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Understanding and Utilising Industry Standards

in Great Britain and Europe

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White Paper

As the world's largest confederation of independent states, the European Union (EU), along with its Single European Market, poses unique challenges to the development and regulation of common European industry standards. Each of the EU's 25 member countries represent distinct national interests when it comes to industry standardisation, Britain being no exception.

In order to accommodate these national differences, recognised European Standards Organisation (ESOs), as well as British, European and international Standards Developing Organisations (SDOs) all work toward creating standards that meet the needs of European businesses while serving the various interests of the European market.

This white paper will explore topics of how British businesses can best understand and manage domestic, European and international industry standards, including:

- the benefits of standards, from reduced costs to enhanced products and processes
- distinguishing between the nature and roles of various SDOs
- best practices for conformity with the EU's New Approach directives

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

Transfer of Knowledge and the Benefits of Standards

By leveraging industry standards as a means of knowledge transfer, British businesses avoid reinventing the wheel while enjoying significant cost savings. For example, in 2005, the UK Department of Trade and Industry (DTI) released a report that studied the impact of standardisation on economics, productivity, and innovation. The report concluded that 13% of Britain's post-WWII labor productivity growth could be attributed to standards – or approximately £2.5 billion per year of Britain's current economy¹.

In addition to cost savings, other measurable standards-related benefits that businesses enjoy include:

- increased product value in terms of consumer perception (i.e., whether or not a product is 'up to standard')
- encouraged innovation and reduced time to market through foundational 'templates' based on previously proven technologies
- expanded potential market through verifiable compliance with the Single European Market and/or global marketplace



In order for British businesses to take full advantage of such standards-related benefits, however, it is vital they understand the nature and roles of the organisations that develop those standards.

Understanding Standards Developing Organisations

When it comes to industry standardisation in Europe, the diversity of national interests represented is matched by the variety of Standards Developing Organisations (SDOs) involved in the process. Government designated organisations, such as Spain’s AENOR, are active alongside non-governmental international organisations, such as

the International Electrotechnical Commission (IEC), and private national companies, such as the British Standards Institution (BSI). In addition, there are three EU-recognised European Standards Organisations (ESOs), as referenced in the table below.

This wide range of SDOs and ESOs results in businesses being faced with the challenging task of choosing between an equally wide range of industry standards when seeking market compliance. The table below provides an overview of a selection of key British, European, and international SDOs in order to better distinguish between the players behind the standards:

SDO	Nature	Description
ISO: International Organisation for Standardisation	Non-governmental network of national representatives	The ISO was founded in 1947 to act as an international organisation 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 ² .
CEN: European Committee for Standardisation	Non-profit organisation & 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 harmonisation objectives ³ .
CENELEC: European Committee for Electrotechnical Standardisation	Non-profit technical organisation & 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 ⁴ .
ETSI: European Telecommunications Standards Institute	Non-profit organisation & ESO	ETSI is officially responsible for standardisation 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 ⁵ .
BSI: British Standards Institution	Not-for-profit Enterprise & National Standards Body	BSI is a private company that facilitates, drafts, publishes and markets standards and related information products in the UK, while representing Britain in the European arena (CEN, CENELEC, ETSI) and internationally (ISO, IEC) ⁶ .
DIN: German Institute for Standardisation	Registered Association & National Standards Body	DIN was founded in 1917, and represents German interests at the international and European level. DIN provides a forum for domestic standards development, while representing the country’s international standards involvements ⁷ .
AFNOR: Association Française de Normalisation	State approved organisation	AFNOR was founded in 1926, and is a state-approved organisation that controls France’s central standardisation system while acting as the French member of CEN and ISO ⁸ .
GOST: Russian acronym for “state standard”	Collection of regional standards; English version managed by Interstandard	GOST is a collection of technical standards originally developed as part of the Soviet government’s national standardisation strategy. Currently, the GOST collection serves as regional standards in 12 countries, and is maintained by an ISO-recognized regional standards organisation chartered by the Commonwealth of Independent States (CIS) ⁹ .

