



UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

MAKING STANDARDS WORK FOR SUSTAINABLE DEVELOPMENT

UNIDO and ISO
- a longstanding
partnership

SUSTAINABLE
DEVELOPMENT
GOALS

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AT A GLANCE



Over the years, in line with its mandate of enhancing industrial development worldwide, the United Nations Industrial Development Organization (UNIDO) has helped many countries to integrate into the global economy by meeting regulatory and market requirements and establishing related national capacities, including national standards bodies (NSBs). Its work in this area subsequently led to a partnership with the International Organization for Standardization (ISO). From the onset of their partnership, UNIDO has served on technical committees, providing technical inputs during the standards development process, and has served as a thought leader, particularly in the topical areas of leather, textiles and wood.

Spanning more than 40 years, UNIDO and ISO have a fruitful history of collaboration that has centered on the promotion of sustainable industrial development. UNIDO and ISO work to enable developing countries to take a more active role in the development and adoption of international standards as well as to help their enterprises and institutions apply and comply with international standards and conformity assessment guides.

The continued partnership between UNIDO and ISO is in response to the increasingly important role international standards play as a policy mechanism and as a market tool for trade and sustainable development. Their collaboration includes technical standards development and the implementation of joint activities and projects in different domains such as the development, adoption and implementation of specific international standards. Their work also involves capacity-building activities and trainings, including e-learning courses, joint publications and research on different related matters such as good standardization practices, environmental and energy management, food safety, energy use and energy efficiency, social responsibility and conformity assessment.

This joint effort in areas of mutual concern is important for overcoming global challenges and fostering trade, and will serve as an instrumental tool in the implementation of the United Nations 2030 Agenda for Sustainable Development and Sustainable Development Goals (SDGs).





FRAME OF REFERENCE

UNIDO's unique approach to Quality Infrastructure Development



The ability of developing countries to exploit commercial opportunities, compete on global markets and participate in international value chains is often challenged by their difficulties in demonstrating compliance with quality requirements and trade rules. As the specialized United Nations agency mandated to promote inclusive and sustainable industrial development (ISID), UNIDO helps developing countries tackle these challenges by working with them to set up a Quality Infrastructure (QI) system, which covers the essential aspects of policy, institutions, service providers, and the value-adding use of international standards and conformity assessment procedures. For over 50 years, UNIDO has supported the establishment and upgrading of standards and testing metrology structures worldwide.

UNIDO's approach to QI is holistic, from building awareness of QI to helping initiate, develop and strengthen a fit-for-purpose QI that operates efficiently and cost effectively. The approach emphasizes the need for strong collaboration with all stakeholders to meet shared objectives through agreed activities, leading to concrete actions. In this spirit of collaboration, UNIDO works with partners from the public and private sectors, academia, as well as national, regional and international organizations in charge of standard setting and global

practices on metrology, accreditation, standards and conformity assessment. A key achievement within global collaboration on QI is the International Network on Quality Infrastructure (INetQI) agreeing on the common definition of "Quality Infrastructure" as "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".

INetQI is an initiative seeking to bring together all specialized organizations that operate at an international level and that are active in promoting and implementing QI activities (metrology, accreditation, standardization and conformity assessment) as a tool for sustainable economic development.

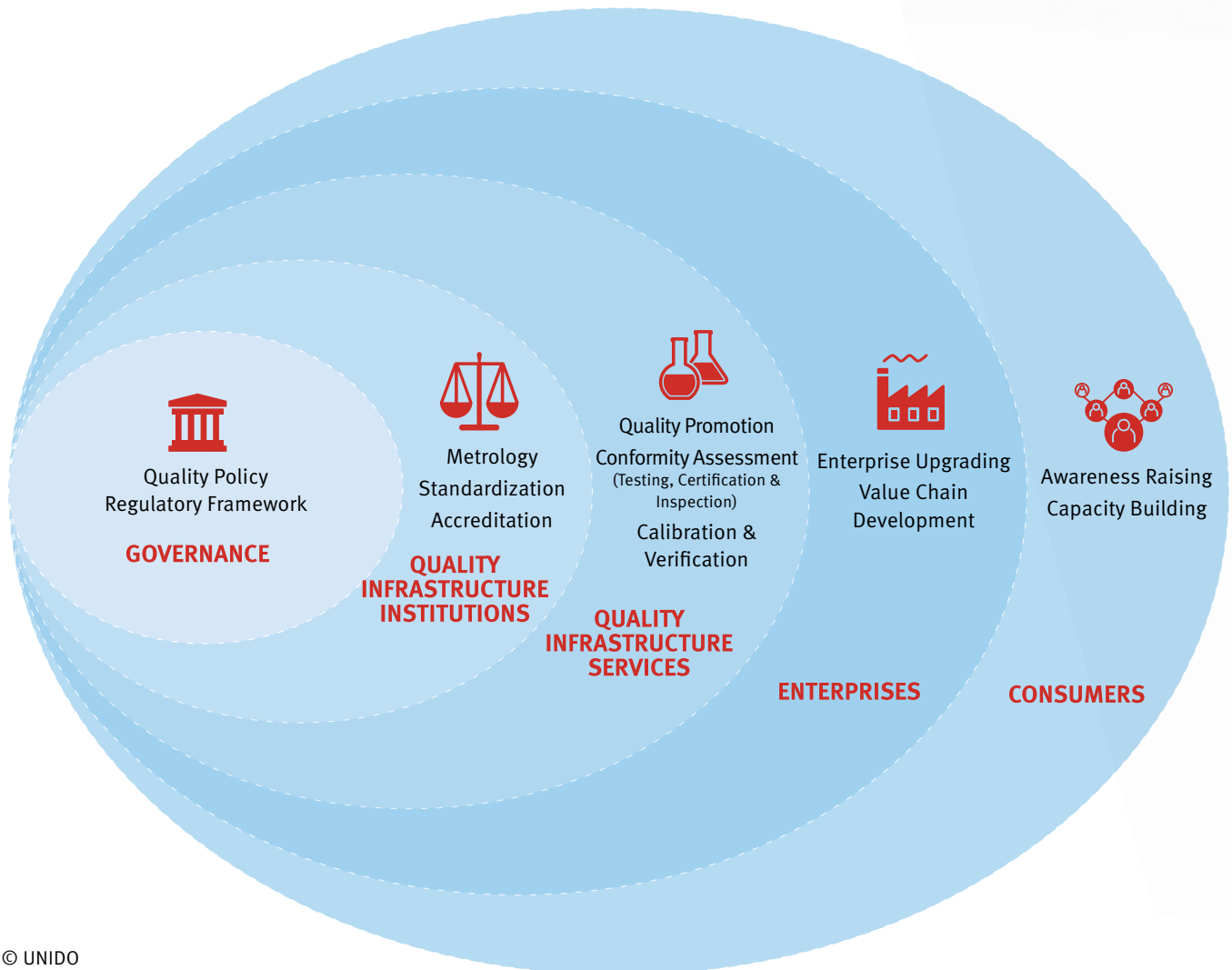
UNIDO has extensive experience in assisting countries to strengthen their competitiveness in global markets. This assistance extends to promoting Good Governance, advocating good practice and supporting capacity building in quality, environmental sustainability, and social responsibility requirements in accordance with international management system standards and private sector requirements.

