



German
Standardization Strategy

Shape the
future with
standardization!

Vision:

»Shape the future with standardization!«

Mission:

»Standardization in Germany helps business and society to strengthen, develop and open up regional and global markets.«



Introduction [s. 5](#)

Goal 1

International and European trade is facilitated by standardization [6](#)

Goal 2

Standardization is an instrument of deregulation. [8](#)

Goal 3

Germany is at the forefront in bringing future-oriented topics into standardization on a worldwide scale through the networking of stakeholders and the establishment of new processes and open platforms for coordination. [10](#)

Goal 4

Industry and society are the driving forces in standardization. [12](#)

Goal 5

Standardization is used in particular by companies as an important strategic instrument. [14](#)

Goal 6

Standardization is highly regarded by the public. [16](#)



Introduction

The German Standardization Strategy was developed in 2016 by representatives from all stakeholders in standardization in Germany. It is the result of an intensive process involving representatives from industry, consumer protection and occupational health and safety organizations, general health and environmental protection groups, social partners, technical associations, research institutes and the public. The standardization strategy was developed iteratively over several months, incorporating contributions received from the interested parties via workshops, a public consultation process and a stakeholder conference. On 3 November 2016, the German Standardization Strategy was approved by the DIN Presidial Board.

This strategy is to be understood as a “living document”. It will be filled with life, implemented and continually developed by its stakeholders. At least every three years, at the latest in 2020, DIN’s Presidial Board, as the representative of all stakeholders in standardization in Germany, will review the implementation status of the strategy and determine the necessity of further developing the goals formulated in it.

The German Standardization Strategy supports business, policy makers and state regulators as well as German society, in that standards serve to strengthen, shape and open up regional and global markets, as already expressed in the mission statement. All those who develop, use or make reference to standards are called upon to contribute to the implementation of the strategy according to the means available to them. The strategy is both a requirement and an obligation for all stakeholders. For DIN and DKE in their role as service providers for industry and society, this strategy will form the basis of their work for the foreseeable future. Other German standards development organizations and platforms for standardization also actively support the German Standardization Strategy.

The German Standardization Strategy is in line with the regulatory framework and principles of standardization, as set out, for instance, in the WTO criteria, Regulation on European Standardisation 1025/2012, the Standards Agreement between DIN and the Federal Republic of Germany and the Principles of Standardization.

In addition, the stakeholders place particular importance on stating that standardization must contribute to sustainable economic activity while at the same time meeting the needs of society in general with regard to environmental and consumer protection, occupational health and safety, and health protection.

Goal 1

International and European trade is facilitated by standardization



The international relevance of ISO and IEC is recognized and will continue to be reinforced.

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 German standardization has a consistent international agenda.
- 
 Standards and conformity assessment systems that are applied consistently worldwide are an essential prerequisite for free market access and provide investment and legal certainty.
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 Member countries of the WTO or other international trade organizations make use of international standards (modified as little as possible) in their national technical legislation, which determines market access conditions. The status of national adoptions of international standards and their implementation is transparent, with Germany taking a leading role in this process.

Standardization creates the foundation for global trade. Consistent standards, accepted the world over, are indispensable for enhancing the competitiveness of export-oriented German industry. International standards facilitate global trade and help to remove trade barriers; additional costs for obtaining regional certification or carrying out multiple tests can be avoided. The active participation of German experts in international standards committees and the - as far as possible - unmodified adoption of ISO and IEC Standards in Germany, as well as by its trade partners, are key prerequisites. This reinforces the international relevance and acceptance of ISO and IEC and, with sufficient commitment, contributes to the rapid worldwide dissemination of German and European standards deliverables to international markets.




In many countries, standards are referenced in national technical legislation. Member countries of the WTO and other international trade organizations use International Standards to regulate market access and to lay down framework condi-

tions for facilitated trade. Nevertheless, there continue to be differences in the extent to which International Standards are adopted consistently and without modification, and also discrepancies as to how they are applied. Germany advocates for more transparency and the unmodified adoption of ISO and IEC Standards and is a role model for upholding the principle: "One standard, one test, accepted everywhere."