As seen above, each SDO and ESO addresses different regional and industry-related standards issues. Nevertheless, for British businesses aiming to maximize their number of available markets, the greater issue is how to best achieve and maintain compliance across the Single European Market.

Compliance with the EU's New Approach

The EU's solution to the European market conforming to a common standards level is largely based on the development of New Approach directives. These directives deal with conformity assessment procedures and CE marking, which



Figure 1

acts as a manufacturer's claim to meeting all relevant directive requirements (see figure 1). More pertinent to this white paper, however, are the broad 'essential' safety requirements outlined in the directives.

While all manufacturers must conform to these directive requirements to gain access to the European marketplace, manufacturers are given the option of choosing whichever technical solutions they feel will best yield compliance.

One of the best approaches for conforming to these requirements is to use Harmonised European Standards, also known as EN standards. The development of EN standards is informed by the New Approach directives, and performed by recognised European Standards Organisations. Consequently, EN standards are said to provide a 'presumption of conformity' with the directive for which they were developed.

Furthermore, each EU member is required to adopt EN standards as national standards, distinguished in each country's case by preceding 'EN' with its respective national prefix (e.g., the British specification for projections for resistance welding is represented as BS EN 28167). Subsequently, any conflicting national standard must also be withdrawn¹⁰.

Tools and Techniques that Simplify Using Standards

Having identified using EN standards as a best practice when it comes to European market compliance, the next issue becomes how individual businesses can best research, identify, procure, and manage the specific standards required. To streamline the process of meeting and maintaining standards compliance, a range of proven tools and techniques are available to British businesses.

One technique available to British manufacturers and suppliers that can reduce the time required to identify specific domestic, European, or international standards involves identifying which standards are most commonly procured by other businesses in connection with similar products or processes.

For example, the table below lists a partial collection of the most common BSI standards acquired from a third-party standards supplier. Such "Top Standards" lists also exist for other specific SDOs, as well as for specific industries, such as electronics or construction.

BS EN 10204

Metallic products - Types of inspection documents

This British Standard is the official English language version of EN 10204:2004. It supersedes BS EN 10204:1991 which is withdrawn. The UK participation in its preparation was entrusted to Technical Committee ISE/5.

BS EN 1041

Information supplied by the manufacturer with medical devices

According to the CEN/CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

BS EN 1050

Safety of machinery - Principles for risk assessment

This standard establishes general principles for the procedure known as risk assessment by which the knowledge and experience of the design, use, incidents, accidents and harm related to machinery is brought together in order to assess the risks during all phases of the life of the machinery (see 3.11a of EN 292-1:1991).

BS EN 1473

Installation and equipment for liquefied natural gas - Design of onshore installations

The objective of this European Standard is to give functional guidelines for liquefied natural gas (LNG) installations. It recommends procedures and practices which will result in safe and environmentally acceptable design, construction and operation of LNG plants. It need not be applied retrospectively, but application is recommended when major modifications of existing installations are being considered.

Making use of publicly accessible information from third-party standards suppliers, such as the list above, is just one approach to easing the process of standards identification and use. Of even greater benefit to British businesses are the tools currently offered by such third-party standards suppliers. For example, up-to-date databases with powerful search and document management tools greatly simplify the process of standards research, identification and procurement.

Such standards management solutions can provide a 24/7 international access point to the full spectrum of domestic, European, and international standards and regulations produced by the various standards-related bodies pertaining to every active industry in Britain and Europe.

How IHS Simplifies European and International Standards Compliance

IHS <http://uk.ihs.com>, an ISO 9001:2002 registered company, is an industry-leading third-party standards supplier providing solutions for companies using British, European and international standards and specifications from organisations such as BSI, ISO, CEN, CENELECT, ETSI, AFNOR, DIN, 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 +44 (0)1344 328300 or email customer.support@ihsti.com and a sales specialist will be happy to help you. Or, you can personally review our **document services** and determine the best options for your needs.

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