



# Accreditation: Supporting the Future of Global Trade

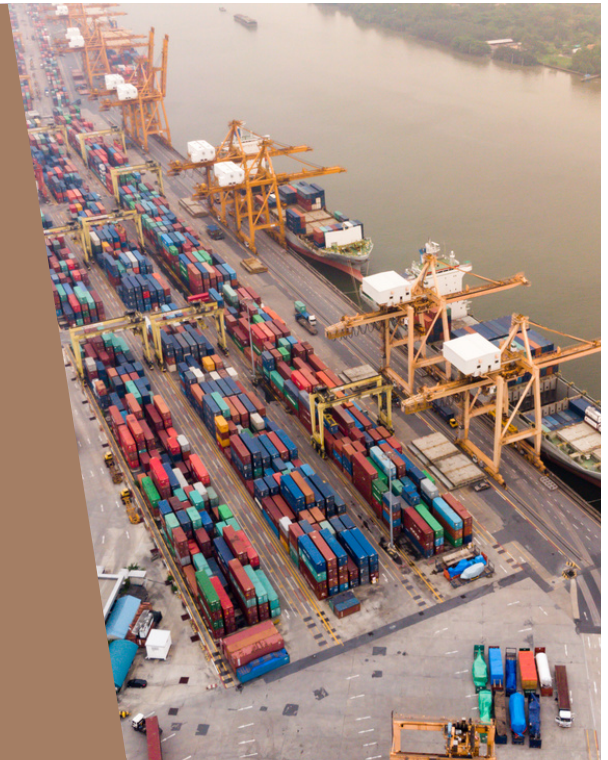


## Removing Technical Barriers to Trade

Trust is the essential component of trading relationships, whether they are conducted within national borders or with other economies. Economies around the world have long relied on an integrated system of standards, regulations, metrology and accredited conformity assessment to create a quality infrastructure. This integrated system has generated the necessary trust to support trade by ensuring that consumers, businesses and regulators procuring goods and services get what they expect.

By demonstrating confidence and the removal of technical barriers to trade (TBTs), quality infrastructures have provided businesses with access to a wider international marketplace, whilst simultaneously improving the quality and safety of imports from those economies.

The use of standards continues to increase with 1,725,754 businesses holding accredited certification to a management system standard in 2021, a rise of nearly 20% since the previous year<sup>1</sup>. The number of accredited laboratories and inspection bodies in 2022 has risen to 88,600 and 14,000 respectively.



Estimates by the Organisation for Economic Co-operation and Development (OECD) and the United States Department of Commerce show that standards and related conformity assessment have an impact on 80% of the world's trade<sup>2</sup>. The Centre for Economics and Business Research (CEBR) estimates that standards contribute GBR 6.1 billion to exports in the United Kingdom per year<sup>3</sup>, while independent research carried out by the New Zealand Institute of Economic Research reported that accreditation delivers a NZD 4.5 billion export premium in exports<sup>4</sup>.

## What factors are affecting global trade?

However, product integrity is under greater scrutiny than ever before and the risk of exposure for brand owners is increasing for a number of reasons:

- Supply chains are becoming more complex, and there is evidence of growing regulatory divergence
- Geopolitical factors such as armed conflicts and the global pandemic have impacted the sourcing of raw materials and disrupted established methods of quality assurance
- Growing concerns related to cybersecurity, artificial intelligence, data protection, fraud and product authenticity
- Consumer consciousness about sustainability, provenance, health and ethics is on the rise, forcing brands to improve their understanding and oversight of their supply network
- Transparency enabled by technology and communications networks is transforming the way trust is won and lost

Industry therefore has a responsibility to instil continued consumer confidence. The theme of this year's World Accreditation Day has been selected to highlight how accreditation is responding to these emerging trends to support industry in our future global trading system.



<sup>1</sup> The ISO Survey 2021

<sup>2</sup> The World Bank, Impact of Quality Infrastructure Reform, 2014

<sup>3</sup> The Economic Contribution of Standards to the UK Economy, 2022

<sup>4</sup> Examining the way IANZ supports the New Zealand economy, 2017



## Supporting the needs of regulators

Rising customer expectations for faster lead times, expanded products and services, and tailored experiences are resulting in greater supply chain complexity. This is forcing businesses to improve management and insight of their supply networks. According to Gartner <sup>5</sup>, more than 50% of supply chain leaders expect complexity to increase over the next five years in most aspects of the operating model including equipment, product design, business models, and partners.