In particular, UNIDO seeks to build up the national and regional QI needed to provide internationally recognized quality assurance services. This includes for the development of standards and technical regulations, the establishment of product testing facilities and calibration laboratories, the creation of quality management systems, management system certification, inspection and accreditation mechanisms.

It provides services to strengthen national capacities to establish the legal and institutional frameworks for standards and conformity assessment. Specifically, it offers policy guidance and institutional capacity-building interventions related to standards, metrology, testing, inspection, certification and accreditation, which are needed to participate effectively in the multilateral trading system. The demonstration of conformity enables exporters to reduce compliance costs and facilitate access to global markets. Assistance is also provided to strengthen consumer authorities and consumer associations in developing countries.



THE QUALITY INFRASTRUCTURE SYSTEM:



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Products and services should meet the expectations of those who use them, perform as intended, and be safe, easy and reliable to use. Standards translate these or any other characteristics desired by users or buyers into technical dimensions, tolerances, weights, processes, systems and best practices. Products and services that can be shown to conform to their requirements provide confidence to buyers and users. Standards are also developed to define the performance and other characteristics of processes.

The following areas have informed the thematic focus of UNIDO's collaboration with ISO on standards:



ANCHORING IN THE MULTILATERAL TRADING SYSTEM



STANDARDS FOR PEOPLE, PLANET AND PROSPERITY



STANDARDS AND DIGITAL TRANSFORMATION

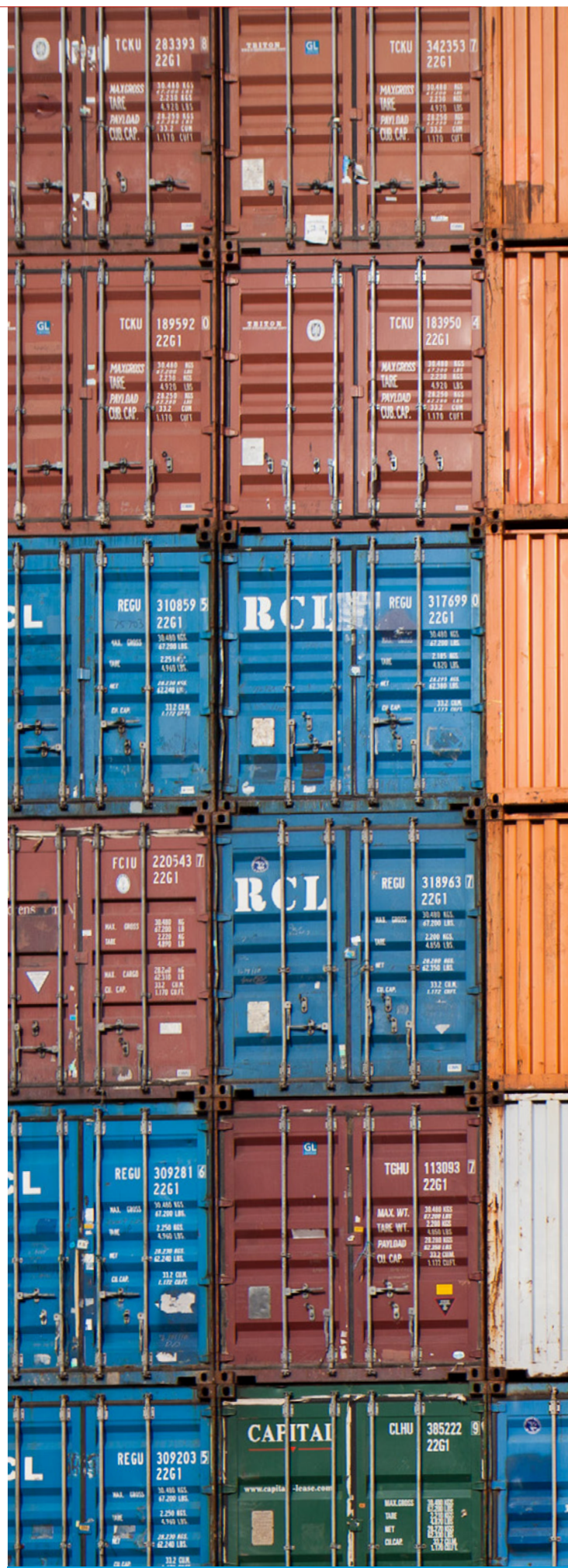
Anchoring in the Multilateral Trading System



The World Trade Organization (WTO), established in 1995, is an international organization that effectively lays down legal ground rules for international trade. Multilateral trade rules extend far beyond trade in merchandise to trade in services and trade-related aspects of intellectual property rights, inter alia. They are contained in multilateral trade agreements, which are commercial treaties that bind governments to operate their trade policies in accordance with what was agreed in multilateral negotiations. In short, the 164 member countries of the WTO are bound by its agreements and part of what is known as the “multilateral trading system”.

