



THE AUSTRALIAN  
APEC STUDY CENTRE  
Asia-Pacific  
Economic Cooperation

In partnership with  
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## ACCELERATING DIGITAL TRADE AND E-COMMERCE THROUGH E-INVOICING STANDARDS

Paperless trading, particularly e-invoicing, underpins the essential movement and exchange of data for trade across international borders. Thanks to e-invoicing standards, interoperable e-Invoicing systems can streamline processes for government agencies and businesses – especially MSMEs operating within and across Southeast Asia.

### WHAT IS E-INVOICING?

E-invoices are invoices issued, transmitted, received, processed, and stored electronically using specific document formats.

They rely on a set of frameworks, including standard machine-readable documents and secured network with adequate security protocols, and require involved parties to be utilising common standards for the exchange.

### KEY TRENDS

#### Trend 1: Rapid growth of e-invoicing in ASEAN

With the high level of consumers in ASEAN adopting e-commerce throughout the pandemic, the e-invoicing market is expected to reach a notable CAGR of 17.4% in 2030. Further integration of smart IT solutions in financial services, insurance, energy, and telecommunications will further propel the growth of the e-invoicing sector in ASEAN.

#### Trend 2: Paperless trade brings tremendous economic benefits

E-invoices can be automatically generated in a supplier's accounting system and transmitted electronically to the recipient via intermediaries for automatic processing—bringing greater security through standardised protocols and technical implementations, and generating savings that range from 8% to 39% in upfront costs (mainly thanks to automation, which improves efficiency and eliminates transcription errors).

#### Trend 3: E-invoicing enables post-pandemic recovery

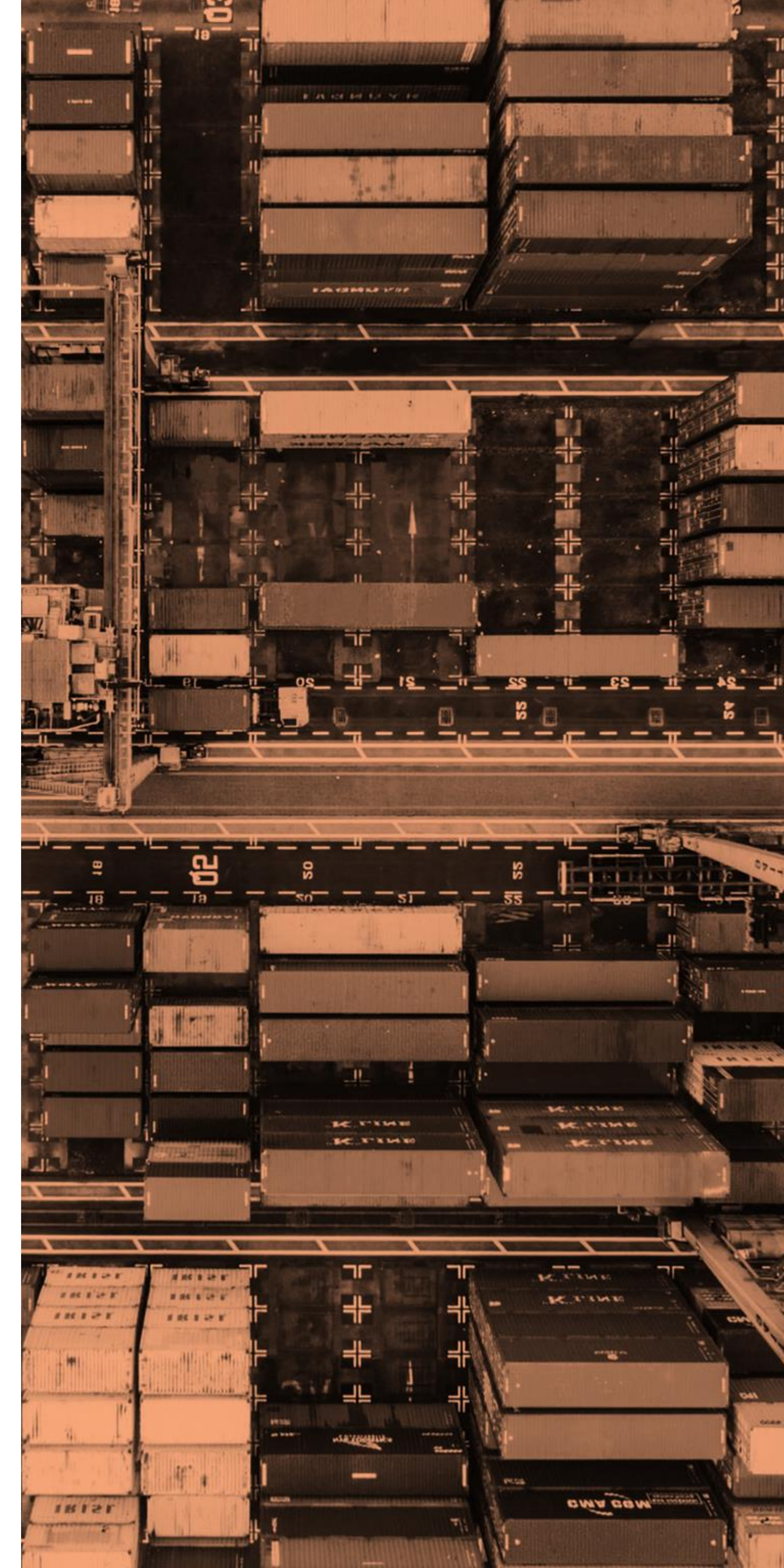
E-invoicing enables more immediate access to cashflow through faster settlement of bills; 92% of e-invoices are paid on time compared to 45% of paper invoices, resulting in better cash flow and better access to financial services for suppliers. This has the potential to help multinational companies, government agencies procuring products and services, and the large number of MSMEs in ASEAN that have been hit by the pandemic and need to improve their cashflows to stay afloat.

