



UNITED NATIONS  
INDUSTRIAL DEVELOPMENT ORGANIZATION



Schweizerische Eidgenossenschaft  
Confédération suisse  
Confederazione Svizzera  
Confederaziun svizra

Swiss Confederation

Federal Department of Economic Affairs,  
Education and Research EAER  
State Secretariat for Economic Affairs SECO



GLOBAL QUALITY  
AND STANDARDS PROGRAMME



# CREATING VALUE WITH STANDARDS

**Industry engagement for a  
sustainable future**





## DISCLAIMER

Copyright © 2024 United Nations Industrial Development Organization.

This document has been produced without formal United Nations editing. The designations and the presentation of the material in this document do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations Industrial Development Organization (UNIDO) concerning the legal status of any country, territory, city or area of its authorities, or concerning the delimitation of its frontiers or boundaries, or its economic system or degree of development. Designations such as “developed”, “industrialized” and “developing” are intended for statistical convenience and do not necessarily express a judgment about the stage reached by a particular country or area in the development process. Mention of company names or commercial products does not constitute an endorsement by UNIDO. Although great care has been taken to maintain the accuracy of the information presented, neither UNIDO nor its member states assume any responsibility for consequences which may arise from the use of the material. This document may be freely quoted or reprinted, but acknowledgement is requested. For reference and citation please use: United Nations Industrial Development Organization. 2024. Creating value with standards: Industry engagement for a sustainable future. Vienna, Austria.





# TABLE OF CONTENTS

<b>INTRODUCTION</b>	<b>4</b>
<b>GLOBAL OUTLOOK: ECONOMIC BENEFITS OF STANDARDS FOR SMES</b>	<b>6</b>
WHAT ARE STANDARDS?	6
PRIVATE STANDARDS	9
STANDARDS AND QUALITY INFRASTRUCTURE	9
STANDARDS AND SMES	11
SME PARTICIPATION IN STANDARDIZATION	11
WRITING STANDARDS WITH SMES IN MIND	12
ECONOMIC BENEFITS FOR COMPANIES – QUANTITATIVE	14
BENEFITS OF STANDARDS FOR SMES – QUALITATIVE	16
MACRO-ECONOMIC RESEARCH INTO THE BENEFITS OF STANDARDS	17
<b>LOOKING TO THE FUTURE</b>	<b>18</b>
STANDARDS AND THE UN SUSTAINABLE DEVELOPMENT GOALS	18
EXPLOITING THE BENEFITS OF STANDARDS	18







## INTRODUCTION



Voluntary consensus-based standards are written by experts and relevant stakeholders. They identify national, regional, and international best practice for products, processes, and services.

They enable the use of technology across borders and systems and play an important role in facilitating international trade by reducing barriers such as technical regulations. Harmonization of standards across countries, by using internationally recognized standards, can play a key role to enhance trade between nations, by allowing companies to sell their goods and services across borders without having to adapt goods and services to local market requirements.

From the point of view of exports, research<sup>1</sup> shows that the use of international standards can bring the following benefits to exporting companies:

1. Standards **drive trade** by providing a signal of quality to consumers and trade partners.
2. International standards create a '**common language**' for potential trading partners.
3. Standards support international commerce by **lowering barriers to trade, reducing production costs** and offering opportunities for **economies of scale**.
4. Standards encourage trade by **reducing transaction costs**.

Even when there is an initially negative cost-impact of an importing-market standard, over time, firms and governments tend to show substantial ability to adapt and prosper in the new environment, and the standard can be the catalyst for higher productivity and quality.

Timely and harmonized standards can play a pivotal role in shaping the digital transformation process amidst the Fourth Industrial Revolution. Standards can facilitate the ongoing digitalization of industry by enhancing productivity and efficiency, promoting compatibility and interoperability between products and processes through common language, while guaranteeing minimum levels of quality and safety.<sup>2</sup>

Furthermore, standards can serve as accelerators of change as they promote innovation and the uptake of new digital technologies and spread knowledge through codification.

Whilst the use of standards brings benefits, these benefits can be seen as favoring larger multinational companies. Small and medium-sized enterprises (SMEs) may not have been represented in the drafting of those standards and their use may be proportionally more onerous. Nevertheless, SMEs have much to

benefit from the use of standards<sup>3</sup> including:

1. **Helping improve the quality of goods and services.**
2. **Helping drive growth, cut costs, and increase profits.**
3. **Providing business an edge over competitors.**
4. **Opening export markets for goods and services.**
5. **Opening doors to new customers and strengthening existing customer relations.**
6. **Helping compete with bigger enterprises.**
7. **Enhancing credibility and securing customer confidence.**
8. **Sharpening business processes and increasing efficiency.**
9. **Strengthening marketing pitch.**
10. **Helping comply with regulations.**

Through the quality and standards related activities of the United Nations Industrial Development Organization (UNIDO), SMEs are encouraged to use standards to increase competitiveness and assist with exports, especially to the EU. To gain insight into UNIDO's important work concerning quality and standards, read about the Global Quality and Standards Programme (GQSP), funded by the Government of Switzerland through its State Secretariat for Economic Affairs (SECO) and highlighted in the publication [Improving Trade, Changing Lives](#).

