

**Standards Australia Limited** ABN 85 087 326 690  
Exchange Centre, Level 10, 20 Bridge Street, Sydney NSW 2000  
Telephone +61 2 9237 6000, Facsimile +61 2 9237 6010  
[www.standards.org.au](http://www.standards.org.au)



17<sup>th</sup> October 2017

**Committee Secretary**

Joint Standing Committee on Trade and Investment Growth  
PO Box 6021  
Parliament House  
CANBERRA, ACT 2600

Via email to: [jsctig@aph.gov.au](mailto:jsctig@aph.gov.au)

Dear Secretary,

**RE: INQUIRY INTO THE TRADE SYSTEM AND THE DIGITAL ECONOMY**

Standards Australia welcomes the opportunity to provide this submission to the Joint Standing Committee on Trade and Investment Growth regarding Australia's trade system and the digital economy. Standards Australia seeks only to respond to matters raised in this inquiry that are relevant to our work and engagement as Australia's peak standards development body.

As the world rapidly digitises it is having a significant impact on trade. Data is increasingly recognised as an asset, and data sharing has become the key currency to realise the latent value of data. This presents opportunities for the Australian economy.<sup>1</sup> There are other drivers underpinning the need for a maturation of our digital trade framework. We are faced with macro-economic pressures arising from demographic change, digital disruption and a reduced revenue base from more traditional export sectors. For example, the 2015 *Intergenerational Report* identifies:

- Increasing pressure in terms of costs associated with an ageing population
- Fewer people of working age within the population, with potential impacts on revenue
- Slower overall growth, attributable to lower workforce participation rates and slower population growth.<sup>2</sup>

These challenges, which will necessitate the exploration of new trade routes and a pivot to a service economy to generate increased revenue and economic prosperity, require a re-examination of the trade infrastructure as the economy evolves. The increasing digitisation of markets enables trade flows to occur in real-time and to be monitored digitally. It also generates deep market insights, increasing market visibility and efficiency. As the new

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<sup>1</sup> AIIA (2017). *Skills for Today. Jobs for Tomorrow*. AIIA: Canberra.

<sup>2</sup> The Treasury (2015). *Intergenerational Report*. Canberra: Commonwealth of Australia.

economy continues to influence trade flows, evident in the increased movement of data and information, the viability of our historical trade infrastructure must be reevaluated.

The digital economy's trend towards online interactions, computerised business operations and technological advances, challenges the traditional business model. In order to maintain relevance and achieve success, Australia needs to position itself at the forefront of digital innovation to assist business development at a global level. Strategic business development is a critical contribution to stable trade flows and the health of the Australian economy.

Information and data research organisation, Outsell, indicates that 80 percent of global trade is underpinned by standards and their associated technical regulations<sup>3</sup>. Clearly, standards play a critical role in Australia's interstate, regional and international trade and are an important in their contribution to the Australian society and economy. It is imperative that standards are considered at the forefront of national trade policy and all bilateral trade relationships.

Standards Australia continues to work with all tiers of the Australian government, industry and the wider Australian community to develop internationally aligned, contemporary and innovative standards-based solutions. We believe that a coordinated and measured approach, incorporating standardisation, is vital to the growth of digital trade in Australia and across the Asia-Pacific region.

## Key Points

- The emergence of new technologies, including new payment platforms, can add significant value to Australia's trade architecture.
- To ensure that there is opportunity for business to participate at national and international level, from different maturity horizons, standardisation is critical.
- Standards Australia plays a leading role as Australia's peak standards development body and national representative to International Organisation for Standardisation (ISO) and International Electrotechnical Commission (IEC).
- Standards Australia is already leading international standardisation in disruptive technology initiatives, including blockchain and distributed ledger technology.
- Australia's commitment to the World Trade Organisation Agreement on Technical Barriers to Trade requires us to remove potential barriers to trade created by standards, technical regulations and conformity assessment – a goal we are all working towards.
- To strengthen cyber resilience and security, Australia has contributed to and adopted a number of standards in the international series ISO/IEC 27000: *Information security management*.

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<sup>3</sup> Outsell (2017). *Market Size Share Forecast Trend Report 20 June 2017 – Global Standards Publishing Market 2017*. Outsell: Burlingame, California.

- Standards Australia led a coordinated APEC project, under the guidance of the Australian Treasury, highlighting the relevance of cross-border data flows throughout the Asia Pacific region.

### **Standards Australia: Who we are and what we do**

Standards Australia is recognised by the Commonwealth as Australia's peak non-government standards body. Founded in 1922, it is an independent and not-for-profit organisation and is the Australian member of the International Organisation for Standardisation (ISO), International Electrotechnical Commission (IEC) and the Pacific Area Standards Congress (PASC). At the international level, Standards Australia is committed to representing the views of stakeholders, government and consumers in standards development and related activities. Domestically, standards are developed for the net benefit of Australia and enhance economic efficiency, increase community safety and sustainability, and improve industry and international competitiveness.

