

FOCUS ON THE FUTURE

THE GERMAN STANDARDIZATION STRATEGY:

**an update**



# Vision

Standardization in Germany  
helps business and society  
strengthen, develop and open up  
regional and global markets





## The German Standardization Strategy: an update

### Goals and points in focus

#### **GOAL 1: Standardization secures Germany's position as a leading industrial nation**

**Focus on:**

- ▶ Orienting standardization more towards market interests
- ▶ Promoting innovation
- ▶ Giving priority to an international orientation
- ▶ Supporting SMEs in the global market
- ▶ Ensuring sustainable development
- ▶ Using standardization and patent systems in an integrative manner

#### **GOAL 2: Standardization as a strategic instrument supports a successful society and economy**

**Focus on:**

- ▶ Promoting the competitiveness of SMEs
- ▶ Making greater use of networks and platforms
- ▶ Integrating standardization in higher education
- ▶ Standardizing management systems on an as-needed basis only
- ▶ Making greater use of standards in public procurement

#### **GOAL 3: Standardization is an instrument of deregulation**

**Focus on:**

- ▶ Creating optimal framework conditions
- ▶ Exerting a greater influence on the drawing up of New Approach mandates
- ▶ Expanding the New Approach
- ▶ Incorporating specifications in full-consensus standardization
- ▶ Promoting the global harmonization of technical regulations

#### **GOAL 4: Standardization and standards bodies promote technological convergence**

**Focus on:**

- ▶ Actively contributing to the development of the European standardization system
- ▶ Incorporating innovative technology sectors to a greater extent
- ▶ Bringing experience gained to the international standardization system

#### **GOAL 5: Standards bodies provide efficient procedures and tools**

**Focus on:**

- ▶ Intensifying quality assurance and expanding services
- ▶ Reviewing business models
- ▶ Ensuring the participation of »everyone«
- ▶ Improving access for SMEs
- ▶ Optimizing the marketing of specifications
- ▶ Ensuring the coherence of the set of standards



## Opening statement

**Federal Minister of Economics and Technology**  
Rainer Brüderle

In economically turbulent times Germany is especially dependent on reliable conditions that promote competitiveness. DIN, Germany's national standards body, and German standardization as a whole make significant contributions to the creation of these conditions, for they strengthen the competitive ability and innovative capability of businesses. Particularly for the export-oriented German economy, instruments for dismantling trade barriers and creating global markets are indispensable. Standardization also strengthens the functioning of the European Single Market and global trade.

With the German Standardization Strategy that was presented in 2005, DIN and the stakeholders in the German standardization system made a major contribution towards an orientation for German standardization in terms of national needs in an international context.

The German Federal Government has also formulated its standardization goals and what it expects from the standards organizations in its 2009 »Standardization Policy Concept«.

Every standardization strategy must be flexible and dynamic. Rigid concepts are not suitable for meeting the ever-changing demands of real life. The fact that the German Standardization Strategy has become widely accepted among experts as a living, continually developing project is therefore most welcome. The result of this process is presented here in »The German Standardization Strategy: an update – Focus on the future«.

It is particularly gratifying that this »Update« addresses the Federal Government's expectations for the organization of standardization. For me, the declared support of small and medium-sized enterprises as regards standards and standardization is especially important.

The challenges facing us are great. This updated version of the German Standardization Strategy presents guiding principles for effectively positioning German standardization in a constantly changing environment. On this basis, German standardization will continue to contribute towards a competitive and innovative Germany. The Federal Ministry of Economics and Technology will continue to be a committed partner in this endeavour.

*Rainer Brüderle*

## Opening statement

**President DIN German Institute for Standardization**  
Prof. Dr. Klaus Homann



The **German Standardization Strategy** is the result of intensive consultations among leaders in business, politics, research and standardization, as well as open discussions carried out in a workshop attended by all interested parties in standardization.

True to the vision that:

**Standardization in Germany helps business and society strengthen, develop and open up regional and global markets**

the German Standardization Strategy with its five goals serves as orientation for German standards work in the face of changing needs and future challenges. The Strategy includes a course of action containing measures to be taken by standards setters and stakeholders alike.

Thanks to the widespread, consistent implementation of the German Standardization Strategy at all levels by all interested parties, the position of standardization within Germany has solidified and strengthened. More than ever, standardization is recognized as a competent partner for representing German interests at European and international level. As a »living document«, the Strategy and its five goals will continue to be followed and adapted to the current situation as needed.