Global trade is increasingly embedded within value chains and governed by multilateral trade rules, such as the WTO Agreements on Technical Barriers to Trade (TBT) and Sanitary and Phytosanitary (SPS) measures—both of which anchor UNIDO’s trade and QI services, in addition to standards. The TBT Agreement, especially important to standardizers, acknowledges the role of technical regulations, standards and conformity assessment procedures for the efficient attainment of public goals, and sets rules to ensure these measures are prepared, adopted and applied in ways that avoid unnecessary barriers to international trade.

Although the TBT Agreement is primarily related to technical regulations, standards (which are voluntary by definition in the TBT Agreement) have an important role in its framework. It requires that its members use relevant international standards, guides or recommendations for conformity assessment procedures as a basis for their own procedures for a positive assurance of compliance with technical regulations and standards. Quality and compliance of products and services with market requirements and standards, e.g. on consumer health and safety, have become key elements of competitiveness in global business relations.





Standards for People, Planet and Prosperity



The United Nations 2030 Agenda for Sustainable Development and related SDGs provide an ambitious framework for collective action to address the social, economic and environmental challenges facing the global community, and to achieve a more sustainable future. The SDGs serve as an opportunity to build greener, more inclusive economies and stronger, more resilient societies by supporting inclusive economic growth, the well-being of people and the protection of the planet.

This plan of action demands participation from all parts of society, including local and national governments, business, industry and individuals. As conveyed in the UNIDO publication [“Rebooting Quality Infrastructure for a Sustainable Future”](#), the fulfilment of the SDGs requires a radical change of economic activities, social practices and human behavior. National and regional QI institutions have a fundamental role to play in supporting this transformation through the metrology, standardization, accreditation, testing, inspection and certification services they provide and enable.

International standards, in particular, are integral to making the SDGs a reality by enabling free and fair international trade, encouraging innovation and technology development, and fostering trust through the provision of world-class, consensus-based specifications. Economic, environmental and societal dimensions are all directly addressed by international standards. The UNIDO publication titled [“The Role of Standards in the Context of the 2030 Sustainable Development Goals”](#) delves deeper into this topic, noting that international standards can contribute to high-level policy initiatives and provide solutions that will be needed in order to achieve many of the SDGs. By supporting countries to maximize the benefits of international standardization, and ensuring the uptake of ISO standards in particular, UNIDO and ISO help countries towards meeting their SDG targets. Organizations and companies looking to contribute to the SDGs will find that international standards provide effective tools to help them rise to the challenge.





Standards and Digital Transformation



The world is in the midst of the Fourth Industrial Revolution (4IR) powered by digital technologies that are transforming society, economies and the environment. This process of *digital transformation*—the integration of digital technology into all organizational areas—is fundamentally changing how organizations operate and deliver value to customers and stakeholders. Increasingly connecting objects, machines, people and the environment, the disruptive nature of technological innovations makes it difficult to plan for and anticipate the future.

What is clear is that the seismic shift that this digital transformation brings has major implications for sustainable development and will significantly impact the achievement of the 2030 Agenda for Sustainable Development and SDGs. As a development driven by humans, digital transformation has the potential to be shaped to promote sustainability for the benefit of all parts of society.

In this respect, standardization can offer a number of benefits and opportunities for digital technologies. 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. For example, companies can monitor processes and collect data in real time and apply analytics to predict quality issues and maintenance needs. These outcomes may be especially beneficial in restoring international manufacturing and trade to their previous vitality, as both sectors slumped significantly due to the COVID-19 pandemic, and the associated lockdowns and value chain breakdowns in many regions. Furthermore, standards can serve as accelerators of change as they promote the uptake of new digital technologies and spread knowledge through codification.

There is also a circular relationship between standards, regulations and policies, which feeds into an overall concept/public good of Good Governance. Standards are a voluntary complement to and inform effective regulation, which in turn can create an enabling environment for innovation and minimize risk for disruptors and investors. Standards developed by international organizations can provide an effective response to market barriers and contribute to public policy objectives, as further elaborated in the UNIDO publication “[Standards and Digital Transformation - Good Governance in a Digital World](#)”.

ISO's Contribution to a better world



The International Organization for Standardization (ISO) is an independent, non-governmental organization that, through its membership of 167 national standards bodies (NSBs), brings together experts to share knowledge and develop voluntary, consensus-based, market relevant international standards that support innovation and provide solutions to global challenges.

ISO standards make a positive contribution to the world we live in. They ensure vital features such as quality, ecology, safety, economy, reliability, compatibility, interoperability, efficiency and effectiveness. They facilitate trade, spread knowledge, and share technological advances and good management practices. ISO standards also safeguard users and consumers, and simplify many aspects of their lives.

ISO has published more than 22,000 international standards and related documents that represent globally recognized guidelines and frameworks based on international collaboration. Built around consensus, they provide a solid base on which innovation can thrive and are essential tools to help governments, industry and consumers contribute to the achievement of every one of the SDGs. ISO's Policy Development Committees contribute to this work, providing guidance on a variety of topics as follows:





ISO/CASCO

ISO's Committee on Conformity Assessment (CASCO) works on issues related to conformity assessment. ISO/CASCO develops policy and publishes standards related to conformity assessment; it does not perform conformity assessment activities. Membership to CASCO is open to full and correspondent members. ISO/CASCO's standards development work is carried out by working groups of experts who are put forward by the ISO member bodies. The experts do not always belong to the member body but represent an expertise required by the working group.

ISO/COPOLCO

ISO's Committee on Consumer Policy (COPOLCO) provides guidance on consumer issues. Some ways in which ISO/COPOLCO encourages consumer interests in standards is through training and events, including an annual workshop for consumers, public authorities, manufacturers and standardization experts. ISO also runs regular workshops and training for national standards bodies to improve stakeholder engagement, including consumers.

ISO/DEVCO

ISO's Committee on Developing Country Matters (DEVCO) leads the organization's work on developing countries. ISO/DEVCO supports developing countries in standardization matters by identifying needs and recommending actions to meet them. This is achieved through technical assistance and training focusing on the role of standards in economic development, standards development, conformity assessment and information communication technology support.

