

# Executive Summary

The Association of Southeast Asian Nations (ASEAN) is accelerating its adoption of digital technologies, supported by a young and technologically receptive population of 680 million, more than half of whom are under 30 years old. The number of internet users in ASEAN reached 460 million by 2022, up from 260 million in 2015. Mobile app messaging, social networking, ride-sharing and home-delivery bikes are used on a daily basis. Online shopping has become a habit, especially amongst urban dwellers since COVID-19, transforming retailers with physical shops. The total value of goods in the digital economy will approach US\$ 200 billion by 2022, doubling since 2019. The impact of the digital revolution goes beyond social networking, online businesses and mobile apps. Digital technologies are transforming all sectors.

ASEAN has responded to the rise of digital technology and the digital economy by promoting ASEAN's own digital integration initiatives to boost digital transformation. As discussed below, digital integration encompasses multiple objectives, including enhancing interoperability, infrastructure development, accelerating digital innovation, human resources development, supporting member states and contributing to existing industries, livelihoods and national growth. ASEAN has developed a number of documents, frameworks, agreements, and action plans for digital integration and digital economy development. These framework documents and action plans issued by ASEAN have increased rapidly since 2016, reflecting the recognition of the importance of digital (see Figure 3.1). In response to COVID-19 and the associated proliferation of digital technologies, a number of framework documents have been issued in 2020 and 2021.

It is reported at the time of writing that formal negotiations on the Digital Economy Framework Agreement (DEFA) will begin soon. In addition, 2025 is the target year for the current ASEAN Community Blueprints and Master Plans, which are expected to be updated. These are expected to play a role in ensuring or further accelerating the pace of ASEAN's digital transformation and represent the next important milestone in digital integration.

What, then, is ASEAN's digital integration? What are its characteristics, how has it been shaped, and how is it expected to develop under the DEFA and Post 2025 Agenda? This publication analyses more than 70 agreements, frameworks, guidelines, action plans, and declarations issued by ASEAN; analyses the evolution of ASEAN's policies and initiatives on the digital sector and digital economy; and identifies the characteristics of ASEAN's digital integration as an element of the regional integration process. It argues that ASEAN has responded to change, grasped the characteristics of digital and its impact on society, broadened its scope, and concretised its actions.

Flexibility and inclusiveness are amongst the features of ASEAN's digital integration. ASEAN instruments comprise agreements and protocols that require signature and ratification procedures, and framework instruments that are not legally binding and do not require signature or ratification procedures. ASEAN and its Member States have made flexible use of these instruments to achieve results. For some Member States, capacity building through technical and legal assistance has been a key action. Cooperation with dialogue partners has also been strong. Inclusiveness was not only focussed on member states, but also on micro, small and medium-sized enterprises (MSMEs), which still lag behind in terms of digitalisation compared to other major economic players, such as large corporations and urban-based companies.

Recognising the breadth of the digital concept, ASEAN has embraced and further concretised its actions in the areas encompassed by digital. The scope has expanded to include new areas such as personal data protection, paperless trade, digital payments and digitisation of traditional sectors. Initiatives previously treated as separate efforts of the ASEAN Community are now counted as one of the initiatives in digital integration and linked to other initiatives. This change has been particularly evident since the establishment of the ASEAN Coordinating Committee for Electronic Commerce (ACCEC) in 2016. Digital integration will drive the adoption of emerging technologies such as 5G, cloud, artificial intelligence (AI), big data and internet of things (IoT), and address increasingly complex issues related to cyber security, consumer protection and cross-border data flows.

On the other hand, there are still significant gaps amongst ASEAN Member States (AMS) in terms of their readiness for the digital economy. Digital integration will be called upon to contribute to bridging these gaps and to continue to evolve in response to further changes of the times, such as AI and the transition to a data-driven economy. To help ensure that this objective is better addressed in the Post-2025 Agenda, including DEFA and the revised Master Plans for 2025, this publication provides concrete examples of what ASEAN has valued, aimed for and achieved so far in the digital integration process. It then identifies items to be discussed in DEFA and Post-2025 Agenda and what has been discussed in those ASEAN frameworks, and presents policy recommendations on issues to be addressed to accelerate digital integration.