Now is the time to update the German Standardization Strategy with new topics to reflect today's situation as presented in documents such as the German Federal Government's Standardization Policy Concept and the position paper of the Federation of German Industries (BDI) on the future of standardization, in current discussions, for instance, on the improved access to standardization, and in the conclusions of the European Council on standardization and innovation, as well as in the dialogue carried out within Germany among stakeholders regarding the strategic orientation of international standardization.

»The German Standardization Strategy: an update – Focus on the Future« presents an overview of current issues in light of the vision and goals of the German Standardization Strategy, and identifies necessary additional measures to be taken to ensure an optimal positioning of the German standardization system.

A handwritten signature in blue ink, which appears to be 'K. Homann', written in a cursive style.

# Vision

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## GOAL 1:

# Standardization secures Germany's position as a leading industrial nation

# 1

In 2008 Germany was once again the world's leader in exports, despite the highly competitive nature of the global market. The worldwide economic crisis presents additional challenges for the coming years.

In this economic environment, standards are an indispensable feature of German economic policy, serving to achieve Germany's industrial objectives. Standards are also decisive factors in terms of market access and competitive positioning, and help quickly translate innovative ideas into marketable products. Standardization is a strategic instrument that is close to the market in terms of rapidly establishing innovations in the global market in the form of products, processes and services. In addition to economic aspects, sustainable development and maintaining a high level of safety are also integral components of standardization.

## FOCUS ON:

### ► **Orienting standardization more towards market interests**

To maintain Germany's position as one of the world's strongest economies, standardization must be market-driven and standards must meet market needs. This requires the active participation of German stakeholders – especially from industry – in standardization activities at international, European and national level. Standards must be generally applicable, contain clear definitions and requirements, and be used as the basis of contracts with customers worldwide.

### ► **Promoting innovation**

The stimulative effect of standardization on innovation should be increased by an even greater promotion of closer ties between research and development and standardization, with the support of the government. To a greater extent, aspects of standardization should be integral elements of research programmes and technology promotion. Considerable competitive advantages can be gained by examining the standardizing potential in R&D results at an early stage, particularly in high-technology sectors.

Programmes for promoting innovation, such as »Innovation with Norms and Standards (INS)« and the associated informational events, have demonstrated the potential of standardization for innovation promotion, and should be continually expanded. The intensive monitoring of current developments in R&D should also become a regular component of standardization. Particular attention should be paid to innovation drivers such as health care, environmental protection, climate protection and services.

Specifications – as a means of communicating innovative topics at an early stage – and full-consensus standards – as a means of describing the current state of technology for mature products – are both to be used to transform scientific knowledge into industrial applications. Standardization is a partner of industry, ranging from idea generation to the marketing of innovative products and processes.

### ► **Giving priority to an international orientation**

Being a leading export nation, Germany needs to ensure and increase the competitiveness of German products and technologies in the global market. The key to this are standards that are accepted and used worldwide: such standards help dismantle barriers to trade and avoid the additional costs of obtaining regional certifications or carrying out multiple tests. The goal is a consistent international collection of standards along the lines of »One standard – one test – accepted worldwide«.

To this end, existing national and regional standards collections should be harmonized with the results of international standardization as far as possible. This requires not only active participation in international standardization, but also bilateral and multilateral discussions at all levels – in politics, standardization and business.

As a part of Europe, Germany should strive to bring the results of European standardization activities to the international level and, wherever possible, to bring an international orientation to standards work at the early stages.

The advantages of an international orientation in standardization should also be emphasized when approaching regional markets bordering Europe.

### ► **Supporting SMEs in the global market**

German small and medium-sized enterprises (SMEs) – who are largely export-oriented – must be made more aware of the significance of standardization for opening doors to global markets.

SMEs can commercially exploit their innovation potential in the world market with the help of standards. Standards support SMEs especially when it comes to marketing their products globally. Politics, standards bodies and especially associations need to use awareness and advertising campaigns to disseminate information regarding the benefits of standardization for SMEs seeking internationalization and economic growth.





### ► **Ensuring sustainable development**

To enhance the competitive ability of the German economy, aspects other than purely economic ones also need to be taken into account, such as environmental protection, the sustainable use of natural resources, and material, energy and resource efficiency. Because it involves all interested parties, full-consensus standardization brings together the various positions early on, and politics, business and the general public need to be made more aware of this unique feature. Full-consensus standards support sustainable industrial policy, and sustainable production and utilization structures. They provide the prerequisites for environmentally sound actions, the protection of both individual and societal well-being, and sustainable economic growth.

The coordination and consulting services offered by standards bodies should be utilized and expanded to further promote sustainable development.

### ► **Using standardization and patent systems in an integrative manner**

Standardization and patent systems should be utilized together more often as complementary strategic instruments in global competition. Standards and patents should be essential elements of successful innovation strategies because the former ensures international market access through standardized common characteristics while the latter helps gain a competitive advantage through patented unique selling points.