Standards Australia facilitates standards development through technical committees, by bringing together relevant stakeholders to develop standards documents through a process of consensus.

Our current catalogue consists of approximately 6000 voluntary standards across 12 sectors of the Australian economy, including energy and electrotechnology, ICT, manufacturing and consumer products & services. The building and construction sector is a standards development priority for Standards Australia and involves engagement with legislative authority at all levels of Australian government.

There are many other areas where we are actively contributing to the development of discrete workstreams of national and international significance in relation to the digital economy. Recently, Standards Australia has:

1. **Led the development of a roadmap to guide Australia's transition to Industry 4.0** – through the preparation of a detailed report for the Prime Minister's Taskforce, which includes a focus on future work items for industry stakeholders.
2. **Initiated the development of international blockchain standards**, through a new work proposal to the ISO, and managing the ongoing secretariat work.
3. **Identified opportunities for growth associated with demographic transition** and the pivot towards service-based economies, through the release of a Digital Hospitals Handbook (SA HB: 163: 2017) and an APEC Sub-committee on Standards and Conformance report on the 'silver economy'.

## **Standards in the Australian trade architecture**

Australia is a signatory to the World Trade Organisation's Technical Barriers to Trade Agreement, which entered into force on 1<sup>st</sup> January 1995. The Technical Barriers to Trade Agreement (TBT Agreement) is designed to ensure that states do not use technical regulations or standards and conformity assessment procedures to create unnecessary and unjustifiable barriers to trade. Member's rights to use standards and technical regulations to achieve legitimate policy and safety objectives are recognised. As a signatory member to the TBT Agreement, Australia has a stated commitment to achieving transparency in the market and supporting a predictable global trade environment.

As 80 percent of the world's trade is affected by standards and associated technical regulations, standards are a critical consideration in the international trade system<sup>4</sup>. Standards Australia is one dimension of the standards and conformance infrastructure in Australia. The framework is also comprised of the National Measurement Institute (NMI), the National Association of Testing Authorities (NATA) and the Joint Accreditation System of Australia and New Zealand (JASANZ). The historical standards and conformance framework collaborates to extend vertically and horizontally across sectors of business and industry to support consumers, developers, providers and entrepreneurs in open and competitive markets.

In order to ensure Australia remains relevant in the international standardisation sphere and also upholds the expectations under their TBT Agreement, it is imperative that Standards Australia continue to engage in international standards development and governance activities at both the ISO and IEC. Australia currently holds a number of governance positions at the ISO and IEC and participates in 288 ISO technical committees and 79 IEC technical committees. To continue this high level of international engagement, Standards Australia requires ongoing cross-government support and engagement from Australian stakeholders. Participation in international standardisation ensures that Australia continues to remain relevant in the global standards community and positions itself at the forefront of the global digital development agenda.

## **Disruptive technologies and standardisation: blockchain and distributed ledger technologies**

Standards shape the everyday lives of Australians – ranging from the buildings they live and work in, to the credit and banking cards they use. Covering methodologies, products and services, standards ensure safety and promote good practice across a range of industries. The reach of standardisation is continuously increasing to address and support new and emerging fields of interest and forms of technology that are driven by consumer preferences. Some examples of developing fields for standardisation include blockchain, as well as more horizontal areas of focus, such as smart cities. Standardisation in these areas facilitates

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<sup>4</sup> Outsell (2017). Market Size Share Forecast Trend Report 20 June 2017 – Global Standards Publishing Market 2017. Outsell: Burlingame, California.

innovation, supports interoperability and can instill greater confidence on the part of consumers to trust and invest in new markets and technologies.

For example, blockchain, at the broadest level, is a digital platform that records and verifies transactions in a public and secure manner. It is a de-centralised, cryptography based solution with the potential to redefine transactions and the back-office of a multitude of different industries. It will remove the need for third-parties in many transactions.

Standards Australia has taken a lead in the development of international blockchain standards, after successfully conducting a campaign in 2016 to create a new international technical committee, *Blockchain and distributed ledger technologies* at the ISO (TC-307). Australia holds the secretariat and chairmanship for this committee, which consists of 22 participating member countries and an additional 17 observing members. The committee's work program is split between five streams of activity that have been identified as a priority:

- Reference architecture
- Use cases
- Security and Privacy
- Identity
- Smart Contracts

The inaugural meeting of ISO Technical Committee (TC) 307 was held in Sydney in April 2017, and drew strong participation from national standards bodies. A total of 89 international and Australian technical experts participated, representing 18 countries.

The work of this Australian-chaired international committee has the potential to impact on the financial sector both domestically and globally. The development of blockchain and distributed ledger standards can enable fintech start-up companies to compete in emerging and established financial markets through facilitating minimum standards and common maturity horizons, from which innovation can flourish, enabling healthy competition.

