

Study on the ASEAN Digital Economy Framework Agreement (DEFA)

8 November 2024

Public Version 2.0

A Study prepared by the Boston Consulting Group, and supported by the Australian Government through the Australia for ASEAN Futures Economic and Connectivity

Outline

Defining digital economy Guiding Principles Exploring the DEFA Study

Value@Stake: Why digital economy matters Learnings from global agreements Starting points and capabilities of member states Learnings from engagements DEFA policy recommendatiions

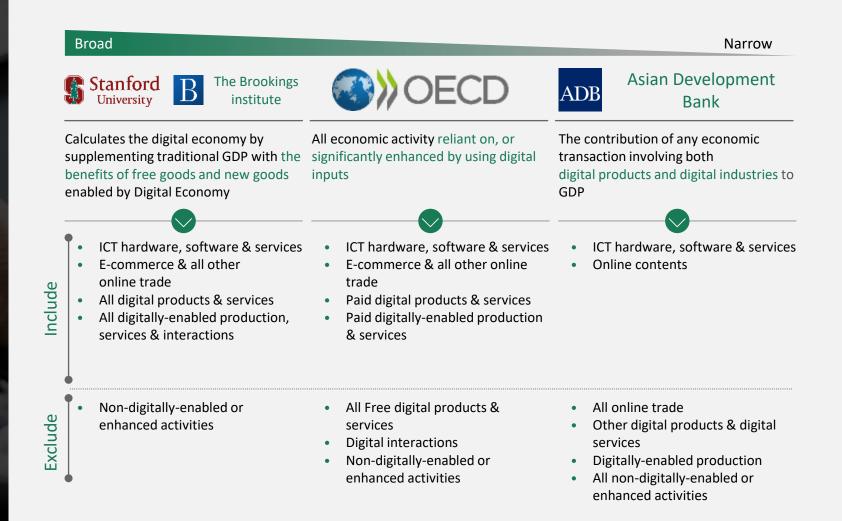
Governance and Roles and Responsibilities

Summary



What is digital economy ? How can we describe digital economy and its key elements

International organisations describe 'digital economy' in different ways

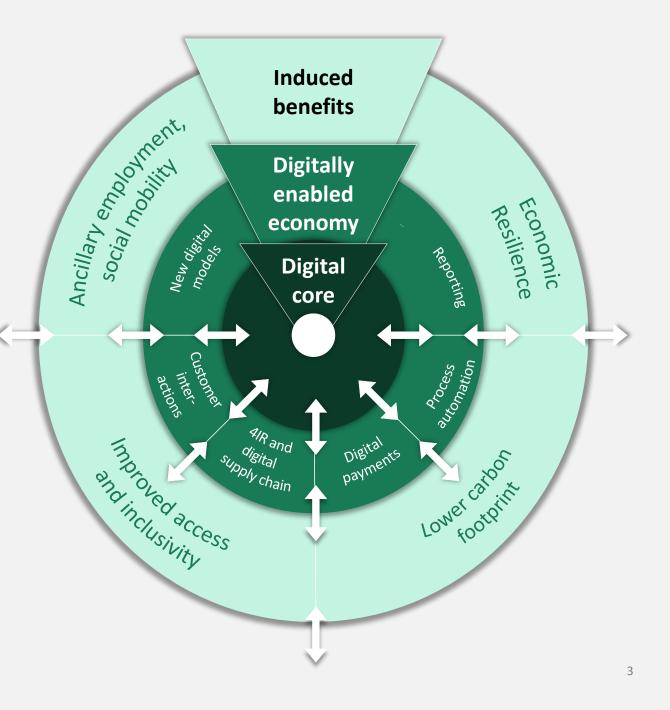


Source: Brookings Institutes' 'How Should We Measure the Digital Economy?'; OECD's Report for the G20 Digital Economy Task Force; ADB 'Capturing the Digital Economy, A proposed framework & its application'

The digital economy ecosystem is interconnected and multilayered, with a multiplier 14 effect on the broader economy.

65

55.01



A broader view can help us understand the full potential of digital economy

Digital

core

Digitally enabled

economy

Induced

benefits

The digital economy should align with global understanding, while emphasizing the region's unique characteristics and aspirations generated by (1) digital core sectors, (2) digitally-enabled economy, and (3) induced benefits.

