is no guarantee that these innovations can be protected, companies will not see participation in standardisation in this field as being at all useful. Frequently it is not possible to open up a market for new technologies or innovations because the market has already been tapped into or legal requirements do not additionally require market development through standardisation.

If a manufacturer implements an innovation, e.g. to increase the energy efficiency of drive systems, stimulation of this innovation through standards in individual cases must be discussed in order to be able to respond according to requirements of the market. Standardisation should not be mandatory for the manufacturer who is to accompany the innovation or process. Therefore legal provisions to stimulate innovations through standardisation would not be appropriate.

In the opinion of VDMA, matters related to innovations are only one partial aspect of standardisation. In relation to the total number of standardisation projects, their percentage can be counted in single figures (without ICT standardisation). Special relevant criteria (e.g. speed) should not be extended to the whole spectrum of standards. This fact must be made clear to politicians by both national and European standardisation organisations (European Commission). Standardisation on matters of innovation must be considered from the point of view of competitiveness in the interests of industry (e.g. too early a drain of know-how via standards must be avoided).

Consistent standards within the European Union

Standards, and especially harmonised standards, are seen as state-of-the-art when they are published. Therefore consistency of standards (as is the case with CEN/CENELEC and ISO/IEC) is of decisive importance, especially for compliance with legal obligations. This also means that standards (specifications) should be consistent throughout. The content of

standards (specifications), especially that of CEN/CENELEC and national standards organisations, should not contradict the content of other standards.

If the Standardisation Regulation is to be reviewed, this aspect should be considered in order to maintain the competitiveness of European companies. They apply standards (specifications) and must be able to depend on the fact that standards do not contain contradictory statements. Therefore, when the elaboration of a new standard (specifications) is proposed, it should be determined whether standards or statutory provisions already exist in the field of the planned standard. If this is the case, the content and even the field of application of the standard must be modified. Projects where questions of the safety of organisations, products or design, health, environmental protection, health & safety at work or management system standards are affected should not be dealt with in a specification.

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29 July 2014