The rules and procedures for a transparent and non-discriminatory treatment of intellectual property rights in standardization should be harmonized internationally.

**GOAL 2:**

**Standardization as a strategic instrument supports a successful society and economy**

**2** Standardization is used by market participants as a strategic instrument for ensuring competitive ability and supporting business strategies and in keeping with the government's responsibility for the well-being of its citizens.



## FOCUS ON:

### ► Promoting the competitiveness of SMEs

To enhance the competitiveness of their products in national, European and international markets, small and medium-sized enterprises (SMEs) need to ensure their active participation in standardization and thus have an influence on the content of standards. Standardization should be an integral aspect of business strategies for SMEs.

SMEs are to be informed about procedures and activities of standards bodies and their services. This is to be ensured by close cooperation of standards bodies, associations and politics.

### ► Making greater use of networks and platforms

Greater advantage should be taken of the multiplying effect of networks and the resulting relief for individual workloads in standardization. Associations, trade corporations and trade guilds play an important role in improving the participation of small and medium-sized enterprises (SMEs) in standardization. They represent the consolidated interests of SMEs and are the means by which SMEs – often lacking the possibility of direct participation – can access and influence standardization.

Furthermore, open platforms should be created, as has already been done in connection with the development of strategic recommendations for an improved consideration of the needs of SMEs in standardization. These platforms will then become meeting places where all market participants can exchange information and opinions on topics relevant to standardization at an early stage in development, and can agree on joint actions to be taken.

### ► Integrating standardization in higher education

The strategic importance of standardization and the benefits of active involvement in standards work need to be incorporated into curricula to a greater extent in order to introduce prospective specialists and decision-makers in industry, politics and society as a whole to standardization at an early stage. Professional and vocational training courses and academic programmes alike should incorporate standardization in their curricula, particularly in the natural sciences, engineering and

management fields. One prerequisite for this is the development of strategies and action plans for an increased integration of standardization in higher education. This requires the participation not only of the standards bodies, but of politics, businesses and associations as well.

Even young people need to be shown the ways in which standards affect their lives and the contributions standards make to society and the economy as a whole. Standardization should be given a fresher, livelier image through broad-based marketing.

### ► Standardizing management systems on an as-needed basis only

The introduction of management systems standards in such fields as quality and environment has proven to be a successful business strategy, helping to improve processes, products and services throughout the world.

Proposals for the standardization of other management systems, e.g. in specific sectors, should be carefully considered before approval, and the needs of the stakeholders in general should be taken into consideration to ensure that businesses are given enough leeway for individual action.

### ► Making greater use of standards in public procurement

Standards ensure the transparency of the procurement process and should be a more integral component of public procurement procedures because they help reduce costs while at the same time promoting innovation. Standards facilitate the procurement of products and services with an optimal cost effectiveness and guarantee system and component interoperability. The benefits of incorporating standards in tendering and contracting procedures should be made clearer to public procurement offices. The government should take measures across all ministries to ensure uniform public procurement procedures.

## GOAL 3:

# Standardization is an instrument of deregulation

## 3

The principle of referring to standards when drawing up legislation has proven its worth in Germany and throughout Europe. The success of the New Approach as an engine of the European Internal Market, with its annual trade volume in goods of about 1,500 billion euros, is well-known and well-documented. The contribution of International Standards to the facilitation of world trade within the framework of the WTO's Agreement on Technical Barriers to Trade (TBT Agreement) is recognized throughout the world.



## FOCUS ON:

### ► **Creating optimal framework conditions**

The long-term, effective use of full-consensus standards to support and accelerate deregulation requires a reliable framework. To ensure that standards are worded correctly so that they can be cited in legislation, government agencies should be actively involved in standardization activities, and standardization should be supported by the state on a long-term basis.

Full-consensus standards should be written in a legally clear and understandable manner, provide transparency, and help reduce bureaucracy. Maintaining a clear distinction between governmental responsibility and the voluntary nature of standardization, being the responsibility of industry, is of prime importance. Holding to these basic principles ensures cooperation between the public and private sectors under the New Approach and in standardization in general.

### ► **Exerting a greater influence on the drawing up of New Approach mandates**

A core aspect of the New Approach are the »mandates« which the European Commission issues to the European standards organizations and which, after the adoption by the standards organizations, present detailed instructions. Stakeholders in standardization should actively participate in the drawing up of such mandates to ensure that their interests are represented from the very beginning. This requires the proactive cooperation of standards setters and government representatives not only at European level, but also during national discussions of draft mandates.