ISO'S ACTION PLAN FOR DEVELOPING COUNTRIES

ISO's overall framework for technical assistance and training to support its developing country members is integrated into the ISO Action Plan for developing countries, the implementation of which is monitored by ISO/DEVCO. Its objective is to empower members to contribute actively to the ISO system and fully realize the benefits of using ISO standards, particularly those addressing social, economic and environmental challenges. Achieving this objective will also make an important contribution to the SDGs and ISO's vision of "making lives easier, safer and better" by 2030.

Having been updated several times since it was first implemented in 2005, the latest version of the [ISO Action Plan for developing countries \(2021–2025\)](#) aims to address ISO members' current needs and priorities. Recognizing the difficulties imposed by pandemic-related circumstances, it takes advantage of tools that offer support remotely, such as digital learning solutions, distance coaching and in-country advisory services.

UNIDO is committed to supporting the ISO Action Plan for developing countries.

A LONGSTANDING PARTNERSHIP



UNIDO's holistic trade capacity-building approach is characterized by strong partnerships with international organizations and technical bodies. In keeping with this, UNIDO and ISO signed a Memorandum of Understanding (MoU) in 2003 to jointly assist developing countries and emerging economies to enhance industrial development and participate in world trade through standardization. This MoU updated a working arrangement between the two organizations that had been ongoing since the signing of the first MoU in 1979. UNIDO and ISO signed an additional MoU in 2009 to reaffirm their longstanding strategic partnership.

This mutual commitment between UNIDO and ISO to assisting developing countries and economies in transition through standardization is evidenced by the organizations' many joint activities over the years, including their participation in one another's governing bodies.

UNIDO has been engaged in ISO's Policy Development Committees, particularly in the aforementioned ISO/DEVCO and ISO/CASCO. Examples of such engagement include UNIDO and ISO co-organizing a breakout session on standards for energy efficiency, water, climate change and their management, in conjunction with the 42nd ISO/DEVCO meeting, in 2008, and UNIDO participating in the 45th ISO/DEVCO meeting in India, in 2011.

Collaborating closely with ISO/CASCO, UNIDO supports conformity assessment bodies worldwide. Most of this support is directly linked to the ISO/CASCO toolbox, for example, support in the implementation of relevant standards and related accreditation. Further work in this area is exemplified by UNIDO's publications in support of the implementation of ISO standards, such as "[Building trust – The Conformity Assessment Toolbox](#)", and UNIDO guides on ISO 17025, which include "[Complying with ISO 17025](#)" as well as "[Tested & Accepted – Implementing ISO/IEC 17025:2017](#)".

UNIDO also has regularly attended the ISO General Assembly (ISO/GA), with a few particularly noteworthy sessions. For example, in 2004, UNIDO representatives participated in the 27th ISO/GA to review a range of ISO's activities and to consult with other relevant stakeholders in regards to ISO adopting the aforementioned Action Plan for developing countries. In 2016, at the Opening

Session on "Standards Improve Global Connectivity" of the 39th ISO/GA, ITC, UNCTAD, UNIDO and the World Bank Group highlighted the role of international standards as a "passport" for international trade and development. UNIDO participated in ISO Week 2019, during which it pointed out the unsustainability of trade growth to date and called for cooperation to ensure trade benefits all actors, including small communities.

Throughout the years, the ISO Secretary General has visited and attended the UNIDO General Conference.





UNIDO'S STANDARDIZATION WORK IN PERSPECTIVE



AREA 1| STRENGTHENING STANDARDS BODIES IN DEVELOPING COUNTRIES

National standards bodies (NSBs) are essential building blocks of an efficient QI that facilitate trade through increased market access and ensure adequate protection of consumers and the environment. Emphasizing strong collaboration with international partners and technical bodies, UNIDO has engaged in different stages of multidimensional cooperation, including with ISO, in support of institutional strengthening of NSBs worldwide.

Since its inception in 1966, UNIDO has played a pivotal role in the institutional establishment of many NSBs in developing countries, including in the introduction of core components such as structures, business plans, documentation centers, training facilities, and the establishment of technical committees within the mandates of NSBs.

The Organization has been instrumental in providing technical assistance for the further development of robust NSBs, including with the guidance of ISO's "[Good Standardization Practices](#)" and "[National Standardization Strategies](#)". Its focus in this area has remained on developing countries and small and medium-sized enterprises (SMEs), helping them to implement national standards.

NSBs should actively participate as full members in international standards organizations and their development work, however, they often lack the financial resources and technical experts needed for such investment. Recognizing this challenge, UNIDO has linked NSBs to regional and international standardization and has supported numerous NSBs in becoming ISO members (as correspondent, subscriber or full members), increasing their participation in international standardization activities, harmonizing national standards with international standards, and facilitating adoption and implementation. UNIDO also has provided guidance on the establishment of NSBs (e.g. the UNIDO–ISO publication "[Fast forward – National Standards Bodies in Developing Countries](#)"), good standardization practices, and national standardization strategies.

Moreover, UNIDO has been at the forefront of introducing relevant topics of interest to NSBs, including sustainable development, gender mainstreaming and digitalization, and has provided advocacy, readiness assessments and capacity building to NSBs.

AREA 2| ENGAGING IN INTERNATIONAL STANDARDIZATION

Over the years, UNIDO has been directly involved in international standardization activities as well as in supporting the participation of developing countries in the international standardization process.

With more than 40 years of experience in QI, UNIDO has been fully engaged with its own UNIDO experts in taking part in the standards development process. UNIDO actively participated in the standards making process for the topical areas of food safety, leather and wood, contributing its expertise as a liaison of ISO/TC 34 on food products, ISO/TC 120 on leather, ISO/TC 216 on footwear and ISO/TC 287 on wood and wood-based industries.

In parallel, UNIDO has supported the participation of delegates from developing countries in order to ensure that their needs are reflected in international standardization. Furthermore, UNIDO places particular emphasis on disseminating and supporting the implementation of standards in developing countries and enhancing the capacity of the private sector (i.e. SMEs) for their uptake and implementation.