German standardization fills this leading role. Having reached a common stance on policy, it is committed to the consistent application of standards and conformity assessment systems for, in an increasingly global economy, this is crucial for free market access as well as for investment and legal certainty.



The European Internal Market is strengthened by standardization.

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 The European model of standardization is attractive for other regions of the world and has also been used as a template upon which to base their standards work.
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 The actors in standardization engage in opportunities to take part in political decision making.
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 The actors in standardization are actively involved in relevant policy-making on a continual basis. Both the processes and participation are open and transparent.
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 The actors in German standardization in DIN and DKE take an active role in shaping the European standardization system; in addition, they support the European standards organizations CEN, CENELEC and ETSI (when appropriate) as independent and strong organizations.
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 The quality of standards, in particular harmonized standards, is ensured and will be further enhanced.

Standardization reinforces the integration and general functioning of the European Internal Market. European standardization is supported by the participants in the European Internal Market from industry, politics and society as a whole. The European standardization system, developed in collaboration with the national standards bodies, is continually being improved thanks to the constructive team work of all actors. It is a success story that serves as a global role model. The way the European standardization system functions and is structured holds a strong appeal for many regions. European standardization assists these regions in setting up and implementing standardization systems and structures similar to the European system, making a positive contribution in approaching regional markets and encouraging the dissemination and application of European Standards.

The actors in standardization from industry and society make use of the opportunities to participate in political decision making at the national and European level - in close cooperation with European lawmakers - in order to take an active role in determining the future of the European standardization system and standards work. At the same time, all the actors in standardization are committed to ensuring that participation in the political decision-making processes relevant for standardization always remains open and transparent. The European standards organizations CEN and CENELEC are independent and robust. They boost the competitiveness of the European economy and protect Europe's citizens. They ensure the high quality of standards, in particular that of harmonized standards, through suitable quality assurance measures.



The market relevance¹ of standardization projects is ensured.



DIN and DKE are institutions recognized by policymakers, industry and society as contributing to industry's global competitiveness, and specifically to Germany's global competitiveness, through standardization.

➤ **The limits on standardization's realm of responsibility are clearly described.**

➤ **Policymakers support standardization as a means of defining the state of the art and encouraging innovation.**

➤ **The private sector nature of the standards organizations is permanently guaranteed.**

Determining the market relevance of standardization projects was the motivation behind DIN Presidial Board Decision 18/2013. It gives an expanded definition of "market relevance" for standardization projects. Standardization projects are developed with the consensus of all stakeholders for the benefit of society as a whole.² Specification projects are subject to a simplified consensus process and stakeholder group participation can be more limited. These projects, however, are not permitted to conflict with any existing standards.

DIN and DKE are recognized as the competent partners representing German interests at both the European and international level. They are able to act objectively in a clearly defined role, also vis-à-vis governing regulatory bodies. The government supports standards work, also by financial means: Standardization serves as a means of defining the state of the art, (as referenced in governmental regulation, for example) and promoting innovation in areas where market forces are in need of political backing.

In order to ensure the standards organizations remain neutral and the German standardization goals are realized, the private sector nature of DIN and DKE must be permanently guaranteed. To achieve this neutrality and build trust, it is essential to have a balanced and transparent financing model that shares the economic burden among all stakeholders in standardization.

1. see Presidial Decision 18/2013 (Annex)

2. See DIN 820-3, Standardization — Part 3: Terms and definitions.

Goal 2

Standardization is an instrument of deregulation.

In certain legislative texts, the State refers to standards to provide the technical details necessary for compliance with essential requirements. In Germany, legislation provides the legal framework and sets protection targets, while consensus-based technical rules describe in detail the means of achieving those legal requirements. Standards reflect the state of the art because they are regularly reviewed by experts to adjust for new developments. This way setting standards for detailing technical regulation is delegated to those most suited for fulfilling the task.