In parallel, there is evidence of increasing fragmentation of regulatory approaches. While the impact on global trade and the costs are largely unknown, the OECD estimates the costs to be equivalent to tariffs of between 20% to 70%<sup>6</sup>. The International Federation of Accountants estimate the costs of regulatory divergence to be on average between 5-10% of annual business turnover, with 51% of businesses surveyed indicating that they had fewer resources to invest in risk management as a result<sup>7</sup>.

Standards, metrology and accreditation provide the foundation for global trade, by reducing transaction costs and providing common reference points. They provide a passport of trust that enables goods and services to circulate between economies without the need for additional testing, inspection, certification, validation or verification in the importing economy.

They are also increasingly used across a wide range of policy areas to support regulations, including technical product safety, good governance, climate change, energy, fair markets and public confidence. Organizations such as the World Trade Organization (WTO), the United Nations Industrial Development Organization (UNIDO) and the OECD suggest that greater adoption of international standards in national frameworks, and compliance with them, could promote regulatory convergence globally.



### Case Study: Mutual accreditation agreements enable manufacturer of photovoltaic inverters to export products to Australia

A European manufacturer of photovoltaic inverters that wished to export its products to Australia held certification issued by SGS Tecnos, a certification body accredited by ENAC, the Spanish accreditation body.

The Australian business required accreditation by the Australian accreditation body Joint Accreditation System of Australia and New Zealand (JAS-ANZ). Given the mutual recognition afforded under the International Accreditation Forum (IAF) Multilateral Recognition Arrangement (MLA), which ensures mutual recognition of accredited conformity assessment results between IAF MLA signatories, JAS-ANZ issued a statement to declare that the certificates issued by SGS Tecnos should be recognized in Australia.

After this statement, the Australian business accepted the SGS Tecnos certificates. Accreditation and mutual recognition therefore opened new market opportunities for the manufacturer while preventing additional trade costs through repeat testing in the importing country.

<sup>5</sup> How to Reduce Supply Chain Complexity, 2022

<sup>6</sup> International Regulatory Co-operation and Trade, OECD, 2017

<sup>7</sup> IFAC, Regulatory Divergence: Costs, Risks, Impacts, 2018



## Adapting to a changing world

The unprecedented circumstances surrounding the pandemic have presented new risks and challenges in global supply chains. This has forced businesses to be more resilient and agile as they face labour or raw material shortages, inflationary pressures, and shifts in their supply chains. The established models of quality assurance have also been impacted by restrictions on movement.

The increased use of remote techniques for audit, assessment and evaluation during the pandemic is an example of how accreditation and conformity assessment adapted to maintain levels of confidence and supply chain fluidity. A survey jointly conducted by the International Organization for Standardization (ISO), the International Laboratory Accreditation Cooperation (ILAC) and IAF<sup>8</sup>, found that 91.5% of respondents agreed or somewhat agreed when asked whether the increased use of remote techniques and the willingness to change will provide a stimulus to new audit/assessment/evaluation processes.

Beyond remote/on-site, the vision of further new techniques demonstrates that the use of sensors, data feeds and many other factors will see auditing evolve and develop further. This will give greater value and benefit to those who use it, and more who will embrace both how assurance and business improvement is delivered. UNIDO develops these themes in 'Smart Quality Infrastructure for Sustainability'<sup>9</sup> on how digital technologies and innovation are transforming the Quality Infrastructure and its organizations into what is defined as Smart Quality Infrastructure, modifying the way they work, improving their performance and enabling new types of services.



### Using remote technology to improve audit outcomes

A joint IAF/ILAC/ISO survey on the use of remote assessment techniques showed that a significant majority prefer remote or blended audits, assessments and/or evaluations. With over 4000 responses from a cross-section of the conformity assessment community, there was a clear trend that remote activities provided as much confidence as those conducted on-site, and as a result would like to see continued or an increased use of remote activities in the future.

Respondents cited many benefits to remote working including reduced travel time and costs, efficient use of time during assessment, and a reduced carbon footprint. While the survey provided a point-in-time snapshot of attitudes towards the use of remote techniques, it also gathered a wide range of suggestions, ideas and proposals from users, CABs, auditors and assessors. Members of the global quality infrastructure will work together to consider how to incorporate the feedback in the relevant documents and processes in order to improve how technology can be deployed for more effective audit outcomes.



