

FY2022 Budget: “Support Project for Participation in Reliable Supply Chains among Volunteer Countries”
A Social Implementation Promotion Project for Electronic Trade Transaction System

Final Report

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March 2024



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Abbreviations

Item	Formal name
ABAC	APEC Business Advisory Council
ACDD	ASEAN Customs Declaration Document
ACTFA	ASEAN China Free Trade Agreement
ACIA	ASEAN Comprehensive Investment Agreement
ACRF	ASEAN Comprehensive Recovery Framework
ACTS	ASEAN Customs Transit System
ADB	Asian Development Bank
AEC	ASEAN Economic Community
AEM	ASEAN Economic Ministers
AFTA	ASEAN Free Trade Area
AJCEP	ASEAN Japan Comprehensive Economic Partnership
AMEN	ASEAN Mentorship for Entrepreneurs Network
APEC	Asia Pacific Economic Cooperation
APSC	ASEAN Political Security Community
ASCC	ASEAN Socio Cultural Community
ASEAN	Association of Southeast Asian Nations
ASEAN PDP	ASEAN Personal Data Protection
ASEAN-BAC	ASEAN Business Advisory Council

Abbreviations

Item	Formal name
ASW	ASEAN Single Window
ASYCUDA	Automated System for Customs Data
ATFF	ASEAN Trade Facilitation Network
ATIGA	ASEAN Trade in Goods Agreement
ATISA	ASEAN Trade in Services Agreement
AWSC	ASEAN Wide Self-Certification
B/L	Bill of Lading
CBNI	Capacity Building Needs Initiative
CBPR	Cross-Border Privacy Rules
CEPT	Common Effective Preferential Tariff
CPTPP	Comprehensive and Progressive Agreement for Trans-Pacific Partnership
CSAP	Consolidated Strategic Action Plan
DEFA	Digital Economy Framework Agreement
DTSCWG	Digital Trade Standards and Commerce Working Group
e-ah	Electronic Animal Health
EDI	Electronic Data Interchange
e-fs	Electronic Food Safety
EPA	Economic Partnership Agreement

Abbreviations

Item	Formal name
ePhyto	Electronic Phytosanitary Certificate
ERIA	Economic Research Institute for ASEAN and East Asia
ESCAP	Economic and Social Commission for Asia and the Pacific
ETDA	Electronic Transactions Development Agency
FIATA	International Federation of Freight Forwarders Associations
FJCCIA	Federation of Japanese Chambers of Commerce and Industry in ASEAN
FTA	Free Trade Agreement
FTAAP	Free Trade Area of the Asia-Pacific
ICC	International Chamber of Commerce
IMDA	Infocomn Media Development Authority
IMF	International Monetary Fund
JAIF	Japan-ASEAN Integration Fund
JETRO	Japan External Trade Organization
KTDDE	Key Trade Documents and Data Elements
L/C	Letter of Credit
LPCO	Licenses, Permits, Certificates, and Others
LPI	Logistics Performance Index

Abbreviations

Item	Formal name
MLETR	The Model Law on Electronic Transferable Records
MPAC	Master Plan on ASEAN Connectivity
MSME	Micro, Small and Medium Enterprises
MTR	Mid-Term Review
NDTP	National Digital Trade Platform
NSW	National Single Window
NTP	Networked Trade Platform
NTR	National Trade Repository
OECD	Organisation for Economic Co-operation and Development
PAA	The Pan-Asian E-Commerce Alliance
PPP	Public-Private Partnership
RCEP	Regional Comprehensive Economic Partnership
SME	Small Medium Enterprise
TFA	Trade Facilitation Agreement
TFI	Trade Facilitation Indicators
UN/CEFACT	United Nations Centre for Trade Facilitation and Electronic Business

Abbreviations

Item	Formal name
UNCITRAL	United Nations Commission on International Trade Law
UNCTAD	United Nations Conference on Trade and Development
UNECE	United Nations Economic Commission for Europe
UNESCAP	UNESCAP: United Nations Economic and Social Commission for Asia and the Pacific
WG	Working Group
WTO	World Trade Organization

Survey Policy

- 1.1 Background and Objectives
- 1.2 Survey Schedule
- 1.3 Overall Survey Policy
- 1.4 Scope of Survey

1. Survey Policy

1.1 Background and Objectives

- This study examines the deployment potential of digital trade platforms from technical, economic, and policy perspectives for the purpose of making policy recommendations to accelerate the social implementation of an ASEAN-wide digital trade platform.
- Analyze the current status of the 10 ASEAN countries in the light of international trends (①, ②)
- Based on an estimation of market size and social benefits, analyze impacts through policy measures and consider final policy recommendations based on the results of an analysis of the current situation in the 10 ASEAN countries (③, ④)

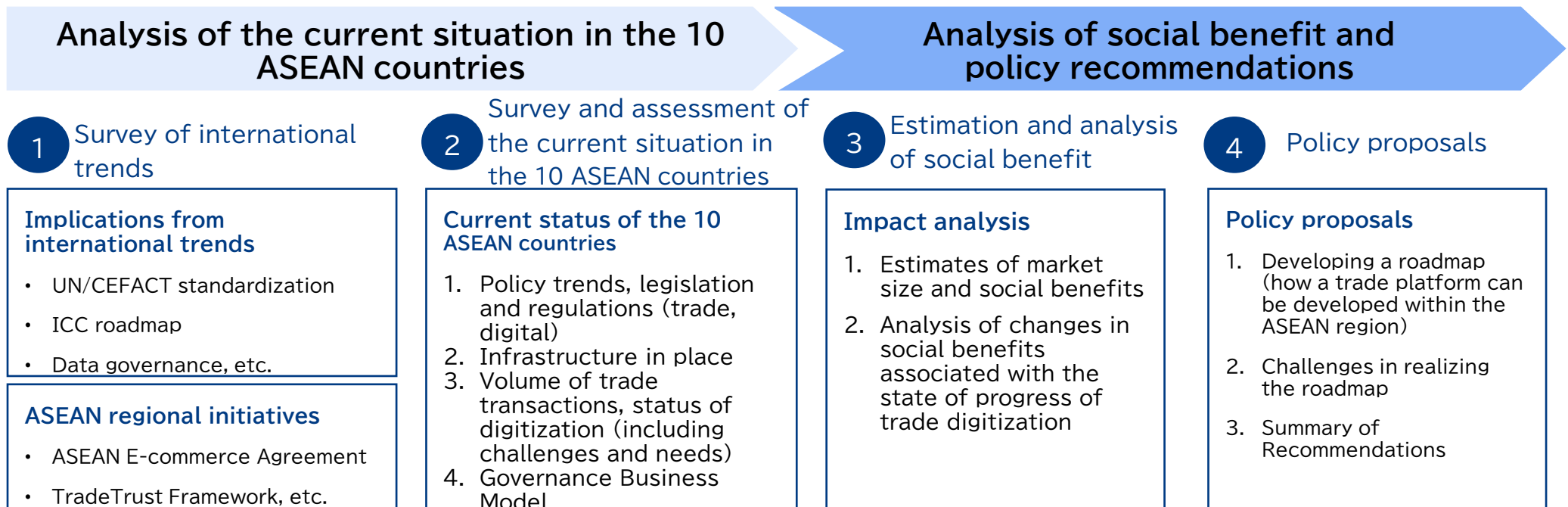


Figure . Process of the survey

Source: Mitsubishi Research Institute, Inc.

1. Survey Policy

1.2 Survey Schedule (1)

- This survey was conducted in advance of the ASEAN-Japan Economic Ministerial Meeting in August and the ASEAN-Japan Economic Co-creation Forum as major milestones. We proceeded with a process for building and testing hypotheses through a combination of desktop surveys and online interviews.
- We had discussions with government officials from Thailand and Indonesia, ASEAN-BAC, and others, and an interim report was developed. Based on the interim report, a draft ASEAN roadmap for trade digitization was developed and discussed with ASEAN-BAC officials.



1. Survey Policy

1.2 Survey Schedule (2)

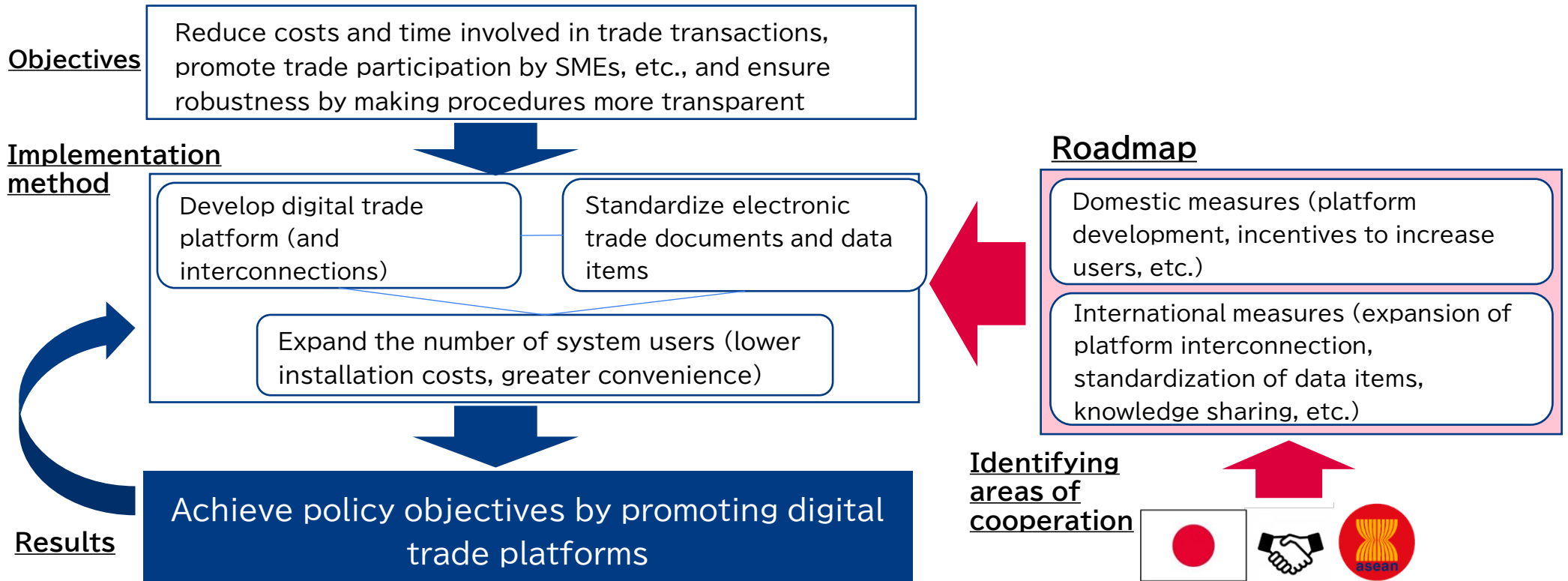
- The survey schedule is shown in the table below.

Schedule	2023								2024	
	5	6	7	8	9	10	11	12	1	
Major milestones				5th (8/11) ▲ AEM- METI					▲ ASEAN-Japan Economic Co- creation forum	
1. Survey plan and design (including initial hypothesis)	→									
2. Survey of international trends										
2-1. Survey of international trends	→	→	→	→	→	→	→	→	→	→
2-2. Survey within the ASEAN region	→	→	→	→	→	→	→	→	→	→
3. Survey of 10 ASEAN countries										
3-1. Infrastructure survey	→	→	→	→						
3-2. Legal system survey	→	→	→	→						
3-3. Market survey	→	→	→	→	→	→	→	→		
3-4. Online interview			→	→		→	→	→	→	
3-5. Interviews and meetings on overseas travel (overseas travel)			→	→	→	→	→	→	→	→
4. Analysis of social benefits		→	→	→	→	→	→	→		
5. Policy recommendations			→	→				→	→	
6. Report preparation										
6-1. Report preparation (Interim report)			→	→	→	→	→	→	→	→
6-2. Report preparation (Final report)									→	→

1. Survey Policy

1.3 Overall Survey Policy

- Developing a digital trade platform will not only reduce the cost and time involved in trade transactions, but consequently encourage the participation of SMEs and others in trade and ensure the resilience of the supply chain by making procedures more transparent.
- We develop a roadmap for achieving domestic and international measures, and identify areas of cooperation between ASEAN and Japan.

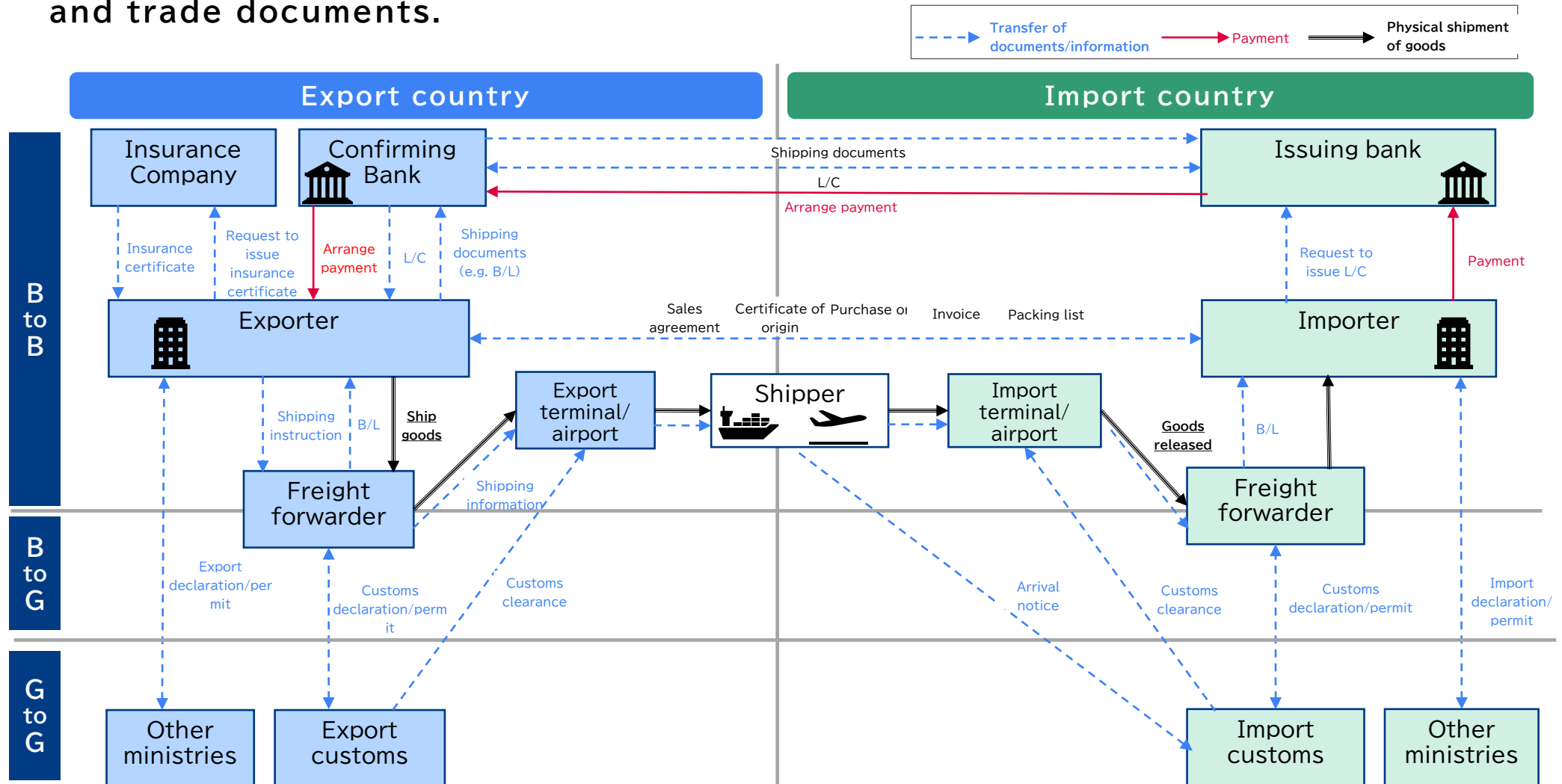


Source: Mitsubishi Research Institute, Inc.

1. Survey Policy

1.4 Scope of Survey (1)

- The project covers GtoG and BtoG, as well as BtoB trade procedures and trade documents.



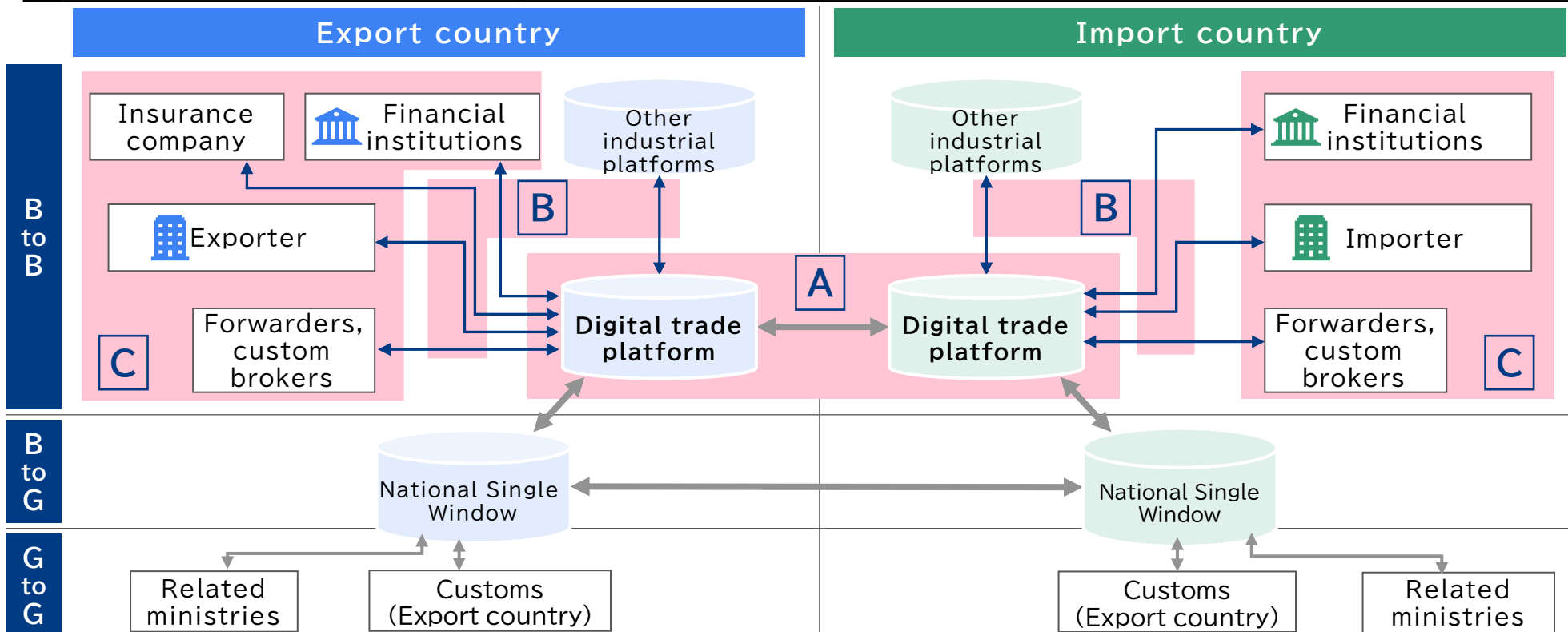
Source: Mitsubishi Research Institute, Inc.

1. Survey Policy

1.4 Scope of Survey (2)

- The following three approaches should be considered and implemented simultaneously to achieve the digitalization of trade procedures.

A	Establish and connect platforms	Establish digital trade platform and connect with National Single Window and other industry platforms, as well as trade partner's platform
B	Digitalize and standardize	Digitalize trade documents and standardize each data item in trade documents
C	User acquisition	Expand the user base and increase transaction volume on digital trade platforms



Source: Mitsubishi Research Institute, Inc.

International Trends, Trends in ASEAN, etc.

- 2.1 International Trends
- 2.2 ASEAN Trends
- 2.3 APEC Trends

2. International Trends, Trends in ASEAN, etc.




2.1.1 Legal System (1) ICC Initiatives

- With the adoption of the Digital Trade Principles at the G7 Digital Trade Ministerial Meeting in 2021, activities by countries to develop laws related to trade digitalization are accelerating. In addition, standardization organizations such as the ICC are also stepping up their activities.

Discussion at G7

- G7 in 2022 will recognize UNCITRAL's activities and express support for the dissemination of the Model Law on Electronic Transferable Records (MLETR).
- Revision of the law in accordance with the MLETR is expected to have a significant effect on trade facilitation by digitizing negotiable documents, improving transmission speed and security, reusing data, and automating transactions through smart contracts.
- Other countries are already in the process of revising their national laws to comply with the MLETR. Japan is considering amending the law.

Status of studies in other countries

Country	Progress
Singapore 	New law on electronic transferable records, including electronic B/Ls, took effect in March 2021.
UK 	A revised bill was submitted in October 2022, and The Electronic Trade Documents Act comes into force in September 2023.
Thailand 	Law revision was underway for completion by 2024; in April 2023, the company and the UK jointly prepared a guidance document on law revision.

Source: <https://www.meti.go.jp/press/2022/05/20220512004/20220512004-3.pdf> viewed on 2023/12/26
<https://www.piclub.or.jp/ja/news/37286> , viewed on 2023/12/26

2. International Trends, Trends in ASEAN, etc.

2.1.1 Legal System (1) ICC Initiatives

- The Digital Trade Roadmap v2 released by the ICC outlines step-by-step activities to promote digital trade in the future by three entities: government, ICC, and industry.

Government

Update legal infrastructure	
1	Require all trade documentation to be digital
2	Accept all digital import documentation
3	Promote electronic single window
Simplify bureaucracy	
4	Appoint a single digital champion
5	Support the WTO ecommerce agreement
6	Work with regulators to reduce capital allocation for trade finance
Fulfill trade obligations	
7	Customs bureaucracy
8	Food import safety
9	Data governance

ICC

Prepare for new technologies	
1	Develop and maintain an open set of smart industry contracts and automated rules
2	Choose trade corridors and industries with which to prioritize pilots
Develop rules and standards	
3	Modernize digital rules and standards for traditional trade finance
4	Introduce new digital rules and standards for trade finance
5	Establish in a repository of best practice
6	Build the Digital Standards Initiative
Increase collaboration with non-bank stakeholders	
7	Establish a forum to allow for industry input into ongoing rules discussions

Industry

Participate in digital solutions	
1	Documentation reform
2	Internal system updates
3	System Integration
Pilot new technologies	
4	Participate in pilot projects
5	Deliver new solutions

Source: ICC, <https://iccmex.mx/comision/posturas-herramientas/icc-digital-trade-roadmappdf.pdf> , viewed on 2023/12/26

2. International Trends, Trends in ASEAN, etc.

2.1.1 Legal System (1) ICC Initiatives

- In 2023, Key Trade Documents and Data Elements, an analysis of **seven documents** and data elements that are important for trade facilitation was published as a result of working group discussions.

Seven documents

#	English term
1	Warehouse receipts
2	Certificate of origin
3	Commercial invoice
4	Packing list
5	Bill of lading
6	Customs/goods declaration
7	Insurance certificates

Source: <https://www.meti.go.jp/press/2022/05/20220512004/20220512004-3.pdf> viewed on 2023/12/26
<https://www.piclub.or.jp/ja/news/37286> , viewed on 2023/5/18

2. International Trends, Trends in ASEAN, etc.

2.1.1 Legal System (1) ICC Initiatives

- ICC DSI released the Key Trade Documents and Data Elements (KTDDE) in March 2023, and conducted data mapping work with several trade platforms and banks in 2023 to expand the number of documents covered and to refine data items in stages.