### ► **Expanding the New Approach**

As the New Approach has proven successful for trade in goods in the European Internal Market, ongoing consideration should be given to expanding the New Approach to other suitable areas in accordance with the Better Regulation policy.

In particular, the cost/benefit ratio and existence of fully harmonized legislation into which full-consensus standards can be incorporated are important criteria for selecting suitable areas.

Both the state and industry should work together to help identify such suitable areas.

### ► **Incorporating specifications in full-consensus standardization**

Specifications drawn up in standards bodies and fora and consortia are gaining importance in light of increasingly shorter innovation cycles and rapid technological development, especially in the Information and Communications Technologies (ICT) sector, which affects all areas of society.

Suitable structures and procedures are needed for the easy conversion of specifications to full-consensus standards which can be used to support and accelerate deregulation.

### ► **Promoting the global harmonization of technical regulations**

The division of labour between national legislation and standardization that has proven successful in Germany and Europe should be promoted as a model solution and established in countries and regions, if of interest to both government and industry. To this end, a global legal framework that is as harmonized as possible is to be constructed.

National standards bodies, internationally active industrial trade partners and political leaders are called upon to hold bilateral and multilateral discussions to set up the necessary conditions.

## GOAL 4:

# Standardization and standards bodies promote technological convergence

## 4

Rapid technological change characterizes today's world. Traditional technical disciplines are meshing to form complex systems involving different technologies. This technological convergence is accompanied by increasingly dynamic innovation, the cross-sector expansion of the Information and Communications Technologies (ICT), and the growing significance of other cross-sector technologies such as biotechnology or optical technologies. The standards organizations at national, European and international level are making the necessary adjustments in this continually changing environment in order to remain promoters of innovative ideas and reliable partners of business in the global market.



## FOCUS ON:

### ► **Actively contributing to the development of the European standardization system**

The current reform process that has been triggered by the increasing convergence of technologies and which is spearheaded by representatives of German interests must be actively pursued. The aim is to create and continually shape an internationally visible, efficient European standardization system that is capable of facing future challenges. At national level, this must be accompanied and supported by a concerted action of all stakeholders.

The network of those representing German interests in European standardization – which should to be expanded – should strive for a coordinated strategic direction for the European standards organizations, thus strengthening the role of the European standardization system in the international standardization arena.

Initiatives started and carried out by the European Commission to strengthen the European standardization system are to be actively shaped by coordinated German contributions.

### ► **Incorporating innovative technology sectors to a greater extent**

The standards bodies' structures, processes and products that are oriented towards the special needs of converging and innovative technologies should be further exploited. It should be made particularly clear to market participants that standardization also has processes and products which allow, prior to full-consensus standardization, demand-oriented work and the description of technology at an early stage.

The model of dialogue platforms established in Germany for identifying innovative topics in R&D should be expanded, and the conception of the German standardization system as being a technology platform and centre for an interdisciplinary exchange of ideas among all market participants should be promoted.

The structures and mechanisms of cooperation which have been successfully established for laying down standardization policy in the ICT sector

should be adopted for other sectors, where suitable, to ensure a coordinated, efficient cooperation among existing standards committees, associations and sectoral standards setters. This will require the close cooperation of all parties involved.

These mechanisms of cooperation should also involve fora and consortia, and suitable processes should be developed so that specifications can be integrated to a greater extent into the standardization activities of the standards bodies, thus bundling resources and exploiting synergy effects.

### ► **Bringing experience gained to the international standardization system**

Experience gained by the standards organizations at national level in devising strategies for promoting technological convergence, and at European level in developing the European standardization system should be used to exert an active influence on making the necessary adjustments at international level.

Representatives of German interests should participate actively at an early stage to ensure that comprehensive structural conditions for a greater support of innovation and technological convergence and an efficient cooperation at international level are established when developing a strategic orientation for international standards organizations. This requires an adaptation of structures and processes as well as a coordinated, demand-oriented adjustment of the deliverables and services offered by the international standards organizations. Cooperation agreements with international and regional partners, and procedures for integrating informal documents will be necessary in order to integrate new technologies as early as possible.

Standards bodies, politics and associations, as well as internationally active businesses will need to ensure that German interests are well represented in the development of strategies for the international standards organizations.

## GOAL 5:

# Standards bodies provide efficient procedures and tools

## 5

Adapting quickly to current market conditions is absolutely necessary for success. New technologies, their further development and their broad application in various sectors increasingly shorten innovation cycles. Standards bodies are meeting this challenge by continually optimizing their work processes, with quality, time restraints and costs being key factors.

A market-oriented business policy and optimized instruments will meet the growing demands on modern standards bodies.