<sup>8</sup> Report for IAF/ILAC/ISO Survey on Remote Audit/Assessment/Evaluation (Reference Report), 2021

<sup>9</sup> [https://hub.unido.org/sites/default/files/publications/online\\_SMART\\_QI\\_borchure.pdf](https://hub.unido.org/sites/default/files/publications/online_SMART_QI_borchure.pdf), 2022



## Enabling trust in innovation and new technologies

The adoption of new technologies is increasing. While much of international trade operations is still paper-based, McKinsey estimates digitization has raised global GDP by 10.1% in the past decade<sup>10</sup>. According to the WTO, international trade costs declined by 15 percent between 1996 and 2014 and new technologies will play a key role in further reductions<sup>11</sup>. However, new technologies bring new threats and governance challenges. Cybercrime has increased exponentially, costing the global economy more than USD 1 trillion in 2021<sup>12</sup>. Global cases of fraud are estimated to cost USD 3.6 billion across 133 economies<sup>13</sup>.

The emergence of artificial intelligence (AI) and blockchain has seen the development of multiple standards and protocols. A global survey by PricewaterhouseCoopers (PwC)<sup>14</sup> reported that whilst over 80% of respondents already had some involvement in blockchain technology, nearly half believed that regulatory uncertainty and a lack of trust amongst users were the biggest barriers to adoption. The survey also revealed concerns about a potential lack of standardization and interoperability between blockchains.

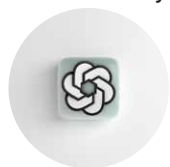
Governments and organizations are starting to explore these technologies. For example, the European Union's AI Act aims to establish the first comprehensive regulatory scheme for AI.



Smart manufacturing, through the use of emerging, advanced technologies to increase the efficiency of traditional manufacturing processes, has led to a more agile industrial base. This is driving the creation of smart and sustainable value chains that follow technology-driven strategies using automation, big data, modelling, connected equipment, and other technologies to track the manufacturing process and improve efficiency.

Accredited conformity assessment is already delivering confidence in the quality assurance of goods and services in many of the areas where blockchain technology and AI are being applied. They share similar principles around transparent processes and traceable verification. Established standards such as ISO/IEC 27001 identify and manage risk of all business data that is stored electronically, in hard copies or even with third-party suppliers.

UNIDO's publication 'Advancing Conformity Assessment for the new Digital Age' provides further detail on the challenges and opportunities for accredited conformity assessment in the Fourth Industrial Revolution<sup>15</sup>. This topic was also discussed in a podcast<sup>16</sup> produced by ILAC and IAF, which explored the role of technology in delivering trustworthy, effective, and valuable accredited conformity assessment.



### What does ChatGPT have to say?

When we asked OpenAI's chatbot about how accreditation could help build the future economy, here's what it told us:

Accreditation can help build a futuristic economy in a number of ways:

- Encourage innovation and progress: Accreditation systems can help to ensure that new products, services, and technologies meet certain standards of quality and safety, which can encourage innovation and progress.
- Promote sustainability: Accreditation can be used to ensure that businesses and organizations are operating in an environmentally friendly and sustainable manner, which can help to reduce negative impacts on the environment and promote sustainable economic growth.
- Facilitate global trade: Accreditation can be used to demonstrate that goods and services meet certain international standards, which can make it easier for businesses to participate in global trade and expand their markets.
- Improve quality of life: Accreditation can be used to ensure that products and services such as healthcare and education meet certain standards, which can improve the quality of life for people and contribute to overall economic growth.
- Developing a skilled workforce: Accreditation programs can be used to ensure that workers have the qualifications and skills necessary to perform their jobs effectively, which can improve productivity and competitiveness and help to build a skilled workforce for the future economy.



<sup>10</sup> <https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/digital-globalization-the-new-era-of-global-flows>, 2016

<sup>11</sup> [https://www.wto.org/english/res\\_e/publications\\_e/world\\_trade\\_report18\\_e.pdf](https://www.wto.org/english/res_e/publications_e/world_trade_report18_e.pdf), 2018

<sup>12</sup> [https://www.mcafee.com/de-ch/consumer-corporate/newsroom/press-releases/press-release.html?news\\_id=6859bd8c-9304-4147-bdab-32b35457e629](https://www.mcafee.com/de-ch/consumer-corporate/newsroom/press-releases/press-release.html?news_id=6859bd8c-9304-4147-bdab-32b35457e629), 2020

<sup>13</sup> The Global cost of Fraud - Occupational Fraud 2022: A Report to the Nations, 2022

<sup>14</sup> <https://www.pwc.com/gx/en/industries/technology/publications/blockchain-report-transform-business-economy.html>, 2020