Uplift from core digital sectors i.e., hardware, software & services in telecommunications, information technology, emerging technologies, data and AI, DeepTech, and operational technologies

Uplift from digitalisation across other sectors from new digital business models e.g., e-commerce, fintech, agritech and end to end digital use cases i.e., digital customer interactions, payments, operations

Non-economic activities and secondary benefits reliant on or significantly enhanced by digital e.g., social mobility, lower carbon footprint, improved resilience



Guiding principles



Impact first: Target big unlocks and barriers to drive impact, with a focus on bringing tangible impact for businesses and people in the region



Inclusive growth for ASEAN: Focus on growth for all AMS (ASEAN Member States) with participation from businesses and citizens across income, sector, and gender groups



Build on progress made by ASEAN: Complement existing commitments and ongoing efforts

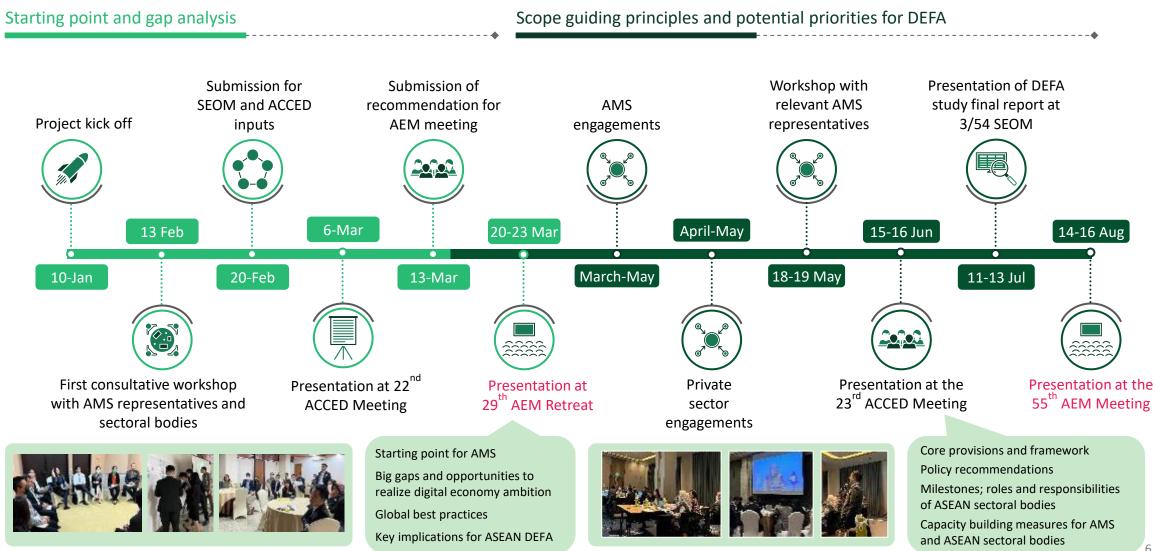


Forward looking: Accommodate the changing digital environment & broader ASEAN ambition

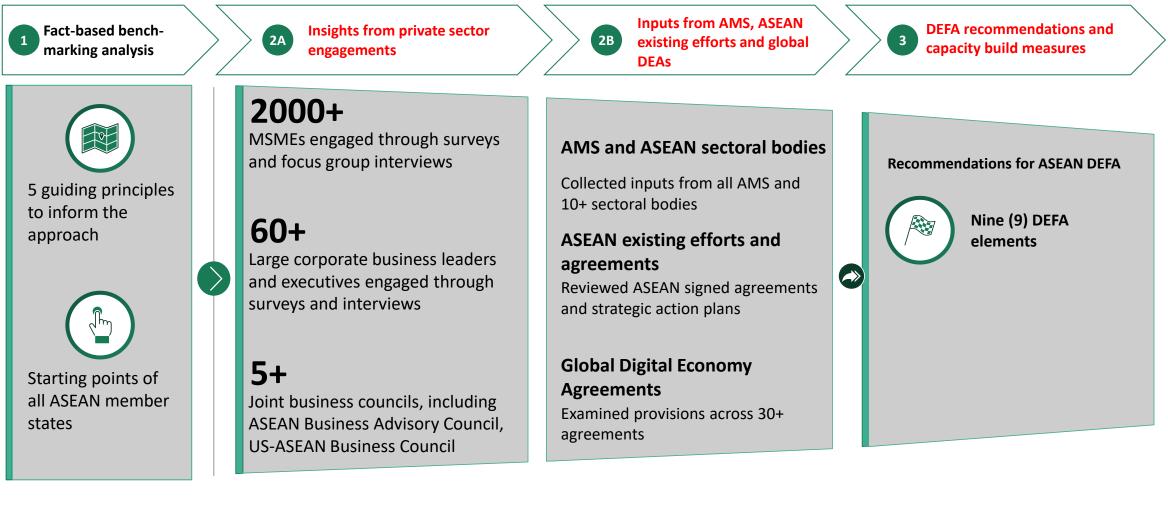


Bring tangible benefits: Bring tangible benefits to businesses and people in the region by operationalizing use cases through concrete

Exploring the DEFA Study: We concluded an 8-month journey to lay the groundwork for the development of ASEAN DEFA