### **Defining digital integration in ASEAN**

Digital integration is not clearly defined in the Digital Integration Framework (DIF) or in many ASEAN documents. This publication identifies the nature of digital integration by looking at the overall picture of the actions defined in the ASEAN framework documents, including the Digital Integration Framework Action Plan (DIFAP), which comprehensively defines the actions of the DIF. A key feature of ASEAN's digital integration is the inclusion of infrastructure development, human resources development and capacity building in its actions. Infrastructure development and human resource development are national measures that should be directly handled by the member states. In other words, in ASEAN, digital integration is not only about liberalising and facilitating trade and investment in cross-border information and communication technology (ICT) products and digital services. It includes (1) enhancing interoperability amongst member states to promote intra-regional trade and growth, and (2) developing infrastructure within each member state to promote digital innovation and contribute to existing industries, people's livelihoods and ultimately national growth. The DIF/DIFAP also emphasises the development of national legal and regulatory systems. These are the hallmarks of ASEAN's digital integration, which differ significantly from ordinary digital trade and digital economy agreements. ASEAN digital integration also contributes to the three ASEAN communities and is also the basis for enhanced ASEAN connectivity in support of the communities. This book, therefore, uses the following original definition of ASEAN's digital integration.

*ASEAN's digital integration is the use of digital and digital economy to enhance regional trade, growth, competitiveness and inclusiveness, and to achieve a stronger, more connected and resilient Community. This includes improving interoperability, developing digital infrastructure, building human resource capacity and establishing national legal and regulatory systems, with the aim of accelerating economic growth at both regional and national levels.*

## **Milestones and initiatives in ASEAN's digital integration**

There are five major milestones in ASEAN's digital integration: the e-ASEAN Framework Agreement in 2000, the ASEAN Economic Community (AEC) Blueprint in 2007, the ICT Masterplan 2015 in 2011, the establishment of ACCEC in 2016, and the DIFAP and ASEAN Agreement on Electronic Commerce (AAEC) in 2019. The e-ASEAN Framework Agreement of 2000 is noteworthy because the concept of what we now call digital integration was already addressed in this framework. The AEC Blueprint of 2007 explicitly positioned the previously proposed digital-related initiatives towards the AEC's goals as part of the economic integration initiative. The first ICT Masterplan of 2011, although limited to the ICT sector, had the characteristics of ASEAN's digital integration, focusing not only on trade facilitation in ICT but also on the development of each ASEAN member state through ICT development. ACCEC was established by Senior Economic Officials Meeting (SEOM) in 2016 and was a key player in the convergence of the ICT and e-commerce sectors and the promotion of digital integration initiatives. The DIFAP incorporates the actions of the AEC Blueprint 2025, ASEAN ICT Masterplan 2020, ASEAN Work Programme on Electronic Commerce, Master Plan on ASEAN Connectivity 2025 and related strategic action plans, and outlines the status of implementation for those initiatives already in place. At the time of writing, DIFAP is the ASEAN framework document that covers the broadest range of areas. The AAEC is the current state of achievement as a legally binding document. On this basis, it is expected that DEFA and the Post-2025 Agenda will be the next milestones in the future.

After DIFAP, a series of framework documents with strategic action lists were adopted, including the ASEAN Comprehensive Recovery Framework and its Implementation Plan (ACRF) in 2020, and the ASEAN Digital Masterplan 2025 (ADM 2025), the Bandar Seri Begawan Roadmap (BSBR), and the Work Plan on the Implementation of ASEAN Agreement on Electronic Commerce (Work Plan for AAEC) in 2021. Initiatives were strengthened and new initiatives were established to address COVID-19, and a multi-layered list of initiatives was developed. These five documents do not replace the other four, but coexist and provide actions that contribute to ASEAN's digital integration.

Examples of the evolution of actions in specific areas illustrate how ASEAN has extended the notion of digital and digital integration. The document provides examples of distinctive initiatives such as the ASEAN Single Window, e-authentication and digital identity, the ASEAN Computer Emergency Response Team (CERT), e-payments and QR codes, and digitisation of MSMEs.