Participating Companies and Demonstration Scope

Category	Participating companies	Scope of data mapping
Digital trade platform	TradeWaltz	Mapping Commercial invoices and packing list data items
	XDC Trade Network, Yodaplus	Mapping bills of lading, commercial invoices, and certificates of origin to Yodaplus datasets
	SGTraDex	Mapping commercial invoices and bills of lading to SGTradEx data dictionary
	Decentralized Trade Network	Developments related to commercial invoices and other documentation
Banks	Eight banks including Bank of America, Citibank, and HSBC	Data definition and mapping based on existing paper data items
	Eight banks including Bank of America, BNP Paribas, and Scotiabank	Mapping data items in the E2E process for import/export letters of credit
	Nine banks including Citibank, Commerzbank, and TBA	Scrutinizing data needs in each process in supply chain finance

Source; ICC DSI, From Analysis to Action: Proofs of Concept, viewed on 2023/12/20

2. International Trends, Trends in ASEAN, etc.

2.1.1 Legal System (2) UNCITRAL MLETR

- The MLETR is an initiative to give legal effect to electronic data of securities such as B/L.

Summary

- The Model Law on Electronic Transferable Records (MLETR) aims to enable the legal use of electronic transferable records within and across national borders.
- The MLETR can apply the same legal force to electronic records as negotiable documents (bills of lading, notes, etc.).
- It was adopted in 2017 by the United Nations Commission On International Trade Law.

Expected effects

- The digitization of negotiable documents can improve transmission speed and security, reuse data, and automate transactions through smart contracts, and is expected to have a significant effect on trade facilitation.

Benefits of introducing be/L

- Increased speed and reduced administrative costs
- Reduced risk of forgery and tampering
- Easier collection of all shipments (thereby simplifying procedures for B/Ls to be combined, split, and delivered outside of their scheduled landing locations, etc.)

2. International Trends, Trends in ASEAN, etc.

2.1.1 Legal System (2) UNCITRAL MLETR

- As of December 2023, eight countries had completed MLETR-compliant legislation.

Status of MLETR adoption

Country	Adoption
Bahrain	2018
Belize	2021
Kiribati	2021
Paraguay	2021
Singapore	2021
United Arab Emirates	2021
Papua New Guinea	2022
United Kingdom	2023

Activities of UNCITRAL

- UNCITRAL's WG-IV: Electronic Commerce is considering, among others, proposals for legislative work on the use and automation of AI in electronic transactions.

Perspectives on MLETR Implementation

- Functional equivalence with paper securities
 - The MLETR requires that the electronic B/L be functionally equivalent to the paper B/L. Specifically, the following three points:
 - ① Singularity (the rights on the B/L are not duplicated and there is only one identified)
 - ② Control (Ability to dominate exclusively.)
 - ③ Integrity (Must not be tampered with and a record of changes must be kept)
- Technical neutrality
 - The MLETR does not require the use of a specific technology or model for an electronic B/L, but only a "reliable method" (reliability) to fulfill the functions of the electronic B/L.

Source: UNCITRAL . https://uncitral.un.org/en/texts/ecommerce/modellaw/electronic_transferable_records , viewed on 2023/12/26

UNCITRAL, https://uncitral.un.org/en/texts/ecommerce/modellaw/electronic_transferable_records/status, viewed on 2023/12/26

ADB, <https://www.adb.org/sites/default/files/publication/932456/adb-brief-280-driving-digitalization-global-trade.pdf> , viewed on 2023/12/26

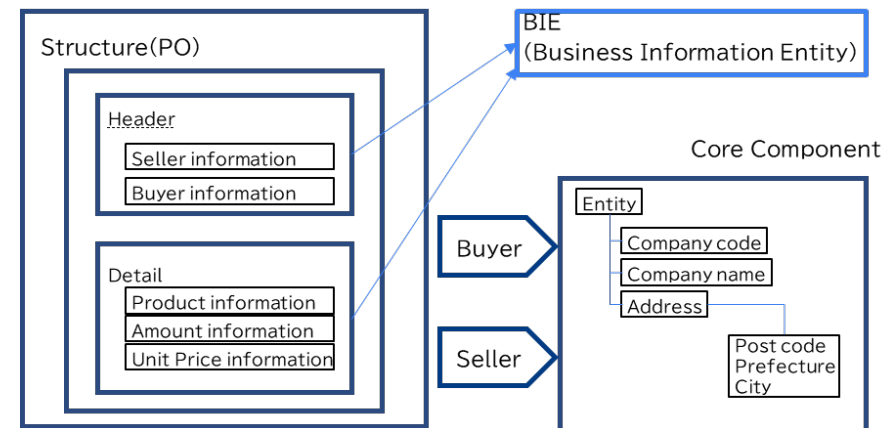
2. International Trends, Trends in ASEAN, etc.

2.1.1 Legal System (3) UN/CEFACT

- UN/CEFACT has created a Common Data Dictionary (Core Components Library) to provide definitions of terms that can be used commonly by all trade stakeholders.

Common data dictionary

- In order to ensure consistency among business processes that differ from industry to industry, a common data dictionary (Core Components Library) was created in 2006 and has been continuously added to and revised since then.
- By using this common data dictionary, a common understanding of data handled in transactions with different countries and industries can be achieved and smooth inter-company information linkage can be realized. This common data dictionary defines XML schemas and is mainly intended for use in electronic data interchange (EDI).
- Additions of data items and verification of conformance to this common data dictionary are conducted biannually by the UN/CEFACT, with the latest version as of July 13, 2023 being the second update in 2022.



Source: JASTPRO, <https://www.jastpro.org/files/libs/440/202103091654134418.pdf>, viewed on 2023/12/26

UNECE, <https://unece.org/trade/uncefact/unccl>, viewed on 2023/12/26

UN/CEFACT, https://unece.org/sites/default/files/2023-05/Newcomers%20Session_40thCEFACT.pdf, viewed on 2023/12/26

2. International Trends, Trends in ASEAN, etc.

2.1.1 Legal System (3) UN/CEFACT

- UN/CEFACT aims to simplify and streamline trade practices based on the Buy-Ship-Pay Model, which shows a series of processes from order placement to shipment to payment. In particular, UN/CEFACT has focused on standardizing data items used in trade, and has developed a number of standards to date.

Formulating a reference data model

- As a comprehensive subset of the Common Data Dictionary and its associated code list, the Reference Data Model was developed to provide accurate information for each field of activity.
- This reference data model covers the relevant document and information requirements for each field, including, for example, XSD schemas, UML diagrams, and HTML indexes.

Data model	Overview
Buy-Ship-Pay	A data model that can be used across countries and industries by defining the supply chain reference data model and the multimodal reference data model in a more generalized form
Supply Chain	A data model on supply chains, a subset of which is already publicly available.
Multimodal Transport	A data model specifically for multimodal transportation. The International Federation of Freight Forwarders Associations (FIATA) used this data model to develop the multimodal eBL.

Source: JASTPRO, <https://www.jastpro.org/files/libs/440/202103091654134418.pdf>, viewed on 2023/12/26

UNECE, <https://unece.org/trade/uncefact/unccl>, viewed on 2023/12/26

UN/CEFACT, https://unece.org/sites/default/files/2023-05/Newcomers%20Session_40thCEFACT.pdf, viewed on 2023/12/26

2. International Trends, Trends in ASEAN, etc.

2.1.1 Legal System (3) UN/CEFACT

- In 2022, the UN/CEFACT's parent organizations, the United Nations Economic Commission for Europe (UNECE), and the Federation of Freight Forwarders of National Debt (FIATA), published a standard for multimodal transport bills of lading (eB/L).
 - International organizations such as ICC and WTO also refer to the data items defined by UN/CEFACT.
 - On the other hand, there is a gap between UN/CEFACT standards and standards for linking commercial and logistics data, as well as data used in trade practice, and a trade finance project is currently underway to examine this issue.

Documents that reference UN/CEFACT data items

Document-name	Overview
WTO-ICC Standards Toolkit for Cross-border Paperless Trade	A document that maps existing referenced standard rules and comprehensively describes information that must be complied with when conducting international trade.
WTO-WEF report: The Promise of TradeTech: Policy approaches to harness trade digitalization	The document organizes the policy aspects of data reliability, the legal framework for electronic transactions, and the interchangeability of data models.
EU Strategy for Sustainable and Circular Textile	The document addresses the impacts of textile products on the environment and climate change, and proposes collaborative actions to change the way textile products are produced and consumed as a whole.
EU Proposal for a Directive on corporate sustainability due diligence	Draft Directive on Corporate Sustainability Due Diligence. The objective is to promote sustainable and responsible corporate behavior and to embed human rights and environmental considerations in corporate operations and corporate governance.
DCSA announcement of the Standards for the Bill of Lading	A document published by the Digital Container Shipping Association (DCSA) that provides data and process standards for the issuance of shipping instructions (S/I) and bills of lading (B/L).

Source: UN/CEFACT, https://unece.org/sites/default/files/2023-05/Newcomers%20Session_40thCEFACT.pdf , viewed on 2023/12/26
 UNECE, <https://unece.org/media/press/365715> viewed on 2023/12/26

2. International Trends, Trends in ASEAN, etc.

2.1.1 Legal System (3) UN/CEFACT

- The 41st UN/CEFACT Forum was held in October 2023. TradeWaltz Inc. from Japan provided a speaker at this forum. It presented the results of mapping UN/CEFACT data sets and TradeWaltz data items in 2022, and made three recommendations for UN/CEFACT.

Three proposals

#	Contents	Proposal
1	In the UN/CEFACT definition, we could not find any data items that are practically required for international trade.	Make data items easily discoverable or add data needed in international trade.
2	Negative effects are occurring by managing data items in documents. (e.g., data is correct but documentation is incorrect)	Define which data are used in which documents in the form of structured data as required for a trade, because data fluctuations exist for each user.
3	The UN/CEFACT data definition lacks data types and who, when, why of data.	Define from who-to-who, when, and why for each element (fix the business process and establish definitions of data items), Establish data item definitions.) Define data items in the light of system rules (number of digits, number of characters, data type, validation rules, etc.)

Source: Prepared by Mitsubishi Research Institute, Inc. based on materials received from TradeWaltz, Inc.

2. International Trends, Trends in ASEAN, etc.

2.1.2 Global Measures to Address Supply Chain Risks

- The G7 Summit in Hiroshima in May 2023 set initiatives to build resilient supply chains as a goal, and the Covid-19 pandemic and Russia's invasion of Ukraine were cited as risks. There is also growing interest in decarbonization and human rights issues.

Supply chain risks

Risks	Contents
Lack of supplier performance	Financial health of suppliers
Complexity of demand planning	Uncertainty in demand planning due to changes in behavior patterns
International labor shortage	Lack of skilled labor, including human rights issues
Inflation	Deterioration of cash flow due to inflation
Unstable international economy	Concerns about economic recession after pandemic ends
Complex sanctions and rules	Impact of international economic sanctions
Geopolitical risk	Impact of Russia's invasion of Ukraine and China's zero-corona policy
Reputation risk	Lack of corporate governance and social responsibility
Natural disasters and climate change risks	Impacts of natural disasters and climate change
Cyber risk	Dangers of cyber attacks

Source: Moody's, <https://www.moodyanalytics.com/articles/2022/the-top-10-supply-chain-risks-that-companies-face>, viewed on 2023/12/26
 JETRO, https://www.jetro.go.jp/ext_images/_Reports/01/e98672da58f93cd3/20220039rev2.pdf, viewed on 2023/12/26

2. International Trends, Trends in ASEAN, etc.

2.1.2 Global Measures to Address Supply Chain Risks

- There is also growing interest in decarbonization and human rights issues in global supply chains, but No more than half of the companies are actually implementing specific countermeasure.

Decarbonation

- 66.4% of ASEAN companies recognized the issue of decarbonization in their supply chains as a business challenge.
- Only 35.9% of ASEAN companies are actually taking steps to decarbonize.
- Challenges to the initiatives include the fact that decarbonization does not directly lead to increased corporate value, there is local price supremacy, and it is difficult to make a fundamental energy transition due to conditions in industrial parks.

Human rights due diligence

- 55.9% of ASEAN companies recognized human rights issues in the supply chain as a management issue.
- 22.2% of the companies actually conduct human rights due diligence.
- Implementation challenges include understanding the content of human rights, engaging senior management, identifying and assessing the negative impacts of business on human rights, and preventing and addressing high-priority human rights risks.

Source: JETRO, https://www.jetro.go.jp/ext/images/_Reports/01/e98672da58f93cd3/20220039rev2.pdf, viewed on 2023/12/26

2. International Trends, Trends in ASEAN, etc.

2.1.3 Data Distribution

- Discussions on data distribution are accelerating around the Gaia-X initiative.
- Gaia-X aims to build an infrastructure to support data distribution, while ensuring data sovereignty and security, which has been studied and implemented mainly in Germany and the EU since around 2016. In the use case, there is also a mechanism for data exchanges within supply chains.

Use case

Category	Project Name	Overview
Agriculture	Agdatahub	It aims to build a traceable and environmentally sound health food data sharing infrastructure.
Automotive supply chain	Catena-X	The first open data ecosystem for the automotive industry, with end-to-end data collaboration within the value chain in a secure environment.
Municipal services	Elinor-X	A new data collaboration model is being demonstrated, with the goal of optimizing data movements through data collaboration in both public and private sectors.
Transportation and tourism	Eona-X	It aims to provide an environment for promoting mobility, transportation, and tourism use cases. The main focus will be on multimodal optimization to contribute to achieving zero-emission goals.
Manufacturing (Industry 4.0)	EuProGigant	A project in the manufacturing industry aimed at "avoiding Self-Orchestration failures in the value chain and building a learning ecosystem."
Mobility	Mobility Data Space (MDS)	In the mobility sector, promote competition for user-friendly mobility on equal and fair terms by facilitating data exchanges between different actors, such as ride-sharing services and public transportation operators.
Supply chain	SCSN	It aims to ensure fast, secure, and efficient data exchanges within the supply chain.
Cloud service	Structure-X	A project to enable data and services of existing cloud services and infrastructure providers to be GAIA-X certified. The goal is to create an automated and independent ecosystem with shared federated certification and labeling services using distributed ledger technology.

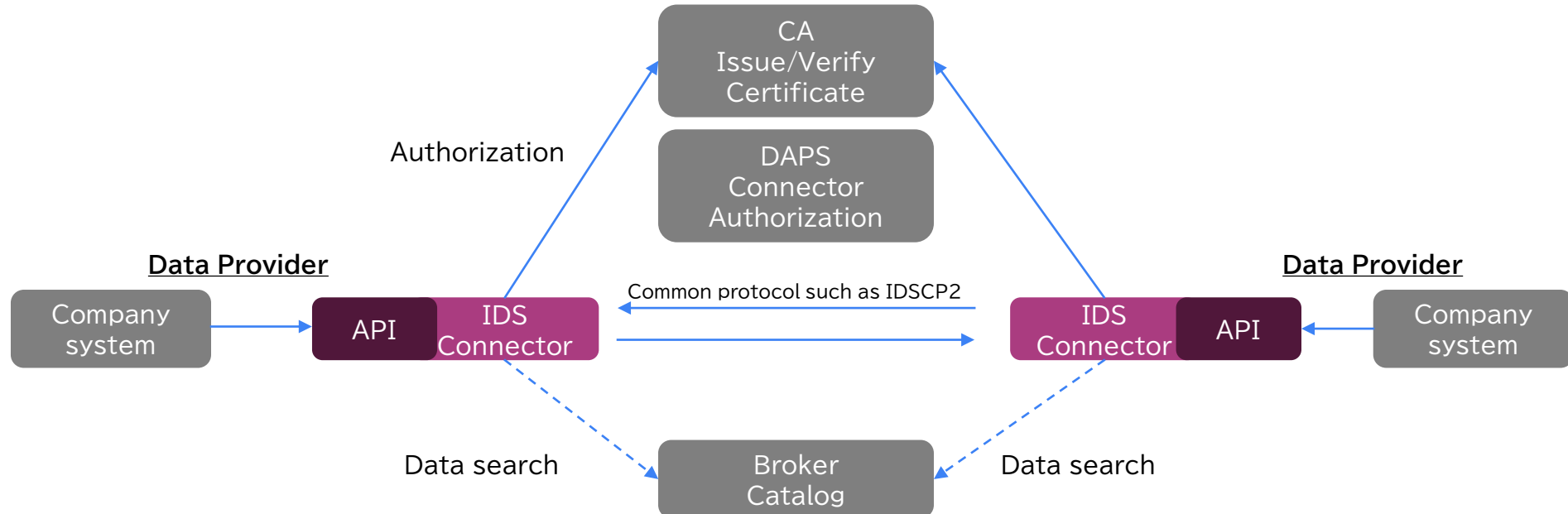
Source: Gaia-X, <https://gaia-x.eu/what-is-gaia-x/about-gaia-x/>, viewed on 2023/12/26

2. International Trends, Trends in ASEAN, etc.

2.1.3 Data Distribution

- One of the core components of Gaia-X is a technology called the IDS connector.
- The IDS connector is a component that acts as a proxy for data sharing between businesses, and is intended to maintain data sovereignty. The architecture of the connector itself is only provided as a reference, and several organizations are working on its implementation.

Image of IDS connector usage



Source: NTT Data, <https://www.nttdata.com/jp/ja/data-insight/2022/0415/>, viewed on 2023/12/21

International Data Spaces Association, https://internationaldataspaces.org/wp-content/uploads/dlm_uploads/IDSA-Position-Paper-GAIA-X-and-IDS.pdf, viewed on 2023/12/21

2. International Trends, Trends in ASEAN, etc.

2.1.4 Capacity Building

- Each international organization conducts analyses to promote electronic cross-border trade and widely publishes the reports and information obtained. Furthermore, they have established evaluation frameworks and criteria, so that countries can properly assess the progress of electronic trade within their countries.
- In the area of capacity building, ESCAP has engaged in capacity building activities to promote the digitization of trade since 2020, such as providing technical assistance and training to researchers in each country, and organizing workshops to provide forums for stakeholders in each country to discuss policy formulation based on case studies.
- ESCAP has also been active within consultative bodies: since 2015, ESCAP has convened four intergovernmental steering groups to deepen the facilitation of cross-border paperless trade.
- In 2022, the first meeting of the Standing Committee on the Framework Agreement on Facilitating Cross-border Paperless Trade in the Asia-Pacific Region was held to discuss an action plan for implementing the framework agreement.

2. International Trends, Trends in ASEAN, etc.

Reference: Initiatives of International Organizations

(1) Summary

- A list of initiatives is as follows

Measure	Initiative	ESCAP	OECD	WTO	UNCTAD
Analysis and information	ESCAP-OECD Initiative on Digital Trade Regulatory Analysis	●	●		
	Digital and Sustainable Trade Facilitation: A Global Report	●			
	Legal and technical readiness checklists	●			
	Readiness assessments for cross-border paperless trade	●			
	eTrade Readiness Assessments (eT Readies)				●
	eT Ready Implementation Support Mechanism (ISM)				●
	eTrade for All				●
	Measuring digital trade		●	●	
	Trade Facility Indicator		●		
	Progress on implementation commitments by members			●	

Source: Compiled by Mitsubishi Research Institute, Inc. from various publicly available information.

2. International Trends, Trends in ASEAN, etc.

Reference: Initiatives of International Organizations

(1) Summary

- A list of initiatives is as follows

Measure	Initiative	ESCAP	OECD	WTO	UNCTAD
Capacity building	Capacity Building Workshop - Navigating the Digital Trade Law Landscape	●			
	Regional Digital Trade Regulatory Integration Initiative in Asia-Pacific	●			
Meeting structure	First session of the Standing Committee of the Framework Agreement on Facilitation of Cross-border Paperless Trade in Asia and the Pacific	●			
	Interim Intergovernmental Steering Group on Cross-border Paperless Trade Facilitation	●			

Source: Compiled by Mitsubishi Research Institute, Inc. from various publicly available information.

2. International Trends, Trends in ASEAN, etc.

Reference: Initiatives of International Organizations

(2) Analysis and Information Sharing

- Each international organization conducts analyses to promote electronic cross-border trade and widely publishes the reports and information obtained. Furthermore, they have established evaluation frameworks and criteria so that each country can properly assess the progress of its own electronic trade. It is hoped that these activities will promote the efficiency of overall digital trade and its widespread use.

Initiative	Implementing entity	Overview
eTrade Readiness Assessments (eT Readies)	UNCTAD	Beginning in 2017, the report identifies key obstacles and opportunities for e-commerce development in 29 countries. Many countries have made significant progress in implementing the eT Readies recommendations.
eT Ready Implementation Support Mechanism (ISM)	UNCTAD	Established in 2020; through the ISM, regular implementation reviews are conducted to build national capacity for effective implementation based on the principles of country ownership, inclusiveness, and results-based management. The first implementation review in 2020 captured progress in 13 eT Ready beneficiary countries, which further promoted capacity building, knowledge sharing, and stakeholder engagement activities, and contributed to raising the visibility of e-commerce in national and regional development agendas.
eTrade for All	UNCTAD	Through the eTrade for All online platform, launched in April 2017, the eTrade for All program helps developing and donor countries navigate e-commerce aid supply and demand, learn about trends and best practices, and increase visibility into the initiatives and resources of various partners. The company is also a member of the eTrade for All online platform. It focuses on seven major policy areas of particular relevance to the development of e-commerce. These are: (1) e-commerce readiness assessment and strategy development, (2) information and communication technology infrastructure and services, (3) trade logistics and trade facilitation, (4) payment solutions for e-commerce, (5) legal and regulatory framework, (6) e-commerce skills development, and (7) access to financing.

Source: Compiled by Mitsubishi Research Institute, Inc. from various publicly available information.

2. International Trends, Trends in ASEAN, etc.

Reference: Initiatives of International Organizations (2) Analysis and Information Sharing

(cont.)

Initiative	Implementing entity	Overview
ESCAP-OECD Initiative on Digital Trade Regulatory Analysis	ESCAP/OECD (Joint initiative)	Policymakers and analysts in Asia and the Pacific region have developed a tool to compare, benchmark, and formulate evidence-based policy strategies to be used to promote cooperation and harmonization of digital trade-related regulatory frameworks for the more inclusive and sustainable development of the region.
Digital and Sustainable Trade Facilitation - Global Report	ESCAP	It reviews the progress of trade facilitation reforms in 144 countries. The analysis is based on 58 trade facilitation measures categorized into four groups: general trade facilitation, digital trade facilitation, sustainable trade facilitation, and other trade facilitation. It aims to help countries and development partners take a proactive approach to trade facilitation, better understand and monitor progress, support evidence-based public policies, share best practices, and identify new capacity building and technical assistance needs.
Legal and technical readiness checklists	ESCAP	A legal and technical readiness checklist developed to support the implementation of a framework agreement to facilitate paperless trade in the Asia-Pacific region.
Readiness assessments for cross-border paperless trade	ESCAP	Based on the legal and technical readiness checklist described above, the paperless trade readiness assessment will allow countries to conduct a self-assessment of their legal and technical readiness and to make recommendations and individual action plans for the digitization of trade on that basis.

Source: Compiled by Mitsubishi Research Institute, Inc. from various publicly available information.

2. International Trends, Trends in ASEAN, etc.

Reference: Initiatives of International Organizations

(2) Analysis and Information Sharing

(cont.)