Methodology: We analysed ASEAN efforts, global agreements and engaged AMS & private sector stakeholders to develop the DEFA recommendations



We have engaged ASEAN sectoral bodies, member states, experts and private sector closely to develop and align our recommendations



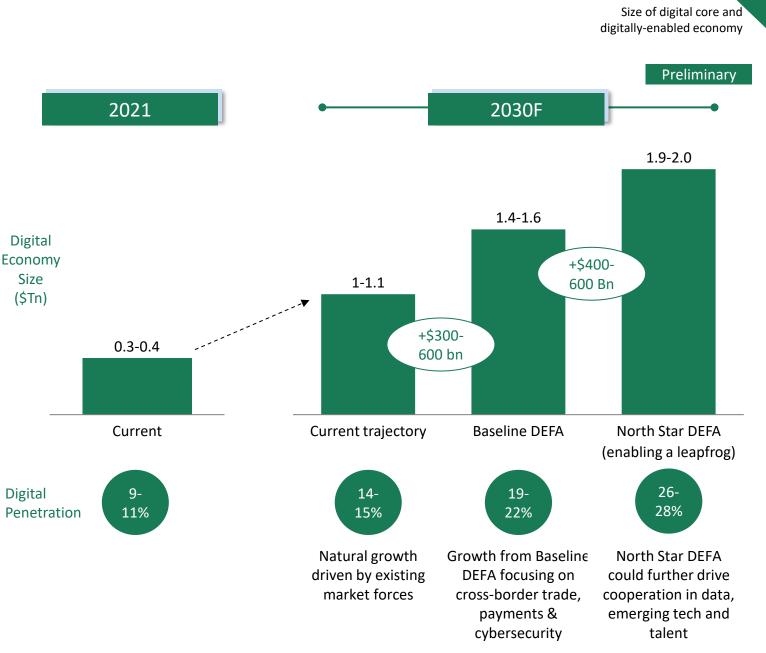




At current trajectory, ASEAN Digital Economy will grow 3X to reach \$1Tn+ by 2030

Forward-lookingDEFAcandoublethevalueofDigitalEconomyto~\$2Tn

DEFAcouldpotentiallyprovidesignificantvalue,multiplyingeachAMS'digitaleconomyby4-7times.



Induced benefits

Massive additional benefits expected through digital economy – not all quantifiable, but highly valuable



Positive climate impact

Estimates show, if brought to scale, digital technologies could potentially create \$12-30 Bn in social cost savings

Improved resilience

Economies with high digital readiness demonstrated better resiliency to crisis such as COVID-19, enabling economic activities, remote work, and better supply-chain management.

Employment and social mobility

Digital adoption is creating new jobs and incomeearning opportunities in rural communities, lifting people out of poverty

Improved access and inclusivity

Digital technology has made it easier for people to access educational resources, access information and more effectively participate in civic life

> Source: WEF, IDC, IMD World Digital Competitiveness Ranking 2021, World bank, Bloomberg, BCG Analysis

Learnings from global agreements



Key factors that have inhibited achieving full potential include unaligned priorities, uneven benefits, capability gaps, unaddressed technical barriers and long lead times for agreements



To unlock full potential, ASEAN needs to maintain a value-focused and inclusive dialog that engages public and private stakeholders throughout the process



Importance of Digital economy agreements (DEAs) has increased over the last few years, effectively supplementing FTAs

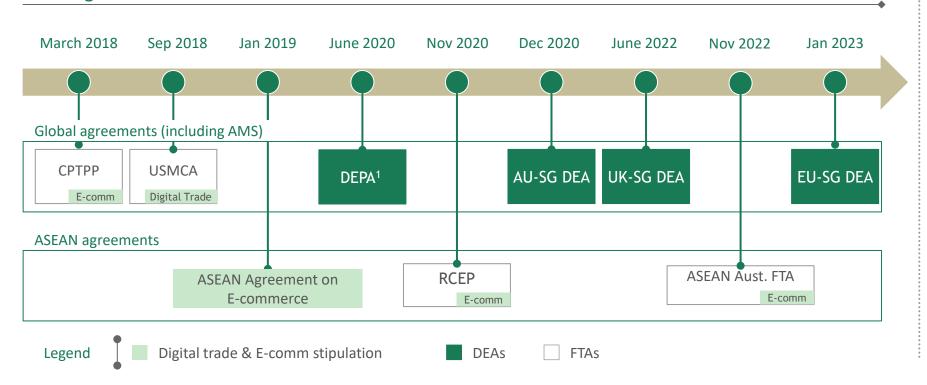


DEAs prioritize big unlocks & enablers that can drive impact at scale

- a. Most existing agreements have made progress on digital trade & ecommerce, cybersecurity and digital authentication unlocking significant value.
- b. Benchmarks show that leapfrogs can be made by emerging markets in digital realm e.g., India stack
- c. Limited success in collaboration in areas like talent mobility due to the political sensitivities. However, selected bilateral agreements such as AANZFTA & EU UK TCA have addressed them well.
- d. Agreements lag in collaboration of several sub-topics of data privacy & emerging topics like AI due to a lack of full understanding by governments on how to govern these new areas

Digital agreements are increasingly adopted to help countries keep up with the rapidly evolving digital environment

Digital Agreements focus on digital topics, which in the past were addressed as part of broader trade agreements...