Case studies have shown that if technical standards are not applied, then serious product safety issues can occur, leading to withdrawal from the market.

This publication sets out some of the key economic benefits of standards for SMEs. Standards also provide numerous social and environmental advantages, such as promoting good governance. The wide array of benefits provided by standards is detailed in the following publications:

- » [Smart Quality Infrastructure: Shaping a sustainable future](#)
- » [Standards & Digital Transformation: Good Governance in a Digital Age](#)
- » [Standards for Sustainability: UNIDO's Contribution to Voluntary Sustainability Standards](#)
- » [Fostering Climate Resilience through Quality and Standards: The Contribution of the Global and Quality Standards Programme \(GQSP\)](#)
- » [Advancing Gender Equality through Global Trade](#)

<sup>1</sup> Swann, International Standards and Trade-A Review of the Empirical Literature (2010) [https://www.oecd-ilibrary.org/trade/international-standards-and-trade\\_5kmdbg9xktwg-en](https://www.oecd-ilibrary.org/trade/international-standards-and-trade_5kmdbg9xktwg-en)

<sup>2</sup> UNIDO Standards and digital transformation – Good governance in a digital age (2021) [https://www.unido.org/sites/default/files/files/2021-10/Standard\\_digital\\_transformation\\_ONLINE\\_FINAL.pdf](https://www.unido.org/sites/default/files/files/2021-10/Standard_digital_transformation_ONLINE_FINAL.pdf)

<sup>3</sup> ISO 10 good things for SMEs (2014) <https://www.iso.org/files/live/sites/isoorg/files/store/en/PUB100283.pdf>





## GLOBAL OUTLOOK: ECONOMIC BENEFITS OF STANDARDS FOR SMES

### WHAT ARE STANDARDS?

In essence, a standard is an agreed way of doing something. It could be about making a product, managing a process, delivering a service, or supplying materials—standards can cover a huge range of activities undertaken by organizations and used by their customers.<sup>4</sup>

There are various types of standards, characterized by the context in which they are developed. Unwittingly, different types are often referred to interchangeably and it is important not to confuse them.

International standards are voluntary consensus-based documents. This means that they have been developed through a process of general agreement, characterized by the absence of sustained opposition to substantial issues by any important part of the concerned interests and by a process that involves seeking to take into account the views of all parties concerned and to reconcile any conflicting arguments.<sup>5</sup>

<sup>4</sup> <https://www.bsigroup.com/en-GB/standards/Information-about-standards/what-is-a-standard/>

<sup>5</sup> ISO/IEC Guide 2:2004 Standardization and related activities – General vocabulary <https://isotc.iso.org/livelink/livelink/Open/8389141>



The foreword of the ISO/IEC Directives, Part 1,<sup>6</sup> notes that consensus is an essential procedural principle, requiring the resolution of substantial objections in meetings or by correspondence. It is “a necessary condition for the preparation of (standards) that will be accepted and widely used”. The aim is to resolve substantive issues before the final stages of development.

The International Organization for Standardization (ISO) therefore defines a standard as a document **established by consensus** and approved by a recognized body that provides for common and repeated use, rules, guidelines or characteristics for activities or their results aimed at achieving the optimum degree of order in a given context.<sup>7</sup>

The World Trade Organization (WTO) Technical Barriers to Trade (TBT) Agreement defines a **standard**

*as a document approved by a recognized body, that provides, for common and repeated use, rules, guidelines or characteristics for products or related processes and production methods, with which conformity is not mandatory. It may also include or deal exclusively with terminology, symbols, packaging, marking or labelling requirements as they apply to a product, process, or production method.*<sup>8</sup>

The WTO TBT Agreement defines a **technical regulation** as a *document which lays down product characteristics or their related processes and production methods, including the applicable administrative provisions, with which compliance is mandatory. It may also include or deal exclusively with terminology, symbols, packaging, marking or labelling requirements as they apply to a product, process, or production method.*<sup>9</sup>

<sup>6</sup> ISO/IEC Directives, Part 1 Edition 2023; [ISO - Publicly available resources](#)

<sup>7</sup> ISO/IEC Guide 2:2004, clause 3.2

<sup>8</sup> WTO Technical Barriers to Trade Agreement Annex 1, § 2 [https://www.wto.org/english/docs\\_e/legal\\_e/17-tbt\\_e.htm](https://www.wto.org/english/docs_e/legal_e/17-tbt_e.htm)