Initiative	Implementing entity	Overview
Measuring digital trade	OECD/WTO/IMF (Joint initiative)	A Handbook (the 2020 edition is the most recent) is to be prepared to: (1) provide a conceptual framework for defining digital trade, on which national initiatives can aim; and (2) provide a mechanism for bringing together and sharing national and international activities to measure digital trade and its dimensions, which can be used to identify and develop best practices. The objective is to provide a mechanism for bringing together and sharing existing activities.
Trade Facility Indicator	OECD	The OECD's Trade Facilitation Index (TFI), which was launched in 2013 and is updated every two years, assesses overall border procedures in more than 160 countries and territories. Countries can use their TFI to identify their strengths and challenges in trade facilitation, prioritize actions, and make technical assistance and capacity building more targeted and progressive. Each TFI consists of specific and rigorous variables related to actual trade-related policies and regulations and their implementation.
Progress on implementation commitments by member states	WTO	Indicators will be established to visualize the status of TFAs up to implementation (Implementation). Developed countries are required to report their implementation status by dividing TFA items into categories A, B, and C, in order of ease-of-implementation (used as the trade facilitation implementation rate in Trade White Paper 2021). (In the White Paper on Trade 2021, these indicators will be used as the trade facilitation implementation rate.)

Source: Compiled by Mitsubishi Research Institute, Inc. from various publicly available information.

2. International Trends, Trends in ASEAN, etc.

Reference: Initiatives of International Organizations

(3) Capacity Building

- ESCAP developed capacity-building activities to promote the digitization of trade starting in 2020, such as provision of technical assistance and training to researchers in each country, and organizing workshops to provide forums for stakeholders in each country to discuss policy formulation based on case studies.

Initiative	Implementing entity	Overview
Capacity Building Workshop - Navigating the Digital Trade Law Landscape	ESCAP	The meeting, held in Bangkok on December 14, 2022, discussed ways to support digital trade law reform in the early stages of cross-border trade digitization. Regional and country examples and illustrative policy options based on them were provided to show how ESCAP and UNCITRAL can support the development of an efficient and effective legal environment.
Regional Digital Trade Regulatory Integration Initiative in Asia-Pacific Region	ESCAP	ESCAP provided technical assistance and training to researchers in various countries to collect data and information on digital trade-related regulations beginning in 2020. In the future, database-based capacity building assistance will be provided to Least Developed Countries (LDCs) and Middle Income Countries (MICs) in the Asia-Pacific region upon request to help them understand gaps in their current regulatory infrastructure, implications for addressing digital trade, and potential commitments in regulatory cooperation.

Source: Compiled by Mitsubishi Research Institute, Inc. from various publicly available information.

2. International Trends, Trends in ASEAN, etc.

Reference: Initiatives of International Organizations

(4) Meeting Structure

- Since 2015, ESCAP has convened four intergovernmental steering groups to deepen the facilitation of cross-border paperless trade; in 2022, the first meeting of the Standing Committee on the Framework Agreement on Facilitation of Cross-border Paperless Trade in the Asia-Pacific Region discussed an action plan for implementing the framework agreement.

Initiative	Implementing entity	Overview
First session of the Standing Committee of the Framework Agreement on Facilitation of Cross-border Paperless Trade in Asia and the Pacific	ESCAP	The first meeting of the Standing Committee of the Framework Agreement to Promote Cross-Border Paperless Trade in the Asia-Pacific Region was held in Bangkok and online from December 12 to 15, 2022, marking the beginning of the implementation of the Convention since it entered into force in 2021. During the meeting, an action plan for implementing the framework agreement was discussed in accordance with Article 12 of the agreement.
Interim Intergovernmental Steering Group on Cross-border Paperless Trade Facilitation	ESCAP	A total of seven meetings were held from 2015 to April 2022, primarily to: (i) further refine the draft regional arrangement on the facilitation of cross-border paperless trade as a potential intergovernmental agreement; and (ii) to implement substantive provisions of the draft regional arrangement on the facilitation of cross-border paperless trade. The objective was to develop a draft roadmap. *It became invalidated as the Framework Agreement on Facilitation of Cross-Border Paperless Trade in Asia and the Pacific (CPTA) entered into force in April 2022.

Source: Compiled by Mitsubishi Research Institute, Inc. from various publicly available information.

2. International Trends, Trends in ASEAN, etc.

2.1.5 Summary(International Trends)

Summary:

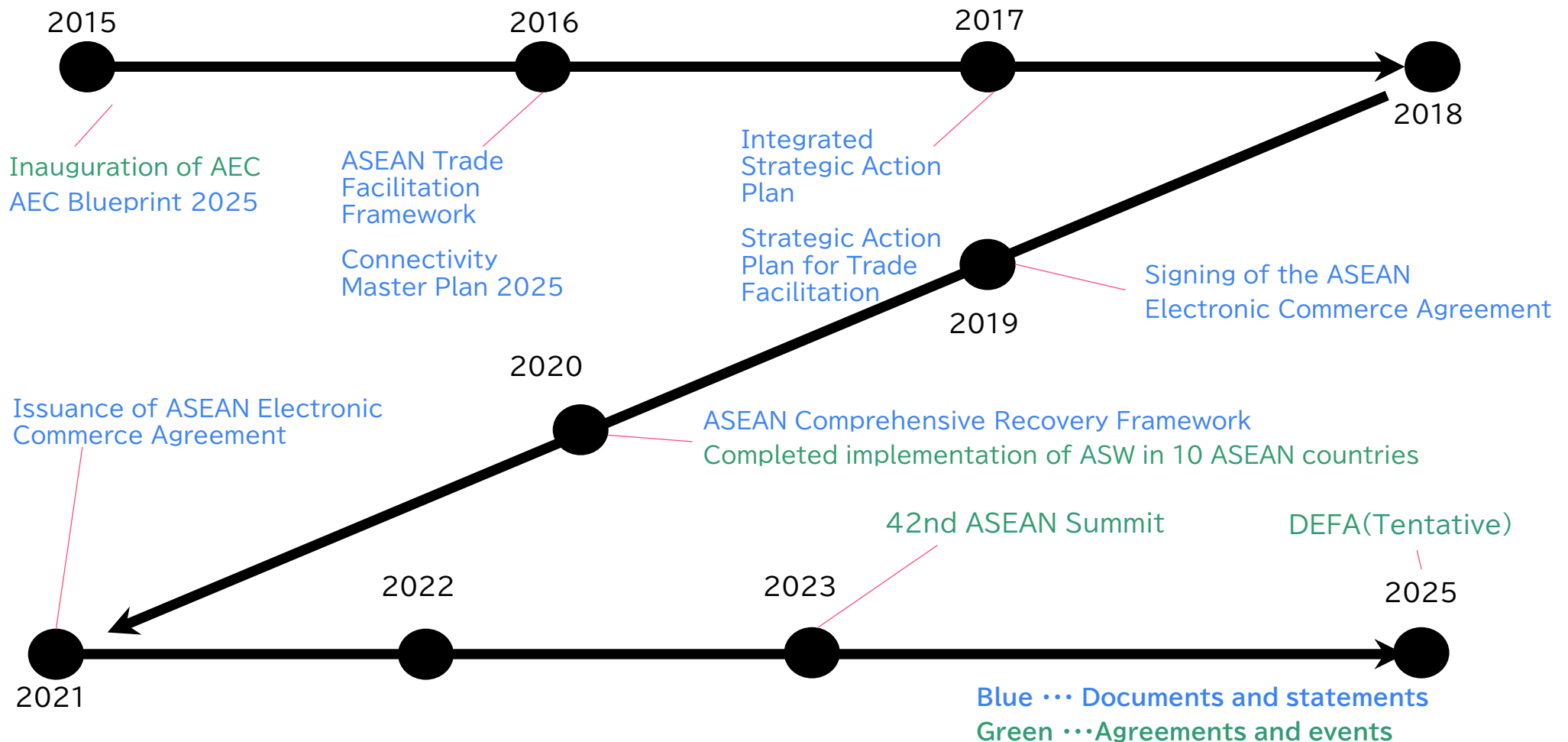
- Digitization of trade documents is being promoted internationally by promoting the MLTER and standardizing data items. From the perspective of supply chains, responses to global supply chain risks and data distribution are now being considered.

Viewpoint	Outlook
Standardization of data items in legal and trade documents	<ul style="list-style-type: none"> ● Adoption of the UNCITRAL Model Law in 2017 gave legal effect to electronic records for negotiable documents (bills of lading (B/L), notes, etc.) and accelerated discussions on electronic bills of lading. Seven countries, including Singapore, have adopted the Model Law, and the International Chamber of Commerce (ICC) is actively promoting it. ● The ICC has established a Digital Roadmap to provide policy recommendations to governments for the digitization of trade. ● As for data standards in global logistics, the UN CEFAC standard EDI is in widespread use. Discussions are in progress at ICC, UN CEFAC, and other organizations regarding the standardization of data items for trade documents in commercial distribution channels.
Global measures to address supply chain risks	<ul style="list-style-type: none"> ● Due to increasing risks in global supply chains (e.g., environmental, human rights, logistics disruptions due to the novel coronavirus and international conflicts), it has also become an important agenda item to address new social values such as human rights and sustainability.
Data distribution	<ul style="list-style-type: none"> ● For data distribution, Gaia-X and Catena-X in Europe have established standard rules, integrated infrastructure, and common use cases for data sharing. (There is also a use case for supply chains.)
Capacity building	<ul style="list-style-type: none"> ● Trade digitization requires an increased awareness among stakeholders involved in international trade, mainly through capacity building by the United Nations Economic Societies for Asia and the Pacific (UNESCAP), which has established various meeting bodies with a view to facilitating cross-border transborder logistics.

2. International Trends, Trends in ASEAN, etc.

2.2.1 Policy Trends (1) Overview of policy in ASEAN

- Within the ASEAN region, the ASEAN Economic Community (AEC) was established in 2015. Based on the AEC Blueprint 2025, which was subsequently issued, there is a growing movement toward electronic trade transactions.



Source: Compiled by Mitsubishi Research Institute, Inc. from various publicly available information.

2. International Trends, Trends in ASEAN, etc.

2.2.1 Policy Trends (2) History of AEC

- A major vision, trade facilitation framework, and action plan have been developed since 2015.

Year	Events	Contents
2015	Launch of ASEAN Economic Community (AEC)	An organization formed to promote economic development within the ASEAN region through a deepening of items in the Economic Partnership Agreement
2015	Launch of ASEAN Community Vision 2025 and AEC Blueprint 2025	Five strategic objectives and 30 key areas are presented. One of these includes a trade facilitation strategy and expansion of coverage of the ASEAN Single Window.
2016	Adoption of ASEAN Trade Facilitation Framework (ATFF)	Scope is defined as: a) customs and transportation facilitation, b) transparency of trade regulations and procedures, c) standards and conformity, and d) private sector engagement and business facilitation.
2016	Announcement of ASEAN Connectivity Master Plan 2025	Successor document to the existing ASEAN Connectivity Master Plan
2017	AEC 2025 Integrated Strategic Action Plan (CSAP)	Action Plan for realizing AEC Blueprint 2025
2017	Adoption of AEC2025 Strategic Action Plan for Trade Facilitation at the ASEAN Economic Ministers Meeting (AEM)	Action plan described in the ATFF article. It aims, among other things, to reduce trade transaction costs by 10% by 2020.

2. International Trends, Trends in ASEAN, etc.

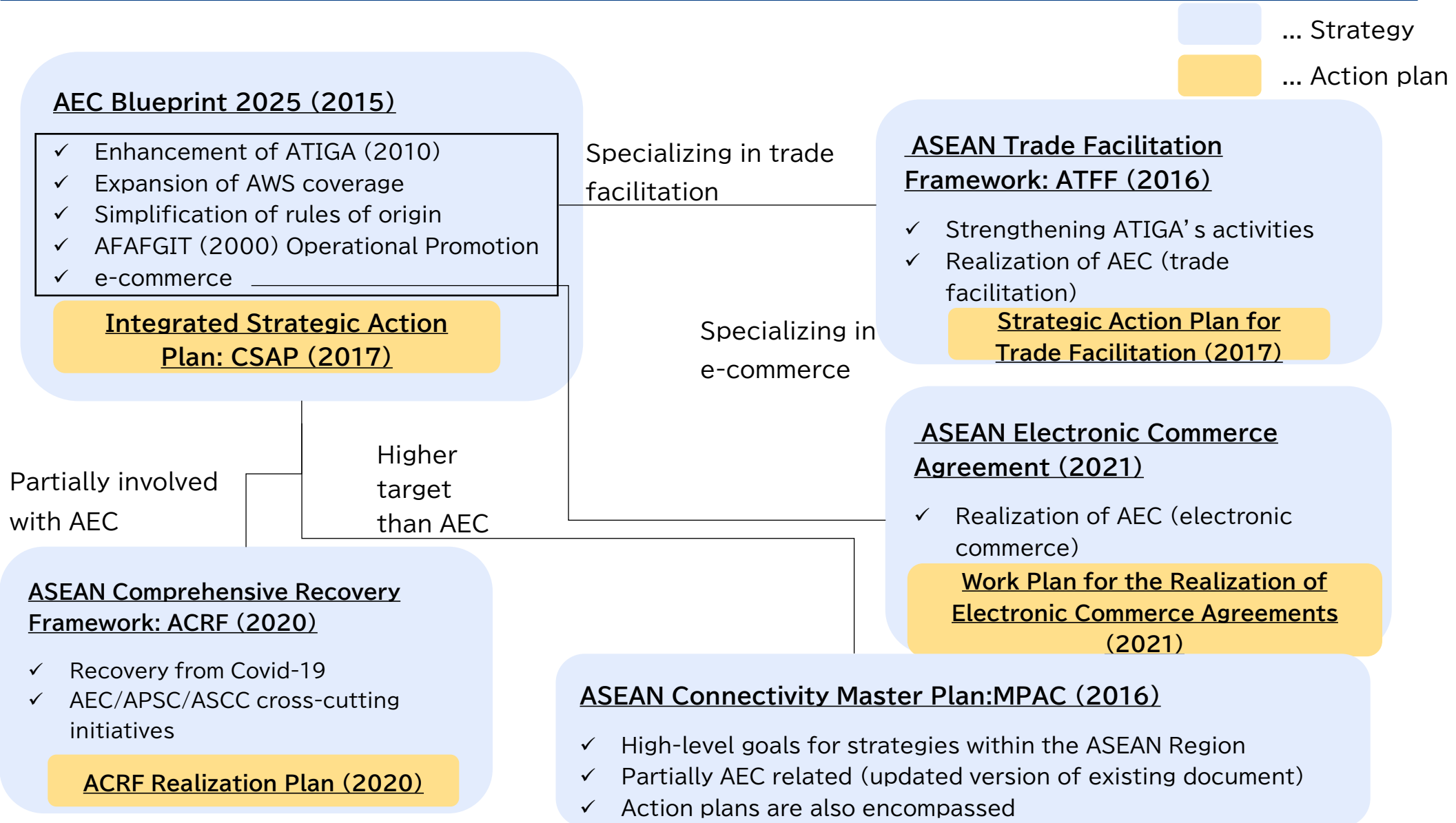
2.2.1 Policy Trends (2) History of AEC (Trade Digitalization)

- In the past five years, efforts have been made to digitalize trade, including adoption of ASEAN Electronic Commerce Agreement and ACRF, and completion of implementation of ASW.
- At the 42nd ASEAN Summit in 2023, a declaration on improving intra-regional payment connectivity and promoting local currency transactions was announced.

Year	Events	Contents
2019	ASEAN Agreement on Electronic Commerce comes into force.	Countries sign agreement on paperless trade, personal data protection, and other agreements regarding business transactions using electronic media.
2020	Adoption of the ASEAN Comprehensive Recovery Framework (ACRF)	It defines priority areas to be addressed in order to recover from the social and economic damage caused by the Covid-19 pandemic. The framework includes the establishment of a National Digital Trade Platform in each member state as an initiative.
2020	Ten ASEAN countries complete implementation of ASEAN Single Window (ASW)	Electronic forms for certificates of origin are now available.
2021	ASEAN Agreement on Electronic Commerce comes into force.	Agreement on electronic commerce, including paperless trade and protection of personal information, comes into force.

2. International Trends, Trends in ASEAN, etc.

2.2.1 Policy Trends (3) Initiative Relationships



Source: Compiled by Mitsubishi Research Institute, Inc. from various websites.

2. International Trends, Trends in ASEAN, etc.

2.2.1 Policy Trends (4) AEC Blueprint 2025

- The AEC blueprint 2025 was adopted at the 27th Summit in November 2015 and consists of five strategic objectives and 30 key areas. The specific action plan and timeline are described in the Consolidated Strategic Action Plan (CSAP), which entered into force in 2017.

AEC Blueprint 2025

Blue ... Fields concerning trade digitalization

#	Strategic goal	Main fields
1	Highly integrated economy	(1) Trade in goods , (2) trade in services, (3) investment climate, (4) financial integration, financial inclusion, and financial stability , (5) facilitating movement of skilled workers and commercial visitors, and (6) strengthening participation in global value chains .
2	Competitive, innovative, dynamic ASEAN	(1) Effective competition policy, (2) consumer protection, (3) strengthening IPR cooperation, (4) productivity growth, innovation, R&D, etc., (5) tax cooperation; (6) governance, (7) efficient, effective, and consistent regulation, (8) sustainable economic development, and (9) global megatrends, new issues related to trade.
3	Connectivity cooperation and sectoral cooperation	(1) Transportation , (2) information and communication technology (ICT), (3) e-commerce , (4) energy, (5) food, agriculture, and forestry, (6) tourism, (7) healthcare, (8) mineral resources, and (9) science and technology
4	Strong, inclusive, people-oriented, people-centered ASEAN	(1) Strengthening SMEs, (2) strengthening the role of the private sector, (3) public-private partnerships (PPP), (4) reducing disparities, and (5) stakeholders' contributions to activities toward regional integration
5	Global ASEAN	(1) Improving economic partnership agreements with countries in the region and strengthening economic partnerships with dialog countries that have not yet signed agreements.

Source: Permanent Mission of Japan to ASEAN, https://www.asean.emb-japan.go.jp/asean2025/asean2025_blueprint-aec.pdf, viewed on 2023/12/26

2. International Trends, Trends in ASEAN, etc.

2.2.1 Policy Trends

(4) AEC Blueprint 2025 Mid-term Evaluation

- The ASEAN Economic Ministers (AEM) and AEC released an interim evaluation of AEC Blueprint 2025 in April 2021. The evaluation system (subjective evaluation based on each country's self-assessment), which had been considered problematic in the past, has been reviewed and a more neutral evaluation has been conducted from multiple information sources.

AEC Blueprint 2025 Mid-term evaluation (excerpts in relevant areas)

#	Strategic goal	Major achievements	Status
1	Highly integrated economy	<ul style="list-style-type: none"> ➢ Implementation of ASEAN Trade Facilitation Framework (ATFF) and Trade Facilitation Agreement ➢ Simplification of Certificate of Origin (Form D) and the ASEAN-Wide Accident Waiver System (AWSC) ➢ Replacement of Form D by ASW ➢ ASEAN Comprehensive Recovery Framework (ACRF) ➢ ASEAN Settlement Policy Framework for Immediate Cross-border Settlement, etc. 	Completed: 60.3%. In progress: 32.1%. Not implemented: 6.8%.
...			
3	Connectivity, cooperation and sectoral cooperation	<ul style="list-style-type: none"> ➢ Creation of the ASEAN E-Commerce Coordinating Committee ➢ ASEAN Digital Integration Framework ➢ Signing of the ASEAN Electronic Commerce Agreement ➢ ASEAN Framework for Personal Data Protection ➢ ASEAN Digital Master Plan 2025 	Completed: 52.0%. In progress: 34.9%. Not implemented: 10.8%.
...			

Source: Permanent Mission of Japan to ASEAN, https://www.asean.emb-japan.go.jp/asean2025/asean2025_blueprint-aec.pdf , viewed on 2023/12/26

2. International Trends, Trends in ASEAN, etc.

2.2.1 Policy Trends

(5) ASEAN Comprehensive Recovery Framework (ACRF)

- The ASEAN Comprehensive Recovery Framework was adopted at the 37th Summit in November 2020 as a comprehensive exit strategy from the pandemic crisis.

ASEAN Comprehensive Recovery Framework

Blue ... Fields concerning trade digitalization

#	Strategy	Main contents	
1	Highly integrated economy	<ul style="list-style-type: none"> ■ Building and maintaining current health promotion and health measures; maintain and strengthen essential health services ■ Equal access to vaccines and enhanced safety 	<ul style="list-style-type: none"> ■ Capacity building of medical personnel ■ Strengthening public health service capacity, including emergency food safety and nutrition
2	Competitive, innovative, dynamic ASEAN	<ul style="list-style-type: none"> ■ Strengthening social protection and social welfare, especially for vulnerable groups ■ Strengthening food security, food safety, and nutrition 	<ul style="list-style-type: none"> ■ Human resource development, strengthening labor policies in response to the new normal ■ Gender equality in the process of infectious disease response and recovery, and human rights protection for a strong community.
3	Connectivity, cooperation and sectoral cooperation	<ul style="list-style-type: none"> ■ Continued market opening to expand trade and investment ■ Strengthening supply chain connectivity and resilience, promoting trade in the new normal ■ Reduction of non-tariff barriers, digitalization of trade documents and procedures, and transportation and regional connectivity 	<ul style="list-style-type: none"> ■ Strengthening support for recovery in the sectors most affected by the pandemic (tourism, micro, small and medium enterprises) ■ Strengthening PPPs for regional connectivity ■ Early entry into force of the Regional Comprehensive Economic Partnership (RCEP) Agreement
4	ASEAN is strong, inclusive, people-oriented, and people-centered	<ul style="list-style-type: none"> ■ Responding to the 4th Industrial Revolution ■ Promoting e-commerce and the digital economy, e-government and e-services ■ Promoting financial inclusion through digital financial services and intra-regional payment connectivity 	<ul style="list-style-type: none"> ■ Providing digital platforms and digital technology and fintech for SMEs DX ■ Information and communication technology (ICT) in education ■ Improving and strengthening legal framework, institutional capacity, data governance, and cybersecurity
5	Global ASEAN	<ul style="list-style-type: none"> ■ Promoting sustainable development in all aspects ■ Transitioning to sustainable energy, building green infrastructure, and addressing basic infrastructure gaps 	<ul style="list-style-type: none"> ■ High value-added industries, increased agricultural productivity, and better management of disaster risk ■ Promoting sustainable and responsible investment and sustainable finance

Source: JETRO, <https://www.jetro.go.jp/biz/areareports/2021/66d71da1cefb6879.html>, viewed 2023/12/26

2. International Trends, Trends in ASEAN, etc.

2.2.1 Policy Trends (6) ASEAN Commerce Agreement

- The ASEAN Agreement on E-Commerce entered into force in 2021. The agreement aims to facilitate e-commerce in the ASEAN region, ensure the credibility of e-commerce, and promote inclusive growth and reduce economic disparities in the region.

Scope of coverage

#	Item
1	ICT infrastructure
2	Education and technical competency
3	Online consumer protection
4	E-commerce law regulatory framework
5	Electronic transaction security (Online privacy protection)
6	Electronic payments and electronic settlements
7	Trade facilitation
8	Intellectual property rights
9	Competitive power
10	Cyber security
11	Logistics for e-commerce facilitation

Features

- It does not include the non-imposition of tariffs on electronic transfers and the prohibition of source code disclosure requirements as stipulated in CPTPP and the EU-EPA.
- The agreement also provides for a wide range of areas related to e-commerce [Article 9 Electronic Settlement], [Article 10 Logistics], [Article 11 Strengthening Relationships with Stakeholders], and other areas not covered by CPTPP and the EU-EPA, such as electronic settlement, logistics, and strengthening relationships with stakeholders.
- It provides that the two obligations of electronic authorization and electronic signature (Article 7(2)) and online consumer protection (Article 7(3)(b)) are exempted for Cambodia, Lao PDR, and Myanmar, the latter member states, for five years from coming into force.
- The Federation of Japanese Chambers of Commerce and Industry of ASEAN (FJCCIA) and JETRO have submitted requests and proposals with the aim of enabling Japan-based companies in ASEAN to benefit from the ASEAN E-Commerce Agreement in 2022.

