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Understanding and Managing Industry Standards in Germany and Europe

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White Paper

In 2000, a scientific study determined the economic benefits of standardization to the German economy to be 16 billion euros per year¹. While focused on Germany, the study also reflects the inherently international nature of standards in Germany and the Single European Market, by receiving financial contributions from non-German organizations and companies, such as the Austrian Standardization Institute, the Swiss Standards Association, and DaimlerChrysler.

Today's German businesses face unique challenges when it comes to meeting and maintaining industry standards compliance in Germany and throughout the EU market. With recognized European Standards Organizations (ESOs) working alongside national Standards Developing Organizations (SDOs), such as the German Institute for Standardization (DIN) and international SDOs, German businesses are required to select from a range of standards in order to meet general industry regulations.

This white paper explores topics of how German businesses can best understand and manage their options in terms of domestic, European and international industry standards, including:

- the benefits of standards – reduced costs, risks, and time to market
- distinguishing between the nature and roles of various SDOs
- compliance within the Single European Market
- benefits of using Harmonized European Standards domestically and in the EU market

In addition, tools and techniques will be discussed that simplify the challenging process of standards research, identification, procurement, and management for the current German and European markets.

The Benefits of Standards: Reduced Costs, Risks, and Time To Market

In 1997, DIN and the German Federal Ministry of Economic Affairs and Technology (BMWi) jointly initiated the above-mentioned scientific study on the economic benefits of standardization. While the yearly national economic benefit of standardization amounted to 16 billion euros in general, the study also identified three specific benefits that standards bring to individual businesses¹:

- **Reduced Costs:** by avoiding the reinvention of the wheel, standards allow businesses to reduce development costs, while transaction costs are also minimized through use of European and international standards
- **Reduced Risks:** standards represent foundational 'templates' based on previously proven technologies, allowing businesses greater security in terms of product safety, reliability, and ultimate marketability
- **Reduced Time to Market:** standards provide a head start over competitors when adapting to shifting market demand and new technologies

Add to these the proven benefits of increased product value in terms of consumer perception (i.e., whether or not a product is ‘up to standard’), and expanded potential market through verifiable compliance with the Single European Market, and industry standards clearly become a best business practice.



For German businesses to fully benefit from using standards, however, it is vital they first understand the nature and roles of the organizations that develop those standards.

Understanding Standards Developing Organizations

When it comes to seeking market compliance in Germany and Europe, a wide range of SDOs and ESOs result in businesses being faced with the challenging task of choosing between an equally wide range of available industry standards. The table below provides an overview of a selection of key German, European, and international SDOs in order to better distinguish between the players behind the standards:

SDO	Nature	Description
DIN: German Institute for Standardization	Registered Association & National Standards Body	DIN was founded in 1917, and represents German interests at the international and European level, while providing a forum for domestic standards development ² .
DKE: German Commission for Electrical, Electronic & Information Technologies	Non-profit service organization	DKE is responsible for the elaboration of electrical engineering, electronic and information technology standards and safety specifications, while representing Germany in international and European standardization organisations such as IEC, CENELEC, and ETSI ³ .
CEN: European Committee for Standardization	Non-profit organization & ESO	CEN was founded in 1961 by the national standards bodies in the European Economic Community and EFTA countries. Today, CEN's 29 National Members vote to implement voluntary technical standards in support of the EU's standards harmonization objectives ⁴ .
CENELEC: European Committee for Electrotechnical Standardization	Non-profit technical organization & ESO	CENELEC was founded in 1973, and is currently composed of National Committees of 29 European countries and 9 National Committees from neighbouring countries. CENELEC creates voluntary electrotechnical standards to service and develop the Single European Market ⁵ .
ETSI: European Telecommunications Standards Institute	Non-profit organization & ESO	ETSI is officially responsible for standardization of Information and Communication Technologies (ICT) within Europe. ETSI's membership is comprised of 655 ICT industry players from 59 countries inside and outside Europe ⁶ .
ISO: International Organization for Standardization	Non-governmental network of national representatives	ISO was founded in 1947 to act as an international organization to facilitate the coordination and unification of industry standards. National standards institutes represent the ISO's 157 member countries (one per country), while a Central Secretariat coordinates the system in Geneva, Switzerland ⁷ .

As seen above, each SDO and ESO addresses different regional and industry-related standards issues. Armed with this basic understanding of SDOs and ESOs, German businesses aiming to maximize their number of available markets must next understand how best to achieve and maintain compliance across the Single European Market.

Compliance Within the Single European Market

DIN's activities, as well as those of many German businesses, extend beyond the nation's borders into the Single European Market. Here, the EU's New Approach directives establish, among other things, broad 'essential' safety requirements all businesses must meet to be market compliant. As for how German businesses will specifically achieve compliance, they are free to choose whichever technical solution they feel is most effective.

One of the best solutions for meeting and maintaining compliance with the EU's New Approach directives is to use Harmonized European Standards (also known as EN standards) for two reasons:

- The development of EN standards is directed by the New Approach directives themselves
- EN standards are developed by recognized European Standards Organizations

Consequently, when a German business uses an EN standard, it provides a 'presumption of conformity' with the directive for which the standard was developed.

The Benefit of EN Standards as National Standards

A further benefit of using EN standards is that Germany, as with each EU member, is required to adopt EN standards as national standards, while withdrawing any conflicting national standard⁸. Thus, by making use of EN standards, German businesses can simultaneously achieve domestic and European compliance through a single standard.