<sup>9</sup> WTO TBT Agreement, Annex 1, § 1

**TABLE 1: DIFFERENCE BETWEEN TECHNICAL REGULATIONS AND STANDARDS**

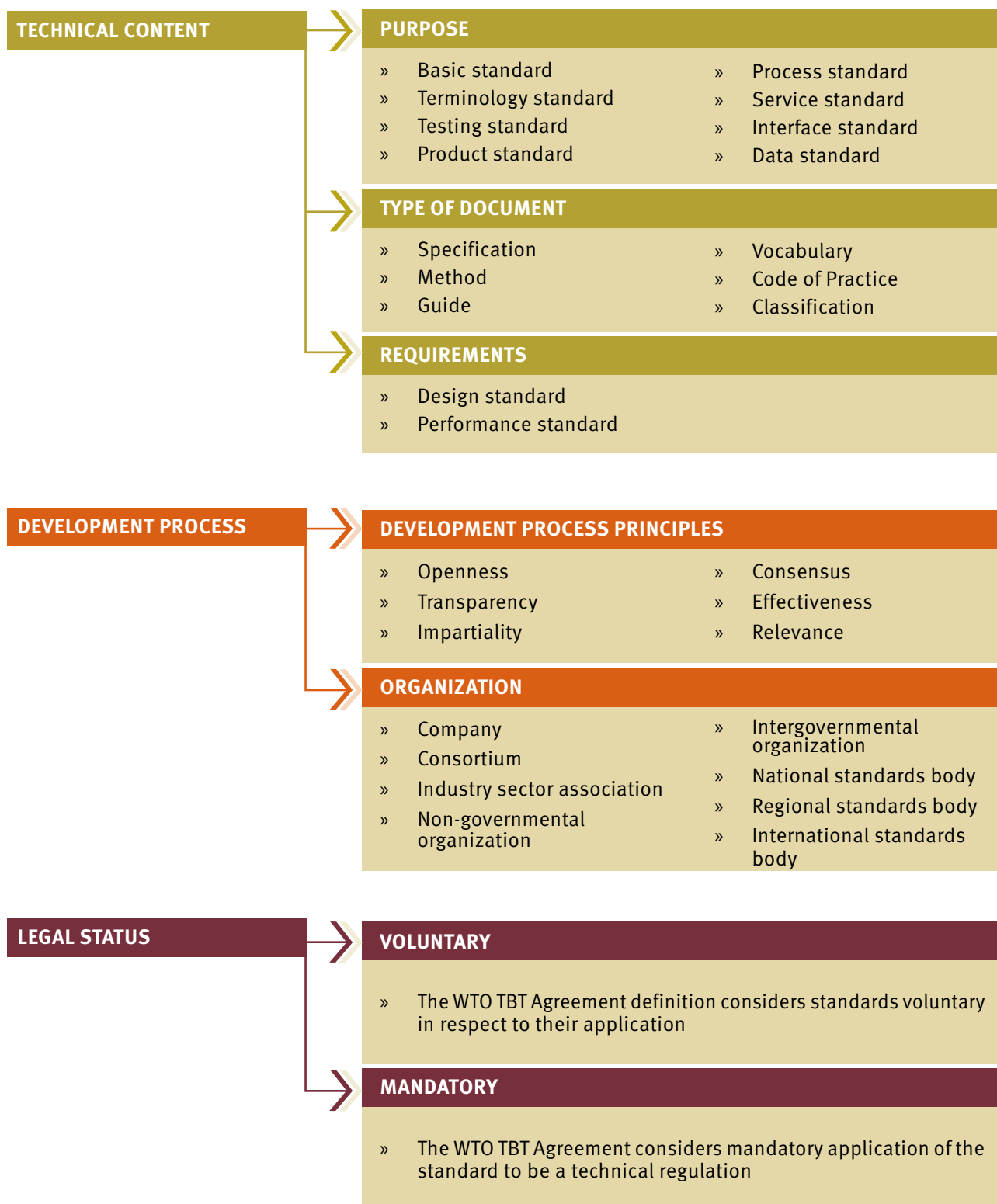
TECHNICAL REGULATIONS	STANDARDS
<b>Status:</b> Compulsory	<b>Status:</b> Voluntary
<b>Responsibility for drafting:</b> Ministries, regulatory authorities	<b>Responsibility for drafting:</b> Recognized standards organizations
<b>Motivation and purpose:</b> Protect citizens and the environment; market failure	<b>Motivation and purpose:</b> Demand by economic operators and other interested parties
<b>Development process:</b> Initiative by authorities; Consultation of interested parties yes, but consensus not a binding requirement; Coherence analysis; Regulatory impact analysis; WTO Notification of drafts where required	<b>Development process:</b> Standards bodies support and facilitate the process which is initiated by interested parties; Consensus-based process; Publication of draft standards for public review
<b>Revision/Update:</b> Regular review of approved legislation (which is often very time-consuming)	<b>Revision/Update:</b> Regular review of approved standards every 3 to 5 years as part of normal maintenance
<b>Compliance:</b> Authorities enforce regulations or retain final responsibility in case of delegation to other bodies	<b>Conformity (conformity assessment):</b> First, second and third-party attestation (the last by certification and inspection bodies)
<b>Exception: Mandatory standards</b>  Standards can be incorporated into law and made compulsory regarding their implementation.  Such standards can then be referred to as “mandatory standards”, which means that they continue to share the other characteristics of standards, but that their legal status has been changed from <i>voluntary</i> to <i>mandatory</i> . Such standards constitute one type of “technical regulation”.	



Standards can be classified considering three primary dimensions, namely (i) technical content of the standard; (ii) the development process, i.e. how the standard has been developed and who has developed it; and (iii) legal status, i.e. whether the standard is voluntary or mandatory, as shown below.<sup>10</sup>

<sup>10</sup> ISO Good Standardization Practice (2019) <https://www.iso.org/files/live/sites/isoorg/files/store/en/PUB100440.pdf>

**FIGURE 1: THE STANDARDS ENVIRONMENT**



NOTE: For definitions of the above see ISO/IEC Guide 2  
Source: ISO



---

## PRIVATE STANDARDS

---

Defining a ‘private standard’ is almost impossible for there exists a multitude of norms, guidelines, codes and initiatives with different types of communication and verification mechanisms that are collectively considered as private standards.<sup>11</sup> It is important to stress that private standards are something other than the technical regulations and national, regional or international voluntary standards such as might be encountered in trading with any partner.