The ASEAN Single Window (ASW) is a good example of how ASEAN has extended the concept of digital not only to ICTs but also to the area of ICT utilisation. ASW is a regional single-window system that integrates the national single-window (NSW) systems of member states. ASW itself has a long history as an economic integration initiative, with the single-window approach being proposed in 2003. However, the first time ASW is mentioned in an ASEAN document on digital integration is when the full operation of the ASW was encouraged at the 2019 DIFAP. ASW has not been treated as an ICT initiative, as it is an application of ICT technology and not part of the field of ICT itself, such as ICT infrastructure development, ICT regulation, cybersecurity, etc. In contrast, ASW is now seen as an integral part of digital integration.

Digital identity is a good example of ASEAN's proactive approach to introducing new concepts. In addition to initiatives based on traditional concepts such as e-authentication and secure transaction initiatives, ASEAN has begun to address digital identity within digital integration. While e-authentication is a service-centric concept, digital identity is a user-centric concept based on the idea of allowing users to access services across different platforms and domains. The Work Plan for AAEC and the BSBR prescribe the actions of digital identity.

CERT and CRISP describe the progress of a phased approach to spreading national initiatives to the region. The Roadmap for Integration of the e-ASEAN Sector advocated performance guidelines for CERT in each AMS. The 2017 ASEAN Work Programme on Electronic Commerce aimed to foster international coordination amongst cybersecurity agencies. The BSBR underlined two crucial requirements for ASEAN's cybersecurity advancement: establishing an ASEAN CERT and implementing an ASEAN CRISP memorandum of understanding.

The initiative to adopt an interoperable QR code framework is emblematic of ASEAN's uniqueness. ASEAN has been emphasising the promotion of electronic payments and secure payments. In addition to this, the introduction of innovative payment methods such as QR code-based payments and the development of an ASEAN Interoperable QR Code Framework have been advocated in DIFAP and BSBR in response to the rapid spread of QR in ASEAN as a means to facilitate electronic payments. This boosts regional cross-border payment initiatives being promoted bilaterally and multilaterally by the AMS and create a pathway for expansion to all AMS.

The digitisation of the ASEAN MSME is an example of the strategic shift in ASEAN's digital policy focus. The MSME has a role in driving the growth of ASEAN's internet economy. The COVID-19 pandemic also greatly accelerated the digitalisation of MSMEs, and while ASEAN has long recognised the importance of MSMEs in the context of economic integration, it was only around 2015 that the importance of MSMEs was explicitly identified in ASEAN's digital integration documents. Again, in contrast, recent documents have increasingly regarded the digitisation of ASEAN MSMEs as one of the central issues in digital policy. The BSBR, in recommending the negotiation and adoption of the DEFA, specifies that it should include matters to leverage the ongoing digital transformation in the region, prepare MSMEs for digital transformation and develop a digitally-ready workforce.

### **Prospects for the DEFA and the Post-2025 Agenda**

ASEAN's digital integration is expected to continue to adapt and evolve in response to technological advances and benefit from a combination of legally binding agreements and non-binding framework instruments to maintain flexibility and effectiveness. To this end, the establishment of a legally binding ASEAN Digital Economy Framework Agreement (DEFA) and a Post-2025 Agenda that is non-binding and defines direction and strategy will be the next important milestone.

Previous studies have compared Singapore's digital economy agreements (DEAs) with the AAEC and Regional Comprehensive Economic Partnership (RCEP) and provided examples of items that ASEAN needs to catch up on. We share with these earlier documents the recognition of the importance of these new areas for the development of the digital economy. We also acknowledge the importance of the comparisons with AAEC and RCEP, which need to be ratified and accepted, and look forward to efforts to address them in future binding ASEAN documents. As new areas to be discussed in the DEFA and post-2025, we have discussed

the following areas mentioned in existing studies: e-invoicing, competition policy, submarine cables, data localisation, data innovation, open government, source code, digital identity, AI, and fintech. We noted that, contrary to what existing studies have indicated, these are not completely 'new' areas for ASEAN, but are already being addressed in ASEAN framework documents.