AREA 3| FOCUS ON SUSTAINABLE DEVELOPMENT

The United Nations Conference on Environment and Development (also referred to as the 'Earth Summit'), held in Rio de Janeiro, Brazil, in 1992, represented the culmination of the movement towards greater economic, environmental and social sustainability, and defined international action on sustainability in the twenty-first century.

Responding to the new multilateral priorities, UNIDO augmented its activities in the environmental and social dimensions of development, becoming especially active in promoting resource efficiency, cleaner production and energy efficiency. The Earth Summit also served as a milestone in UNIDO's standards and quality-related activities and, subsequently, in its collaboration with ISO in these new areas of activity.

UNIDO's work with ISO in the sustainable development domain covers other related topics, namely environment and circular economy, energy, and social responsibility. Social responsibility, in particular, is still a relatively new subject in the field of standardization. In the face of the challenge of climate change, and the security and ethical risks embedded in the 4IR, the standardization of organizational social responsibility is set to gain more momentum and will be a significant driver of sustainable development.



Circular economy and environment

standards help to implement the sustainable use of resources and energy while protecting consumers, workers and the environment. Many of UNIDO's projects already address various building blocks of circular economy, all of which contribute to sustainable development. Some support resource efficient and cleaner manufacturing of products, while others help develop safe, easy-to-recycle products with longer lifetimes and still others deal with the recovery or safe disposal of resources at the end of a product's life. Moreover, UNIDO promotes industrial energy efficiency and the use of renewable energy for productive uses, by optimizing energy systems, developing international energy management standards and bringing sustainable energy solutions to industries.

Energy management systems (EnMSs)

have emerged over the last two decades as a proven best-practice methodology to ensure sustainable energy efficiency and continually improve industrial performance. The standardization of EnMS saw UNIDO's engagement as a key pillar to its development cycle and beyond. UNIDO also has been active in the area of renewable energy, specifically small hydropower (SHP), which has many advantages including small-scaled, low investment and controllable environmental impacts based on a country's natural resources and economic development status.

Social responsibility standards have seen growing interest among enterprises as a result of the paradigmatic shift towards such standards and away from technical (i.e. product and process) standards. In recent years, there has been increasing focus on the concept of organizational social responsibility, which is defined in terms of the responsiveness of businesses to stakeholders' legal, ethical, social and environmental expectations. UNIDO's role in this context has been to ensure that the perspective of the SMEs is duly reflected in the standards development process.

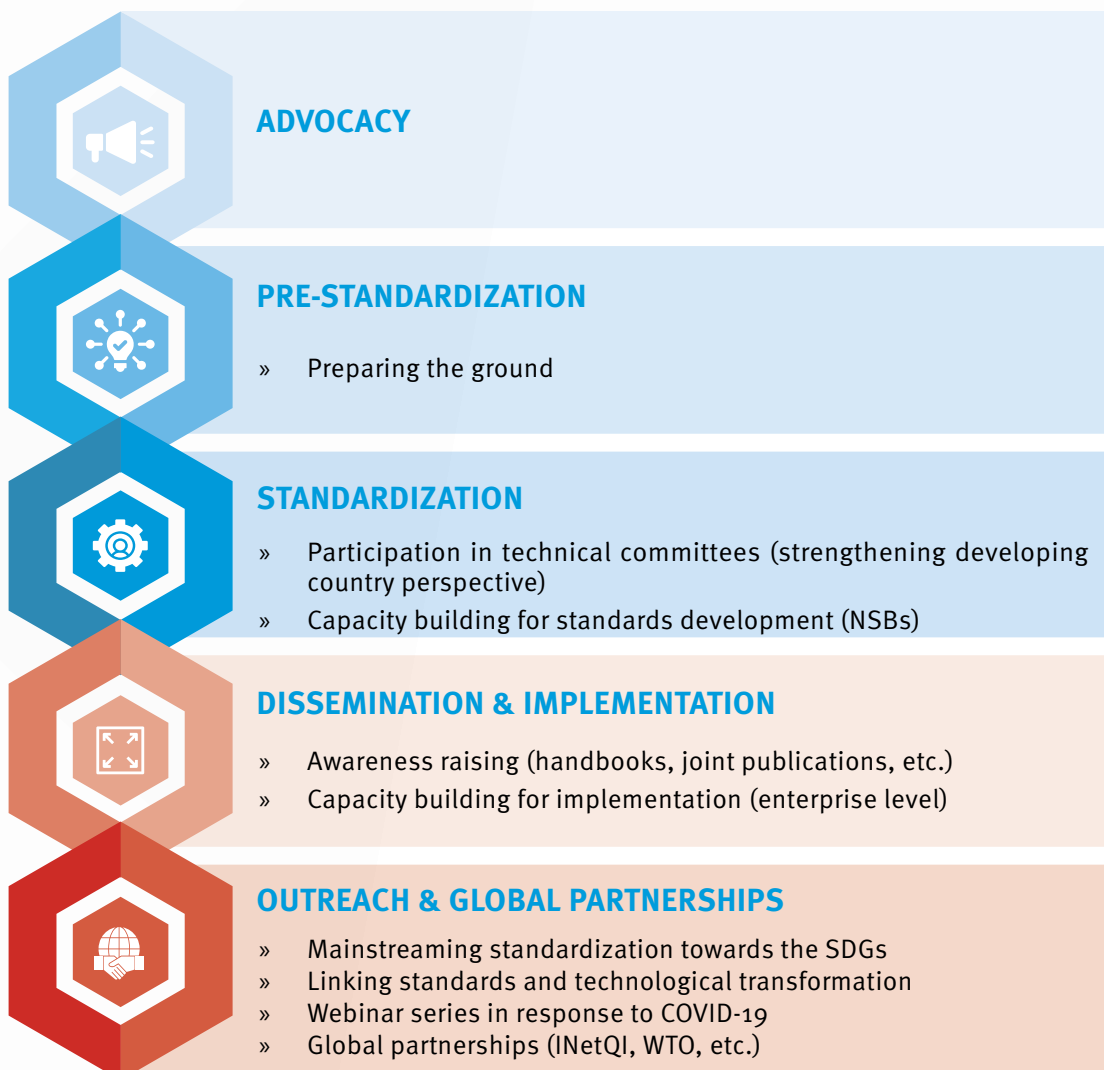
UNIDO promotes gender responsive standards through its work on ISO 26000 on social responsibility, which outlines the empowerment of women and their equality in society, as well as through the UNIDO [Strategy for Gender Equality and the Empowerment of Women, 2020–2023](#). Providing a framework for UNIDO's programmatic work and organizational practices, this strategy will accelerate progress in delivering on its gender equality commitments. In a similar vein, in 2019, ISO and many of its members showed their commitment to further action on gender equality by signing the UNECE's Declaration for Gender Responsive Standards and Standards Development. ISO's system-wide Gender Action Plan sets out initiatives and establishes ambitious goals towards supporting gender equality in standardization.