...supplementing existing FTAs which have a broader scope

1. DEPA is not framed as a Digital Economy Agreement but was the pioneer effort in creating a digital-focused agreement Source: Centre For Strategic & International Studies; SMU Economics Intelligence Club; Peterson Institute For International Economics

To unlock full potential of our DEFA, few learnings for ASEAN member states





Value needs to drive the discussion

Digital agreements cover a vast range of fast developing topics. To develop a DEFA that is impactful and timely, AMS should look to prioritize areas of high real and intrinsic value

Identify the gaps and develop common solutions

With diverse socioeconomic structures, digital readiness levels, and national priorities in ASEAN, AMS may have different national concerns on digital topics. DEFA discussion should seek to understand those concerns and find common means to come to an agreement. Existing gaps could be address through various means including capacity building

Capacity building is a key element to bridge the capability gap and ensure that all AMS can fully benefit from DEFA. Depending upon each AMS's digital readiness in each area, certain capacity building measures may be completed prior to the signing of DEFA while

Align on capacity building timeline

others may be completed after





(\$



Explore and adopt best practices where applicable and build on what came before

ASEAN can borrow from global best practices in areas that are already well developed, thereby enabling the faster development of DEFA. In addition, it should consider what

was done through other agreements within ASEAN and build upon these prior initiatives,

ASEAN DEFA needs to maintain flexibility to consider areas that ASEAN could not reach consensus or need more time for adjusting domestic regulations and laws, considering the varied development levels

Focus on outcome rather than specifics

DEFA should not be prescriptive (e.g., citing specific solutions, technologies, or standards), but rather rely on international rules or frameworks to achieve the desired outcomes



Starting points and capacities of Member States

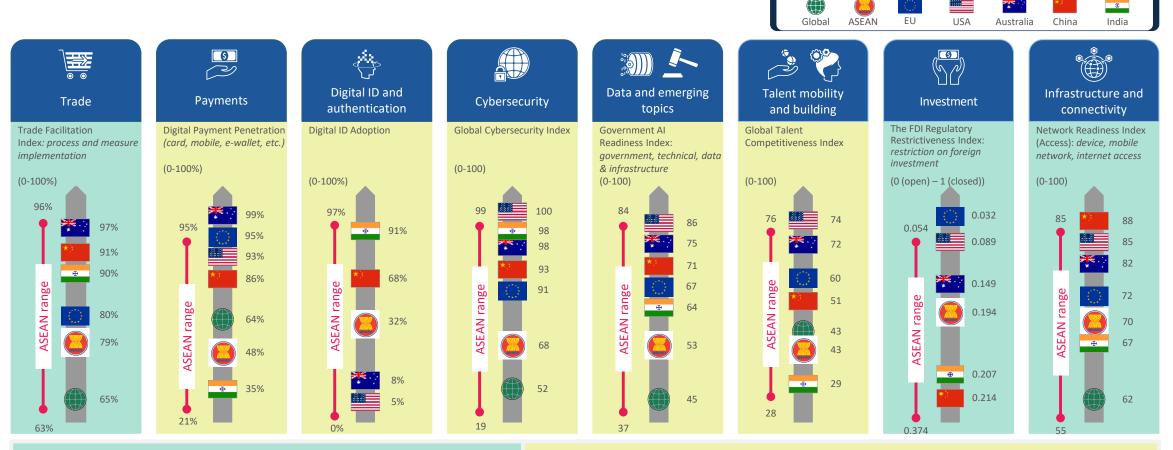


ASEAN outperforms global average in many areas related to digital economy but lags behind, in areas such as payments, talent and digital ID.