These standards can be related to product characteristics (affecting, e.g. quality and safety) or social and environmental issues concerning production processes and company policies.

In supply chains, buyers of products and services often impose such standards on supplying companies. The overall economic impact may be very substantial, as the buyer companies and consortia concerned have large purchasing power and market influence.

Private standards<sup>12</sup> can be broken down into three categories:

- » Consortia standards – which are often developed by a sector-specific consortium (i.e. GLOBALG.A.P.).
- » Civil society standards or Voluntary Sustainability Standards (VSS) – established as an initiative by a non-profit organization usually as a response to concerns over social and environmental conditions (i.e. Forest Stewardship Council®, FSC®).
- » Company-specific standards – which are developed internally and apply to the whole supply chain of a company (i.e. codes of conduct).

The International Trade Centre has developed the Standards Map database tool which enables users to identify and compare over 300 standards for environmental protection, worker and labour rights, economic development, quality and food safety, as well as business ethics.<sup>13</sup>

Unlike ISO or CEN standards, private standards are usually freely available for use by interested parties. On the other hand, allegations of conformity to those standards and use of their specific marks can only be made through recognized auditing providers or require certification by accredited certification bodies and may have additional license costs for the use of logos and allegations of conformity to these standards.

In what concerns Voluntary Sustainability Standards, ISEAL alliance, [www.isealalliance.org](http://www.isealalliance.org), establishes principles and codes of good practice that support

sustainability systems to improve how they operate and deliver greater impact, having a particular focus on credible practices. ISEAL recognizes sustainable systems by defining credible practice for sustainability systems based on emerging global consensus; convening forums for collaboration, sharing of experience and collective action; delivering expertise, advice and training; and facilitating and promoting innovation to strengthen sustainability systems.<sup>14</sup>

---

## STANDARDS AND QUALITY INFRASTRUCTURE

---

The verification of conformity of products and services with national and international requirements asks for a well-designed collaborative network. This network is known as quality infrastructure (QI). It consists of various institutions that provide quality related services for the public sector, economic actors, and the consumer.

The quality infrastructure of a country is defined as:<sup>15</sup>

The system comprising the organizations (public and private) together with the policies, relevant legal and regulatory framework, and practices needed to support and enhance the quality, safety and environmental soundness of goods, services, and processes.

The quality infrastructure is required for the effective operation of domestic markets, and its international recognition is important to enable access to foreign markets. It is a critical element in promoting and sustaining economic development, as well as environmental and social well-being.

It relies on:

- » metrology
- » standardization
- » accreditation
- » conformity assessment
- » market surveillance

Standards play an important role not only for manufacturers of products and providers of services, but also for the quality infrastructure itself. Standards are needed for the development of measurements, for testing methods, and for defining certification and accreditation requirements and methods.

Below is a diagram showing how the national quality infrastructure interacts with the value chains and the international system, and how all the elements of QI rely on standards.<sup>16</sup>

<sup>14</sup> [Who we are \(isealalliance.org\)](http://www.isealalliance.org)

<sup>15</sup> International Network on Quality Infrastructure (INetQI); [home - INetQI](http://home-INetQI)  
<https://www.inetqi.net/documentation/quality-infrastructure-definition/>