UNIDO'S INVOLVEMENT IN ALL STAGES OF STANDARDIZATION

UNIDO is a strong advocate for the use of standards to enhance prosperity and the well-being of people and to preserve the planet. To this end, UNIDO engages at all stages of the standardization process:

1. **Advocacy & pre-standardization**
2. **Standardization**
3. **Dissemination & implementation**
4. **Outreach & global partnerships**

UNIDO'S WORK IN STANDARDIZATION



1.

Advocacy & Pre-Standardization

This initial stage of the standardization process covers the requisite research, campaigning, stakeholder engagement, and advocacy for a standard or new work item. More specifically, this work can include justification for why society needs the standard, which SDGs are supported and who the stakeholders are.

Over the years, UNIDO has advocated the need for standardization in particular areas by conducting studies and awareness raising activities, thereby preparing the groundwork for future standards.

The most illustrative example of UNIDO's work in this stage of standardization relates to the previously discussed area of energy management. UNIDO, having long recognized industry's need to mount an effective response to climate change and to the proliferation of national EnMS standards, requested that ISO undertake work on an international EnMS standard in 2006. This request was brought to life with ISO launching the development of the future standard on EnMS (ISO 50001:2011), in partnership with UNIDO. In parallel to the engagement with ISO, several technical projects were developed to promote and support the development of an international EnMS standard.

Another notable example of UNIDO's contribution to this stage of standardization is in the area of renewable energy, specifically small hydropower (SHP). At the end of 2018, the Standardization Administration of China (SAC) and Austrian Standards International (ASI) officially submitted the proposal to ISO to establish the International Workshop Agreement (IWA) 33 on Technical Guidelines for the Development of Small Hydropower Plants - Terms and Definitions and Design, which marked a further step towards their internationalization. In view of the positive potential impact of SHP in promoting sustainable development, UNIDO actively participated in the development, promotion and application of international standards for SHP plants through cooperation with SAC and the International Center on Small Hydro Power (ICSHP).

UNIDO has also been actively engaged in the ISO/TC 289 on brand evaluation (ISO 20671).



2.

Standardization

STANDARDS DEVELOPMENT

In this particular stage, UNIDO has contributed to the development of CASCO standards over the years as well as has participated as an ISO technical committee member in the development process of the following standards:

	REFERENCE	TITLE	CATEGORY*
1	ISO/TC 34	Food products	Liaisons A
2	ISO/TC 120	Leather	Liaisons A
3	ISO/TC 207/SC 3	Environmental labelling	Liaisons B
4	ISO/TC 216	Footwear	Liaisons A
5	ISO/TC 268	Sustainable cities and communities	Liaisons A
6	ISO/TC 279	Innovation management	Liaisons A
7	ISO/TC 301	Energy management and energy savings	Liaisons A
8	ISO/TC 323	Circular Economy	Liaisons A

*Liaisons A: Organizations that make an effective contribution to the work of the technical committee or subcommittee for questions dealt with by this technical committee or subcommittee.

Liaisons B: Organizations that have indicated a wish to be kept informed of the work of the technical committee or subcommittee.

Liaisons C: Organizations that make a technical contribution to and participate actively in the work of a working group.

Examples of UNIDO's contributions to this phase of international standardization are vast, some of which are described in more detail below.

Following the initiation phase of the **ISO 50001 energy management** standard, the standardization process benefitted from UNIDO's engagement during conceptual development, standards making, standards dissemination and adoption. UNIDO actively participated in working group activities and submitted comments at each stage of the process, channeling inputs from Member States and facilitating the engagement of developing countries.

In the development of circular economy standards, UNIDO participates as a liaison member in the technical committee ISO/TC 323 and supports the development of frameworks, guidance, supporting tools and requirements for the implementation of activities of all involved organizations to maximize the contribution to sustainable development. ISO/TC 323 also benefits from liaising with the many other ISO technical committees dedicated to related standards, including those for the **ISO 14000 environmental management** series of standards to which UNIDO also contributes. UNIDO participates as a liaison member to ISO/TC 207/S3 on environmental labeling, covering standardization in the field of communication on environmental aspects of products (i.e. goods and services), including related social and economic aspects.

In the development of the guidance standard **ISO 26000 on social responsibility**, UNIDO helps to bring the vital perspective of SMEs to the table, while participating as a liaison member of the ISO Working Group on Social Responsibility with a nominated expert. Furthermore,

UNIDO has worked with ISO towards strengthening the multistakeholder process of ISO 26000, supporting the participation of developing countries in the standardization process.

UNIDO's contribution at this stage to **ISO 9001 on quality management systems** includes serving as a liaison of ISO/TC 176, and participating in the survey of use of ISO 9001 and documents on technical barriers to trade related to 9001 (e.g. "[Good Practices: Experience in the Market Surveillance of ISO 9001 Quality Management Systems](#)").

The Organization's commitment to deploying innovation to foster entrepreneurship and enhance productivity is in line with the mandate of ISO/TC 279 on innovation management, to which UNIDO is a liaison member. Its input to ISO/TC 279 includes proposing the joint publication of a handbook aiming to provide a step-by-step overview and explanation of the **innovation management standard, ISO 56000** series.