• Significant range of readiness seen within ASEAN must be considered to ensure inclusive development

2 AMS have different starting points, an essential fact to consider while aligning on common ground and building for the future

ASEAN outperforms global average in many categories, and can go from "good" to "great" by learning from best-in-class digital economies



Where ASEAN is doing good: digital trade (transition to paperless trade), infrastructure and connectivity (high mobile coverage and growing broadband coverage), investment (relatively not restrictive) Where ASEAN can push: digital ID (strengthening trust and increase use cases), digital payments (improving financial inclusion in rural area), cybersecurity (enhancing legal and technical infrastructure), Data privacy and consumer protection and cooperation on emerging topics (strengthening technology sector and data infrastructure and governance), talent mobility and building (growing talents and supporting facilities)

Source: UNCTAD Trade facilitation Index; Oxford Insights; VISA consumer Payment Attitudes; ITU Global Security Index; Open Signal; Omdia; Global Talent Competitiveness Index INSEAD 2022; World Bank; OECD 15 Note: Government AI Readiness Index includes elements of data infrastructure, availability as well as government adaptability

We benchmarked AMS with large economies and global average on selected core provisions and national capability builders (1/2)

Pillar		Parameter	Publication	Dimensions covered
	Trade (digital trade & e- commerce)	Trade Facilitation Index	UN Global Survey on Digital and Sustainable Trade	 Paperless trade Cross-border paperless trade Institutional Arrangement and Cooperation Formality Transparency
<u> </u>		UNCITRAL model laws adoption	United Nations Commission on International Trade Law (UNCITRAL)	 Model Law on Electronic Transactions Model Law on Electronic Signature Model Law on Electronic Transferable Records Model Law on International Commerce Arbitration
		Availability and use case of Digital ID	Availability of Digital ID	Progress of digital ID implementation
	Digital ID and authentica-tion	Usage of digital ID	Government sources Visa: Consumer Payment Attitude	Level of usage of digital ID
- at		% of population with national ID	World Bank: Identification for Development	• Proportion of people with national ID card (% age 15+)
S		Digital payment adoption	World Bank: Global Findex Database	% of population made or received digital payment
Payment	Payment	Availability and adherence to international standard of financial system	Central bank sources	 ISO20022 adoption in Retail Payment Systems ISO20022 adoption in Large Value Payment System Availability of instant fund transfer platform by the government
	Cybersecu-rity	Global Cybersecurity Index	ITU Global Cybersecurity Index, 2020	 Legal measures Technical measures Organizational measures Capacity development Cooperation

We benchmarked AMS with large economies and global average on selected core provisions and national capability builders (2/2)

Pillar	Parameter	Publication	Dimensions covered
Emerging - Tech	Government Al Readiness Index	Oxford Insights	 Government pillar: vision, government, digital capacity, adaptability Technology sector: maturity, innovation capacity, human capital Data and infrastructure pillar: infrastructure, data availability, data representativeness
Talent building and mobility	Global Talent Competitiveness Index	INSEAD: The Global Talent Competitivenes Index 2022	 Talent competitiveness inputs: policies, resources, efforts that a country harness to foster its talent competitiveness Talent competitiveness outputs: quality of talent in the country resulting from the policies, resources and effort
 Infra and connectivity 	Network Readiness Index: Access	Index from Oxford Insights Data source from ITU	 Mobile tariff Handset prices Internet access Population covered by at least a 3G mobile network International Internet bandwidth Internet access in schools
Investment	FDI Regulatory Restrictiveness Index	OECD	 Restrictions on foreign direct investment: Foreign equity limitations Screening or approval mechanisms Restrictions on the employment of foreigners as key personnel Operational restrictions, e.g., restrictions on branching and on capital repatriation or on land ownership

Learnings from Engagements

Based on consolidated inputs from AMS, sectoral bodies and private sector engagement

DEFA Core Provision	Imperatives for AMS and private sector	AMS	MSME	Large corp.
Digital trade	Simplify and enhance predictability through Single Window and trade platform, straight-through processing			
Cross-border e-commerce	Improve transparency and speed of customs and logistics at lower cost	\checkmark		
Payments	Simplify regulations and develop trusted, efficient payment networks			
Digital ID and authentication	Establish legal validity and drive interoperability			
Online safety and cybersecurity	Establish standardised regulations and procedures for better security and easier operating compliance	\checkmark		\checkmark
Data protection and privacy	Reduce fragmentation and restrictions in regulations to enable business expansion and value generation	\checkmark	\checkmark	\checkmark
Cooperation on emerging topics	Regulation and cooperation in AI (e.g. reduce harmful use of Gen AI) and other emerging tech based on international best practice	V		\checkmark
Competition policy	Ensure a level playing field for all businesses through competition policy			
Talent mobility and cooperation	Expedite mobility of scarce, critical talent and promote permeability to balance labour-vacancy gaps	V		

AMS have shared the gaps faced in various topics, ASEAN current effort and their DEFA imperatives for each topic (I/II)