At the European level, this concept has been practised successfully since 1985. The New Legislative Framework (NLF) is an internal market instrument of the European Union that sets out the general legislative framework for marketing products in Europe. An important aspect of the New Legislative Framework is the specification of essential requirements in European Directives and the development of harmonized European Standards providing more detail to these requirements. Harmonized European Standards are drawn up on the basis of a standardization request by the European Commission. Once this standard is cited in the Official Journal of the European Union, it is deemed a "harmonized" standard and allows the presumption that the essential requirements of the relevant European directives have been met ("presumption of conformity").

The public-private partnership between the State and private standards organizations was formally set down in a "Standards Agreement" between DIN and the German Federal Government in 1975. At the European level, the EU's "Regulation on European Standardisation" No. 1025/2012 governs European standardization where reference is made to its deliverables in order to set detailed rules for the application of Directives, or for public procurement or policy enforcement purposes.



Standards are an instrument of deregulation and facilitate public procurement. However, it is generally recognized that they are not an appropriate instrument to regulate what is subject solely to political will or the representation of public interests, or which is the domain of social partners.

Standardization relieves the burden on government regulators by specifying detailed solutions that can help in the implementation of legal provisions. However, standards are not appropriate for dealing with issues that exclusively serve the public interest or are the domain of social partners. Nor are they the appropriate instrument for areas that are heavily regulated, such as many branches of the services sector, in particular health care services. On the other hand, standards cannot be used by the political powers as a tool to impose their political will.



The New Legislative Framework is expanded to cover further appropriate areas, while maintaining the division of responsibilities between EU and member states.

As the extension of the so-called "New Approach" of 1985, the New Legislative Framework has proven to be an effective model, and is an essential foundation for the free flow of goods in the European Union and the creation of the Internal Market. To complete the Internal Market, the New Legislative Framework should be expanded to include other suitable sectors, as has been the case with certain services. This should be done while retaining the division of responsibilities between the EU and the member states as stipulated in the Lisbon Agreement, particularly as regards the healthcare sector, as well as taking the previously mentioned restrictions into account.



Standards setters and policy makers work together on a basis of mutual trust.

Beyond the written agreements governing cooperation between standardizers and policy makers, a solid basis of mutual trust is essential for the success of the standardization system. Only through mutual respect and trust can the shared goals of standards work - the free movement of goods in Europe and the protection of its citizens - be achieved.

Trust is built through communication, transparency and cooperation. With regard to the European Commission's standards requests to the European standards organizations, there is a concerted effort on the part of all involved in standardization in Germany to ensure the active participation of stakeholders during the preparation of the request, making certain that the national standpoint is put forward. As a result, the priorities of the stakeholders in the standardization process are already given consideration when the standards requests are being developed.



The public interest is taken into account in standardization, in particular the safeguarding of protection targets such as environmental and consumer protection, occupational health and safety, health protection and building safety. Standards contribute to the global transfer of German sustainability benchmarks.

The public-private partnership between the State and private standards organizations, along with the rules governing standards work at DIN and DKE, ensure that the public interest will be represented in results of standards work. Standards contribute to the protection of citizens, whether in their role as consumers, contracting authorities or employees, as well as helping to protect the environment.










The guiding principles of Germany's National Sustainability Strategy are generational equity, quality of life, social cohesion and international responsibility, while at the same time reconciling economic, ecological and social interests. Developed on a consensus basis and with full stakeholder involvement, standards can make a valuable contribution.

Goal 3

Germany is at the forefront in bringing future-oriented topics into standardization on a worldwide scale through the networking of stakeholders and the establishment of new processes and open platforms for coordination.



DIN and DKE provide the world's leading moderation platform for standardization. They organize standardization topics and coordinate teamwork beyond the borders of their own organizations, including for fora and consortia and other standards development organizations.