<sup>16</sup> Physikalisch-Technische Bundesanstalt 2014

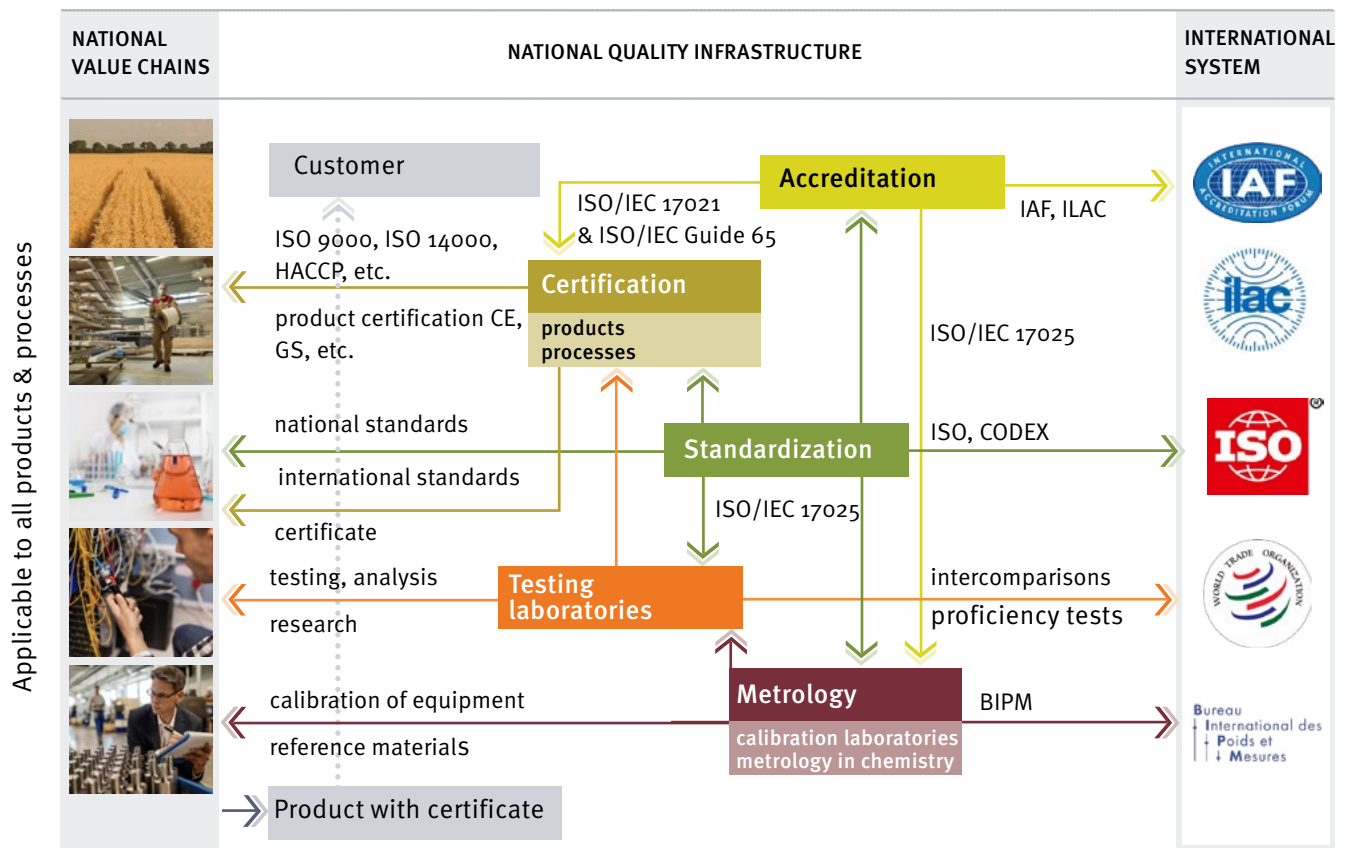
<sup>11</sup> UNIDO Making Private Standards Work for You A guide to private standards in the garments, footwear and furniture sectors (2010)  
[https://www.unido.org/sites/default/files/2010-10/UNIDO\\_%20Guidelines\\_web\\_o.pdf](https://www.unido.org/sites/default/files/2010-10/UNIDO_%20Guidelines_web_o.pdf)

<sup>12</sup> <https://www.unido.org/our-focus/advancing-economic-competitiveness/meeting-standards/private-standards>

<sup>13</sup> <https://www.standardmap.org/en/home>



FIGURE 2: QUALITY INFRASTRUCTURE DIAGRAM





---

## STANDARDS AND SMEs

---

Small and medium-sized enterprises (SMEs) employ around 60–70% of workers in most countries.

There is no generally accepted definition for what constitutes an SME. Definitions vary across countries and organizations. The most common criterion for an SME is the number of employees but other criteria are also used, including total net assets, sales, and investment level.<sup>17</sup>

Research in Europe<sup>18</sup> has identified the obstacles that prevent SMEs from profiting from standards and standardization:

- » Most SMEs, particularly the smaller ones, **lack the necessary resources** (both financial and human) to commit to long-term strategies and investments.
- » Their **management is largely involved in daily operational practice**, and there is no time nor money available for activities not directly related to the primary process.
- » They tend, therefore, to have a **short-term view of their business** and rarely anticipate change such as future regulations or the development of new standards. This also makes SMEs a notoriously difficult group to target with communication schemes.
- » Most of them tend to discuss strategy and **keep informed within a limited, stable network of suppliers, trade associations and consultants**. This is why it is important to take advantage of the SME network to reach them.

Unlike larger organizations, SMEs tend to lack the infrastructure to deal with standards and standardization such as a specialized standards or quality department which makes adoption and implementation of standards more difficult within the organization.

This can lead to the following consequences:

- » **Lack of awareness** that standards exist, in particular standards specific to their industry.
- » They **may not see added value of standards** for their enterprise. They may regard standards as a necessary evil rather than a powerful tool with which to meet their business objectives.
- » They may not be able to find **relevant** standards.

---

<sup>17</sup> <https://www.iso.org/files/live/sites/isoorg/files/archive/pdf/en/guidance-for-writing-standards-for-smes.pdf> provides examples of definitions from various sources

<sup>18</sup> SME Access to European Standardization – Enabling small and medium-sized enterprises to achieve greater benefit from standards and from involvement in standardization. [https://www.researchgate.net/publication/259005422\\_SME\\_access\\_to\\_European\\_standardization\\_Enabling\\_small\\_and\\_medium-sized\\_enterprises\\_to\\_achieve\\_greater\\_benefit\\_from\\_standards\\_and\\_from\\_involvement\\_in\\_standardization](https://www.researchgate.net/publication/259005422_SME_access_to_European_standardization_Enabling_small_and_medium-sized_enterprises_to_achieve_greater_benefit_from_standards_and_from_involvement_in_standardization)

- » They may not be able to obtain the standard, i.e. they may not know where to purchase it or be able to afford it.
- » They may not **understand** the standards due to the technical content and language, references to other standards, or a lack of information on the context of the standard.
- » Because of the inherent complexity or lack of knowledge or skills, SMEs **may not be able to implement** the standards and gain any benefits.
- » The SME may **not be aware of the benefits** of implementing a standard and therefore may not be willing to risk resources necessary for implementation.