Source: JETRO, <https://www.jetro.go.jp/biznews/2019/04/1dd3d95f7b6c134c.html>, viewed on 2023/12/26

2. International Trends, Trends in ASEAN, etc.

2.2.1 Policy Trends (7) DEFA

- Research for a Digital Economy Framework Agreement (DEFA) was formally approved at the 55th ASEAN Economic Ministers' Meeting in August 2023, and negotiations among economic ministers began in September.
- Discussions are underway with the aim of concluding negotiations for DEFA in 2025.

Overview of DEFA

Item	Contents
Objective	Strengthen capacities of businesses and stakeholders across ASEAN by accelerating trade growth, enhancing interchangeability, creating a secure online environment, and increasing participation of micro, small and medium enterprises (MSMEs)
History	October 2021: In the Bandar Seri Begawan Declaration, the parties agreed to begin studies toward conclusion of DEFA. August 2023: ASEAN Economic Ministers Meeting formally approved research on DEFA September 2023: At the 23rd AEC Council Meeting, the AEC agreed to begin negotiations for DEFA. 2025 (Tentative): Conclusion of DEFA
Phase	1. Recovery (2021-2025) 2. Acceleration (2022-2024) 3. Transformation (2025)
Expected benefits	By 2030, the economy is expected to grow by approximately USD 300 billion to USD 1 trillion through the use of digital technology, and the application of DEFA could increase this to USD 2 trillion
Scope of agreement	Digital trade and cross-border electronic commerce (EC), payments and electronic invoicing, digital ID and authentication, online safety and cybersecurity, cross-border data flow, data protection, etc.

Source: JETRO, <https://www.jetro.go.jp/biznews/2019/04/1dd3d95f7b6c134c.html>, viewed on 2023/12/26

2. International Trends, Trends in ASEAN, etc.

2.2.1 Policy Trends

(8) Initiatives within the ASEAN Region

- Several initiatives, as well as ASW, have been launched in the ASEAN region, and activities are underway to promote economic integration within the ASEAN region.

 ...Four legal frameworks that serve as key parts in advancing the goals of the AEC

Initiative (English term)	Date of agreement	Contents
ASEAN Trade in Services Agreement (ATISA)	✓ October 2020	- Comprehensive service sector agreements. Establishes specific disciplines such as national treatment.
ASEAN Trade in Goods Agreement (ATIGA)	✓ February 2009	- Basic Agreement on the Free Movement of Goods
ASEAN Comprehensive Investment Agreement (ACIA)	✓ February 2009	- Agreement aimed at liberalization and facilitation, as well as investment protection.
ASEAN e-commerce Agreement	✓ January 2019	- Facilitate e-commerce in the ASEAN region and ensure the reliability of e-commerce transactions
ASEAN-Wide Self-Certification (AWSC)	✓ September 2020	- A system that allows only certified exporters to prove accidental origin.
ASEAN Customs Transit System (ACTS)	✓ August 2021	- This system is intended to improve the efficiency of land transportation. It eliminates the need for truck transshipment between countries that are connected by land. - This system has been introduced in seven countries: Thailand, Malaysia, Singapore, Cambodia, Laos, Myanmar, and Vietnam.

Source: ASEAN , <http://www.world-economic-review.jp/impact/article2356.html> , viewed on 2023/12/26

2. International Trends, Trends in ASEAN, etc.

2.2.2 ASEAN Single Window (1) Overview

- **The ASEAN Single Window (ASW) was introduced to facilitate G2G trade transactions; connection to the National Single Window (NSW) of ASEAN countries was completed in 2020.**

Background

- The ASW connects and integrates the National Single Window (NSW) of each ASEAN Member States (AMS) and handles exchanges of ASEAN Customs Declaration Document (ACDD), e-Phyto certificate, etc.
- Decided to be introduced at the ASEAN Summit in 2003; promoted by AWSSC.
- In 2018, ATIGA e-Form D was launched for exchanges among some of the ASEAN Member States (AMS). At the end of 2019, all 10 AMS had joined ASW. In 2021, exchanges of ACDD were started among AMS.

Effects of introduction

- Accumulated Cost reduction USD 400 million (as of April 2023)
- Transportation time reduced by four days (on average)

Source: APEC (ASEAN Secretariat), ASEAN Single Window (2021), http://mddb.apec.org/Documents/2021/CTI/TF-WKSP3/21_cti_tf_wksp3_006.pdf, viewed on 2023/12/23
US Mission to ASEAN, ASEAN Single Window Symposium (Press Release on April 5, 2023), Targets Expanded Trade, Learning from Trader Survey Findings, <https://asean.usmission.gov/press-release-asean-single-window-symposium/>, viewed on 2023/12/23
ASEAN, ASEAN Single Window, <https://asean.org/our-communities/economic-community/asean-single-window/>, viewed on 2023/12/23

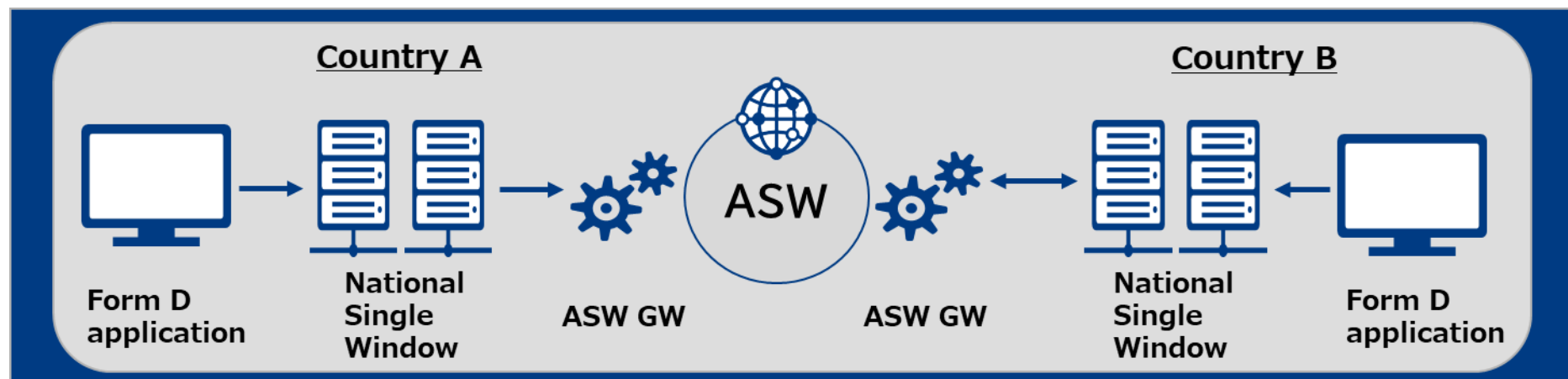
2. International Trends, Trends in ASEAN, etc.

2.2.2 ASEAN Single Window (1) Overview

- NSW in each country connects to ASW through the ASW gateway to send and receive subject documents on the network.

e-ATIGA Form D

- e-ATIGA Form D refers to certificate of origin under the ASEAN Trade in Goods Agreement, which connects each country's NSW to ASW via ASW GW to handle this document electronically
- Importers who transact using the electronic form are entitled to preferential import duty treatment.



Source: Compiled by Mitsubishi Research Institute, Inc. from various websites

Source: Singapore Customs, <https://www.customs.gov.sg/files/businesses/asw-infographic-myanmar-lao.pdf> , 2023/12/23閲覧
USAID, <https://asean.usmission.gov/press-release-asean-single-window-symposium/> , 2023/12/23閲覧

2. International Trends, Trends in ASEAN, etc.

2.2.2 ASEAN Single Window (2) Scope of Documents

- Provides an overview of documents handled by ASW.

Document title (English)	Contents
e-ATIGA Form D	<ul style="list-style-type: none"> - Refers to a certificate of origin (Form-D) used to enjoy preferential tariff rates in the ASEAN Free Trade Area (AFTA) under the ASEAN Trade in Goods Agreement (ATIGA). - Introduced in nine countries from January 2020. Laos, which had been lagging behind, officially introduced the system in August 2020, and the system is now in operation in 10 countries.
ASEAN Customs Declaration Document (ACDD)	<ul style="list-style-type: none"> - A system whereby ASEAN Member States (AMS) communicate 15 specific items from the contents of export declarations as prior information from the exporting country's customs to the importing country's customs, with the consent of the parties involved, in order to enable risk management by the importing country's customs, smooth examination of import customs declarations, and consequently the prompt issuance of customs clearances. - At the August 2023 AEM meeting, it was confirmed that nine ASEAN countries, excluding Laos, have implemented this initiative.
Electronic Phytosanitary Certificate (ePhyto)	<ul style="list-style-type: none"> - A phytosanitary certificate (Phyto) is a document issued by the phytosanitary authority of the exporting country to certify that exported agricultural products meet the requirements of the importing country, such as the absence of pests and diseases. - In January 2021, a workshop was held with the goal of bringing the data structure of e-Phyto certificates in line with the latest international standards.
Electronic Animal Health (e-AH)	<ul style="list-style-type: none"> - A certificate used for trade in animals and animal products. Under consideration for introduction.
Electronic Food Safety (e-FS)	<ul style="list-style-type: none"> - A certificate used in the food trade. Under consideration for introduction

Source: ASEAN Single Window, <https://asw.asean.org/index.php/news/item/malaysia-and-thailand-start-exchanging-the-asean-customs-declaration-document-acdd>, viewed on 2023/12/26

2. International Trends, Trends in ASEAN, etc.

2.2.3 International Cooperation

(1) Free Trade Agreements (FTAs)

- The following is a list of free trade agreements that are relevant to ASEAN. In accordance with the China-ASEAN Free Trade Agreement, China and ASEAN are working on the electronic exchange of certificates of origin. Electronic exchange of certificates of origin is also possible in Japan and Indonesia.

Abbreviation	Formal name	Timeline	Participating nations	Contents
RCEP	East Asia Regional Comprehensive Economic Partnership	October 2020 Signature Effective January 2022 (10 countries)	10 ASEAN countries, Japan, China, Korea, Australia, and New Zealand	In addition to eliminating tariffs, the agreement also includes rules of origin, trade facilitation, and e-commerce arrangements.
CPTPP (TPP11)	Comprehensive and Progressive Agreement on Trans-Pacific Partnership	February 2016 Signatures (12 countries) US withdrawal in January 2017 March 2018 Signatures (11 countries) Effective December 2018	Brunei, Singapore, Vietnam, Malaysia, Canada, Chile, Mexico, New Zealand, Peru, Japan, and Australia	A huge trading economy that accounts for 12.1% of the world's GDP; membership of the United Kingdom was ratified in 2023.
ATIGA	ASEAN Trade in Goods Agreement	February 2009 Signatures Effective August 2010 March 2022 Negotiations for review begin.	The 10 ASEAN Countries	A single set of rules that were not included in the AFTA-CEPT Agreement that entered into force in 1993. Related to efforts to computerize certificates of origin.
ACFTA	ASEAN-China Free Trade Agreement	Protocol of Changes signed in November 2015 Effective August 2019	The 10 ASEAN countries, China	The Comprehensive Economic Cooperation Framework Agreement between ASEAN and China is the largest of its kind.
AJCEP	ASEAN-Japan Economic Partnership Agreement	Signed in April 2008 Entered into force December 2008 (5 countries)	The 10 ASEAN countries, Japan	First multilateral FTA for Japan; first FTA with Cambodia, Laos, and Myanmar.
FTAPP	Asia-Pacific Free Trade Area	Under consideration	21 APEC participating countries/regions (from ASEAN: Brunei, Indonesia, Malaysia, Singapore, Thailand, and Vietnam)	A free trade area initiative led by APEC, proposed as an umbrella for CPTPP and RCEP.

*CPTPP is the official name, and TPP11 is the common name used to emphasize the 11 countries after the withdrawal of the United States.

Source: Compiled by Mitsubishi Research Institute, from various sources

2. International Trends, Trends in ASEAN, etc.

2.2.3 International Cooperation

(2) TradeTrust Framework

- Singapore, at the initiative of the Infocomm Media Development Authority (IMDA), has developed the TradeTrust Framework, an interoperable framework that provides proof of authenticity, provenance, and ownership of documents used in digital trade.
- Developed to meet the requirements of the MLETR adopted in Singapore in 2021, it is an innovative mechanism that includes legal and institutional development in its system requirements.

TradeTrust Framework

Item	Contents
Development history	2019: MOU signed by IMDA, Maritime and Port Authority, Shipowners Association of Singapore, and Customs; development begins 2021: Pilot project in collaboration with IMDA, the Monetary Authority of Singapore (MAS), and private operators
Functional overview	<ol style="list-style-type: none"> 1. Legal harmonization: Ensure international legal validity by complying with the MLETR 2. Standards development: Develop an international standard to which TradeTrust should adhere 3. Accreditation structure: Certify solutions that meet legal requirements 4. Open source (Software component): Equipped with an open source software suite that can be linked to the TradeTrust network
Usage fee	No charge (but a small fee is charged for blockchain usage)
User	Shipping lines, shippers/receivers, logistics service providers, financial institutions, government authorities
Usage Image	Used as a middleware service, connected to the company's internal systems. The authenticity of documents is ensured by the Ethereum blockchain, which improves the reliability of electronic trade documents.

Source: IMDA, <https://www.imda.gov.sg/how-we-can-help/international-trade-and-logistics/tradetrust>, viewed on 2023/12/26

WTO, https://www.wto.org/english/res_e/reser_e/pres_loh.pdf, viewed on 2023/12/26

2. International Trends, Trends in ASEAN, etc.

2.2.4 ASEAN-BAC (1)

- The following is a list of ASEAN-BAC legacy projects* carried out from 2015 to 2022.

*The ASEAN Business Advisory Council (ASEAN-BAC) was established at the 2001 ASEAN Summit with a mandate to provide feedback and guidance from the private sector to advance efforts toward ASEAN economic integration. During the ASEAN Presidency, it launched the Legacy Project and is promoting that initiative in each country.

Year	Country	Legacy project	Contents	Relationship with project
2015	Malaysia	ASEAN Financial Inclusion Solutions(AFIS)	Promotion of fintech solutions (cross-border, financial inclusion)	–
2016	Laos	Laos Logistics Link	Development of rail and transport networks in China and Thailand	– (Related as physical infrastructure)
2017	Philippines	ASEAN Mentorship for Entrepreneurs Network (AMEN)	Provision of mentorship programs for entrepreneurs in the ASEAN region	✓:Capacity building
2018	Singapore	SGConnect	Development of super ports (logistics hubs and related procedural efficiencies). Expand Singapore's know-how to Vietnam and other ASEAN countries.	✓:Improved efficiency of physical infrastructure and trade procedures
2019	Thailand	Enhancement of Digital Trade Connectivity	Facilitating digital trade linkages	✓:Linkage with this project
2020	Vietnam	Digital Startups Towards ASEAN Resilience and Sustainability	Promotion of startups (sustainability and resilience enhancement)	– (Project is being rebuilt)
2021	Brunei* ¹	AKREDI	Demonstration of blockchain-based quarantine certificates	✓:Considering digitization of trade
2022	Cambodia	ASEAN A.C.T: Addressing Challenges Together	Consideration of synergies with current legacy projects	–

*1. The 2023 Borneo Business Roundtable focused on Brunei as a trade and investment initiative to revitalize Borneo's economy through the Dagang Borneo. The project is underway.

ASEAN BAC, <https://asean-bac.org/index.php/legacy-project/>, viewed on 2023/12/26

2. International Trends, Trends in ASEAN, etc.

2.2.4 ASEAN-BAC (2)

- Indonesia set eight legacy projects for the ASEAN chairmanship in 2023.

#	Legacy project	Contents	Relationship with project
1	ASEAN QR Code	Establishment and promotion of uniform QR code standards to enable cross-border payments by SMEs (and citizens who use them).	–
2	Marketplace Lending Platform	Development of a financing platform for SMEs	–
3	Wiki Entrepreneur	Establishment of a network to connect small business entrepreneurs with each other	–
4	ASEAN Net Zero Hub	Establishment of a platform for sharing knowledge and best practices among stakeholders	– :For indirect purposes, it has a relationship)
5	Carbon Center of Excellence	Establishment of a platform for stakeholders to share knowledge and best practices (climate change goals)	– :For indirect purposes, it has a relationship)
6	ASEAN One Shot Campaign	A prevention program aimed at expanding the scope of routine immunizations (assuming Covid-19) and providing a permanent solution	–
7	Inclusive Closed-loop Model for Agricultural Products	Establishment of an inclusive model with the cooperation of stakeholders involved in agricultural products and marketing.	–
8	ASEAN Business Entity	Provision of incentives to stimulate investment in the ASEAN region	✓: Agenda set under the priority of trade and investment

2. International Trends, Trends in ASEAN, etc.

2.2.4 ASEAN-BAC (3)

- The following is an overview of interviews with ASEAN-BAC legacy project stakeholders in each country.

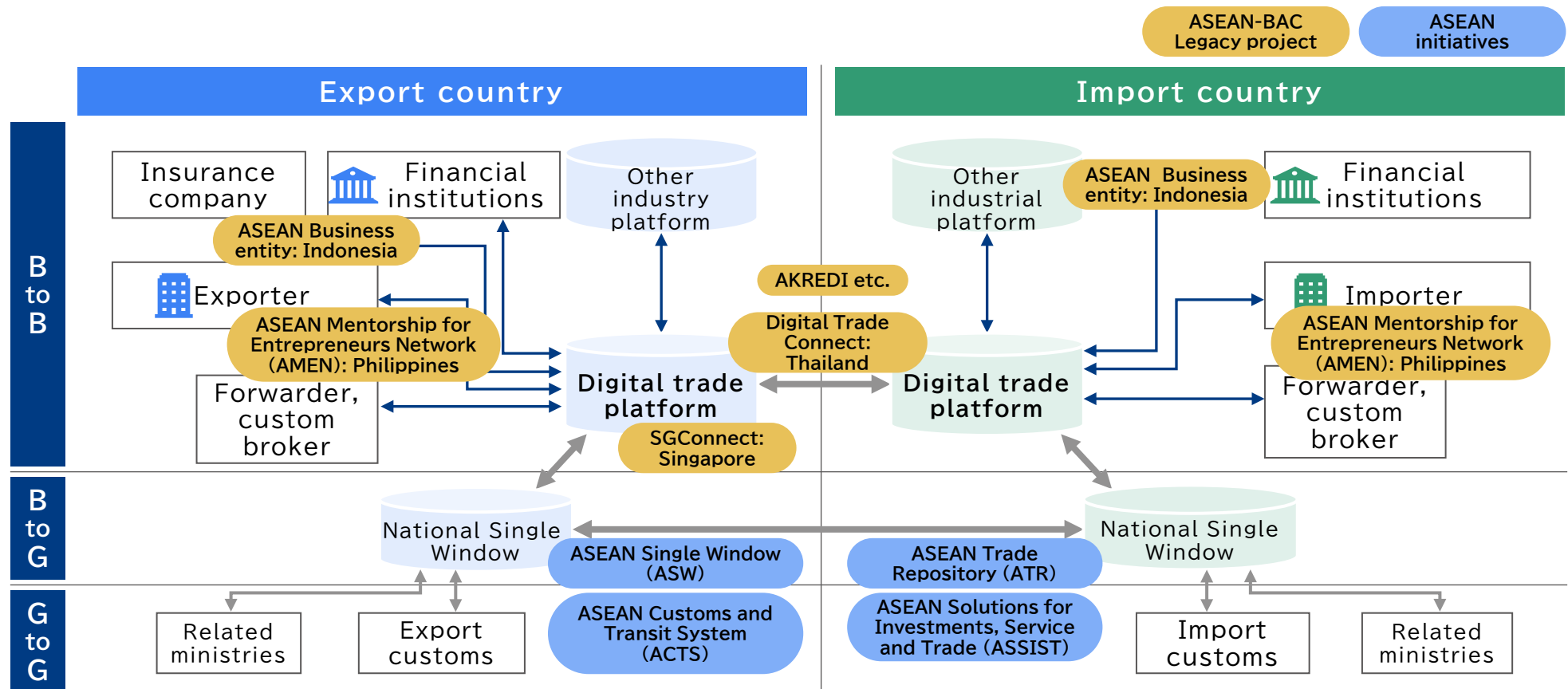
#	Country	Legacy project	Interview date	Overview of interview
1	Philippines	ASEAN Mentorship for Entrepreneurs Network (AMEN)	July 2023, November 2023	AMEN is executing a Phase 2 project, which is supported by the Japan-ASEAN Integration Fund (JAIF). In this project, capacity building to import/export businesses (SMEs) is available, and there is strong interest in working with this project for Phase 3 after 2024.
2	Singapore	SGConnect	June 2023	Technical cooperation, investment, and investment from Singapore in each country to realize the ASEAN Smart Logistics Network and develop logistics parks. Interested in attracting Japanese and other foreign companies through investment relations.
3	Brunei	AKREDI, Dagan Borneo	July 2023, December 2023	In 2021, a blockchain-based quarantine certificate demonstration called AKREDI was implemented; in 2023, with the initiative of Dagan Borneo, implementation of a digital trade platform was under consideration. There is also strong interest in this project.
4	Thailand	Enhancement of Digital Trade Connectivity	August 2023, October 2023	A task force was set up at ASEAN-BAC to promote trade digitization in each country, and representatives (companies) from each country were selected. The aim is to conduct multilateral demonstrations while also utilizing the APEC framework, etc.
5	Indonesia	Related legacy projects	June 2023, August 2023	Indonesia has established eight legacy projects, and it is commonly recognized that they are related to trade and investment priorities, etc. 8/7 was supportive of this initiative, and expressed interest in demonstration projects to understand the benefits for Indonesia.

Source: Compiled by Mitsubishi Research Institute, based on interviews.

2. International Trends, Trends in ASEAN, etc.

2.2.4 ASEAN-BAC (4)

- The ASEAN Initiative for enhancing trade connectivity and the ASEAN-BAC Legacy Project are closely related to trade digitization activities in the region. Promoting trade digitalization will be possible through collaboration with the ASEAN-BAC Legacy Project, which is closely related to this project.



Source: Mitsubishi Research Institute, Inc.

2. International Trends, Trends in ASEAN, etc.

2.2.5 Summary(ASEAN Trends)

Summary:

- ASEAN countries are promoting moves toward electronic trade transactions, such as the ASEAN Single Window based on the AEC, but limited in the BtoB area.
- International cooperation activities are centered on electronic exchanges of certificates of origin in line with FTAs.
- Linkage with ASEAN-BAC Legacy Project could be one measure to promote trade digitalization.

Viewpoint	Outlook
Policy	<ul style="list-style-type: none"> • Within the ASEAN region, the ASEAN Economic Community (AEC) was established in 2015. Based on the AEC Blueprint 2025 issued in 2017, moves toward electronic trade transactions are being promoted.
National Single Window and ASEAN Single Window	<ul style="list-style-type: none"> • Development of national single windows in each country has run its course. The ASEAN Single Window (ASW) has also been introduced, contributing to the revitalization of trade through the use of intra-regional trade agreements, as well as to the facilitation of trade procedures and cost reduction. • Documents handled by ASW include certificates of origin, quarantine certificates, and customs declaration documents. On the other hand, mutual compatibility with countries outside the ASEAN region is an issue.
International cooperation initiatives	<ul style="list-style-type: none"> • Within the ASEAN region, each country is pursuing free trade agreements. A mechanism that allows exchanges of certificates of origin, ASW promotes application of the agreements. • IMDA in Singapore is promoting the TradeTrust Framework and is attempting to promote the transfer of records as a tamper-resistant open source using blockchain in a manner that meets the MLETR requirements.
ASEAN-BAC	<ul style="list-style-type: none"> • A trade digitization initiative of Thailand has been launched in the ASEAN-BAC Legacy Project, and trade digitization is becoming a key agenda item in other related ASEAN-BAC initiatives.