<sup>15</sup> [https://hub.unido.org/sites/default/files/publications/UNIDO%20Conformity%20Assessment\\_Brochure\\_2020.pdf](https://hub.unido.org/sites/default/files/publications/UNIDO%20Conformity%20Assessment_Brochure_2020.pdf), 2020

<sup>16</sup> [https://ilac.org/latest\\_ilac\\_news/third-accreditation-matters-episode-released/](https://ilac.org/latest_ilac_news/third-accreditation-matters-episode-released/), 2022



## The rise of the conscientious consumer

A growing number of consumers are increasingly concerned about the provenance of their purchases. Many do not want to be inadvertently buying into systems of human exploitation and environmental destruction. Therefore, assurance schemes have sprung up, often under the guise of ethical trade, aiming to counter these concerns. However, it has become increasingly apparent that these schemes under-perform.

A recent survey carried out by the Business Sustainability Index of US adults revealed that two-thirds (66%) are willing to pay more for sustainable products<sup>17</sup>. However, Deloitte reported that nearly one in two consumers either do not know what commitments businesses have made that they can trust or simply do not trust businesses on climate change and sustainability issues<sup>18</sup>.



### Case Study: European Space Agency uses ISO 27001 to protect its data

The European Space Agency (ESA), an international organization with 20 member states, has adopted accredited certification to ISO 27001 to protect sensitive information and confidential data.

The information security management system (ISMS) allows the organization to confidently manage the security of its data, minimise risk and protect stakeholder information.

The use of standards can help organizations adopt more eco-friendly practices. Accredited conformity assessment can provide assurance that organizations are meeting requirements and fulfilling claims, from the laboratory testing of air, water and soil pollution, to the inspection of ship recycling, to ISO 14001 environmental management systems certification that requires that an organization consider all environmental issues relevant to operations, including pollution, climate change mitigation and adaptation, and resource use and efficiency. The Circular Economy, published by ISO in December 2022, sets out how these tools deliver part of the solution in solving today's challenges<sup>19</sup>.



In France, a certification scheme ensures that manufactured products are protected by their geographic region, thereby providing consumers with confidence in the provenance and quality of their purchases, while ethical trading and responsible sourcing certification gives consumers the reassurance they seek and workers the protection they deserve.



### Case Study: Delivering Water Efficiency in Malaysia

A Water Efficient Product Labelling Scheme (WEPLS) has been introduced in Malaysia to encourage suppliers to develop and market water efficient products as part of water conservation measures, as well as to raise public awareness on the availability of water efficient products. Water efficient labelling on the products under this programme requires that testing is carried out by third-party accredited laboratories.

The scheme allows consumers to make their purchase decisions based on a trusted water efficiency rating. Five types of products are covered under WEPLS: Water taps, which include basin taps, sink taps, shower taps and ablution taps; water closets; urinal equipment; shower heads; and clothes washing machines.



<sup>17</sup> Business of Sustainability Index, 2022

<sup>18</sup> <https://www2.deloitte.com/uk/en/pages/consumer-business/articles/sustainable-consumer.html>, 2021

<sup>19</sup> <https://www.iso.org/files/live/sites/isoorg/files/store/en/PUB100471.pdf>, 2022



## Maintaining supply chain trust

Transparency enabled by technology and communications networks is transforming the way trust is won and lost. The issue of fake certificates and certifying bodies is commonplace in parts of the world. The proliferation of assurance schemes to address areas such as Environmental, Social and Governance (ESG) performance causes confusion, accusations of ‘greenwashing’, and disparities between stakeholder expectations and realities on the ground.

While accredited conformity assessment provides a clear indication of trust, the industry continues to take steps to evolve with industry need. For example, IAF’s CertSearch<sup>20</sup> is a global database of validated management system certificates, providing a single source of truth that makes it harder for those issuing fraudulent certificates. Accredited conformity assessment is also being deployed to ensure the integrity of peer review systems such as online ratings. India is carrying out a review to curb fake and misleading reviews on e-commerce platforms and portals, which will be based around a national standard. In Australia, they are considering how well-established existing architecture for the tracking of goods through global supply chains can be used for the associated conformity assessment data.



### Case Study: Digital accredited management system certification verification service builds confidence in global trade

IAF CertSearch digitally validates an organization’s management system certification(s), in order to determine if a certificate is valid and if the certification body issuing the certificate is accredited to issue certifications to that standard. The aggregation of certification data in one global database makes the validation process simple and efficient. This free to use service enhances the supply chain management process and helps lower technical barriers to trade, both nationally and internationally.