---

## SME PARTICIPATION IN STANDARDIZATION

---

SMEs tend to have a low representation in the process of drafting standards.<sup>19</sup>

The barriers that may prevent them from getting involved in standardization include:

- » SMEs may know about standards, without understanding that these are developed in a process in which any company can get involved.
- » Even when an SME knows it can become actively involved in standardization, it may still have trouble assessing whether it is worth the investment.
- » SMEs that do become interested in standards development may still have difficulty tracing the relevant standards development projects by their national standards body.
- » Lack of resources (money, time, skills and knowledge).
- » The role of individuals in standardization can be decisive. Is an SME able to delegate a highly qualified person, in terms of both knowledge and skills, who can make a difference?
- » Involvement in standardization is a long-term investment. Is the SME able to evaluate the effectiveness of its involvement?
- » An SME may wish to initiate a new standardization activity because it needs standards to make its invention a market success, yet starting a new project from scratch can be difficult.
- » Compared with larger companies, SMEs are less likely to be able to absorb travel and participation costs.

---

<sup>19</sup> See reference in Note 17



---

## WRITING STANDARDS WITH SMES IN MIND

---

SMEs are present in the majority of sectors. As do other users, SMEs benefit from the technical expertise of standards in the elaboration of which they may not have been present. They may have to adapt to the existing solutions, and may have a weaker position in their product or service markets because of larger competitors and their dependency on suppliers or customers.

At both the international<sup>20</sup> and European<sup>21</sup> level, guidance documents are available to standards developers to ensure that the content of standards does not exclude SMEs from the market and avoids the distortion of fair competition.

These documents provide guidance, advice, and recommendations to standards writers on how to take into account the needs of SMEs and address the issues to be considered during the development process of standards.

---

<sup>20</sup> ISO Guidance for writing standards taking into account micro, small and medium-sized enterprises' needs (2013) <https://www.iso.org/files/live/sites/isoorg/files/archive/pdf/en/guidance-for-writing-standards-for-smes.pdf>

<sup>21</sup> CEN-CENELEC Guide 17 - Guidance for writing standards taking into account micro, small and medium-sized enterprises (SMEs) needs Edition 1, June 2010 [https://www.cenelec.eu/media/Guides/CEN-CLC/cenclguide17\\_en.pdf](https://www.cenelec.eu/media/Guides/CEN-CLC/cenclguide17_en.pdf)

The guidance documents contain:

- » Considerations for the development of standards that are best adapted to the needs of SMEs.
- » Techniques for identifying and assessing provisions in standards that may especially impact SMEs.
- » Ways to reduce negative impacts on SMEs resulting from some provisions in standards.
- » Guidelines for writing SME-friendly standards.
- » A guidance document checklist.
- » Information on the impact that new standards can have on micro-enterprises.

Below is a checklist for standard developers to ensure that SMEs are taken into account at all stages of the standards writing process.<sup>22</sup> The questions in bullet points have been explained in detail in the corresponding sections of Clause 5 of the ISO and CEN/CENELEC Guides.

---

<sup>22</sup> ISO Guidance for writing standards taking into account micro, small and medium-sized enterprises' needs <https://www.iso.org/files/live/sites/isoorg/files/archive/pdf/en/guidance-for-writing-standards-for-smes.pdf>





**FIGURE 3: CHECKLIST FOR STANDARD DEVELOPERS**

Preparation of new work item	Preparation of standard	Development of content	Structure and presentation of content	Final review
<p><b>(5.2.1)</b> Did you check the relevance of the standard for SMEs?</p> <p><b>(5.2.2)</b> Did you check with all the stakeholders if there are special needs for the SMEs?</p> <p><b>(5.2.2)</b> Did you evaluate whether there are SMEs among the target groups?</p>	<p><b>(5.3.1)</b> Did you evaluate the cost of investment (technology, equipment, testing)?</p> <p><b>(5.3.1)</b> Did you evaluate the cost of training (staff)?</p> <p><b>(5.3.1)</b> Did you evaluate the cost of implementation?</p> <p><b>(5.3.2)</b> Did you verify that all elements are available?</p>	<p><b>(5.4.1)</b> If the performance approach is used, is it understandable?</p> <p><b>(5.4.2)</b> Have you used descriptive explanations?</p> <p><b>(5.4.3)</b> Is the scope of the standard precise and complete?</p> <p><b>(5.4.4)</b> Did you avoid strict testing regimes?</p> <p><b>(5.4.4)</b> Did you evaluate testing costs?</p> <p><b>(5.4.5)</b> Did you identify simple, cost-effective ways of checking conformity to the requirements?</p>	<p><b>(5.5.1)</b> Is the standard as short as possible?</p> <p><b>(5.5.1)</b> If the standard is long, did you evaluate the possibility of dividing it into shorter standards?</p> <p><b>(5.5.2)</b> Is the structure of the standard easy to follow?</p> <p><b>(5.5.3)</b> Have you included supportive graphs, charts, etc. (when possible)?</p> <p><b>(5.5.4)</b> Have you used clear language understandable by all expected standards users?</p> <p><b>(5.5.5)</b> Did you minimize the number of referenced standards?</p> <p><b>(5.5.6)</b> Did you provide clear information on the changes from the previous versions of the standard?</p>	<p><b>(5.6.1)</b> Did you suggest a transition period reflecting the implications of the changes?</p> <p><b>(5.6.2)</b> Did you evaluate the need for an implementation manual?</p>