Source: Compiled by Mitsubishi Research Institute, Inc. from various publicly available information.

2. International Trends, Trends in ASEAN, etc.

2.3.1 Policy Trends (1) Overview of APEC

- APEC was launched in 1989 as a framework for economic integration and economic cooperation in the Asia-Pacific region. Currently, 21 countries and regions are participating in APEC, with seven countries from ASEAN: Brunei, Indonesia, Malaysia, Singapore, Thailand, and Vietnam.
- APEC established the Trade and Investment Committee, which is working to liberalize and facilitate trade and investment.

Overview of APEC

- A framework for economic cooperation involving 21 countries and regions (economies) in the Asia-Pacific region.
(Launched as a ministerial meeting in 1989, it has also hosted a summit meeting since 1993. The secretariat is located in Singapore.)
- Activities to promote trade and investment liberalization and facilitation, regional economic integration, and economic and technological cooperation for sustainable growth and prosperity in the Asia-Pacific region.
- The APEC Business Advisory Committee (ABAC) makes direct recommendations to leaders on issues of importance to the business community.

Subcommittee/Expert meeting

- Expert Meeting on Business Personnel Mobility(BMG)
- Digital Economy Steering Group (ECSG/DESG)
- Service Group (GOS)
- Investment Experts Group (IEG)
- Intellectual Property Experts Group (IPEG)
- Market Access Group (MAG)
- Standards & Conformity Subcommittee (SCSC)
- Subcommittee on Customs Procedures (SCCP)

2. International Trends, Trends in ASEAN, etc.

2.3.1 Policy Trends (2) History of APEC

- APEC was established in 1989 by 12 countries. Since 2006, activities have been underway to create a regional free trade area, beginning with FTAAP.

Year	Events	Contents
1989	Launch of APEC	At its inception, the organization had 12 members from six ASEAN countries (Indonesia, Singapore, Thailand, the Philippines, Brunei, and Malaysia), South Korea, New Zealand, Australia, Canada, the United States, and Japan.
2006	Announcement of the Asia-Pacific Free Trade Area (FTAAP) concept at the APEC Leaders' Meeting.	At this meeting, the leaders agreed on a long-term vision to form an Asia-Pacific free trade area and to conduct a study on ways and means to achieve this.
2010	Roadmap to Asia-Pacific Free Trade Area (FTAAP)" adopted at Yokohama Vision.	It was decided to "take concrete steps toward an Asia-Pacific Free Trade Area (FTAAP) as the primary vehicle for advancing APEC's regional economic integration agenda."
2011	Establishment of Cross Border Privacy Enforcement Arrangement (CBPR) system	A system to ensure that information is protected in accordance with APEC Privacy Principles for cross-border data flows, with the aim of protecting cross-border personal information.
2012	Establishment of Framework Action Plan for the Capacity Building Initiative for Regional Economic Integration (CBNI) to build capacity for realizing FTAAP.	Capacity-building activities in pursuit of FTAAP. In line with this action plan, Japan is conducting several workshops.
2014	Beijing Roadmap for APEC's Contribution to the Realization of an Asia-Pacific Free Trade Area (FTAAP)" adopted at the APEC Leaders' Meeting	It was decided to initiate the Collaborative Strategic Study on Issues Related to the Realization of the FTAAP. Progress of this strategic study is reviewed annually by the APEC Trade and Investment Committee and the High-level Working-Level Meeting. A consensus-based report was completed and submitted to Ministers and Leaders by the end of 2016.

Source: Compiled by Mitsubishi Research Institute, Inc. from various sources, viewed on 2023/12/26

2. International Trends, Trends in ASEAN, etc.

2.3.1 Policy Trends (2) History of APEC

- Although activities to realize the FTAAP have been underway continuously for the past five years, the progress of discussions has slowed due to a deterioration of international relations.
- At the APEC Leader's meeting, "Strengthening supply chain resilience" and "promoting digital trade" were identified as areas of focus for activities toward mutual cooperation, one of the priority issues.

Year	Events	Contents
2017	APEC Leaders approve APEC cross-border e-commerce facilitation framework at the APEC Summit	APEC leaders set development of transparent and predictable cross-border EC legal rules. (See below for details.)
2018	For the first time in the history of the APEC Summit, adoption of the Leaders' Declaration was abandoned.	The US and China disagreed on such agenda items as trade and regional cooperation, and Papua New Guinea, the chairing country, declined to adopt the summit declaration.
2020	Presentation of Putrajaya Vision 2040	The vision of an open, dynamic, resilient, and peaceful Asia-Pacific Community by 2040, based on the key parts of trade and investment liberalization, digital economy and innovation, and sustainable and inclusive growth
2021	Development of Aotearoa Action Plan	APEC adopted as implementation plan for Putrajaya Vision 2040.
2017	APEC Leaders approve APEC cross-border e-commerce facilitation framework at APEC Summit	APEC leaders set forth development of transparent and predictable cross-border EC legal rules. (See below for details.)
2023	APEC Leaders' Meeting held in San Francisco	The theme was "Creating a Resilient and Sustainable Future for All," and three priorities were set for discussion: 1) Interconnectedness, 2) Innovation, and 3) Inclusiveness.

Source: Compiled by Mitsubishi Research Institute, Inc. from various sources, viewed on 2023/12/26

2. International Trends, Trends in ASEAN, etc.

2.3.2 Activities to Strengthen Regional Cooperation

(1) FTAAP

- The Asia-Pacific Free Trade Area (FTAAP) was proposed at the 2006 APEC Leaders' Meeting with the aim of forming a free trade zone among member countries.

Concept

- The basic policy is to form FTAAP on top of regional economic partnership agreements already in progress, such as TPP and RCEP.
- At the 2006 summit meeting, the US proposed the concept of FTAAP, which is said to have been motivated by concerns over the rise of East Asian regionalism and aimed at discouraging broad-based FTAs such as ASEAN+3 and ASEAN+6 that exclude the US.
- The TPP and RCEP were subsequently launched. The TPP was led by the US at the time. In response, China advanced the RCEP concept and has been negotiating an East Asia wide FTA.

Recent trends

- At the APEC summit in November 2022, the US and Japan and Russia were at odds over their condemnation of Russia's aggression against Ukraine.
- It appears that the participating countries have reached a consensus on accelerating research toward the realization of the Asia-Pacific Free Trade Area (FTAAP) and ensuring a free, open, and fair trade and investment environment.

Source: Institute for International Trade and Investment, <https://www.iti.or.jp/kikan100zoukan/100umada.pdf> , viewed on 2023/12/26

2. International Trends, Trends in ASEAN, etc.

2.3.2 Activities to Strengthen Regional Cooperation (2) APEC Cross-border E-Commerce Facilitation Framework

- The APEC Cross-Border E-Commerce Facilitation Framework was adopted at the 2017 APEC Leaders' Meeting.

Objectives

- ① Create a regulatory ecosystem that is favorable to e-commerce to promote predictability, transparency, security, fair competition, and consistency
- ② Promote the development of information and communication technology infrastructure to facilitate cross-border electronic commerce
- ③ Encourage and facilitate the participation of businesses in global commerce, especially small and medium-sized enterprises (SMEs)
- ④ Strengthening public-private partnerships, including consumer protection
- ⑤ Contribute to trade and investment facilitation in the region and help achieve the Bogor Goals and the post-2020 vision.

Main targets that make up the framework

#	Main targets
A	Promote transparent and predictable legal and regulatory approaches and measures. Promote business-friendly, consistent, transparent, and predictable legal and regulatory approaches and regulations to facilitate cross-border e-commerce.
B	Strengthen capacity building to enable APEC economies to support MSMEs' cross-border EC entry into global and regional markets.
C	Strengthen cross-border data privacy protection by expanding implementation of existing APEC programs
D	Facilitate cross-border paperless trade within the region
E	Address new and cross-cutting issues in cross-border e-commerce

Source: APEC, http://mddb.apec.org/Documents/2017/MM/AMM/17_amm_jms_anxa.pdf, viewed on 2023/12/26

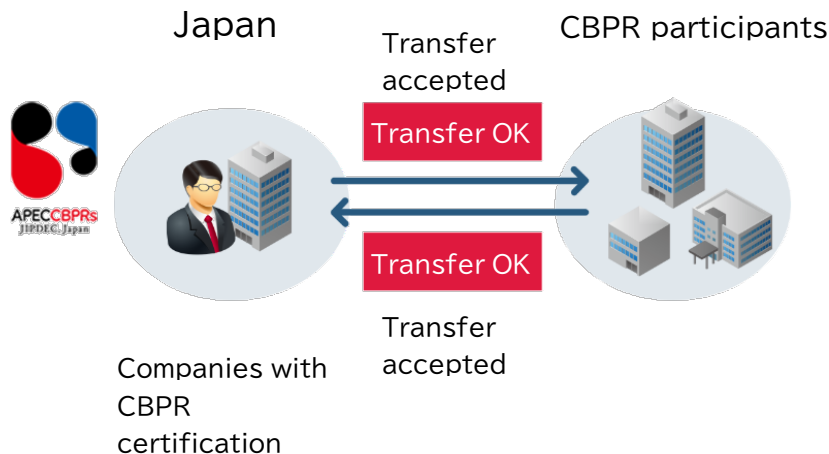
2. International Trends, Trends in ASEAN, etc.

2.3.3 Harmonization of Legal Systems and Regulations

(1) Cross-border Privacy Rule System (CBPR)

- Cross-border Privacy Rules (CBPR) form a system for certifying compliance with APEC Privacy Principles with respect to protecting the cross-border personal data of companies, etc. It was agreed upon in 2011, and a new independent forum (tentatively called the agreement) was set up in 2011. Another new independent forum (tentatively called the Global CBPR) was launched in 2022.

Overview



- ✓ Companies in participating countries are audited for compliance with the requirements of the CBPR system by a certification body called an accountability agent.
- ✓ Only institutions with CBPR certification may send and receive personal data cross-border in accordance with CBPR rules.
- ✓ Currently, nine countries participate: US, Canada, Mexico, South Korea, Taiwan, Singapore, Philippines, Australia, and Japan.

Source: JIPDEC, <https://www.jipdec.or.jp/project/cbpr.html>, viewed on 2023/12/26
 JETRO, <https://www.jetro.go.jp/biznews/2022/04/3ccb8aec46cb51c6.html>, viewed on 2023/12/26
 CBPR, <http://cbprs.org/about-cbprs/>, viewed on 2023/12/26

2. International Trends, Trends in ASEAN, etc.

2.3.3 Harmonization of Legal Systems and Regulations

(1) Cross-border Privacy Rule System (CBPR)

- The Global CBPR, formed in 2022, is developing international rules in accordance with the following objectives

Recent Developments (Global CBPR)

- ✓ Of the current nine participating countries, seven—Canada, Japan, Korea, the Philippines, Singapore, Taiwan, and US—have established a new independent forum, tentatively named Global CBPR.
- ✓ Against the backdrop of a growing need for third-party corporate certification for secure transborder transfers of personal data, the forum aims not to be limited to the APEC framework. It has the five objectives listed below.

#	Objectives
1	Establish an international certification system based on the APEC Cross-Border Privacy Rule (CBPR) system and the Privacy for Processors (PRP) system.
2	Support the free flow of data and effective data protection and privacy through the GlobalCBPR and PRP systems
3	Provide a forum for exchanges of information and collaboration on matters related to the GlobalCBPR and PRP systems.
4	Regularly review members' data protection and privacy standards to ensure GlobalCBPR and PRP program requirements in line with best practices
5	Facilitate interoperability with other data protection and privacy frameworks

Source: JIPDEC, <https://www.jipdec.or.jp/project/cbpr.html>, viewed on 2023/12/26
 JETRO, <https://www.jetro.go.jp/biznews/2022/04/3ccb8aec46cb51c6.html>, viewed on 2023/12/26
 CBPR, <http://cbprs.org/about-cbprs/>, viewed on 2023/12/26

2. International Trends, Trends in ASEAN, etc.

2.3.3 Harmonization of Legal Systems and Regulations

(2) APEC Trade Repository

- The APEC Trade Repository has been developed to ensure that small and medium-sized enterprises (SMEs) can fully benefit from FTAs within the APEC region.

#	Item	Contents
1	MFN tariff rates	✓ MFN tax rate
2	Preferential tariff rates	✓ Preferential tariffs
3	Rules of origin (ROO) on existing RTAs/FTAs	✓ Rules of origin in existing RTAs/FTAs
4	Best practices in trade facilitation	✓ Best practices in trade facilitation
5	Domestic trade and customs laws and regulations	✓ Domestic trade and customs regulations
6	Procedures and documentary requirements for imports and exports	✓ Procedures and documentation requirements for import/export
7	Authorized economic operators (AEOs) and information on mutual recognition arrangements (MRAs)	✓ Information on AEO and mutual recognition
8	List of AEOs(as available)	✓ AEO list

*The AEO system is a system whereby customs approves and certifies businesses that have established cargo security management and legal compliance systems, and provides them with measures to ease and simplify customs procedures.

Source: APEC, https://www.apec.org/docs/default-source/publications/2023/5/study-on-strategy-to-promote-the-utilization-of-the-apec-trade-repository/223_mag_study-on-strategy-to-promote-the-utilization-of-the-apec-trade-repository.pdf, viewed on 2023/12/26

2. International Trends, Trends in ASEAN, etc.

2.3.4 ABAC Initiatives

- At the APEC meeting in Brunei in May 2023, ABAC members urged APEC Trade Ministers, the WTO, and the FTAAP to use the challenges facing the region, including environmental risks and financial stress, as opportunities to build new initiatives. They urged them to use the challenges facing the region, such as environmental risks and financial stress, as an opportunity to build a new path to a strong, inclusive, and sustainable regional economy.

Recommendations to APEC Leaders

#	Category	Contents	
1	Regional economic integration	<ul style="list-style-type: none"> ✓ Promote the Asia-Pacific Free Trade Area (FTAAP) concept ✓ Support the World Trade Organization (WTO) and defend a rules-based multilateral trade regime ✓ Strengthen trade in services 	<ul style="list-style-type: none"> ✓ Novel coronavirus infection responses and vaccine availability in trade ✓ Border reopening through more consistent immigration action responses in each country/region in the region
2	Digital	<ul style="list-style-type: none"> ✓ Expand physical infrastructure that is essential to promote digitization ✓ Expand basic digital infrastructure, including cybersecurity and digital IDs 	<ul style="list-style-type: none"> ✓ Strengthen data infrastructure for value creation through data sharing, cross-border data facilitation, digital health applications, etc.
3	Micro, small and medium enterprises and inclusiveness	<ul style="list-style-type: none"> ✓ Strengthen sustainable practices of micro, small and medium enterprises 	<ul style="list-style-type: none"> ✓ Promote digital transformation of micro, small and medium enterprises
4	Sustainability	<ul style="list-style-type: none"> ✓ Build a sustainable and resilient food system ✓ Promote effective responses to climate change 	<ul style="list-style-type: none"> ✓ Promote energy transition toward a low-carbon economy
5	Finance and economics	<ul style="list-style-type: none"> ✓ Implement monetary and fiscal policies to intercept the wage-price spiral ✓ Balance fiscal consolidation through new fiscal instruments and fiscal spending for structural reforms 	<ul style="list-style-type: none"> ✓ Financing transitions to a sustainable economy ✓ Build a regional platform for transitions and digitalization and resilience

Source: Ministry of Economy, Trade and Industry, <https://www.meti.go.jp/press/2022/11/20221110002/20221110002.pdf>, viewed on 2023/12/26
APEC, <https://www.apec.org/press/news-releases/2023/asia-pacific-business-leaders-call-for-forging-a-new-path-on-inclusion-resilience-and-sustainability>, viewed on 2023/12/26

2. International Trends, Trends in ASEAN, etc.

2.3.4 ABAC Initiatives Digital Trade Connect

- Digital Trade Connect was launched as a network for sharing initiatives and case studies on digital trade in both APEC and ASEAN under an initiative of ASEAN-BAC (Thai Bankers Association) in Thailand. The first task force meeting was held in October 2023.

Participants

Category	Country
Of the ASEAN Participation from both ABAC and ASEAN-BAC	Brunei Indonesia Malaysia Philippines Singapore Thailand Vietnam
ASEAN-BAC	Cambodia Lao PDR Myanmar
Other countries	Japan, Hongkong, Australia
International Institutions, standard institutions	ASEAN SEC, ICC DSI, ETDA, UN, UN/CEFACT, ADB

Plan

Meeting	Date	Agenda
Kickoff	October 31, 2023	Overview, Presentation by Thailand
2 nd meeting	December 1, 2023	Presentation by Singapore, ICC DSI, UN/CEFACT
3 rd meeting	January 25, 2024	Presentation by Japan, ASEAN-SEC, UNCITRAL
4 th meeting	February 20, 2024	Presentation by Hongkong
5 th meeting	March 19, 2024	Presentation by Australia, New Zealand
6 th meeting	April 19, 2024	Presentation by China and PAA

Source: Prepared by Mitsubishi Research Institute, Inc. based on data from ASEAN-BAC

2. International Trends, Trends in ASEAN, etc.

2.3.5 Summary(APEC Trends)

- APEC has been working mainly toward regional economic integration and economic cooperation, particularly toward the realization of the Pacific Free Trade Area (FTAAP), but progress has been slowing down due to international instability.
- The three priorities of the 2023 APEC Leaders' Summit are 1) Interconnected, 2) Innovative, and 3) Inclusive.

Viewpoint	Outlook
Policy trend	<ul style="list-style-type: none"> ● Activities to realize the FTAAP have been underway, but progress has been slowed by deteriorating international relations.
Strengthening intra-regional cooperation	<ul style="list-style-type: none"> ● APEC Cross-Border E-Commerce Facilitation Framework adopted. APEC agreed measures to promote cross-border paperless trade. ● Since the announcement of the FTAAP concept in 2006, efforts have been made to date to realize the Pacific Free Trade Area concept (FTAAP). ● In 2018, organizational activities slowed as the country has been significantly affected by geopolitical risks and international instability, such as abandoning adoption of the Summit Declaration due to conflict between the US and China.
Harmonization of laws and regulations	<ul style="list-style-type: none"> ● Cross Border Privacy Rules/APEC Cross Border Privacy Rules System (CBPR) established to set up a certification system for protecting the cross-border personal data of companies, etc. APEC Trade Repository is being established. It compiles and publishes trade and tariff information of member countries.
ABAC initiatives	<ul style="list-style-type: none"> ● In the area of trade digitalization, the Taskforce on Digital Trade Transformation and Connectivity was established under the Financial Taskforce and recruited members from each country until August 2023, with meetings started for knowledge sharing in October 2023.

Source: Ministry of Foreign Affairs, https://www.mofa.go.jp/mofaj/gaiko/apec/index_rekishi.html , viewed on 2023/12/26

3. Analysis of Current Status of the 10 ASEAN Countries

- 3.1 Trade Transactions and Trade-related Data
- 3.2 Status of Platform Development
- 3.3 Status of Infrastructure Development
- 3.4 Trends in Digitization and Standardization
- 3.5 Issues with Trade Procedures
- 3.6 Potential of Trade Digitalization Market
- 3.7 Stakeholders
- 3.8 Summary

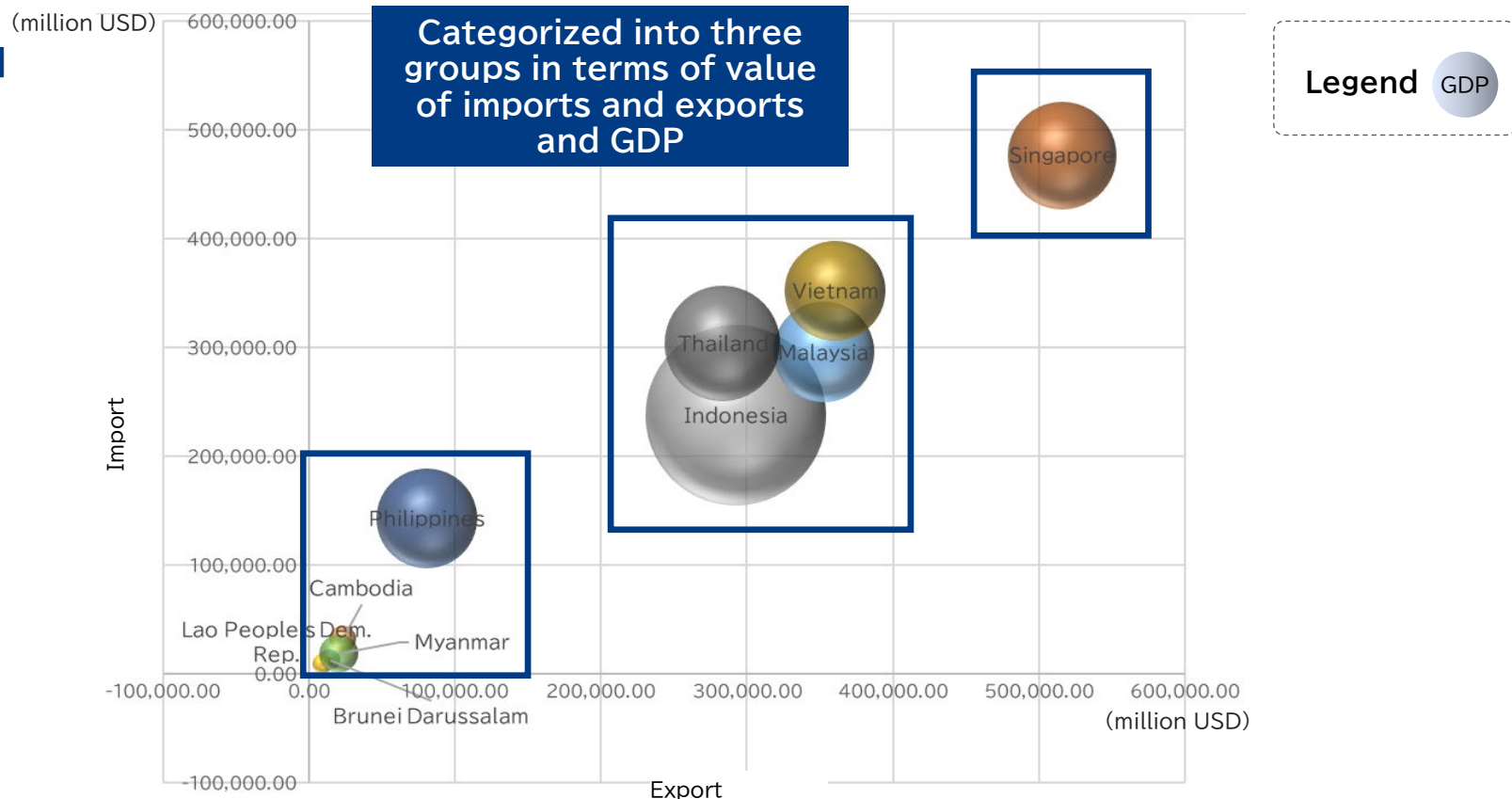
3. Analysis of Current Status of the 10 ASEAN Countries

3.1 Trade Transactions and Trade-related Data

(1) Trade value

- The following table shows the values of imports and exports of the 10 ASEAN countries. Trade with Singapore and is largely divided into Indonesia, Vietnam, Malaysia, Thailand, and the Philippines, Cambodia, Laos, Myanmar, and Brunei

Exports and imports by ASEAN countries (2022)



Source: Compiled by Mitsubishi Research Institute, Inc. from IMF Direction of Trade Statistics for each country in 2022.