Торіс	Gaps faced in transitioning to digital economy	Current effort by ASEAN and AMS		DEFA imperatives
1	Trade infrastructure not end-to- end or not interconnected as	• ASEAN Single Window to connect all ASEAN national single windows for G2G exchange	•	Paperless trade with end-to-end connected trade platform supported by streamlined customs process
Digital Trade: Trade Facilitation,	needed for completely paperless operations	 ASEAN Digital Trade Standards Roadmap by DTSCWG (on-going) 	0 0 0 0 0 0 0 0 0 0 0 0 0 0	Trade standards alignment to promote interoperability
Standards	Different legal framework or requirements existing in ASEAN countries	Discussion on UNCITRAL model law adoption with support from dialogue partner		Regulation standardization through adoption of UNCITRAL model law
2	Different payment standards complicates cross-border transfer	• Implementing Policy Guidelines (IPG) of the ASEAN Payments Policy Framework		Payment system standards to establish integrated real time payments system across ASEAN
Payment and Inclusion	Different digital payment regulation and requirement	for Cross-Border Real-Time Retail Payments		E-payment regulation and requirement standardization
to be	MSME and unbanked has low access to finance	ASEAN Institutional Framework on Access to Finance for MSME	* * * * * * * * *	Digital ID as an instrument to help authentication and enhance financial inclusion
3 Competition policy	A comprehensive competition policy across AMS to ensure open and fair market access	 ASEAN Investigation Manual on CPL for the Digital Economy ASEAN Framework Agreement on Competition (AFAC) (on-going negotiation) 	•	Fair competition policy in digital economy context to protect consumers and businesses and ensure fair playing field

Legal gap

19

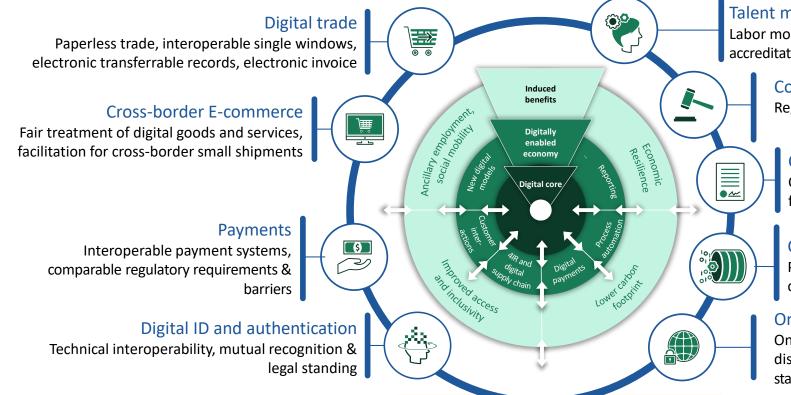
AMS have shared the gaps faced in various topics, ASEAN current effort and their DEFA imperatives for each topic (II/II)

Торіс	Gaps faced in transitioning to digital economy	Current effort by ASEAN and AMS	•	DEFA imperatives
4	Restrictive regulations on data sharing and transfer hinder trade	 Model Contractual Clauses for Cross-border Data Flows ASEAN Data Management Framework 	* • • • • • • • • • • •	More open and aligned cross-border data sharing regulation/practice that allows for sufficient data flow while protecting sensitive data
Data protection and cyber	No single accreditation body for standards; different standards used	ASEAN Cybersecurity Standards Roadmap by DTSCWG (on-going)	• • • • • • • • • • • • • • • • • • • •	Streamlined policy and standards coordination: Align standards for better clarity and predictability for businesses
security	Gap between AMS in cybersecurity; regional effort to bridge the gap	 Regional CERT (on-going) ASEAN CIIP Framework 		One ASEAN, One Response: ASEAN regional coordination in cybersecurity (one ASEAN against external threats)
	MSMEs' limited awareness and understanding of cybersecurity	ASEAN SME Academy offering online courses to MSMEs		Capacity building program for MSMEs
5	Talent scarcity and limited	Collaboration with Google	• • • • • • • • • • • • • • • • • • • •	Talent mobility and temporary movement of people in selected skill areas within ASEAN
Talent	resource to provide talent development and upskilling	on talent building	• • • • •	Talent cooperation mechanisms (eg: accreditation, common recognition)
6 Cooperation on emergingtopics	Collaboration to help facilitate innovation across ASEAN	 ASEAN Guide on AI Governance and Ethics Blockchain for Digital Government –the ASEAN Way 	•	Regional collaboration on emerging topics (AI, blockchain) on key areas such as innovation, governance

Technical gap

Nine (9) core DEFA elements endorsed without prejudice through various engagements

Core DEFA provisions



AMS National Capability Builds

National level focus areas to achieve DEFA impact

National investment and innovation Investment in technology and talent in AI, fintech and blockchain technology

Talent mobility and cooperation

Labor mobility for digital talent & entrepreneurs, accreditations, cooperation on technical skills

Cooperation on emerging topics

Regulating emerging technology (e.g., AI, blockchain)

Competition policy

Cooperation on competition policy to ensure fair playing field

Cross-border data flows and data protections

Personal data protections, common data classifications, source code, cross-border data flows