**BENEFITS OF STANDARDS  
ECONOMIC BENEFITS  
FOR COMPANIES –  
QUANTITATIVE**



It is often necessary to show the benefits of standards in both quantitative as well as qualitative terms.

ISO has developed a simple, step-by-step methodology and made available a robust set of tools to measure the economic benefits of standards. The methodology can be applied to all companies and industry sectors to identify the contribution that standards make to their performance, providing a systematic approach for assessing the economic benefits of standards for individual organizations. This methodology can be used by companies to help them understand the impacts of standards on their activities and processes and thus further improve their performance and maximize the benefits of using standards.<sup>23</sup>

The methodology is based on the value-chain approach and can be described in four major steps, that can be adapted according to the activities of the organization.

**FIGURE 4: THE 4 STEPS OF ISO METHODOLOGY FOR MEASURING THE ECONOMIC BENEFITS OF STANDARDS IN INDIVIDUAL COMPANIES**



#### STEP 1

Analyse the value chain



#### STEP 2

Identify the impact of standards



#### STEP 3

Determine value drivers and define key operational indicators



#### STEP 4

Collect information and measure impact

The case studies developed using the methodology show that the use of standards can have an impact of standards on annual sales revenue typically between 0.5% and 5%.

The case studies provided evidence of **efficiency gains** across companies particularly in the areas of:

- » Product design, research and development (R&D).
- » Procurement, supplier management.
- » Production process and quality assurance.
- » Streamlined process management.
- » Lower non-conformity.
- » Reduction of transaction costs.

The case studies also evidenced gains in terms of **process innovation**:

- » Extension of coverage of operations (e.g. wider scope of delivery and larger sourcing networks).
- » Use of new or improved technology in processes.

Other gains related to **improved market access**:

- » Standards perform a major role in the creation of new markets or opening of markets that are new to a company.

The methodology has been used to develop a wide range of case studies which are available to view on the ISO website.<sup>24</sup>

The National Standards Body of Indonesia has also conducted research of the benefits of standards using the ISO methodology.<sup>25 26 27 28 29</sup>

Nanotron,<sup>30</sup> a German SME active in the information and communications technology (ICT) sector, increased their profit by 33% of sales by using standards. By engaging in standards development, Nanotron was able to contribute its technology, including patents, to standardization and, hence, shape the content of future standards. At the same time, it was able to bring its internal developments in line with the development of new standards.

<sup>24</sup> ISO has created several detailed case studies and videos of companies and organizations around the world which have assessed their activities using the methodology. These include case studies of SMEs. See <https://www.iso.org/benefits-of-standards-the-iso-mate-rials.html> for further information.

<sup>25</sup> Quantifying the economic benefit of standard on auto-electric stove for Batik small medium enterprises in Indonesia, Jun 2021 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8239720/>

<sup>26</sup> The economic benefits of the implementation of batik Indonesian National Standard (SNI) by ISO methodology - Economic benefit standard (EBS) approach, April 2020 <https://aip.scitation.org/doi/abs/10.1063/5.0000718>

<sup>27</sup> Manfaat Ekonomi Penerapan Standar Pada Usaha Kecil Menengah Menggunakan ISO Methodology <https://js.bsn.go.id/index.php/standarisasi/article/view/411>

<sup>28</sup> Ibid

<sup>29</sup> Ibid

<sup>30</sup> <https://www.youtube.com/watch?v=5BDQPmhbyF8>

<sup>23</sup> ISO Economic benefits of standards ISO Methodology 2.0 (2013) <https://www.iso.org/publication/PUB100344.html>



---

## BENEFITS OF STANDARDS FOR SMES – QUALITATIVE

---

As well as quantitative data for the benefits of the use of standards, there is plenty of research and analysis that show how standards improve the quality of products, processes, and services.

Firm-level surveys in developing economies found that certification to the international standard ISO 9000 achieved average productivity gains between 2.4% and 17.6% for three Central American economies, 1% for four Southeast Asian Economies, and 4.5% in China. In the UK, standards reform contributed to 13% of growth in labour productivity.<sup>31</sup>

The *Standards Impact Map*<sup>32</sup> is a generic checklist to identify benefits of standards mapped to the typical business functions (e.g. logistics or marketing and sales) of an enterprise of any size that make up a company's value chain and the typical activities undertaken in these functions. The checklist indicates over **80 potential beneficial impacts** of the use of standards across a company's value chain. **See Annex 2.**

ISO has published a collection of short real-life case studies<sup>33</sup> from managers of small businesses in 10 countries from around the world showing the benefits that SMEs can derive from using international standards that include:

1. Helping improve the quality of goods and services.
2. Helping drive growth, cut costs, and increase profits.
3. Providing business an edge over competitors.
4. Opening export markets for goods and services.
5. Opening doors to new customers and strengthening existing customer relations.
6. Helping compete with bigger enterprises.
7. Enhancing credibility and securing customer confidence.
8. Sharpening business processes and increasing efficiency.
9. Strengthening marketing pitch.
10. Helping comply with regulations.