A final noteworthy example of UNIDO's activities in the standards development stage is UNIDO hosting the Task Force 14 of the ISO Joint Technical Coordination Group for Management Systems, responsible for revising and harmonizing the core structure and content for over 40 ISO and IEC management system standards (Annex SL). Annex SL is not a "standard" in its own right, but it constitutes the basis for a significant number of generic and sector-specific ISO management system standards. These standards are a particularly important tool applied in governments, enterprises, public institutions, or other entities to manage processes that influence their quality, social, health and safety, or environmental performances.

GOOD STANDARDIZATION PRACTICES

In view of the rapidly changing environment brought about by the growth of international trade and the increasing role that standardization plays in facilitating trade and enhancing the quality, safety, health and environmental soundness of goods, services and processes, developing countries must optimize the efficiency and effectiveness of their national standardization systems. This will enable them to comply with their WTO commitments and to apply good standardization practices (GSP) to better meet the standardization needs in their countries, particularly to combat and recover from the COVID-19 crisis.

To address the increased demand for online training and virtual capacity building at the global level, UNIDO and ISO collaborated in the development of the self-paced e-learning *Good Standardization Practices online tool* in support of the implementation of GSP. This online training provides remote capacity building to NSBs and their stakeholders, as well as to standards development organizations, enabling developing countries to conduct the requisite core activities to develop and publish standards, in turn, benefiting their public and private sector stakeholders.

As UNIDO's technical assistance to developing countries extends to helping them develop robust NSBs, including under the guidance of ISO's "[Good Standardization](#)

[Practices](#)", UNIDO's GSP implementation occurs at the country level as well. For example, within the scope of the Quality Infrastructure Component of the Promove Comércio Project, funded by the European Union and implemented by UNIDO, more than 30 employees of the National Institute for Standardization and Quality (INNOQ) and its partners participated in a training on GSP given by ISO in February 2021, in Mozambique.

Further, with support from the Global Quality and Standards Programme (GQSP)—a large-scale programme funded by the Swiss Confederation (through SECO) and implemented by UNIDO—ISO launched a virtual training for the National Standardization Body in Ukraine (UkrNDNC) on GSP in April 2021. As a result of the good collaboration in Ukraine, UNIDO, in collaboration with ISO, is supporting the NSB in the development of its national standardization strategy which will serve to further strengthen standardization in the country.

As part of the support to the Standardization Directorate of the National Quality Institute (INACAL), the GQSP Peru collaborated with ISO on the application of the GSP diagnostic tool. During this collaboration, a 2019 INACAL self-assessment was revised and validated by an ISO expert and an action plan to improve the national standardization system was developed. Based on the results of the GSP diagnostic tool, key activities under the scope of the project have been identified to continue support to INACAL, including on the digitalization of the standardization process, public engagement and outreach.



3.

Dissemination & Implementation

UNIDO supports the dissemination and implementation of standards—with additional support and funding by Switzerland, through its State Secretariat for Economic Affairs (SECO)—at the global, regional, country and company levels in the following ways.

CAPACITY BUILDING AT GLOBAL LEVEL - JOINT PUBLICATIONS FOR SMES

- » [ISO 22000:2018 – Food safety management systems: A practical guide for SMEs](#)
- » [ISO 31000:2018 – Risk management: A practical guide](#)
- » [ISO 37001:2016 – Anti-bribery management systems: A practical guide](#)
- » [ISO 45001:2018 – Occupational health and safety management systems: A practical guide for small organizations](#)
- » [ISO 50001 – Energy management systems: A practical guide for SMEs](#)
- » ISO 56002 – Innovation management systems

GLOBAL E-LEARNING

UNIDO and INetQI partnered to deliver global e-learning courses to help countries meet the many challenges present in the areas of standardization, QI and trade. One such training, based on a solid analysis of trade challenges and opportunities, is the [Quality Infrastructure and Trade training](#) which encourages trade development along value chains. Also developed in close collaboration with INetQI, the *Quality Infrastructure for Sustainable Development Index* (QI4SD Index) aims to provide a framework of indicators that summarizes the overall state of development of a country's and/or region's QI readiness to support the SDGs. This will help to better direct resources and interventions necessary for UNIDO to promote QI, especially for developing countries, as more data is needed to understand the state of QI in each country, particularly with regards to its suitability for working towards the SDGs.

More recently, in support of the implementation of the ISO 56000 series of standards on innovation management, UNIDO launched an e-learning training in collaboration

with ISO titled [Managing Innovation](#), aimed at supporting innovation management within organizations.

REGIONAL TRAININGS

Trade facilitation makes it easier for developing countries to participate in international trade and could increase global GDP significantly, with large gains going to least developed countries (LDCs). One critical area in this regard is the setting up and operation of the national QI, which concerns the technical institutions providing services in the fields of metrology; standardization; conformity assessment (i.e. testing, inspection and certification); and accreditation.

In order to support this process, awareness and knowledge need to be built—areas UNIDO addresses with its regional trainings. Against this backdrop, UNIDO organized a regional training in Warsaw, Poland, focusing on Caucasus countries (Armenia, Azerbaijan, Georgia) and countries of the Western Commonwealth of Independent States (Belarus, Moldova, Ukraine). Participants gained an understanding of global, regional and national framework conditions for trade development, standards and QI. The positive results from this particular flagship training made it a good model for subsequent regional trainings.

Organized by UNIDO and ISO—with the support of the Enhanced Integrated Framework and in cooperation with INetQI—the “Trade Capacity Building Training Programme for LDCs” was designed to encourage systemic trade development along value chains. It promotes growth through capacity building to ensure informed and timely trade-related policymaking and to strengthen institutions and infrastructures that are part of the enabling environment for effective trade participation. The training was implemented on a regional basis, in Maputo, Mozambique, with participants from Burundi, Chad, Ethiopia, Lesotho, Malawi, Mozambique, Senegal, Sudan, Swaziland, Togo and Uganda.