3. Analysis of Current Status of the 10 ASEAN Countries

3.1 Trade Transactions and Trade-related Data

(2) Proportions of imports and exports

- The following table shows the percentages of imports and exports of ASEAN countries to other countries.
- Both imports and exports tend to be dominated by transactions within the ASEAN region, followed by trade transactions with China.

Proportions of imports and exports of ASEAN countries, 2022

Country	ASEAN	Japan	China	EU	United States
Brunei	37.2%	24.6%	16.2%	0.0%	0.0%
Cambodia	5.9%	5.3%	5.7%	19.3%	44.8%
Indonesia	21.2%	8.0%	20.7%	7.2%	10.9%
Lao P.D.R	48.2%	1.9%	33.2%	4.3%	2.7%
Malaysia	29.2%	6.3%	13.6%	8.3%	10.8%
Myanmar	26.7%	6.8%	28.0%	19.8%	3.3%
Philippines	17.6%	13.9%	13.8%	11.5%	15.8%
Singapore	28.6%	4.0%	12.4%	7.7%	8.8%
Thailand	25.1%	8.6%	12.0%	7.8%	16.6%
Vietnam	9.2%	6.6%	16.1%	12.8%	30.0%

Country	ASEAN	Japan	China	EU	United States
Brunei	40.8%	4.3%	7.4%	2.1%	5.8%
Cambodia	43.4%	1.9%	38.0%	2.1%	1.1%
Indonesia	22.6%	7.7%	25.3%	4.8%	4.0%
Lao P.D.R	66.2%	1.2%	28.4%	1.7%	0.5%
Malaysia	24.7%	6.4%	21.3%	7.0%	7.8%
Myanmar	52.4%	2.2%	31.0%	2.6%	0.7%
Philippines	28.9%	8.9%	20.3%	5.9%	6.5%
Singapore	22.4%	5.6%	13.2%	9.0%	10.9%
Thailand	17.5%	11.5%	23.5%	6.0%	5.9%
Vietnam	13.5%	6.6%	33.5%	4.4%	4.1%

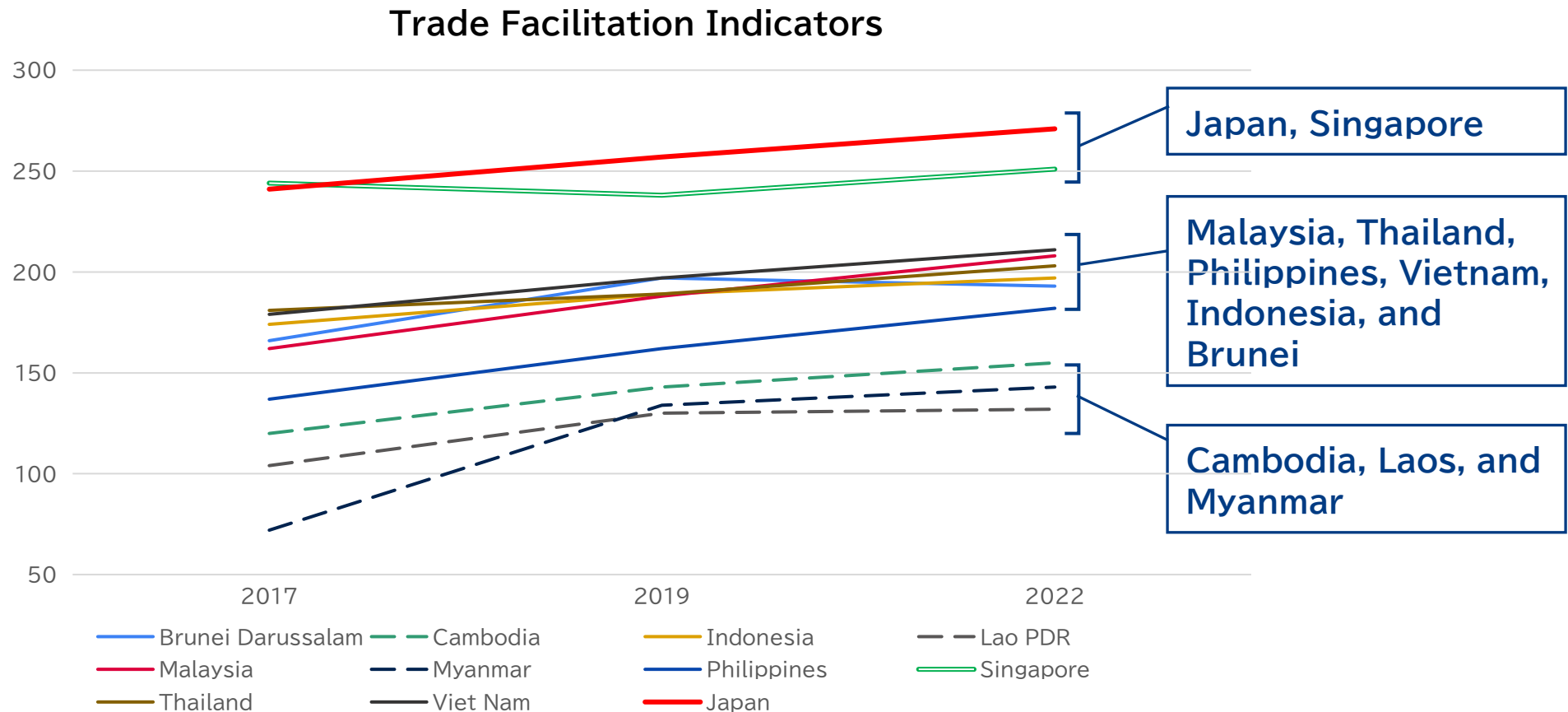
Source: Compiled by Mitsubishi Research Institute, Inc. from IMF Direction of Trade Statistics for each country in 2022 (transaction value basis)

3. Analysis of Current Status of the 10 ASEAN Countries

3.1 Trade Transactions and Trade-related Data

(3) Trade data (TFI)

- The OECD's Trade Facilitation Indicators indicate the status of customs and other trade procedures under the WTO's Trade Facilitation Agreement. Based on the indicators, countries can be divided into three main groups.



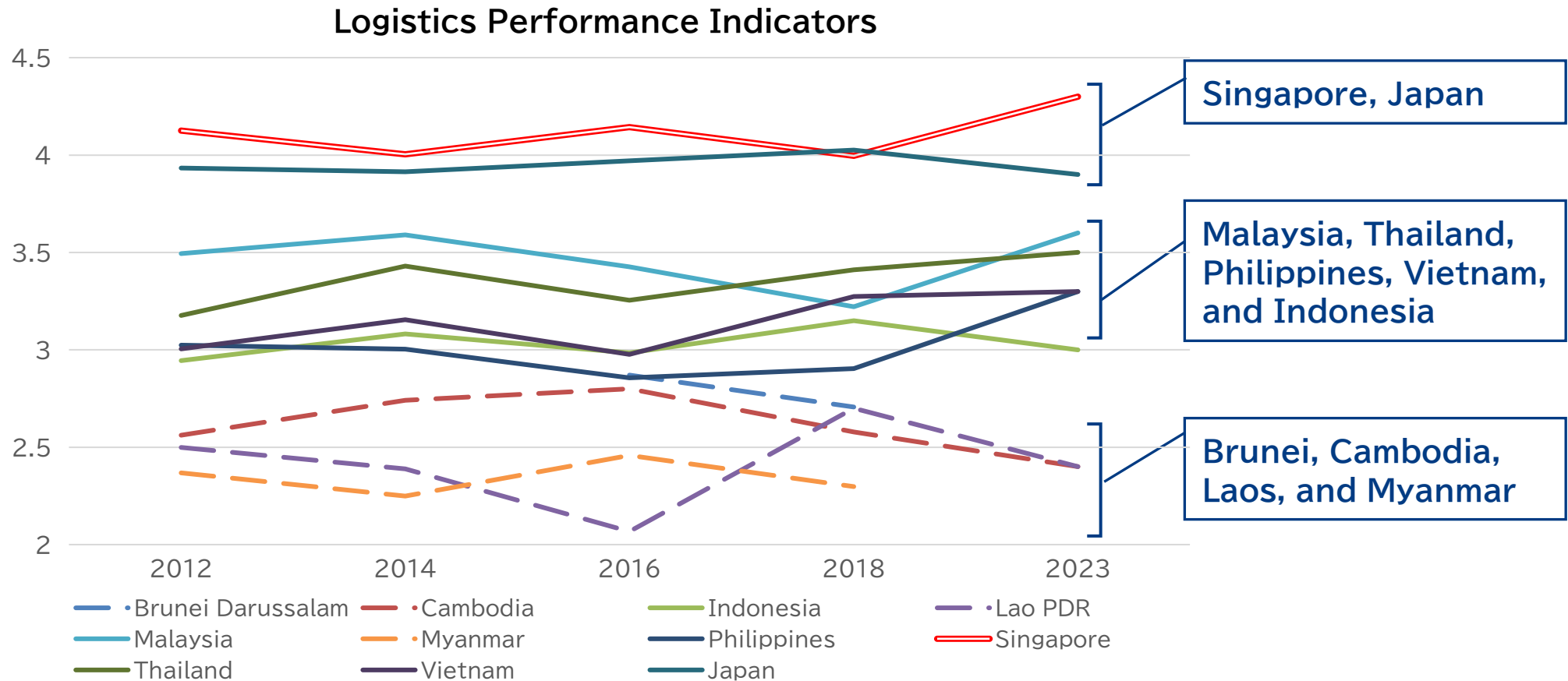
Source: Compiled by Mitsubishi Research Institute from OECD, Trade Facilitation Indicators

3. Analysis of Current Status of the 10 ASEAN Countries

3.1 Trade Transactions and Trade-related Data

(4) Trade data (LPI)

- In terms of Logistics Performance Indicators (LPI), which measure the performance of logistics in each country, there are three main groups of countries.



Source: The World Bank, Logistics Performance Indicators

3. Analysis of Current Status of the 10 ASEAN Countries

Reference: TFI and LPI

- Explanations of indicators for LPT and TFI are as follows.

Indicator	Source	Overview	Description
TFI	OECD	A KPI launched in 2013 to evaluate fulfillment of the WTO's trade facilitation agreement. 133 indicators are classified into 11 data sets.	The following data sets are defined: (a) Information availability, (b) Improvement of the trade community, (c) Advance rulings, (d) Appeal procedures, (e) Fees and charges, (f) Formalities-documents, (g) Formalities-automation, (h) Formalities-procedures, (i) Internal co-operation, (j) External co-operation, and (k) Governance and impartiality. Each indicator is rated on a scale of 0 to 2, with the total being the sum of the indicators.
LPI	The World Bank	A KPI launched in 2007 used for logistics-related benchmarking and updated every two years. It is divided into an international LPI and a domestic LPI. Current indicators are under review, and new indicators will be set in 2023.	The International LPI is evaluated with six indicators: Customs Procedures (Customs), Trade and Transportation Infrastructure (Infrastructure), International Shipments (International Shipments), Logistics Competence (Tracking and Tracing), and Timeliness. The evaluation of indicators is made on a scale of 0 to 5.

Source: UNSCAP, Indicators for Trade Facilitation: A Handbook (Version 1.0)

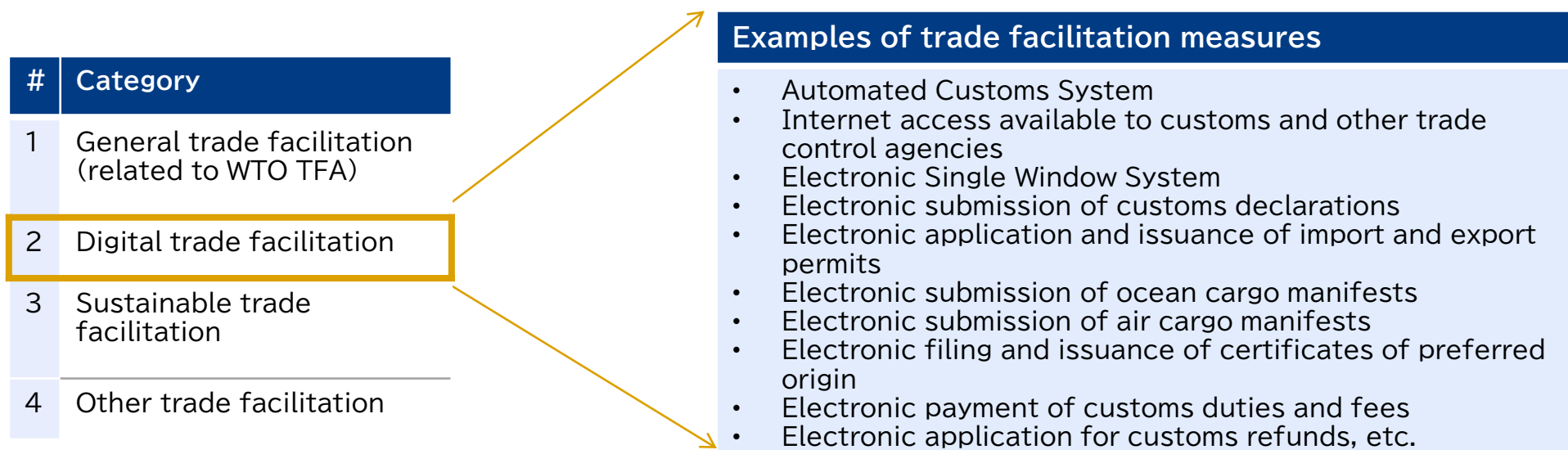
https://www.unescap.org/sites/default/files/FINAL%20V1.0_Indicators%20for%20Trade%20Facilitation-ESCAP-OECD%20Handbook_0.pdf, viewed on 2023/12/28

3. Analysis of Current Status of the 10 ASEAN Countries

3.1 Trade Transactions and Trade-related Data

(5) Survey of ESCAP

- The United Nations Committee on Regional Commissions and UNCTAD have been jointly conducting a study on digital and sustainable trade promotion aimed at reducing the time and cost of cross-border trade.
- The study covers 160 economies and 60 measures worldwide, and has produced a global and regional report every two years since 2015. The regional report focuses on the progress of trade facilitation in the 10 ASEAN countries and includes 60 trade facilitation measures in four categories and 11 subgroups. It also includes measures related to digital trade.



Source: Compiled by Mitsubishi Research Institute, Inc. based on ESCAP Digital and Sustainable Trade Facilitation in ASEAN <https://www.unescap.org/kp/2023/untf-survey-asean>

United Nations, UN Global Survey on Digital and Sustainable Trade Facilitation, <https://www.untfsurvey.org/compare-measures>, viewed on 2024/1/30

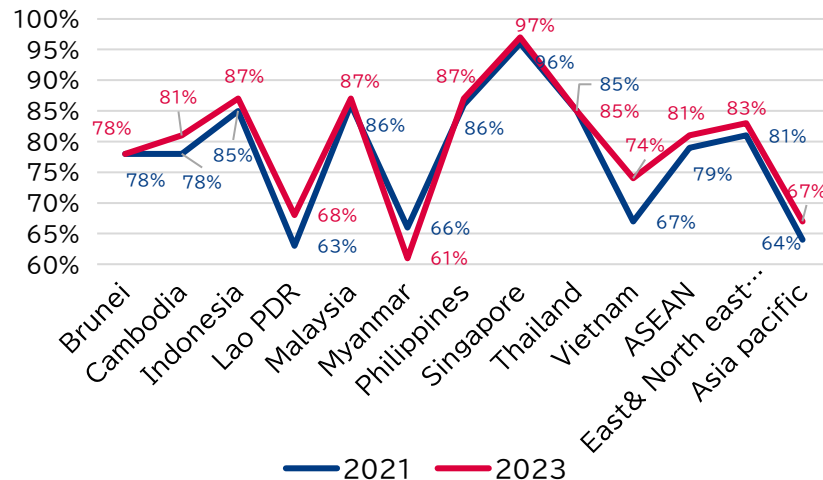
3. Analysis of Current Status of the 10 ASEAN Countries

3.1 Trade Transactions and Trade-related Data

(5) Survey of ESCAP

- Between 2021 and 2023, when the most recent similar survey was conducted, the overall implementation rate of trade facilitation measures within ASEAN rose from 79% to 81%. Vietnam, in particular, saw a rapid increase from 67% in 2021 to 74% in 2023. The Philippines and Laos followed, with implementation rates increasing by five and three percentage points, respectively.
- Singapore ranked first in terms of implementation rate within ASEAN in 2023, while Indonesia, Malaysia, and the Philippines ranked second). Countries that showed an increase in ranking were Indonesia (from 4th to 2nd) and Lao PDR (from 9th to 10th).

Implementation ratio for trade facilitation



Ranking for the implementation ratio in ASEAN

Country	2021	2023	Trend
Singapore	1	1	→
Malaysia	2	2	→
Philippines	2	2	→
Indonesia	4	2	↗
Thailand	4	5	↘
Brunei	6	7	↘
Cambodia	6	6	→
Vietnam	8	8	→
Myanmar	9	10	↘
Lao PDR	10	9	↗

Source: ESCAP, Digital and Sustainable Trade Facilitation in ASEAN, <https://www.unescap.org/kp/2023/untf-survey-asean,2024/1/20>

3. Analysis of Current Status of the 10 ASEAN Countries

3.2 Status of Platform Development

(1) NSW

- The table below shows the operation status of the National Single Window in each ASEAN country.

● In operation in several countries — Unknown

Country name	National Single Window (NSW)	Connection status with ASW		
		e-ATIGA Form D	ASEAN Customs Declaration Document(ACDD)	Electronic Phytosanitary Certificate(ePhyto)
Brunei	BDNSW	●	●	—
Cambodia	CNSW	●	●	System already built
Indonesia	INSW	●	●	Exchanged with Thailand
Lao PDR	LNSW	●	—	—
Malaysia	NSW(myTRADELINK)	●	●	System already built
Myanmar	- (MACCS/MCIS)	●	●	—
Philippines	TradeNet	●	●	System already built
Singapore	TradeNet	●	●	—
Thailand	TNSW	●	●	Exchanged with Indonesia
Vietnam	VNSW	●	●	—

Source: Compiled by Mitsubishi Research Institute, Inc. from various sources.

3. Analysis of Current Status of the 10 ASEAN Countries

3.2 Status of Platform Development

(1) NSW

- The table below shows the main organizations and governance of the National Single Window in each ASEAN country.

Country name	National Single Window (NSW)	Organization in charge	Governance
Brunei	BDNSW	Royal Customs & Excise Department	Government initiative (Developed by CrimsonLogic)
Cambodia	CNSW	Ministry of Finance (GDCE)	Government initiative (Developed in collaboration with customs and VCC, then operated by NSW Steering Committee)
Indonesia	INSW	Ministry of Finance (INSW department, formal name: LNSW)	Government initiative (until 2016, the Directorate General of Customs was the lead agency, then responsibility was transferred to the LNSW Agency; the operating entity is EDI Indonesia, a private company)
Lao PDR	LNSW	Ministry of Finance	PPP (a joint venture between the Ministry of Finance and BIVAC Lao Co., Ltd.)
Malaysia	NSW (myTRADELINK, uCustoms)	Ministry of Finance	PPP (led by the Ministry of Finance, developed, operated, and managed entirely by Dagang Net) myTRADELINK provides the user interface for inputs to NSW.
Myanmar	– (MACCS/MCIS)	Ministry of Planning Finance and Investment	Government initiative (with support from USAID, the NSW Routing Platform was established to integrate MACCS and MCIS, but it is a temporary system and does not fulfill the main functions of NSW)
Philippines	TradeNet	TradeNet secretariat Department of Finance	Government initiative (introduced by the NSW Steering Committee on a cross-ministry basis. Currently under the jurisdiction of the Trade Net Secretariat and closely related to the Department of Finance)
Singapore	TradeNet	Singapore Customs	Government initiative (CrimsonLogic has been the developer, but all investors are public agencies)
Thailand	TNSW	Thailand Customs	Government initiative (development and operational support from National Telecom)
Vietnam	VNSW	General Department of Vietnam Customs	Government initiative (joint involvement of Ministry of Finance and Ministry of Industry and Trade; VNACCS and VCIS are positioned as customs functions)

3. Analysis of Current Status of the 10 ASEAN Countries

3.2 Status of Platform Development

(1) NSW

- The table below shows the functions of the National Single Window for exports of each ASEAN country.

● Equipped ▲ Partially equipped No function

Country	Name	Shipping	Custom clearance	Bonded Transportation, CY delivery etc.	Permits declarations to other ministries	Departure clearance	Tax collection	Other BtoB functions
		Invoice, S/I	Export clearance, approval information	Transportation to bonded warehouse, CY delivery etc.	Other laws and regulations (plant and animal quarantine, etc.)	Departure and loading procedures	Tariffs	Others
Brunei	BDNSW		●		●			
Cambodia	CNSW		▲		▲	▲ (PortEDI)	▲ (LPCO)	
Indonesia	INSW		●	●	●			
Lao PDR	LNSW				▲ (C/O)			
Malaysia	NSW (myTRADELINK, uCustoms)		●		▲ (myTRADELINK)		●	▲ TIP
Myanmar	– (MACCS/MCIS)	●	●	●		●	▲	▲
Philippines	TradeNet		● (InterCommerce Network Service)		● (InterCommerce Network Service)	▲	● (InterCommerce Network Service)	
Singapore	TradeNet		●		▲ (C/O)		●	▲ NTP
Thailand	TNSW		●		●		● (ITMX)	● (Insurance Policy)
Vietnam	VNSW(VNACCS)	●	●					

Source: Compiled by Mitsubishi Research Institute, Inc.

3. Analysis of Current Status of the 10 ASEAN Countries

3.2 Status of Platform Development

(1) NSW

- The table below shows the functions of the National Single Window for imports of each ASEAN country.

Country	Name	Permits declarations to other ministries	Arrival clearance	Bonded Transportation, CY delivery	Import clearance	Tax collection	Other B2B functions
		Other laws and regulations (plant and animal quarantine, etc.)	Import clearance	bonded transport declaration	Delivery, mixed sorting, import declarations	Tariffs	Others
Brunei	BDNSW	●			●	●	
Cambodia	CNSW	▲ (LPCO)	▲ (Port EDI)		▲ (e-Customs)	▲ (LPCO)	
Indonesia	INSW	●			●		
Lao PDR	LNSW	▲ (C/O)			▲ Ascyuda		
Malaysia	NSW (myTRADELINK, uCustoms)	▲ (myTRADELINK)			▲ Import declaration	●	▲ TIP
Myanmar	— (MACCS/MCIS)		▲ (Port EDI)	●	●	▲	▲
Philippines	TradeNet	▲ (InterCommerce Network Service)	▲		● (InterCommerce Network Service)	● (InterCommerce Network Service)	
Singapore	TradeNet		● (Portnet)		●	●	▲ (NTP)
Thailand	TNSW	●			●	● (ITMX)	
Vietnam	VNSW(VNACCS)		▲	●	●	▲	

Source: Compiled by Mitsubishi Research Institute, Inc.

3. Analysis of Current Status of the 10 ASEAN Countries

Reference: NSW (Case Study: Thailand)

- The National Single Window of Thailand is operated by Thai Customs.
- In 1998, the company launched Customs EDI Services, introduced the ebXML standard, adopted Public Key Infrastructure (PKI) and electronic authorization, and began operating a single window system in 2008.
- As of 2021, 17 financial institutions, 37 government agencies, and more than 9,000 businesses were connected.