### E-INVOICING EMPOWERS AND SUPPORTS WOMEN-OWNED MSMEs IN ASEAN

Across the region, paperless trading has enhanced the financial potential for small business owners, especially for women-owned and -operated micro-businesses.

This has been especially impactful during the COVID-19 pandemic, when very small e-commerce activities turned into a steady source of income for millions of Southeast Asians.

In Indonesia, for example, Peer-to-Peer (P2P) companies increasingly rely on paperless trading to provide greater opportunity, as well as market access, to micro-business owners—most of whom are women in rural or remote areas.



## KEY E-INVOICING STANDARDS

### E-Invoicing standards, guidelines, and protocols

International standards play a key role in aligning rules and processes to mitigate uncertainties. Whether they are industry standards, technical standards, national, regional, or international—standards are an increasingly vital driver of a fast-paced, competitive trade environment, where they help governments adapt to a rapidly changing digital age.

- ASEAN Single Window (ASW): First developed in 2005 as part of the ASEAN Economic Community Blueprint to expedite and enable cross-border exchanges of electronic trade documents among ASEAN economies, such as customs declarations and certificates of origin. The ASW aims to expedite cargo clearance processes, reduce the cost and speed of doing business, and enhance trade efficiency and competitiveness.
- EN16931: The European standard on e-invoicing for public procurement contracts is developed and maintained by the European Committee for Standardisation, CEN/TC 434. It establishes a semantic data model to define the core elements of an e-invoice to ensure legal compliance and interoperability for domestic and cross-border trade.
- eInvoicing Directive 2014/55/EU: The Directive was instrumental in standardising the many e-invoice formats used across Europe's public authorities. Of note, the standard required all contracting authorities to accept e-invoices that follow the EU standard, but did not replace the nationally specific rules across the EU. This allowed both the EU standard and national standards to coexist together.
- PEPPOL Business Interoperability Specifications (BIS): PEPPOL BIS standardises electronic documents and procurement documents, such as e-orders, e-advanced shipping notes, and e-invoices so that they can be exchanged and validated between sending and receiving Access Points (AP) for public-sector buyers and their suppliers through an open and secure network. PEPPOL BIS is based on the work of CEN Workshop on Business Interoperability Interfaces for Public Procurement in Europe and EN16931.
- APEC e-Invoicing Guideline for Future Development: Published in 2008 as part of efforts to develop frameworks to promote e-commerce in the APEC region by facilitating cross-border exchanges of e-invoices among APEC members. The guideline provides a high-level framework for APEC members to implement e-invoicing in their economies and was developed by integrating international open standards and global approaches in its content. These standards include:
  - The UN/CEFACT Business Requirements Specification (BRS) for Cross Industry Invoice (CII);
  - Organisation for the Advancement of Structured Information Standard's (OASIS) Universal Business Language (UBL);
  - EU's European Electronic Invoicing Framework.

### Paperless trade agreements, treaties, and mechanisms

International standards help enhance ASEAN's attractiveness as a regional trading bloc to deliver greater scale and expanded production of goods and services, improving ASEAN's future with trading partners outside the region. Increased discussion and alignment of international standards among ASEAN countries can ensure standards foster innovation with appropriate safeguards.