In order for businesses to understand whether a given standard is an EN standard, a DIN standard, an international standard, or some combination of these, the following naming conventions are used⁹:

SDO	Nature	Description
EN	Harmonized European Standard (EN standard)	EN 28167 – specification for projections for resistance welding
DIN	DIN standard with exclusive or primary significance in Germany	DIN 4701 – regulations for the computation of temperature requirements in buildings
DIN EN	National German edition of an EN standard adopted by CEN/CENELEC	DIN EN 71 – standards series on the safety of toys
DIN ETS	National German edition of an EN standard prepared by ETSI	DIN ETS 300753 – specifies acoustic noise emission limits for equipment used in telecommunication locations
DIN EN ISO	ISO standard used to prepare an EN standard adopted as a DIN standard	DIN EN ISO 306 – determination of Vicat softening temperature
DIN ISO	ISO standard adopted as a DIN standard	DIN ISO 720 – method of test and classification of resistance of glass grains at 121 °C

In addition, international standards can be developed from published DIN standards. In such cases, the above naming conventions would also apply.

Tools and Techniques that Simplify Using Standards

Having identified the benefits of using industry standards; the best practice of using EN standards when it comes to German and European market compliance; and how to identify the nature of a given standard by its designation, the next issue becomes how individual German businesses can best research, identify, procure, and manage the specific standards they need.

One technique for reducing the time required to research and identify specific domestic, European, or international standards involves noting which standards are most commonly procured by other businesses in connection with the products or processes in question.

For example, the following table lists a partial collection of industry standards most commonly acquired by German businesses from a third-party standards supplier. Although the list in question covers various international SDOs and industries, such "Best Selling" lists also exist for specific SDOs, as well as for specific industries, such as the automobile industry or construction.

Standard	Description Excerpt
GMW3059 Restricted and Reportable Substances for Parts-Engl; Revision G	This specification lists substances whose use in materials and components, in the interests of personnel and environmental safety, are either prohibited or limited. These restrictions are based on existing legislation or self-imposed regulations. The aim of this specification is to restrict/stop the usage of the substances listed, to facilitate compliance with current and future regulations.
GME 00252 Electrolytically Deposited Metallic Coatings	This specification describes the requirements of zinc, zinc-iron, zinc-nickel alloy, tin, lead and copper, electrolytically deposited coatings on iron and steel components, and additionally those of tin and lead on copper components. Coated threaded parts (fasteners) also form part of this specification. (NOTE: original description from the now inactive 1998-APR-07 version)
API SPEC 5L Specification for Line Pipe-Forty-Third Edition	The purpose of this specification is to provide standards for pipe suitable for use in conveying gas, water, and oil in both the oil and natural gas industries. This specification covers seamless and welded steel line pipe. It includes plain-end, threaded-end, and belled-end pipe, as well as through-the-flowline (TFL) pipe and pipe with ends prepared for use with special couplings.
NEMA Z535.4 Product Safety Signs and Labels	This standard sets forth performance requirements for the design, application, use, and placement of safety signs and labels intended to identify potential hazards for persons using, operating, servicing, or in proximity to, a wide variety of products.

The list above is an example of a publicly accessible source of information made available by third-party standards suppliers. While taking advantage of such resources is one method for speeding the process of identifying and using standards, third-party standards suppliers also represent a vast array of document resources and tools, which are of even greater benefit to German businesses.

For example, a single business can receive multiple login passwords to a centralized online collection of industry standards. Multiple passwords allow the company's different engineers and developers instant 24/7 access to the standards resources needed, regardless of where the employees are located. While powerful search and document management tools speed the process of researching and working with standards, the up-to-date databases ensure the latest compliance information is accessed. Throughout the process of leveraging such third-party standards supplier solutions, the business enjoys protection from infringing copyright through built-in digital rights management mechanisms.

How IHS Simplifies German, European and International Standards Compliance

IHS (<http://germany.ihs.com/>), an ISO 9001:2002 registered company, is an industry-leading third-party standards supplier providing solutions for companies using German, European and international standards and specifications from organizations such as DIN, CEN, CENELECT, ETSI, BSI, ISO, IEC, ASTM, IEEE, ASME, UL, and others. Whether leasing access to a set of documents through a subscription, or purchasing individual retail documents, IHS has the solutions your company needs to ensure compliance to domestic, European, and international standards. For immediate assistance, call +49 (0)89 89 52 69 - 0 or email vertrieb@ihs.de, and a sales specialist will be happy to help you. Alternatively, you can personally review our [document services](#) and determine the best options for your needs.

¹ "How does standardization benefit the economy?" DIN. 14 Dec. 2006 <http://www.normung.din.de/index.php?lang=en&na_id=normung>.

² "About DIN." DIN. 4 Dec. 2006. <<http://www2.din.de/sixcms/detail.php?id=1126>>.

³ "Welcome to the DKE." DKE. 14 Dec. 2006. <http://www.dke.de/dke_en/>.

⁴ "About Us." CEN. 20 Aug. 2004. 6 Dec. 2006. <<http://www.cenorm.be/cenorm/aboutus/index.asp>>.

⁵ CENELEC. 6 Dec. 2006. <<http://www.cenelec.org/Cenelec/About+CENELEC/default.htm>>.

⁶ "Who is ETSI?" ETSI. 13 Nov. 2006. 6 Dec. 2006. <http://www.etsi.org/about_etsi/5_minutes/home.htm>.

⁷ "Overview of the ISO System." ISO. 12 Sept. 2006. 4 Dec. 2006. <<http://www.iso.org/iso/en/aboutiso/introduction/index.html>>.

⁸ "New Approach." European Commission. 15 Sep. 2006. 6 Dec. 2006. <http://ec.europa.eu/enterprise/newapproach/index_en.htm>.

⁹ "Designation of DIN Standards." DIN. 14 Dec. 2006. <<http://www2.din.de/sixcms/detail.php?id=1325>>.