-  In this context, DIN and DKE advocate for the coherence and consistency of the body of standards.
-  The strengths of the various actors in standardization are grouped together according to subject area and objective. All stakeholders have the opportunity to participate in a fair manner.
-  Joint steering bodies organized by topic at DIN and DKE coordinate the technical work and are also open to standards development organizations, fora and consortia.
-  As neutral organizations, DIN and DKE are well-suited to take on the necessary coordination tasks.
-  A financing model that ensures neutrality is guaranteed.
-  Supported by experts, DIN and DKE initiate future-oriented projects.
-  Standardization facilitates the rapid spread of technologies, thus priming the market for innovation.
-  Standardization also facilitates interoperability.
-  Standardization is also taken into consideration in science and research.

Germany has long played a key role in stimulating progress in innovative areas such as Industry 4.0, Smart Cities and the energy transition. Ubiquitous digitalization in a globalized world is a megatrend that demands new approaches, processes and structures. This digital transformation is leading to profound upheaval in all areas, whether politics, industry or society as a whole. DIN and DKE have been given a remit to re-coordinate, in consultation with the actors in German standardization, global standardization beyond the limits of their own organizations. The classic, sector-based organizational structure of standardization, one which was successful for so many years, has come to its limits in the face of convergent, innovative cross-sectoral topics. At the same time, the rapidly increasing number of standardization platforms, fora and consortia present major challenges for those observing and participating in standardization work, especially small and medium-sized enterprises.

New types of organizational and operational structures with the associated innovative processes for coordination and moderation are necessary to address these far-reaching changes. Even in a multifaceted standardization landscape with new actors and dynamic processes, established and time-tested values such as the coherence of the body of German standards and neutrality still remain of central importance. The policy of cooperation and coordination will also be continued in order to maintain the coherence and consistency of the body of German standards (including adopted European and International Standards) with other collections of technical rules (such as those drafted by fora and consortia) but also with those issued by American standards development organizations (SDOs).

The fair and effective participation of all stakeholders in standardization, including those in fora and consortia, is reflected above all in a balanced composition of committees and in provision for various forms of participation³. Making different forms of participation possible involves incorporating digital technologies in the development process in an effective way and making efficient use of resources in committee work. For any

3. See also Art. 5 Regulation (EU) No. 1025/2012

standardization topic to be successful, it is essential to group together the activities and competences of the participating actors and ensure the effective flow of information. DIN and DKE ensure the smooth coordination of the participatory processes.

In order to seize upon developments in societal and digital transformation at an early stage, DIN and DKE initiate innovative projects in consultation with the actors in German standardization, drawing upon the findings and requirements of the experts from standardization. Steering bodies tasked with coordinating cutting-edge topics facilitate the integration of new and innovative topics into the standardization process. This takes place in close consultation with existing standards committees. In order to be open to as many new impulses as possible, these steering bodies can be approached by SDOs, fora and consortia.

Science and research take the results of consensus-based and consortial standards work into account, not only to build upon the state of the art but also, in turn, to introduce new findings and approaches into standardization. Standardization is an effective means of bringing new technologies to the market.



DIN and DKE are catalysts for digital transformation in the standards world.

- Instruments for strategic future planning are used, for example "Roadmaps".
- Solutions are developed regarding intellectual property rights issues.
- DIN and DKE have established partnerships and found ways to cooperate effectively with open source projects and take advantage of open source technologies and methods in standardization.

In spite of the consistent use of the FRAND (Fair Reasonable And Non-Discriminatory)⁴ licensing conditions, questions still arise concerning intellectual property rights in the course of developing standards and specifications, particularly when it comes to patents. Different scenarios require tailored solutions that are discussed and agreed upon by the various actors.

It is particularly important to address this issue in connection with open source technologies, e.g. open source software development.

Digital transformation and open source are inevitably linked and must be applied in standardization through the use of open source technology and methods.

4. See also CEN-CENELEC Guide 8: CEN-CENELEC Guidelines for Implementation of Common Policy on Patents ITU-T/ITU-R/ISO/IEC Guidelines for Implementation of the Common Patent Policy for ITU-T/ITU-R/ISO/IEC (http://isotc.iso.org/livelink/livelink/fetch/2000/2122/3770791/Common_Guidelines.pdf?nodeid=6295394&vernum=-2)

Goal 4

Industry and society are the driving forces in standardization.