Collating and digitizing conformity assessment information in a secure, recognized source allows the relevant parties to check credentials anywhere and at any time. It speeds up the verification process, creates a chain of traceability and helps identify potential areas for concern. As of February 2023, more than 820,000 certificates from 72 economies have been uploaded to IAF CertSearch.

Having a robust supply chain is an essential element of modern business, particularly for those trading across international borders. Verifying that potential suppliers hold essential accredited certification is a key part of building a reliable network.

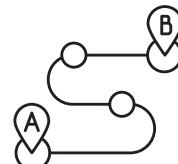
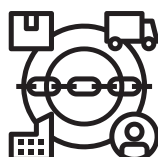


### Case Study: Developing trade opportunities in West Africa

The cassava value chain is a key value chain in the Economic Community of West African States (ECOWAS) region. A study conducted by UNIDO noted how conformity assessment bodies underpin the development of this value chain and improve the quality and safety of cassava products.

Eighteen conformity assessment bodies in ECOWAS Member States, including twelve national certification bodies (NCBs) and six testing laboratories supporting the cassava value chain, are being prepared for international accreditation with a view to providing recognized certification services and testing services to cassava producers and processing companies. These accredited services are needed for the issuance by mandated NCBs of the ECOWAS regional Quality Mark “ECOQMARK”.

This work will open up trading opportunities within the region, as well as in export markets. It will also drive consumer confidence in the quality and safety of products placed on the market.



<sup>20</sup> <https://www.iafcertsearch.org/>





### Case Study: Accreditation drives Guatemalan organic exports

In order to drive exports of Guatemalan organic food products, the government adopted the European regulations for organic production to ensure compliance with standards and requirements in larger overseas economies. The regulations cover production systems and processing, packaging, labelling, storage, transportation, and commercialization of vegetables, and animal products and sub-products. Organic production is a key industry for the Guatemalan economy as it generates a favourable price for national producers, as well as positioning the country as contributing to environmental conservation and protection of biodiversity.

Compliance is demonstrated through accredited conformity assessment to the relevant scheme required by the export economy, ensuring the traceability and value of the product. As a result of this approach, exports have grown at an average of 7% per year in production volume. Initially only coffee was exported as an organic product, however, this has extended to the following products: cardamom, cacao, macadamia nuts, honey, lettuce, green beans, black tea, papaya, and broccoli.

The mode of cultivation promotes connections between small producers, grouping more than 60,000 farmers throughout the country, generating approximately 20,000 permanent jobs and more than 80,000 temporary or indirect jobs. The most important markets for the exports are the United States with 80%, the European Union with 15%, and Japan, Canada and Arab countries with 5%.



### Case Study: Delivering trust in an online environment in Europe

A lack of online trust will limit the transition to carry out transactions electronically or to develop innovative new services. European Regulation (EU) 910/2014 enhances trust in electronic transactions by establishing a common platform for secure electronic interaction between consumers, businesses and public authorities, thereby increasing the effectiveness of public and private online services, electronic business and electronic commerce.

The Regulation requires Trust Service Providers (TSPs) to gain 'qualified status'. This involves achieving accredited certification through an approved scheme, i.e. a certification scheme that has been demonstrated as suitable to assess all of the requirements placed on TSPs by the Regulation.

## Summary

While standards and accreditation have had a positive impact on trade both within and across borders, there is a need for continued evolution to meet changing industry requirements and to support our future trading systems. They also play a key role in supporting the SDG targets that relate to trade, namely SDG 1: No Poverty; SDG 2: Zero Hunger; SDG 3: Good Health and Well-Being; SDG 5: Gender Equality; SDG 8: Decent Work and Economic Growth; SDG 9: Industry, Innovation and Infrastructure; SDG 10: Reduced Inequalities; SDG 14: Life Below Water; and SDG 17: Partnerships for the Goals.



The theme of World Accreditation Day 2023 has been selected to demonstrate how national and global quality infrastructures are adapting to advances in technology, changes in consumer behaviours and the regulatory environment, new trust mechanisms, and changing business models. Get in touch with your local accreditation body to learn how accreditation can support your trading needs.

## Further information

Visit [www.publicsectorassurance.org](http://www.publicsectorassurance.org) to access examples of how accredited conformity assessment is used around the world by central government, local government and regulators to deliver positive benefit.

Further information on the ILAC Mutual Recognition Arrangement (MRA) and a list of Signatories is available on the ILAC website <http://ilac.org/ilac-mra-and-signatories/>



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