- ASEAN Free Trade Area (AFTA) Council Meeting: ASEAN Ministers were apprised of the status of the implementation of the ASEAN Trade in Goods Agreement (ATIGA) as well as its review; and the endorsement of the Non-Tariff Measures (NTM) Cost-Effectiveness Toolkit, which will act as an important guideline to address NTMs that affect the smooth flow of goods in ASEAN.
- Australia and New Zealand's Trans-Tasman e-Invoicing Interoperability Framework: Provides a model approach to cooperation on e-invoicing within a digital economic integration agreement, with the aim to develop common standards so that firms from both countries can send and receive machine-readable invoices electronically—no matter which accounting software they use.
- Digital Economy Partnership Agreement (DEPA) between Singapore, Chile, and New Zealand: Establishes new approaches and collaborations in digital trade issues, promotes interoperability between different regimes and addresses the new issues brought about by digitalisation. Specifically, it recognises the importance of e-invoices and the need for parties to support their use domestically while ensuring their systems are interoperable.
- Singapore-Australia Digital Economy Agreement (SADEA): Enhances existing digital trade arrangements between Singapore and Australia under the Singapore-Australia Free Trade Agreement. It also includes seven Memoranda of Understanding (MOUs) to operationalise some of the modules in the DEA by identifying or mapping collaboration projects, specifically in the areas of AI, Data Innovation, Digital Identities, Personal Information Protection, E-invoicing, Trade Facilitation and E-certification on Agricultural Commodities.

## KEY RECOMMENDATIONS

### Leverage regional frameworks such as ASW and PEPPOL to standardise/streamline e-invoice transactions

The ASEAN region will greatly benefit from mapping out and aligning regulatory requirements regarding e-invoice transactions at the regional level, such as legally recognising e-invoices to be similar to paper invoices, and compliance requirements such as the retention period for electronic documents. In this regard, measures such as the e-Invoicing MoU between Australia and Singapore as part of their bilateral Digital Economy Agreement (DEA) may be helpful to leverage/replicate regionally, as it includes the sharing of policy and technical experiences to expand regional e-Invoicing interoperability based on the PEPPOL framework.

### Accelerate national implementation of e-invoicing and support SMEs' adoption

Given the significance of e-invoicing, AMS can further accelerate roll-out of e-invoicing and make it a national agenda to prevent further delays and growing gaps in implementation. In parallel, ASEAN economies can support SMEs' adoption through incentives, closing information gaps, and building capacity to help realise the full benefit of e-invoicing. AMS can consider giving clear mandates to a leading agency to coordinate the process of adoption to prevent delays of roll-out.

### Prioritise e-invoicing interoperability agenda at the ASEAN level

AMS can proactively seek alignment on the regional e-invoicing standards and cross-border data flows to facilitate regional trade. This can be achieved by utilising ASEAN sectoral bodies such as the ASEAN Consultative Committee on Standards and Quality (ACCSQ) to lead the additional of new category for e-invoices. AMS can also put e-invoicing at the top of bi- and multi-lateral trade agendas, replicating the Australia and New Zealand's Trans-Tasman e-Invoicing Interoperability Framework as a model approach on cooperation on e-invoicing.

### Ensure paperless trade and e-invoicing mechanisms translate to equitable opportunities to participate in digital trade

Working with persons with disabilities and organisations of persons with disabilities (OPDs), ASEAN countries can put accessibility and inclusivity at the heart of paperless trade/e-invoicing agendas. This will ensure that e-invoices adoption is in line with accessibility standards and guidelines, such as making electronic documents both machine-readable and available in alternative formats if required.

## OPPORTUNITIES & CHALLENGES

### Opportunities to seize

- Facilitating trade - The UN estimates that the full implementation of the WTO Trade Facilitation Agreement measures, together with paperless trade measures driven by seamless electronic exchange of trade data and documents across borders, can lead to a 12.2% decrease in trade costs for ASEAN as a whole.
- Increased returns for MSMEs - E-invoicing reduces manual input errors and processing times, significantly slashing the cost of doing business for MSMEs, as well as reducing tax-compliance costs and leading to reductions in taxation gap and fraud.
- Increase accessibility of e-invoice - E-invoices which adhere to accessibility standards and guidelines can be more inclusive than paper invoice and rolled out more widely, allowing more people—regardless of their personal backgrounds or situations—to engage in digital trade.

### Challenges to overcome

- Nascent paperless trade mechanisms - E-invoicing is relatively nascent among AMS. Indonesia, Singapore, the Philippines, Thailand, and Viet Nam have made significant progress in this area, but there remains room for standardisation and harmonisation of international trade standards to enhance regional adoption.
- Fragmented paperless trade frameworks - ASEAN economies have differing approaches to paperless trade and e-invoicing, mainly in electronic signature standards and recognition procedures. Without interoperability, it is difficult for regional sellers and buyers to scale and expand their operations.
- Cybersecurity and privacy - The successful implementation of e-invoicing entails adopting cybersecurity and privacy measures to protect the infrastructure and data shared between organisations. Without such foundational mechanisms in place, the critical data that organisations store or send electronically is in danger of being breached.