Enhancing coordination capacity to advance the digital integration process will be more important. ACCEC was established in 2016 and was renamed the ASEAN Coordinating Committee on E-Commerce and Digital Economy (ACCED) in 2022. As noted above, ACCEC has made significant progress in the development of e-commerce and digital integration. The name change to ACCED should not be seen as an indication that its mandate will be expanded in the future, but rather that its actual mandate is reflected in its name, as ACCEC has dealt with the area of digital economy since its inception. Financial inclusion is an initiative of the ASEAN Working Committee on Financial Inclusion (WC-FINC) and its link to ACCED is not clear at the moment. Inclusiveness of the digital economy, such as rural areas, gender, and people with disabilities are also areas where the relationship with ACCED has remained unclear. This publication recommends that these areas are properly encompassed in the ACCED.

Disparities in access speeds, both broadband and mobile, still exist between ASEAN countries. The development of the underlying digital infrastructure is essential to support the growth of ASEAN's digital economy, and efforts must continue to be made to bridge the gaps. However, the point made in this publication is that AMS have nevertheless made essential improvements in the development of ICT infrastructure. Significant speed improvements have been observed in each AMS, particularly in mobile data. For example, mobile data speeds in Myanmar have increased 50-fold in nine years. This shows that Member States are regulating their markets well, encouraging competition while taking care to provide universal service, and encouraging market players to invest in telecommunications infrastructure at a much faster rate than the increase in users and usages.

ASEAN's framework documents on the digital field should ultimately be reflected in actual policies implemented by AMS to contribute to people's businesses and livelihoods. While the individual initiatives of Member States are beyond the scope of this analysis, this publication uses the example of the ASEAN Model Contractual Clauses for Cross Border Data Flow and the ASW to illustrate the importance of ASEAN initiatives being reflected in national measures and contributing to business activities, the synergies that exist within ASEAN, and the further developments in each of these areas will be expected.

Key policy recommendations are as follows:

**Establish a common understanding of ASEAN's digital integration:** Define and share a clear scope of digital integration within ASEAN, taking into account the region's strengths and uniqueness. Recognise that this definition and scope will evolve with technological advances and their impact on people's lives.

**Accelerate the establishment of the ASEAN Digital Economy Framework Agreement (DEFA) and the Post-2025 Agenda:** Prioritise the conclusion and signing of the DEFA, possibly before 2025. Develop an action plan for the DEFA to ensure effective implementation and progress towards digital integration goals.

**Strengthen the ACCED:** Expand the scope of ACCED to include financial inclusion and digital inclusion issues. Strengthen coordination capacity and include more cross-cutting issues to streamline implementation and optimise resource allocation. The significant surge in the 2020-2021 framework document within ASEAN was evidently excessive, prompting the suggestion that the ACCED should similarly summarise existing initiatives proficiently and craft a new framework document for the post-2025 era.

**Redefine the DIFAP:** Consolidate and optimise current initiatives across the five framework documents to ensure effective coordination and progress. This could be done through a workplan for the above-mentioned DEFA.

**Update the ASEAN Digital Integration Index (ADII) surveys:** Conduct regular ADII surveys to monitor the status of digital integration and identify gaps. Supplement outcome-based surveys such as the ADII with output-based surveys to assess the status of legal and institutional arrangements in each Member State.

**Recognise the importance of data in the digital economy:** Address data-related challenges such as data innovation, open government data, data localisation, data protection and cybersecurity. Balance data protection with data use to take advantage of opportunities in the data-driven world.

**Continue to develop ASEAN's digital infrastructure:** Support the growth of the digital economy by addressing disparities in digital infrastructure, including broadband speed and cost issues. Promote technical and market competition to achieve universal service and last mile connectivity.

**Carry out regular consultations with users:** Engage with users, including MSMEs, digital start-ups and consumers, through regular consultations to incorporate their perspectives into digital inclusion policies. This will help design responsive policies and build legitimacy and trust in the policy-making process.

**Develop a communication strategy:** Raise awareness of the benefits of digital inclusion amongst businesses and citizens through a comprehensive communication strategy. Highlight how digital integration efforts have positively impacted real businesses and people's lives. Communicate ASEAN's progress in digital integration to dialogue partners and the world, highlighting the region's strengths and the need for cooperation.