History of Single Window System

Milestone	Contents
2006	✓ Operation of a multi-single window system focusing on electronic procedures at customs was started. The system became operational throughout Thailand in 2008.
2008	✓ Operation of the National Single Window System was started (integrated as Single Window)
2011	✓ Realization of ASEAN Single Window and other cross-border data exchange
2019	✓ Implementation of single-entry forms for applications for hazardous materials, phytosanitary and certificate of origin, and handling of insurance policies
2021	✓ Consideration of the release of B2B trading systems such as the Port Community System and the Air Community System, as well as the handling of the Sino-ASEAN Certificate of Origin (Form E).
2022	✓ By linking IPPC ePhyto Hub with Thailand's NSW, the electronic phytosanitary certificate system (Thailand's ePhyto System) has officially started operation.

Source: UNESCAP, Thai Customs Department (2019), Thailand National Single Window & ASEAN Single Window, <https://www.unescap.org/sites/default/files/Session%207%20%20%26%208.pdf>, viewed on 2023/12/26

3. Analysis of Current Status of the 10 ASEAN Countries

Reference: NSW (Case Study: Thailand)

- The Single Window System is primarily responsible for BtoB, BtoG, and GtoG transactions, declarations, and information linkage functions. At the business side, shipping lines, airlines, terminal operators, importers and exporters, forwarders, customs brokers, and insurance companies participate, and financial institutions are connected to the National ITMX's interbank network.

Basic functions of Single Window System

Channel	Examples of functions
BtoB	✓ Purchase management, delivery management
BtoG	✓ Includes some BtoB transactions, but also includes software for cargo, transport, port, air, and insurance procedures (Cargo and land transport regulatory SW (software), maritime regulatory SW, air regulatory SW, and e-Insurance)
	✓ Customs declaration, customs payment, permit issuance, certificate of origin application (e-customs, single entry form, e-Payment, e-Permit/e-License, e-Cess, social security system, certificate of origin)
GtoG	<ul style="list-style-type: none"> ✓ Customs declaration, payment of customs duties, issuance of permits, verification of certificate of origin/permission procedures (e-Customs, e-Permit/License) ✓ Software for cargo, transport, port, air and insurance procedures (Cargo and land transport regulatory SW, maritime regulatory SW, air regulatory SW, e-Insurance)

External systems to be connected

External system	Examples of functions
National ITMX	✓ Assumes collection of customs duties via banks, etc.
ASEAN Single Window	✓ Form D etc. Exchange of certificate of origin

Source: UNESCAP, Thai Customs Department (2019), Thailand National Single Window & ASEAN Single Window, <https://www.unescap.org/sites/default/files/Session%207%20%26%208.pdf>, viewed on 2023/12/26

3. Analysis of Current Status of the 10 ASEAN Countries

Reference: NSW (Case Study: Philippines)

- The National Single Window of the Philippines is called TradeNet and is administered by the TradeNet Secretariat, while the Departments of Finance, Information and Communication, and Agriculture are supposed to be responsible for ensuring its operation and development.
- The purpose of TradeNet is to facilitate trade, increase transparency in customs clearance procedures, and improve national revenue.
- As of 2022, 21 relevant government agencies were connected to TradeNet, and 55 agencies were scheduled to be connected by the end of 2022.

History of Single Window System

Milestone	Contents
2005	- NSW Steering Committee (NSW Steering Committee) established as a team of senior officials chaired by the Ministry of Finance
2010	- NSW Phase 1, the predecessor of NSW, was built by Customs
2011	- NSW Phase 1 rollout begins
2017	- The parties have agreed to develop a government-built online platform to make NSW functionality work in practice. This is TradeNet.
2019	- ASEAN Single Window is now in actual operation, and data exchanges between AMSs have started for e-ATIGA Form D.

Source: JASTPRO, Current status of single windows in ASEAN countries, viewed on 2023/12/23

3. Analysis of Current Status of the 10 ASEAN Countries

Reference: NSW (Case Study: Indonesia)

- The Indonesian National Single Window is operated by the Indonesian Single Window Department (INSW Department) of the Ministry of Finance.
- Those conducting interviews with the Indonesian Ministry of Trade for this study were impressed by the application of blockchain and the extension of functionality to B2B.
- Although the Ministry of Trade has been working with various ministries on NSW, there were cases where it was not possible to obtain approval for NSW and direct inquiries were eventually required.

History of Single Window System

Milestone	Contents
2007	✓ INSW Preparatory Team established under the leadership of the Ministry of Economic Affairs and Related Coordination. Implementation of pilot tests on import projects
2008	✓ INSW operated as an import/export system, port system, and airline system.
2009	✓ Preparation for linkage with ASEAN Single Window and pilot test of electronic proof of origin (ATIGA Form-D)
2010	✓ The use of INSW is now mandatory for import procedures at five customs offices.
2017	✓ e-ATIGA Form D via ASW with ASEAN member countries in actual operation
2020	✓ Developing the second generation of NSW in a parallel operation with the first generation as of 2023, and aiming to fully transition to the second generation by 2024

Source: JASTPRO, Current status of single windows in ASEAN countries, viewed on 2023/12/23
 ESCAP, <https://www.unescap.org/sites/default/d8files/event-documents/Indonesia%20experience.pdf>, viewed on 2023/12/23

3. Analysis of Current Status of the 10 ASEAN Countries

3.2 Status of Platform Development

(2) Digital trade platforms

- There is no clear definition of a digital trade platform. We define it based on the following three characteristics, and some platforms are listed on the next page.

1	BtoB	Digital trade in the private sector (contracts, shipping, payments, etc.) and supply chain management.
2	Cross-border	External connections, including those of trading partners.
3	Cross-industry	It covers not only specific industries, but also all trade procedures including shippers, forwarders, and banks.

Country	Activities to establish a trade platform
Brunei	Dagan Borneo project of ASEAN-BAC is considering building a cross-industry digital trade platform (Private initiative)
Cambodia	Cambodia Customs is building an ASYHUB to connect the customs system to the external system. (Government initiative)
Indonesia	The Ministry of Trade and the National Single Window Agency are interested in the government initiative. There are also players who operates digital trade platform from the private sector (Andalin).
Lao PDR	No major initiatives
Malaysia	There are no government initiatives, but there are some initiatives by private companies.
Myanmar	No major initiatives
Philippines	The Department of Trade and Industry signed an MOU with Andalin of Indonesia to promote B2B trade procedures. Private sector initiatives also exist.
Singapore	Government initiatives, such as NTP operated by Singapore Customs and TradeTrust framework provided by IMDA.
Thailand	The private sector is taking the lead in developing a trade platform under the NDTP concept. The NDTP concept is a trade platform that mainly handles BtoB transactions, and is being considered for cross-industry implementation led by the private sector. Most recently, there has been a move to subdivide the platform by industry (finance, shippers) with collaboration.
Vietnam	The government is promoting digital trade, and at the private side, there are moves to build platforms for specific industries.

Source: Compiled by Mitsubishi Research Institute, Inc.

3. Analysis of Current Status of the 10 ASEAN Countries

3.2 Status of Platform Development

(2) Digital trade platforms

- The table below shows the operational status of the digital trade platforms of major ASEAN countries.

Overview of digital trade platform

●...Equipped ×...Not equip

Country name	Name of platform	Operator	Details	Digital trade PF			Connection with NSW
				B2B	Cross-border	Cross-industry	
Indonesia	Andalin	Private	Digital trade initiatives with the focus on SMEs; MOU signed with the Philippine Department of Trade and Industry in August 2022.	●	Under consideration	×	×
Singapore	NTP	Public (Customs)	The system targets BtoB transactions operated by customs.	●	●	●	● (TradeNet)
	SGTraDex	PPP (JV with IMDA etc.)	A public-private partnership that focuses on trade transactions in multiple use cases, characterized by a data sharing method called the Data Highway.	●	Under consideration	●	×
Thailand	NDTP	Private (JSCCIB)	It is a trade platform that mainly handles BtoB transactions, and is being introduced across industries under the initiative of the private sector, with the most recent move being to build a system segmented by industry.	●	Under consideration (Japan, Singapore)	●	Under consideration
Vietnam	TradeFlat	Private	Specializing in e-LC and supply chain finance led by FPT.	●	Under implementation (Japan)	×	×

Source: Various entities

3. Analysis of Current Status of the 10 ASEAN Countries

3.2 Status of Platform Development

(2) Digital trade platforms

- A functional classification of the trade platforms of the major ASEAN countries is shown in the table below.

Functions of each platform

● Equipped ▲ Partially equipped ※ Pilot phase No description No function

Country	Platform	Function							Service penetration
		Application				Infrastructure			
		① Supply chain management		② Trade procedures		① Data sharing		② Infrastructure	
		SC Visualization	Logistics Management	Trade data management/application	Finance	Data management	Data sharing and distribution	Trust/Infrastructure	
Indonesia	Andalin	▲	●	▲		●	▲		More than 150 ports More than 200 cities
Singapore	NTP		●	▲	▲ (Trade finance is done via third-party application)	●	●	● (Connect with Trade Trust)	More than 6,000 enterprises (As of November 2022)
	SGTraDex		●	※ (eBL)	※ (Successful payment on export)	●	●	● (Connect with Trade Trust)	As of June 2022, 70 businesses had pledged to participate, and currently some use cases are under development.
Thailand	NDTP			※	※	※	※	※ (Authenticity of documents is guaranteed by TDRs)	Pilot phase
Vietnam	TradeFlat				▲ (Only Domestic)	▲	▲	▲ (FPT Quoram network)	No information

Source: Compiled by Mitsubishi Research Institute, Inc.

3. Analysis of Current Status of the 10 ASEAN Countries

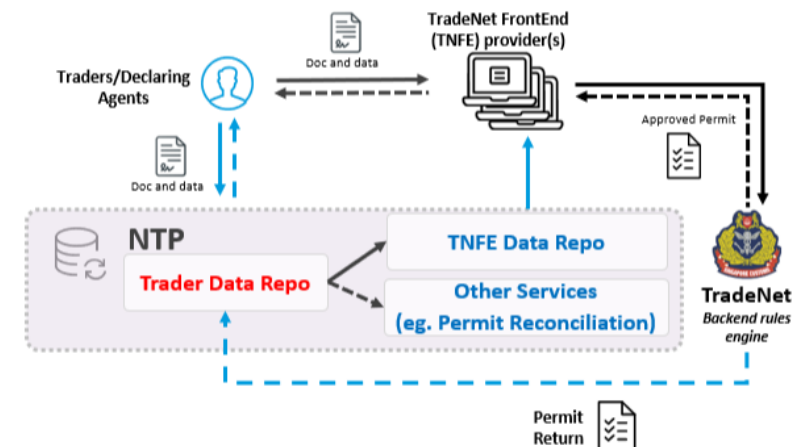
Reference: Singapore (NTP)

- TradeNet implements approval procedures for import/export operators, and automatically links import/export permits to the NTP at the back end as a structured data format for approval data. Therefore, users only need to access the NTP's data repository to utilize data when applying to TradeNet.
- Import/export declarations are made via the service provider.
 - In addition, there is TradeXchange, which conducts external BtoG transactions and is internally incorporated into TradeNet.
 - Since the operating agreement between TradeNet and TradeXchange was scheduled to expire in 2017, NTP was initially conceived as a new system that would encompass these two systems.
 - However, TradeNet and NTP are still being used together, and NTP has been assigned the roles mainly of exchanging B2B electronic data and overseas collaboration.

TRADE PERMIT APPLICATION EXPERIENCE WITH NTP

With NTP

illustrative



Approved Permit is directly returned in structured data format to Trader's data repository in NTP for reuse for other service transactions.

3. Analysis of Current Status of the 10 ASEAN Countries

Reference: Singapore (NTP)

- In May 2023, the NTP launched the Container Track & Trace Service.
- This allows all NTP users to view information on container traffic between five Singapore ports and two Chinese ports.

Data items for track and trace service

Data item	Description
Vessel ETA	Estimated time of arrival of a vessel in waters within the boundaries of the port
Vessel ATA	The actual time a vessel arrives at waters within the boundaries of the port
Vessel ETB	Estimated time a vessel will berth
Vessel ATB	Actual home country where a vessel berths
Export Declaration	Time of export clearance to customs
Container Loaded	Time container was loaded onto the vessel
Container Gate Out	Time container leaves the port at the time of importation
Import Release	Time when customs approve import declaration.

Source: Singapore Customs, <https://www.customs.gov.sg/businesses/national-single-window/overview> , viewed on 2023/12/25

3. Analysis of Current Status of the 10 ASEAN Countries

Reference: Singapore (SGTraDex)

- With the aim of improving the efficiency of data sharing among ecosystem partners in the global supply chain, a study on SGTraDex, a data collaboration platform, began in 2021, and the system entered use in June 2022.
- Discussions are underway in the public and private sectors, focusing on multiple use cases at the beginning of development, and new use cases are still being considered.
- The system is interconnected with a framework called TradeTrust, which also ensures the authenticity of trade documents.

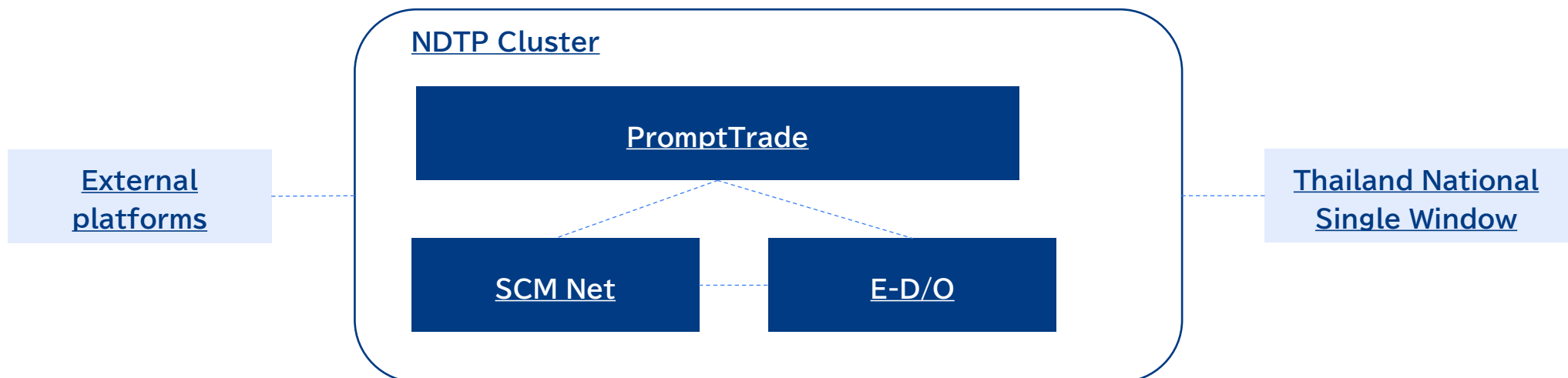
Use case	Overview
Enhancement of trade finance	In existing procedures, financial institutions have limited visibility into the physical movement of goods in the supply chain, so visibility into the data flows used in trade will reduce the risk of double financing, etc.
Container flow node decongestion	Since visibility of container flow is lacking and congestion is occurring at warehouses and depots, the visibility of logistics flows will be improved by sharing information such as container reservation status among shipping companies, warehouse operators, and carriers.
Bunkering optimization	The bunkering industry is facing problems of reduced operational efficiency and lower lending volumes due to a lack of digitization and difficulties in assessing document authenticity. SGTraDex aims to solve these problems by reducing the duplication of document processing in the supply chain and enabling financial institutions to verify the authenticity of trade documents. It aims to solve these problems.

Source: Compiled by Mitsubishi Research Institute, Inc. from various sources.

3. Analysis of Current Status of the 10 ASEAN Countries

Reference: Thailand (NDTP)

- Due to delays in developing the NDTP, importers and exporters are unable to use the NDTP; the NDTP focuses on data structuring and business model studies.
- Under the umbrella of the NDTP Cluster, Thailand Banker's Association is seeking to link with NSW, external systems, and industry platforms via PromptTrade.
- Regarding industrial platforms, the Thai Shipowners' Association began developing the Supply Chain Management Network (SCM Net) in 2023. This platform handles exchanges of data in different formats between importers and exporters, and will be connected to PromptTrade in the future.



3. Analysis of Current Status of the 10 ASEAN Countries

Reference: Thailand (NDTP)

- Several systems have been partially built as the NDTP Cluster, and each system is being considered to work together to promote cross-industry trade digitization.

Thailand's Digital Trade Platforms

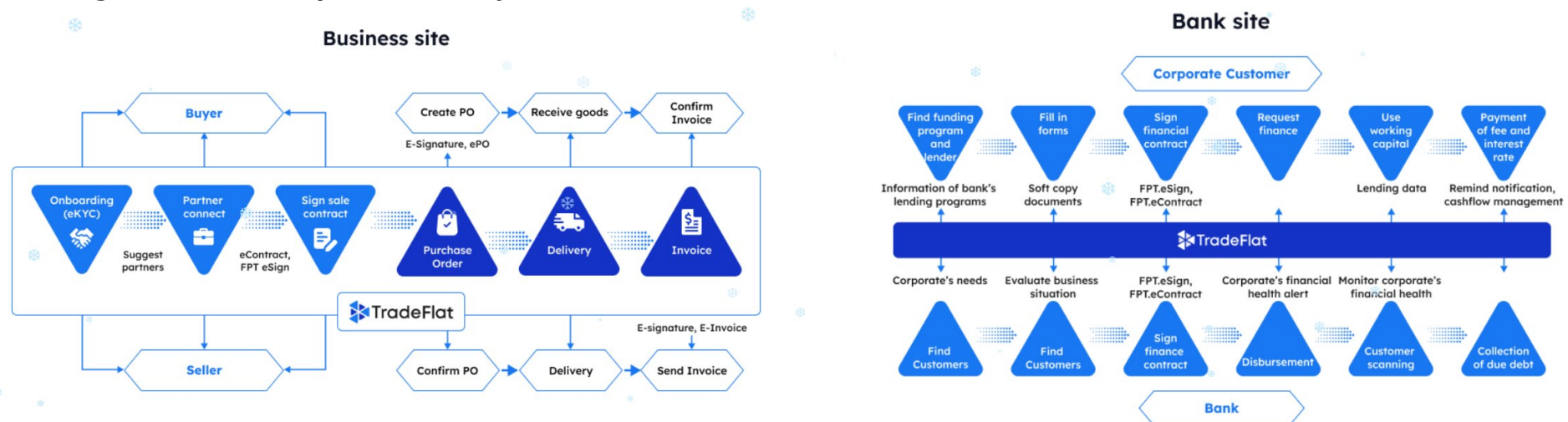
Group of systems that make up the cluster	Initiating organization	Progress	Overview of roles and functions
PromptTrade	Thai Bankers Association and eight pilot banks	The first phase of Go-Live is scheduled for Q4 2024	It covers the sending and receiving of documents generated during the collection of funds, settlement, and financing of both imports and exports, and also serves as a gateway to connect with overseas platforms.
SCM Net	Thai National Shippers Council	First phase of Go-Live scheduled for Q4 2023	The trade procedures of the exporter are covered. The scope covers everything from booking the cargo ship to sending shipping documents to the exporting bank.
E-D/O	Bangkok Shipowners and Agents Association	Under development as of December 2023	Digitalization of trade procedures for importers covers three processes at the time of importing into Thailand: customs declaration, delivery order (D/O), and payment.

Source: Compiled by Mitsubishi Research Institute, Inc. based on interviews and UNECE. <https://unece.org/sites/default/files/2023-10/02Oct-PM-Thailand-NDTP-CaseStudy.pdf> , viewed on 2023/12/27

3. Analysis of Current Status of the 10 ASEAN Countries

Reference: Vietnam (TradeFlat)

- In October 2022, FPT announced TradeFlat (formerly known as eTradeVN), the first blockchain-based trade finance platform in Vietnam, which was developed in cooperation with financial institutions.
- TradeFlat is focusing on developing a platform that connects Vietnamese importers and exporters with banks. Currently, the firm offers services such as letter of credit (LC), cash flow (CF), and bank guarantees in the domestic market. At the same time, development of services related to cross-border trade is underway.
- In 2024, the company plans to develop new functions for banks and improve its services through integration with customs systems such as VNACSS and logistics companies' systems.



Source: TradeFlat website (<https://www.tradeflat.com/>) and compiled by Mitsubishi Research Institute from interviews, viewed on 2023/12/28

3. Analysis of Current Status of the 10 ASEAN Countries

Reference: Indonesia (Andalin Trade)

- On June 14, 2022, Indonesia's Andalin launched a one-stop international trade platform called Andalin Trade, which offers a consistent range of services, including shipping, customs procedures, and international trade. At the initial stage, services are limited to trade with Singapore, Vietnam, and Thailand.
- After registering with Andalin Trade, users can obtain quotes for international shipments. The platform offers international forwarding services, customs procedures, insurance, and other functions.
- In the future, Andalin plans to develop and expand its services to other countries in Southeast Asia.



Source: Prepared by Mitsubishi Research Institute, Inc. based on information on Andalin's website (<https://andalin.com/>), viewed on 2023/12/23

3. Analysis of Current Status of the 10 ASEAN Countries

3.3 Status of Infrastructure Development

(1) Network

- The table below summarizes the number of registered fixed broadband lines per 100 people in each country, the number of registered fixed-line phones, the number of individuals using the Internet, and the number of registered cell phone users. While there are some variations in the Internet usage rate, most countries have more than 100% cell phone registrations.

Country name	Status of Internet, mobile networks, etc., usage rate per 100 people (2021)			
	Usage rate of fixed broadband	Usage rate of landline phone	Usage rate of personal Internet	Number of cell phone subscribers
Brunei	17.8%	25.2%	98.1%	135.5%
Cambodia	2.0%	0.2%	60.2%	120.0%
Indonesia	4.5%	3.3%	62.1%	133.7%
Lao PDR	2.0%	17.5%	62.0%	65.0%
Malaysia	11.1%	24.6%	96.8%	140.6%
Myanmar	1.7%	1.0%	44.0%	126.3%
Philippines	8.5%	4.0%	52.7%	143.4%
Singapore	25.7%	32.0%	91.1%	147.5%
Thailand	17.3%	6.5%	85.3%	168.8%
Vietnam	19.8%	3.2%	74.2%	138.9%
Global average	16.9%	11.3%	63.1%	107.3%

Source: The World Bank, World Development Indicators, data for 2021

3. Analysis of Current Status of the 10 ASEAN Countries

3.3 Status of Infrastructure Development

(2) Blockchain usage environment

- Singapore is the most active country in the region promoting blockchain use, while other countries (Cambodia, Indonesia, the Philippines, Malaysia, and Thailand) are considering its use in the financial sector and at the initiative of their governments. Brunei, Laos, and Myanmar are underdeveloped in terms of related systems, and their utilization is limited.

Country name	Classification of approaches to blockchain implementation (ADGSOM Project Report)	Institutional/governmental status
Brunei	Immature	Crypto assets are minimally regulated; the use of blockchain to issue digital quarantine certificates was demonstrated in collaboration with a Singaporean company in the ASEAN-BAC Legacy Project.
Cambodia	Introduced after the system is in place	The central bank operates a blockchain-based payment system called Bakong.
Indonesia	Introduced after the system is in place	Project Garuda, a digital currency project, is being implemented at the Central Bank; crypto assets in 2021 have also been approved as a trading instrument.
Lao PDR	Immature	Regulatory system for crypto assets is under development. The government is also considering blockchain use.
Malaysia	Introduced after the system is in place	Digital currency standards and guidelines are in place for AML/CFT aspects.
Myanmar	Immature	There are no regulations, etc. related to blockchain.
Philippines	Introduced after institutional development, multilateral cooperation	Commercial banks are working with the Treasury Department to launch applications for the issuance of personal government bonds.
Singapore	Introduced after institutional development, multilateral cooperation	Central banks and stock exchanges are demonstrating blockchain use, and other institutions are actively considering its use. There were 234 blockchain companies in 2020, including joint projects with other countries.
Thailand	Introduced after the system is in place	The financial sector has been actively using blockchain, including the demonstration of digital currency at central banks and the issuance of letters of guarantee.
Vietnam	Introduced after the system is in place	In the government's growth strategy, blockchain is defined as one of the focus areas. In addition to blockchain developers, many startups are also developing application services using blockchain.