Industry is a key pillar of standardization and demonstrates a high level of competence and enduring commitment. Industry is increasingly willing to make experts available for participation in national, European and international standards projects.



Standardization topics are introduced in large part by industry.



The costs and benefits of standards projects are in the correct relationship to each other, and the follow-up costs of standards are taken into consideration. Suitable tools are developed.

The disruptive forces of digital technologies will continue to produce many changes in coming years. All areas of industry and society must face up to the ensuing challenges and take an active part in shaping the changes. One useful instrument is the transfer of innovations to the market, a process that is supported by standardization. This requires a high level of commitment on the part of experts from companies, including those experts participating in technical committees at the international level. The role of Germany as a leading industrial nation can only be solidified by the timely and intensive participation of its experts in standardization.

On top of purely economic considerations, new standards projects must also be evaluated on the basis of their potential impact. This calls for a holistic analysis of projects.



The needs of society as a whole are taken into consideration.



Standardization creates added value for society.



Standards contribute to sustainable development taking into account all protection targets, and they also support the UN Sustainable Development Goals (Agenda 2030).

Standards can greatly improve the safety and quality of products, processes and services, affecting our daily lives both directly and indirectly. Thanks to the involvement of all stakeholders in standards work, it is ensured that the requirements of society are acknowledged and acted upon. These requirements are based on protection targets which develop through social discourse, such as occupational health and safety, environmental and consumer protection, health protection and building safety. Beyond their added value in monetary terms for industry, standards are essential to ensure environmentally sound practices, the protection of the individual and the collective good. Aspects such as the sustainable use of resources, and material and energy efficiency help improve market competitiveness.



DIN and DKE work in close cooperation with technical associations

Due to the highly interwoven nature of technologies, coordinated and efficient collaboration must be ensured between the existing standards bodies and sector-based associations and SDOs. This requires the active participation of all stakeholders. In this way, interested parties that have fewer resources available to them for standards work, such as small and medium-sized enterprises (SMEs) or consumers, are better integrated into the process.



DIN and DKE work together with fora and consortia

Digital transformation touches almost all areas of our lives, changing entire business segments and value chains. Successful digitalization depends on standards. In the area of information technology, numerous fora and consortia have emerged alongside the existing standards organizations. The challenge is to strengthen the coherence of the body of standards, avoid duplicate efforts and eliminate contradictory standards while bundling resources and allowing the input of knowledge from all experts in the standardization process. Close collaboration among DIN, DKE, fora and consortia with the resulting synergy effects can generate advantages for both sides. In this way, industry is given support and is relieved of some of the burden associated with the digital transformation process.

Goal 5

Standardization is used in particular by companies as an important strategic instrument.



Industry recognizes the benefits of standardization at all levels of the company.



Management uses standardization as a strategic tool to achieve corporate objectives; participation in standards committees is promoted and valued highly.

Companies benefit by actively taking part in standards projects: Through interaction with specialists in other areas they can gain a knowledge lead, introduce their own technologies and help shape the content of standards. Furthermore, innovations which have been guided by standardization processes, from the initial idea to the market launch, have a better chance of penetrating the market. Clearly, standardization is an important strategic instrument of a company's technology and innovation management. The option to take part in the development of standards is a valuable alternative to, or can supplement, the patenting process, an undertaking which can be cost intensive and often only touches on a limited aspect of a topic.

However, this potential can only be unlocked by companies when it is recognized at the management level and standardization is integrated accordingly into the company's overall strategy. It is also essential that management recognize and value their employees' commitment to their work in standards committees, for example, by securing the financing for them to attend committee meetings. At the same time, the technical experts are aware of the benefits of standardization for their companies. Their technical know-how and experience are indispensable for the success of standards work.



Standardization work is appealing. Effective and reliable processes and structures have been established. Suitable digital tools are used.