Online safety and cybersecurity

Online consumer protection, fraud protection, online dispute resolution, Alignment on cybersecurity standards and protections, cross-border cooperation

Infrastructure and connectivity

Network infrastructure accessibility and affordability, user device standards and regulation

Talent building Re-skilling, up-skilling and lifelong learning support, accreditation

Digital trade: Overview of current efforts and sub provision recommendations

DEFA vision	Торіс	Sub provision
臺藝 Digital trade		
	Electronic documents	Maintain existing effort
	Trade standards	 Adoption of digital trade standards and interoperability measures
Seamless, secure and transparent cross-border trade empowered by technology through interoperability	Legal recognition	 Adoption of a legal framework consistent with UNCITRAL Model Law on Electronic Transferrable Records
and harmonized standards	Electronic Invoice	 Adoption of standards and interoperability measures for e-invoicing
		 Cross-border legal recognition of e-invoice
	Document or data exchange platform	• B2B, B2G, G2G exchange platform

Cross-border E-commerce: Overview of current efforts and sub provision recommendations

DEFA vision	Торіс	Sub provision
Cross-border E-commerce		
	Custom procedure for low value shipment	 Simplified customs procedures to include pre-arrival processing and risk assessment of cross-border e-commerce shipments, and procedures for immediate release of low-risk shipments on arrival or departure
Cross-border e-commerce transactions facilitated by simplified customs procedures	Customs duties on digital goods	 Not impose custom duties on electronic transmissions
	Treatment of digital goods	 Non-discriminatory treatment of foreign digital products whose safety is verified

Payments: Overview of current efforts and sub provision recommendations

DEFA objectives	Торіс	Sub provision
Payments		
	Payment system standards and interoperability measures	 Adhere to international standards
Interoperable, secure & reliable, inclusive & accessible, multicurrency payment system	Open architecture support	 Open architecture support for domestic digital payment systems
multicurrency payment system adhering to international standards with real time settlement	Legal framework on security and safety standard of digital payment	 Ensure safety, efficiency, trust and security in electronic payment systems through regulation (implementation to be proportionate to and commensurate with the risks posed by the electronic payment systems)

Digital ID: Overview of current efforts and sub provision recommendations

DEFA vision	Торіс	Sub provision
🐡 Digital ID and E-Signature		
	Digital ID standards and	 DID system compliance with international technical standards and interoperability measures for corporate digital ID
	interoperability	 DID system compliance with international technical standards and interoperability measures for individual digital ID
	Digital ID legal recognition	 Legal recognition of digital ID cross-country for corporate digital ID
Secure, interoperable digital		 Legal recognition of digital ID cross-country for individual digital ID
ID across ASEAN, which is easy to use	Digital ID data security and privacy	Digital ID system compliance with international safety standards for corporate digital ID
		Digital ID system compliance with international safety standards for individual digital ID
	Digital ID use cases	 Implement use cases for digital ID across private sector (including financial, trade, etc.)
	Electronic Signature	Maintain existing effort

Online safety and cybersecurity: Overview of current efforts and sub provision recommendations

DEFA vision	Торіс	Sub provision
Online safety and cybersecurity		
	Policy & Logal framowork	 Enhance legal framework for cybersecurity to international standards
	Policy & Legal framework for cybersecurity	 Harmonize legal framework for cybersecurity (common definitions, protection standards)
Secure, trusted, resilient	•	 Enhance cooperation and knowledge sharing in cybersecurity
environment (for consumers, businesses, govt.) with dispute	Cybersecurity collaboration	 Establishment of in-country sector specific CERTs/CIRTs
resolution mechanism and with a strong and aligned	Legal framework for online consumer protection	Promote establishment of ASEAN ODR network
cybersecurity framework	Enforcement mechanism for online consumer protection	 Enhance legal framework for online consumer protection to international standards
	Public awareness and trust building	Maintain existing effort

Cross-border data flows and data protections : Overview of current efforts and sub provision recommendations

DEFA vision	Торіс	Sub provision
Cross-border data flows and data prote	ctions	
		• Allow free flow of commercial data (e.g., transaction data, payments data, business data)
	Cross-border data transfer	 Allow free flow of information, if equivalent data protection standards are followed, except for legitimate public policy objectives
Free flow of non-sensitive	Data localization requirement	 Not require storing data locally, except for legitimate public policy objectives
data with no localization, except for legitimate public policy objectives	Legal framework on personal data collection	 Enhance personal data protection and handling legal framework to common international standards (e.g., ASEAN Framework on Personal Data)
	& protection	 Align data protection and handling across markets (common definitions, protection standards)
	Source code	 Not require access to source code except for regulatory or judicial investigations

Cooperation on emerging topics: Overview of current efforts and sub provision recommendations