The British Standards Institution (BSI) has published the *Small Business Guide to Standards*<sup>34</sup> which provides case studies from UK SMEs.

The Deutsches Institut für Normung (DIN) has video case studies from SMEs that have benefitted from the use of standards.<sup>35</sup>

---

<sup>31</sup> <https://thedocs.worldbank.org/en/doc/516141538488797114-0090022018/original/WhyisQlimportant.pdf>

<sup>32</sup> See reference in Note 22

<sup>33</sup> ISO 10 Good things for SMEs (2014) <https://www.iso.org/files/live/sites/isoorg/files/store/en/PUB100283.pdf>

---

<sup>34</sup> BSI The small business guide to standards <https://www.bsigroup.com/globalassets/documents/standards/smes/bsi-small-business-guide-to-standards-en-gb.pdf>

<sup>35</sup> <https://www.din.de/de/ueber-normen-und-standards/nutzen-fuer-die-wirtschaft/mittelstand>





---

## MACRO-ECONOMIC RESEARCH INTO THE BENEFITS OF STANDARDS

---

Studies by national standards bodies have tried to track the impact of standards on different economies around the world. Broadly, each of these studies found that growth in the country's stock of standards was linked to economic growth.<sup>36 37</sup>

Each of the studies point to mechanisms by which standards have a beneficial effect on the national economy including:

- » Disseminating information.
- » Making state-of-the-art knowledge equally available to everyone.
- » Contributing to efficiency in companies that use standards.
- » Supporting market efficiency and facilitating innovation.

The economic benefits of standardization represent about 1% of GDP in Germany, where standards made a greater contribution to economic growth than patents or licenses. Export-oriented sectors of German industry use standards to open up new markets and facilitate technological change.<sup>38</sup>

For the UK economy, analysis shows that:<sup>39</sup>

- » Standards contribute £8.8 billion to the UK economy over a period of 10 years.
- » 38% of UK productivity growth since 2000 can be attributed to standards.
- » 23% of all UK GDP growth since 2000 can be attributed to standards.
- » £5.4 billion of additional UK exports per year can be attributed to standards.
- » 60% of SMEs and 77% of larger companies say that standards have increased their capacity to export.

<sup>39</sup> CEBR The Economic Contribution of Standards to the UK Economy (2022) <https://www.bsigroup.com/en-GB/standards/benefits-of-using-standards/research-reports/>

<sup>36</sup> ISO Standards & economic growth: ISO members' research on the impact of standards on their national economies (2021) <https://www.iso.org/files/live/sites/isoorg/files/store/en/PUB100456.pdf>

<sup>37</sup> ISO Economic impact of standards: Methodological guidance (2022) <https://www.iso.org/files/live/sites/isoorg/files/store/en/PUB100465.pdf>

<sup>38</sup> ISO ISO Standards – What's the bottom line? (2012) [https://www.iso.org/files/live/sites/isoorg/files/archive/pdf/en/bottom\\_line.pdf](https://www.iso.org/files/live/sites/isoorg/files/archive/pdf/en/bottom_line.pdf)





# LOOKING TO THE FUTURE

---

## STANDARDS AND THE UN SUSTAINABLE DEVELOPMENT GOALS

---

The 17 United Nations Sustainable Development Goals (SDGs) represent an ambitious plan to enhance peace and prosperity, eradicate poverty and protect the planet by 2030. Standards represent practical technical solutions for SMEs to help achieve the SDGs. For each SDG both ISO<sup>40</sup> and the IEC<sup>41</sup> have each identified relevant standards that contribute to specific UN SDGs and can be used by companies to improve their own contributions through their products, processes, services and initiatives.

---

## EXPLOITING THE BENEFITS OF STANDARDS

---

Understanding and exploiting the benefits of standards for themselves requires SMEs to be open to new ideas and interested in the benefits that the use of standards can bring. SMEs need to be curious to find out more about standards in their sector. SMEs also need to have an interest in and commitment to quality.

SMEs need adequate support from national institutions such as government agencies, industry associations and from the national standards bodies.

Using voluntary standards does not mean undertaking third party certification, this can be done at a later stage—if needed—and based on business decisions.

Standards help SMEs to meet regulatory requirements, to pursue product, service and process improvement, and to meet stringent requirement of buyers.

---

<sup>40</sup> <https://www.iso.org/sdgs.html>

<sup>41</sup> <https://www.iec.ch/sdgs>











UNITED NATIONS  
INDUSTRIAL DEVELOPMENT ORGANIZATION

United Nations Industrial Development Organization (UNIDO)

Division of SME Competitiveness, Quality and Job Creation

Global Quality and Standards Programme (GQSP)

[gqsp@unido.org](mailto:gqsp@unido.org)

[HUB.UNIDO.ORG](http://HUB.UNIDO.ORG)