An additional regional trade capacity building training, conducted in the Kingdom of Bahrain, was organized by UNIDO, offering support to Arab states belonging to the Gulf Cooperation Council. It provided participants with technical knowledge on diverse issues pertaining to trade-related capacities in promoting ISID. The last such regional training titled “Quality Infrastructure Training Programme for Caribbean Countries” was held in Kingston, Jamaica, hosting participants from 14 Caribbean countries.

DISSEMINATION AND ADOPTION AT COUNTRY LEVEL

Through its technical cooperation activities, for example, awareness raising on the implementation of standards for greater competitiveness and Training of Trainers, UNIDO supports the dissemination and adoption of standards at the country level. The Organization also supports standardization at this level through its support of NSBs to develop national standardization strategies which help to ensure national strategic priorities are supported by relevant national and international standards.

IMPLEMENTATION AT COMPANY LEVEL

At the company level, through its technical cooperation projects, UNIDO supports private business, particularly SMEs, to meet standards requirements for enhanced market access and integration into global value chains. UNIDO thereby supports the implementation of all standards on a needs-based approach in order to increase competitiveness and productivity. Examples of this work include standards on quality management systems (ISO 9001) as well as energy management systems (ISO 50001), environmental management systems (ISO 14000) and food safety management (ISO 22000). Most recently, UNIDO supported the implementation of standards on anti-bribery management systems (ISO 37001) and innovation management (ISO 56000). UNIDO's support in these areas is closely linked to the publications and guidance documents published jointly with ISO.



4.

Global Partnerships & Outreach

INTERNATIONAL NETWORK ON QUALITY INFRASTRUCTURE (INetQI)



Responding to the challenges of globalization, trade and sustainable development, several organizations agreed to enhance their cooperation in promoting the understanding, value and acceptance of a QI and providing guidance and support for its effective implementation and integration worldwide. They cooperate as part of the International Network on Quality Infrastructure (INetQI), formerly known as Developing Countries in Metrology, Accreditation and Standardization (DCMAS), comprising the following members:

- » Independent International Organisation for Certification (IIOC)
- » International Bureau of Weights and Measures (BIPM)
- » International Certification Network (IQNET Association)
- » International Organization of Legal Metrology (OIML)
- » International Electrotechnical Commission (IEC)
- » International Organization for Standardization (ISO)
- » International Telecommunication Union (ITU)
- » International Accreditation Forum (IAF)
- » International Laboratory Accreditation Cooperation (ILAC)
- » United Nations Industrial Development Organization (UNIDO)
- » International Trade Centre (ITC)
- » United Nations Economic Commission for Europe (UNECE)
- » World Trade Organization (WTO)
- » World Bank Group (WBG)

Within the framework of INetQI, a set of documents have been developed under the leadership of UNIDO to support developing countries in the formulation of their quality policies including:

- » a set of guiding principles – [Quality Policy Guiding Principles](#)
- » a technical guide – [Quality Policy Technical Guide](#)
- » a practical “step-by-step” tool – [Quality Policy Practical Tool](#)
- » [Laboratory Policy: A guide to development and implementation](#)

Based on these documents, UNIDO developed the [Quality Policy training](#) to support QI practitioners and policymakers with guidance on how to use the tools to develop and consolidate a solid quality policy.

UNIDO KNOWLEDGE HUB

The [UNIDO Knowledge Hub](#) is an interactive online platform that hosts the UNIDO Training Academy, as well as tools and publications on an array of topics. The UNIDO Training Academy allows users to explore self-paced online trainings in multiple languages in the areas of trade, investment and innovation, while interactive tools for policymakers, institutions, SMEs and individuals are also available in these areas. In addition, the platform offers UNIDO's latest technical publications for download and features recent news, upcoming events, multimedia and other publications on everything trade, investment and innovation related. Visit the UNIDO Knowledge Hub to explore many of the e-learning trainings and tools mentioned in this brochure, and more.

ISO/UNIDO SPECIAL WEBINAR SERIES

Recent joint outreach activities include UNIDO and ISO teaming up to organize a special webinar series on the relevance of international standards in the light of the global COVID-19 health crisis. Over the course of five virtual sessions, nine renowned international experts from several prestigious international organizations shared their views and experiences on how quality and standards can help to mitigate the negative effects of the global pandemic. More specifically, they discussed:

- » **International standards and accreditation in improving food safety**
- » **Occupational health and safety ISO 45001 suite of standards and guidance**
- » **Conformity assessment and accreditation in a virtual world (in collaboration with the International Accreditation Forum)**
- » **COVID-19, cybersecurity and information security management ISO/IEC 27001**
- » **Minimizing the risk of corruption: towards prevention policies for private and public entities**
- » **Managing Risk & Building Resilience (ISO 31000)**
- » **Business continuity management systems**

The joint UNIDO–ISO events reached out to more than 3,300 participants from more than 100 countries worldwide, and produced two outcome documents.



LOOKING INTO THE FUTURE



The well-established UNIDO–ISO partnership exemplifies the power of collaboration in the area of standardization. Going forward, emphasis should be placed on further strengthening this partnership to facilitate the development and implementation of international standards, to the benefit of developing countries and countries in transition.

Following the initial restrictions introduced in response to the COVID-19 pandemic, and the consequential shift to new models of work, the demand for online training and virtual capacity building has increased. In view of this, UNIDO and ISO are highly keen to benefit from the advantages of digitalization for learning and development, and to help their members and stakeholders optimize the use of digital learning solutions for knowledge transfer and application. To this end, UNIDO and ISO have agreed to co-develop more e-learning courses in different subject areas.

Moreover, the potential for standards to contribute to digital transformation governance is of pressing importance. In order to unlock this potential, a robust strategy is required to understand the implications of current and future technologies and to shape the digital transformation towards people, their needs and the planet. Building on the power of collaboration and technical cooperation is essential between standards developers of all types to ensure the most comprehensive, high-quality and up-to-date selection of standards for digital technologies and a high level of convergence is produced. This includes creating an inclusive environment and allowing equal and appropriate representation of all relevant stakeholders, which is paramount in standardization. Further exploration and advocacy of the role of standards for digital technologies can mitigate related challenges and ultimately help countries to realize the 2030 Agenda for Sustainable Development and SDGs.





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