The development of blockchain standards will also provide existing and growing industries, including healthcare and agriculture, with the opportunity to use the benefits of this technology with greater confidence, to deliver improved products to consumers and support the protection of information, for example. Standards Australia's reputation, and international standing, has enabled the effective leadership of standards development in strategic new fields, including blockchain, contributing to the development of the national and global economy.

### **International cyber security and resilience: The Information Security Management standards series**

The ISO/IEC Joint Technical Committee (JTC 1) *Information Technology* is responsible for the development of international standards in Information and Communication Technology (ICT) for both business and consumers. The ISO/IEC Joint Technical Committee is a forum to facilitate information exchange and decision-making by technical experts, to support the

development of standards in the field of ICT technologies and information management, ranging from transfer, storage, processing of data, as well as security. ISO/IEC JTC 1 subcommittee 27 *IT Security Techniques* is responsible for the development and maintenance of over 150 standards that address the security and privacy of ICT systems. Importantly, JTC 1 SC 27 is accountable for the ISO/IEC 27000 standards family – Information security management systems.

For instance, the ISO/IEC 27000 series provides businesses with a systematic approach to the management of their confidential data and intellectual property in order to secure primary business assets. ISO/IEC 27001 is the principal standard of the series, providing requirements for an Information Security Management System that enables trust in the market; protects small, medium and multinational corporations against digital threats; and permits industry to engage in international business in a safe and secure manner. The 27000 series encourages the preservation of data and the integrity of information as it is stored and traded domestically or internationally in cyberspace.

Standards Australia is a participating member on ISO/IEC JTC 1 SC 27, enabling Australian stakeholders to participate in, and contribute to, the leading international standards in cyber management systems. Australia has made direct text adoptions of four standards within the series and is currently in the process of adopting three more. The adoptions of these international standards reinforce the importance of cyber security and intelligence in Australia. Australian international participation and adoption also increases the awareness of prevalent cyber threats and continues to encourage Australian business to consider conforming to the specifications for cyber and digital management within the ISO/IEC 27000 standards series.

### **Facilitating data movement: APEC HoST Project**

In 2015, Standards Australia worked closely with the Australian Treasury, to deliver a project under the Asia Pacific Economic Cooperation Small-Medium Enterprise Working Group (APEC SMEWG). The Harmonisation of Standards for the movement of data across APEC (the HoST Project) conducted research and an APEC wide survey to determine trends and market behaviour in cross-border data flows.

As a result of the HoST Project, a report was presented to APEC highlighting a number of recommendations that had been identified by the APEC SME community as potential issues and opportunities in the use of international data flows. The study initially found that there had been significant growth in the exchange of data and communication within the APEC community over recent years. As a result of this, there were a number of agreed recommendations proposed to support business development and the utilisation of cyber advancements.

The recommendations included:

- Promoting the use of consensus based international standards to support regulations in international data transfer.
- The development of an APEC ‘standardisation roadmap’ to support the new digital economy.
- Ensuring that the Asia-Pacific region remains invested and committed to creating a healthy environment for international data and information flows.

The HoST project demonstrated the need for Australia to position itself as the digital economy leader in the Asia-Pacific region and ensure that our national standards and conformance infrastructure reflects changes that both enable growth in the movement of data and promote an increase in digital trade. The continuing concentration on the digital economy reinforces the need for reliable cyber resilience and security for Australian business and international trade.

## Conclusion

In a world where data is increasingly recognised as an asset, digital transformation of our trade architecture is critical. Data sharing is crucial to the growth of products and services, particularly in new and emerging markets. It can also open new markets, in areas such as cloud computing, where they did not previously exist. Effective data sharing enables more efficient transactions with customers, and can facilitate the emergence of new products and services through innovative payment platforms, for example.

As the peak standards body in Australia, Standards Australia is charged with the development of standards to provide a safe and sustainable environment for the Australian public, while maximising performance and economic competition domestically and internationally. We are already leading work in blockchain standards development locally and internationally and will continue to play a pivotal role in standardisation across new and emerging areas that impact upon digital trade. This includes in areas necessary to underpin the trade architecture, such as cyber security and information management, where more sustained efforts at standardisation can be made.

**Recommendation:** That the Committee note the importance of standards in enabling effective and resilient digital trade at national, regional and international levels, with particular reference to the following enablers:

- the role of cyber security standards in contributing to a safe, efficient and secure digital marketplace
- the role of standards in enabling the movement of data as a key tool in the growth of digital trade; and;

- the role of Australia's national standards body, Standards Australia, in promoting the growth of digital trade through its leadership in the development of International Standards for industry 4.0, blockchain and smart cities technologies.

Further information in relation to this submission, please contact

Yours sincerely

Dr Bronwyn Evans  
Chief Executive Officer