DEFA vision	Торіс	Sub provision
Emerging topics		
	Ethical and governance	 Implementation of ethical and governance framework based on international principles
Maximising innovation while mitigating risks using a clear	framework	 Alignment on approach towards governance and standards for AI
and structured approach	Cooperation on emerging topic	 Cooperation on AI and new innovation regulation (e.g., regulatory cooperation committee)

Competition policy: Overview of current efforts and sub provision recommendations

DEFA vision	Торіс	Sub provision
Competition Policy		
Create a fair/non- discriminatory, transparent and competitive environment with consistent guidelines on enforcement and better choice for consumers	Competition policy for digital economy	 Internalization of competition policy in digital economy related policies, regulations and legal framework
	Laws governing large platform players	 Enactment of laws to ensure fair and open digital market access for large platform players (digital gatekeepers)
	Collaboration of regional competition policy	 Enforcement of cooperation on cross-border competition cases in the digital economy
		• Enforcement of coordination on cross-border competition cases in the digital economy

Talent mobility and cooperation: Overview of current efforts and sub provision recommendations

DEFA vision	Торіс	Sub provision
Talent Mobility and Cooperation		
Flexible movement of digital talent with close collaboration on talent building and mutual qualification recognition	Talent mobility	 Preferential support for mobility of specific coveted digital talent types across ASEAN
		 Preferential support for mobility of digital entrepreneurs & investors
		 Free flow of digital talent; subject to national security restrictions
		 Streamlined, electronic and trackable application
	Talent building	 Cooperation on talent building including sharing of best practice, training programs
	Mutual qualification recognition	 Mutual qualification recognition for specific digital roles
	Mutual qualification	sharing of best practice, training programMutual qualification recognition for



Key takeaways for DEFA development



Compelling case for Digital ID adoption, given 3 – 6% GDP value impact through potential implementation of digitized systems, digital ID authentication & private sector's adoption



Talent will be a key driving force for ASEAN's digital and overall economy development; mobility and internal capacity building are key to address current gap



Untapped opportunities for AMS to further drive trade contribution through digital trade and facilitate new cross-border opportunities such as e-commerce



Digital payments unlocks important GDP uplifts, enables cross-border trade & narrows inequality gap. All AMS need further push on provincial adoption and cross-border integration



Massive potential cost savings potential from Cybersecurity. Opportunities lie in the development of clear cybersecurity legislation, network partnership & intra-government coordination



Infrastructure needs to catch up for some nations, but Vietnam, Thailand, Indonesia and Malaysia can help raise the bar

DEFA needs to be evolving as ASEAN's digital ambitions and frictions will evolve with time The following are the key potential changes in ASEAN's digital economy



New tech and disruptive forces



Evolving private sector needs



Variations in country status As new technology emerges, policies and standards need to be updated.

- As ASEAN transitions through its development path, private sector's needs for DEFA will evolve
- DEFA needs to consider governance mechanisms to constantly engage the private sector and continually update the existing agreement to support these changes.
- DEFA needs to accommodate staggered timelines/commitments by the AMS from varied starting positions of the AMS
- Mechanisms to accommodate these variations and manage countries transitioning to higher levels of commitment will need to be considered

There are number of ways previous agreements have ensured flexibility **Tiered commitments** allow member countries to have strong commitments for certain provisions (core provisions), while agreeing to cooperate on certain areas on a best effort basis. This allows countries to cooperate on topics without firm consensus, while setting the stage for stronger commitment in future

Differentiation in the obligations and commitments allow member countries to make commitments based on their readiness levels, providing them sufficient time to prepare for the implementation of the commitments.

Periodic review provisions allow parties to identify areas where amendments to update agreements as necessary. Mechanisms such as joint committees, working groups, or other bodies are usually used to review and update the agreement.

Use of forward looking provisions allow agreements to stay ahead of rapid evolution of emerging topics. This can be done by the usage of outcome and principles based language within the DEFA.

E.g., Competition policy in DEPA shows different levels of commitments on various sub-provisions

E.g., RCEP chapter 12 allows longer timelines for some countries to implement some provisions

E.g., CPTPP has provisions to review of the agreement every five years through the CPTPP commission

E.g., UK-SG DEA has provision to use risk-based approaches for AI regulation, instead of a specific method to regulate





Next Steps:

The importance of the digital economy has increased tremendously as the technology advances and digital adoption increases.

Through DEFA, ASEAN will be able to unlock the full benefits of digital transformation to improve the productivity and the lives of the people and eventually boost the ASEAN economic growth.



ASEAN will be able to leverage the benefits of regional complementarity, promote economic growth and drive opportunities for a more inclusive and safer digital economy.

Negotiation between ASEAN Member States formally begin in December 2023, with the target to conclude negotiations by the end of 2025.





THANK YOU



ONE VISION, ONE IDENTITY, ONE COMMUNITY