## FOCUS ON:

### ► **Intensifying quality assurance and expanding services**

The continual inspection and improvement of the quality of the products and services offered by standards bodies are to be given key importance in order to secure and consolidate the status of standards in the eyes of business, politics and the general public. Standardization products and services are to be flawless and of high quality, i.e. they should consistently meet customer expectations. The processes and instruments used by standards bodies should be analysed and optimized, and the organizations should make quality assurance a key feature of their business policies and implement it consistently.

Furthermore, standards bodies should expand their services and incorporate customer satisfaction as a major success factor when optimizing business processes. At national level, customer confidence and long-term loyalty should be secured through transparent services and processes, and an unambiguous, comprehensible financing model. Customer surveys should be used to continually improve customer satisfaction and contact. Standards bodies should be continually developed as modern, efficient and customer-oriented service providers for businesses, science, the state and society as a whole.

### ► **Reviewing business models**

Like all modern industrial businesses and service providers, standards bodies should review their business models on a regular basis. The successful, functioning models should be further optimized and developed without encroaching on the fundamental principles of standardization. The independence of standardization is to be maintained, and stakeholders should continue to ensure that standardization remains a means of industrial self-regulation, deregulation by the state, and protection of the well-being of the general public.

When reviewing their business models, standards bodies should consult the stakeholders.

### ► **Ensuring the participation of »everyone«**

Participation in standardization is to be simplified through appropriate rules, processes and instruments to ensure continued access for all without discrimination.

This requires a greater use of efficient information and communication technologies such as virtual meetings, online platforms and a national online portal for commenting on draft standards. Open and transparent processes within standards committees are further guarantees of a fair, balanced participation of all stakeholders in standardization.

In order to reach the broad public, presentations and publications should regularly report on current standardization activities. Standards and draft standards should be presented to the public in the form of abstracts. Access to standards should be made easier through customized deliverables and services, and e-learning platforms should be used to disseminate information on standardization.

### ► **Improving access for SMEs**

Access to standards and standardization should be made easier particularly for small and medium-sized enterprises (SMEs) through suitable measures that are tailored to the needs of SMEs.

To an even greater extent, information on standards that are of interest to SMEs should be provided in suitable formats such as guidelines for standards application. Not only print publications, but also internet portals, information centres and seminars should be used to disseminate this information. This will especially require the assistance of associations and lobbies.

More work should be done on developing models for providing standards that are oriented to the needs of SMEs. As numerous studies and surveys have shown, providing standards for free is not a promising model; more important is the development of SME-specific »standards packs« and user-friendly research tools.

### ► **Optimizing the marketing of specifications**

Standards bodies offer not only the »classical« consensus-based standards, but also a variety of demand-oriented deliverables which have been developed particularly for new, innovative products with short development cycles. The marketing of these deliverables should continue to be improved. All parties interested in standardization are to be informed about the different deliverables, and informational material on each type of document geared towards a specific clientele is to be disseminated using distribution means aimed at target groups. This will require a systematic, clear overview of the various forms of publication, thus providing clarity and transparency for customers.

The standards bodies should assist their customers in selecting suitable forms of publication. To this end, the standards body staffs need to be trained and special contact points in the standards bodies are to be set up.

### ► **Ensuring the coherence of the set of standards**

Full-consensus standardization assures the quality, interchangeability and compatibility of products, information and services. This requires a coherent, non-contradictory set of standards.

With the increasing interweaving of international, European and national full-consensus standardization and the development of specifications, the use of globally harmonized processes that ensure the coherence of the technical rules collection has become imperative. The diversification of the collection through the work results of fora and consortia should be effectively counteracted early on.

Optimized structures should be used to avoid contradictory standards and duplication of work and to achieve a high degree of coordination between all levels and organizations. An efficient management of information and documents should serve as the basis of information platforms which will present initiatives, projects and the results of standards work in a transparent manner. Such platforms can also be used to coordinate work, thus facilitating decision-making.

It is important to take an active role in the necessary discussions among standards bodies and in the development of the relevant strategies.



**Translator's note:** The German Standardization Strategy distinguishes in the German version between »Normung« covering the development process of full-consensus standards (»Normen«) and »Standardisierung« covering the development process of documents with a limited consensus (»Standards«). In the translation, the terms »Normung und Standardisierung« are translated by the English term »standardization« to cover both activities. Consequently, whenever »Normen« and »Standards« are referred to in the German text, the term »standards« is used in the English translation to cover both. When it is necessary to distinguish explicitly between the German terms »Norm« and »Standard«, »Norm« is rendered by »full-consensus standard« and »Standard« by the term »specification«.



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