The willingness to take part in the development of standards is largely dependent on how attractive the work is made for participants. Reliable processes and structures are the cornerstone: they facilitate the involvement of all stakeholders and provide a unique platform (that complies with the principles of cartel law) by which they can exchange ideas with other experts and achieve consensus. The effectiveness and reliability of these processes and structures are also imperative in order to keep up with the ever-increasing speed of technological development and to guarantee that standards are swiftly updated. These processes are supported through the use of digital tools for joint editing of draft documents, virtual meetings and online consultations, etc. Such tools must be easy to use, reliable and as barrier-free as possible.



Standards are practical in application, limited to the essentials and a central source of information. Standards take the requirements of users into account. These requirements are a quality benchmark for standardization. A modular standards structure is established.

For many users, standards play a central and essential role in their daily work. For these users, the quality of a document is gauged by how easily they can locate and then apply relevant information. Therefore, great importance is to be attached to improving the readability of the document as well as establishing clear definitions and requirements. Standards are easily accessible and easy to search. This makes it easier for companies to use their content across all steps in the value chain.

The user friendliness of the documents will also be improved by implementing a modular standards structure. When appropriate, voluminous standards will be divided into smaller sections that focus on specific areas and make it easier for users to find the information they need. This type of standards structure offers advantages to the reader, but is also useful in developing the standard. Specific topics can be updated quickly and participation can be targeted, which benefits SMEs among others.



The targeted involvement of experts from SMEs is made possible.

Standards profit when the best experts actively participate in the standardization process in their specific area. However, it can be particularly challenging for smaller companies and start-ups to take an active role in standards work. Digital tools help lower the barriers to SME involvement in the standards process. Custom-tailored information on current projects and the implementation of a modular standards structure help SMEs to select topics that are relevant to them and to use their available resources wisely.



The technical associations and the institutional leaders of German standardization, DIN and DKE, together with the Federal Government, encourage companies to use standardization in both their domestic and export businesses.

Goal 6

Standardization is highly regarded by the public.



Standards represent safety and quality.



The processes of standardization are efficient and are perceived as such.



The public is involved in standardization through clear structures and transparent processes.



DIN and DKE maintain an open and transparent dialogue with the public, also using innovative participation processes to involve stakeholders.



The quality assurance of the standardization process is transparent.

Participation in standards work is an enriching experience due to the many advantages it offers. Participants come in contact with a large network of potential partners and customers and have the opportunity to put forward their own interests. They also gain a considerable advantage by having access to the latest developments in product and service requirements, as well as accessing knowledge on the current state of the art. These advantages are increasingly communicated by all the actors in standardization and by the standards organizations themselves.

In general, the public perception of standards is positive: They are widely recognized and stand for trust, uniformity and reliability. Even when there are changes in the ever transparent and efficient standardization processes, standards and their content maintain a consistent high quality with a clear social and economic added value.

Both to ensure the active dialogue with the public and to address existing networks in an optimal manner, DIN and DKE use innovative approaches to build upon existing methods of participation. This is intended to create the widest possible range of options for getting involved.



Standardization has become increasingly anchored in vocational training and academia.



Discussions are taking place on an ongoing basis regarding the role of standardization in its relationship with science and technology, industry, politics and society and societal transformation in all areas.



The benefits of standardization and its contribution to economic activity, to the public good and sociopolitical protection targets like environmental and consumer protection, occupational health and safety, health protection and building safety have been communicated and acknowledged.

To foster the knowledge about standardization and encourage the next generation of technical experts and management in their work with standards, standardization is already integrated in vocational training programs and academic education. Standardization is vital for a wide range of sectors. Thus, depending upon the focus, economic, technical, political or legal aspects can be examined.

Standards are essential in everyday life by making sure things work smoothly, often without even being noticed. All actors in standardization therefore have an interest in communicating and publicizing the many diverse benefits of standardization and standards. Through increased commitment to innovation and by keeping abreast of megatrends, standardization is recognized as a valuable instrument for both industry and society as a whole.

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".

In the context of the English translation of the German Standardization Strategy the term "standards organization" is used for the national standards bodies DIN and DKE, as well as for CEN, CENELEC and ISO and IEC. Other issuers of technical rules, whether of German or non-German origin, are referred to as "standards development organizations".

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