Source: Compiled by Mitsubishi Research Institute, Inc. from Gerardo R. Ungson and Sada Soorapanth, The ASEAN blockchain roadmap.

3. Analysis of Current Status of the 10 ASEAN Countries

3.4 Trends in Digitization and Standardization

(1) Trends in digitization and standardization

- Although each country has an electronic signature law in place, only Singapore is making progress in adapting administrative procedures, linking corporate ID and authentication infrastructures, and complying with national MLETR laws that serve as the basis for trade documents requiring the transfer of rights.

Country name	Electronic signature	Corporate ID authorization	Compliance with MLETR*
Brunei	Defined in The Electronic Transaction Act. There are no special requirements or restrictions for governments.	–	2_Supported by the government
Cambodia	Although its use is limited, the validity of electronic signatures is legally defined in Sub-Decree No. 246. No special requirements or restrictions for government use.	–	2_Supported by the government
Indonesia	E-signature regulation was established in 2008 and revised in 2016. Application of e-signatures to administrative documents is at the discretion of each ministry and agency.	–	0.No progress
Lao PDR	The validity of electronic signatures is defined in the Law on Electronic Signature No. 59/NA 2018. There are no special requirements or restrictions for governments.	–	2_Supported by the government
Malaysia	The Electronic Commerce Act 2006 was enacted in 2006. The Electronic Government Activities Act 2007 regulates the government sector.	–	1_MLETR Socialization
Myanmar	It is regulated under the Electronic Transactions Law 2004. There are no special requirements or restrictions for governments.	–	1_MLETR Socialization
Philippines	The Electronic Commerce Act of 2000 defines the validity and conditions for electronic signatures. There are no special requirements or restrictions for governments.	–	0.No progress
Singapore	The Electronic Transactions Act (2010). Electronic signatures are required for government procedures using SingPass, a government authentication platform.	SingPass	8_Amendment of domestic law
Thailand	Thailand's electronic transaction act stipulates electronic signatures. The government is also required to provide procedures for electronic signatures.	–	7. Passage of legislation
Vietnam	The validity of electronic signatures is defined in a subordinate notification of the Law on E-transactions 2005. There are no special requirements or restrictions for governments.	–	0.No progress

*Compiled from the MLETR Tracker of the ICC Digital Standard Initiative as of Jan 2024. The situation is divided into eight stages, including the legal reform stage.

3. Analysis of Current Status of the 10 ASEAN Countries

3.4 Trends in Digitization and Standardization

(2) Regulation of data distribution

- The Personal Data Protection Framework (ASEAN PDP) exists in ASEAN, but it is not legally binding and data distribution is regulated by each country.
- Data transfer regulations are set forth by privacy laws and other laws in each country. In addition to the requirement for the same level of protection as in the country of origin, some countries have stricter data transfer regulations, such as requiring the consent of the data owner, domestic data storage, and approval by the authorities.

Country name	National laws related to cross-border data distribution (e.g., Personal Information Protection Law)		
	Strict or only partial	Conditional transfer	Free distribution
Brunei		Does not exist	
Cambodia		Not exist	
Indonesia	✓		
Laos PDR		Does not exist	
Malaysia		✓	
Myanmar		Does not exist	
Philippines			✓
Singapore			✓
Thailand		✓	
Vietnam	✓		

Source: UNCTAD, Digital Economy Report 2021, <https://unctad.org/page/digital-economy-report-2021>, viewed on 2023/12/26

3. Analysis of Current Status of the 10 ASEAN Countries

3.4 Trends in Digitization and Standardization

(3) Electronic invoice

- In ASEAN, the Digital Trade Standards and Commerce Working Group (DTSCWG) has organized trends of electronic invoicing (BtoB and BtoG) in each country: Singapore, Vietnam, Indonesia, and Thailand have electronic invoice systems.

Country name	Objective		Trends in electronic invoices
	For tax administration	Digitalization of enterprises	
Brunei			Currently nonexistent
Cambodia			Currently nonexistent
Indonesia	✓		E-Faktur Pajak has been mandatory since July 2016. It is mainly for tax administration.
Lao PDR			Currently nonexistent
Malaysia			A national electronic invoice framework is under consideration.
Myanmar			Currently nonexistent
Philippines	✓		Under the Digital Transformation Strategy, a pilot program for electronic invoices and electronic receipts was implemented in July 2022.
Singapore		✓	IMDA launched Invoice Now in 2019 based on the Peppol framework, applying a widely interchangeable model for B2B and B2G.
Thailand	✓	✓	Under the Thailand 4.0 policy, electronic invoices and electronic receipts have been introduced.

Source: INFOCOMM MEDIA DEVELOPMENT AUTHORITY (July 2022, https://asean.org/wp-content/uploads/2023/06/9DTSCWG-06-IMDA-ASEAN-E-Invoicing-Landscape-Final-Report_For_Circulation_v2.pdf, viewed on 2023/12/28)

3. Analysis of Current Status of the 10 ASEAN Countries

3.5 Issues with Trade Procedures: Brunei



- The table below describes issues related to trade digitization in Brunei. The information was collected through the interviews to the stakeholders (government, private firms etc.) in the country and public information.

Category		Contents
Digitalization and Standardization		<ul style="list-style-type: none"> Need to address trade data silos and lack of information platforms, as well as support electronic signatures and strengthen legal framework.
Platform, trade procedures	Issues with digital trade platform	<ul style="list-style-type: none"> – (There are no digital trade platforms.) ✧Currently building a platform in the Dagang Borneo project.
	Issues with National Single Window	<ul style="list-style-type: none"> Brunei's NSW, developed by a Singaporean service provider, has not been updated and is outdated. Not fully utilized by ministries and lacks uniformity of data requirements and portals across different government departments.
	Issues with user acquisition	–
Needs analysis		<ul style="list-style-type: none"> Building a cross-border trade platform to expand trade transactions and grow the business in Brunei and Borneo island.
Bottleneck analysis		<ul style="list-style-type: none"> Harmonization of cross-border electronic transaction requirements, etc., for integration into the broader surrounding economy.

3. Analysis of Current Status of the 10 ASEAN Countries

3.5 Issues with Trade Procedures: Cambodia



- The table below describes issues related to trade digitization in Cambodia. The information was collected through the interviews to the stakeholders (government, private firms etc.) in the country and public information.

Category		Contents
Digitalization and Standardization		<ul style="list-style-type: none"> No digital signature or certification authority available, although an electronic signature law exists. The competent ministries and agencies require original documents and are not able to operate digitization.
Platform, trade procedures	Issues with digital trade platform	– (There are no digital trade platforms.)
	Issues with National Single Window	<ul style="list-style-type: none"> The electronic customs clearance system is not organized with the systems of ministries and borders. customs system (ASYCUDA) is not linked to the annual import plan (master list) required for duty exemption measures, etc. in qualified investment projects. Status of promotion of digitization in CNSW (operation with original documents remains)
	Issues with user acquisition	–
Needs analysis		<ul style="list-style-type: none"> Data linkage between CNSW and ASYCUDA, especially status of import/export licenses, etc. Information linkage between stakeholders
Bottleneck analysis		<ul style="list-style-type: none"> Improvement of connectivity between NSW and customs systems, in particular, and peripheral systems. Ministry officials have not received adequate training in NSW.

Source: Interviews and Mitsubishi Research Institute, Inc

3. Analysis of Current Status of the 10 ASEAN Countries

3.5 Issues with Trade Procedures: Indonesia



- The table below describes issues related to trade digitization in Indonesia. The information was collected through the interviews to the stakeholders (government, private firms etc.) in the country and public information.

Category		Contents
Digitalization and Standardization		<ul style="list-style-type: none"> There are various arrangements for submitting invoices, certificates of origin, B/Ls, etc., all of which require the submission of hard copy originals. Hard copies must be submitted to various ministries for import/export permits.
Platform, trade procedures	Issues with digital trade platform	<ul style="list-style-type: none"> Interconnection of platform with customs system and NSW.
	Issues with National Single Window	<ul style="list-style-type: none"> As NSW, we are looking at extending B2B capabilities and new technologies (using blockchain). Digitization in NSW and other ministries is still in the process of being implemented. Inter-ministerial procedures remain paper-based and require submission of original documents.
	Issues with user acquisition	<ul style="list-style-type: none"> Dissemination of information to users (training etc.)
Needs analysis		<ul style="list-style-type: none"> A platform that enables centralized electronic management of trade documents and response to post-customs inspections. Digitization of L/C (L/C issuance and streamlining of L/C application and issuance operations through digitization of trade documents) A system that enables SMEs to participate in trade
Bottleneck analysis		<ul style="list-style-type: none"> Domestic privacy laws are strict regarding cross-border data distribution.

Source: Interviews and Mitsubishi Research Institute, Inc

3. Analysis of Current Status of the 10 ASEAN Countries

3.5 Issues with Trade Procedures: Lao PDR



- The table below describes issues related to trade digitization in Lao PDR. The information was collected through the interviews to the stakeholders (government, private firms etc.) in the country and public information.

Category		Contents
Digitalization and Standardization		<ul style="list-style-type: none"> Regarding electronic signatures, the country has not ratified the UNESCAP agreement on cross-border trade and has no clear strategy for electronic trade transactions. Unclear which promotion ministries and agencies are involved in electronic trade and electronic signatures.
Platform, trade procedures	Issues with digital trade platform	– (There are no digital trade platforms.)
	Issues with National Single Window	<ul style="list-style-type: none"> NSW mainly applies to certificates of origin and enables exchanges of Form D with ASW, but has not been able to obtain other permits or achieve digitalization. Paperless declaration in customs system (ASYCUDA) has also not been achieved.
	Issues with user acquisition	–
Needs analysis		<ul style="list-style-type: none"> Enhancement of LNSW and customs system (ASYCUDA) functionality and connectivity
Bottleneck analysis		<ul style="list-style-type: none"> Unclear which authorities are promoting electronic transactions, electronic signatures, etc.

3. Analysis of Current Status of the 10 ASEAN Countries

3.5 Issues with Trade Procedures: Malaysia



- The table below describes issues related to trade digitization in Malaysia. The information was collected through the interviews to the stakeholders (government, private firms etc.) in the country and public information.

Category		Contents
Digitalization and Standardization		<ul style="list-style-type: none"> Documents with signatures on certificate of origin after approval must be brought to customs.
Platform, trade procedures	Issues with digital trade platform	– (There are no digital trade platforms.)
	Issues with National Single Window	<ul style="list-style-type: none"> Improve NSW functionality and simplify customs declaration procedures Related systems such as ports, logistics, and customs are not linked (customs, NSW, myTRADELINK, uCustoms) ※Development of Maritime Single Window began in 2023, and will be expanded to include air transportation.
	Issues with user acquisition	–
Needs analysis		<ul style="list-style-type: none"> Expansion of functions for digitalization of trade procedures related to BtoB Linkage of related systems such as port, logistics, customs, etc. Centralization of licensing at different ministries and agencies
Bottleneck analysis		<ul style="list-style-type: none"> Regulation of data protection in cross-border electronic transactions Insufficient human resources and response to digitalization, including import/export operators

Source: Interviews and Mitsubishi Research Institute, Inc

3. Analysis of Current Status of the 10 ASEAN Countries

3.5 Issues with Trade Procedures: Myanmar



- The table below describes issues related to trade digitization in Myanmar. The information was collected through the interviews to the stakeholders (government, private firms etc.) in the country and public information.

Category		Contents
Digitalization and Standardization		<ul style="list-style-type: none"> Original documents are required for customs declarations (invoices, B/Ls, certificates of origin, etc.)
Platform, trade procedures	Issues with digital trade platform	– (There are no digital trade platforms.)
	Issues with National Single Window	<ul style="list-style-type: none"> The systems are separated by procedures in each ministry and do not function as a single window. The Ministry of Commerce and the Ministry of Agriculture have separate systems from MACCS (customs system), fragmenting procedures and reducing the efficiency of trade procedures.
	Issues with user acquisition	–
Needs analysis		<ul style="list-style-type: none"> Since the various administrative systems related to imports and exports are not linked, the need for a centralized platform (trade portal) that facilitates BtoG and GtoG system integration and regulatory compliance has been recognized.
Bottleneck analysis		<ul style="list-style-type: none"> Making changes to existing rules and regulations and interagency coordination. Restrictions on obtaining regulations or licenses that force conversion into local currency due to foreign currency shortages, etc.

Source: Interviews and Mitsubishi Research Institute, Inc

3. Analysis of Current Status of the 10 ASEAN Countries

3.5 Issues with Trade Procedures: Philippines



- The table below describes issues related to trade digitization in Philippines. The information was collected through the interviews to the stakeholders (government, private firms etc.) in the country and public information.

Category		Contents
Digitalization and Standardization		<ul style="list-style-type: none"> Each ministry has its own platform, and some procedures are difficult to convert into electronic format or are siloed. After the pandemic, customs submissions were converted to PDF (but there is a trend back to submitting original documents).
Platform, trade procedures	Issues with digital trade platform	– (There are no digital trade platforms.)
	Issues with National Single Window	<ul style="list-style-type: none"> Progress in the development of TradeNet has been delayed and its functions are limited. Some service providers are providing backup systems for NSW, and some functions such as electronic certificate of origin exchange with other countries and partial functions such as checking the movement of vessels are also provided.
	Issues with user acquisition	–
Needs analysis		<ul style="list-style-type: none"> Expansion of TradeNet functions (digitalization of customs payments, other functions) Centralization of applications under other laws and regulations of other ministries Provide a user interface that is compatible with different user devices (PC, mobile, tablet, etc.)
Bottleneck analysis		<ul style="list-style-type: none"> There is a lack of user awareness about NSW, and concerns about data protection laws have been cited, so it is not sufficiently diffused.

3. Analysis of Current Status of the 10 ASEAN Countries

3.5 Issues with Trade Procedures: Singapore



- The table below describes issues related to trade digitization in Singapore. The information was collected through the interviews to the stakeholders (government, private firms etc.) in the country and public information.

Category		Contents
Digitalization and Standardization		<ul style="list-style-type: none"> TradeTrust introduced as a framework to ensure the authenticity of negotiable documents of trade such as eBLs in compliance with MLETR Actively collaborates with ICC DSI and other industry organizations to promote standardization
Platform, trade procedures	Issues with digital trade platform	<ul style="list-style-type: none"> Authentication for user identification (eKYC) and how to authenticate users when using different platforms
	Issues with National Single Window	<ul style="list-style-type: none"> NTP was positioned to integrate and replace TradeNet and TradeExchange, but TradeNet and NTP are still being operated in parallel.
	Issues with user acquisition	<ul style="list-style-type: none"> Companies bear the cost of API connection. The company is considering expansion to other countries, and, in that case, compliance with the laws and regulations of the other country is important. If users are not willing to agree to data sharing, it will be difficult to expand users.
Needs analysis		<ul style="list-style-type: none"> Promotion of understanding and dissemination of the convenience of TradeTrust, which guarantees the authenticity of eBLs Expansion of user base through platform linkage with other countries, etc. Multilateral harmonization of data distribution
Bottleneck analysis		<ul style="list-style-type: none"> Operating with a sustainable business model and securing a revenue base Cross-border data distribution and user authentication

Source: Interviews and Mitsubishi Research Institute, Inc

3. Analysis of Current Status of the 10 ASEAN Countries

3.5 Issues with Trade Procedures: Thailand



- The table below describes issues related to trade digitization in Thailand. The information was collected through the interviews to the stakeholders (government, private firms etc.) in the country and public information.

Category		Contents
Digitalization and Standardization		<ul style="list-style-type: none"> There are three types of import license, and, in many cases, hard copy documentation is required to be submitted to the various ministries and agencies to obtain such licenses. In some cases, HS codes are required to be changed after import customs clearance, requiring the submission of additional documents. It is difficult to promote standardization of data items in trade documents at the private side.
Platform, trade procedures	Issues with digital trade platform	<ul style="list-style-type: none"> NSW and multi-platform connectivity Cross-border trade platform connectivity Standardization of data items in shippers' trade documents
	Issues with National Single Window	<ul style="list-style-type: none"> NSW is considering expansion of B2B functionality and new technologies (use of blockchain); although NSW allows batch processing of license applications, there is no system reception or response from each ministry and inter-ministerial procedures remain paper-based, requiring submission of original documents. Since NSW does not have the ability to link import license numbers to individual companies, import license numbers must be transcribed and re-entered at the time of customs declaration.
	Issues with user acquisition	<ul style="list-style-type: none"> Incentives for users. Especially for shippers and forwarders, it is necessary to clarify the benefits, etc. of connecting to NSW and of further connecting to different platforms, and to consider business models for trade platforms.
Needs analysis		<ul style="list-style-type: none"> A platform for centralized management of trade documents and sharing with shippers, forwarders, financial institutions, etc. Establishment of a platform for shippers, forwarders, and banks to interconnect with each other and with the National Single Window.
Bottleneck analysis		<ul style="list-style-type: none"> Standardization of data items in trade documents (especially for shippers and forwarders) Business models and operating entities of trade platforms

Source: Interviews and Mitsubishi Research Institute, Inc

3. Analysis of Current Status of the 10 ASEAN Countries

3.5 Issues with Trade Procedures: Vietnam



- The table below describes issues related to trade digitization in Vietnam. The information was collected through the interviews to the stakeholders (government, private firms etc.) in the country and public information.

Category		Contents
Digitalization and Standardization		<ul style="list-style-type: none"> Hard copies are required of trade documents, certificates of origin, phytosanitary certificates, and satellite certificates to the bank in relation to L/C.
Platform, trade procedures	Issues with digital trade platform	<ul style="list-style-type: none"> Cross-border L/C support
	Issues with National Single Window	<ul style="list-style-type: none"> Digitization in NSW and other ministries is still a work in progress VNACCS has limited and aging functionality and performance is not stable. (Currently considering updating VNACCS with a milestone of 2025 or 2030). Interagency procedures remain paper-based and require submission of original documents.
	Issues with user acquisition	<ul style="list-style-type: none"> Trade documents are not digitized and therefore underutilized.
Needs analysis		<ul style="list-style-type: none"> A need exists for a stable and fast customs clearance system. Electronic exchange of L/C's and submittals between shippers and banks Ability to update cargo transportation and delivery status in batches and communicate it to stakeholders
Bottleneck analysis		<ul style="list-style-type: none"> Consistency with existing systems such as VNACSS Security performance, including measures to prevent information leakage to other companies Adaptation to the cultures of shippers and banks, which prefer hard copies of documents Need to comply with the Personal Information Protection Law.

Source: Interviews and Mitsubishi Research Institute, Inc

3. Analysis of Current Status of the 10 ASEAN Countries

3.6 Potential of Trade Digitalization Market (1)

- The size of the trade digitalization market is estimated based on the costs associated with international trade transactions and the volume of imports and exports, including the digitalization of companies involved in trade transactions. The size of the market is calculated using the following methodology.
- The size of Japan's trade digitalization market is estimated at approximately USD \$426 billion.

① Total cost to trade for each country (Japan)

Cost at import/export per transaction*1 × Number of traded transactions (number of export transactions)*2
 + Cost at import per transaction*1 × Number of trade transactions*2 (Number of import transactions)

② Estimates of each country's trade with Japan (imports and exports)

(① (Market size of Japan) × Percentage of each country's trade with Japan)*3

*1 Data for the year 2020 from the index of The World Bank, Doing business "Trade Across Borders"

*2 Data for 2021 obtained from Japan Customs Web site: https://www.customs.go.jp/zeikan/pamphlet/report/pdf/report_008j.pdf.

*3 IMF, Direction of Trade Statistics (DOTS), <https://data.imf.org/?sk=9D6028D4-F14A-464C-A2F2-59B2CD424B85>

3. Analysis of Current Status of the 10 ASEAN Countries

3.6 Potential of Trade Digitalization Market (2)

- For ASEAN as a whole, we estimate USD \$108.3 billion for the trade digitalization market.
- The table below shows the size of each country's trade digitalization market.

Country name	Percentage of trade value (with Japan)	Market size estimation(USD million)
Brunei	1.6%	887.24
Cambodia	3.4%	1,723.29
Indonesia	32.0%	17,624.13
Lao PDR	1.1%	489.75
Malaysia	39.4%	12,569.54
Myanmar	2.4%	1,799.71
Philippines	13.6%	10,564.63
Singapore	60.3%	23,397.11
Thailand	35.6%	13,008.91
Vietnam	43.5%	26,283.90
ASEAN as a whole		<u>108,348.2</u>

Source: Compiled by Mitsubishi Research Institute, Inc.

3. Analysis of Current Status of the 10 ASEAN Countries

3.7 Stakeholders (1)

- Stakeholders and summary of status of stakeholders are shown in the table below.

Country	Summary	Category	Key stakeholder	Description
Brunei	·The government has a unified competent authority, which makes it easier to promote the project.	Public	Ministry of Finance and Economy Royal Customs & Excise Department	The Ministry of Finance and Economy is responsible for fiscal and economic policy (including trade facilitation), and the Royal Customs & Excise Department, which oversees NSW, also belongs to the Ministry.
		Private	Dynamik Technologies	Government IT company acquired in 2018 by Khazanah Satu Sdn Bhd, a subsidiary of the Ministry of Finance; also represents Brunei in ASEAN-BAC.
Cambodia	·The public side is taking the initiative in improving trade and logistics, and the drive for digitalization at the private side is weak.	Public	Ministry of Economy and Finance National Single Window Steering Committee	Ministry of Economy and Finance (MEF) oversees the General Department of Customs and Excise, which promotes economic and fiscal policies.
		Public	General Department of Customs and Excise	Supervises imports and exports and computerize customs procedures and manages ASYCUDA as a customs clearance system.
		Private	Cambodian Logistics Association(CLA)	The Cambodia Freight Forwarders Association (CAMFFA) was established in 2012. It has since become the current organization.
Indonesia	·The public side is spread across two ministries, so cross-industry collaboration is necessary. ·The private sector is clear on the subject, but cross-industry efforts are needed.	Public	Ministry of Trade	Ministry with jurisdiction over trade facilitation. In trade procedures, it is in charge of certificates of origin, etc.
		Public	Ministry of Finance	Customs and the INSW department, which has jurisdiction over NSW.
		Private	KADIN(Indonesian Chamber of Commerce)	Representative of ASEAN-BAC Indonesia

Source: Various information

3. Analysis of Current Status of the 10 ASEAN Countries

3.7 Stakeholders (2)

(cont.)

Country	Summary	Category	Key stakeholder	Description
Lao PDR	<ul style="list-style-type: none"> •The public side is taking the initiative in improving trade and logistics, and the drive for digitalization at the private side is weak. 	Public	Ministry of Finance	The Treasury Department, not Customs, has jurisdiction over LNSW, and LNSW, a joint venture with Treasury, is responsible for its operation.
		Private	Lao National Single Window	Joint venture established by the Lao office of a subsidiary of French-registered Bureau Veritas under a PPP agreement with the Lao Ministry of Finance.
		Private	Lao National Chamber of Commerce and Industry	Laotian Chamber of Commerce
Malaysia	<ul style="list-style-type: none"> •The public side is spread across multiple ministries and agencies, so cross-industry collaboration is necessary. •The private sector side is clear, but cross-industry efforts are needed. 	Public	Ministry of International Trade and Industry	Promotes Malaysia's international trade and industry, enacts relevant laws and regulations, and formulates trade policies
		Public	Malaysia External Trade Development Corporation (MATRADE)	Promotes Malaysian exports and supports partnerships with companies related to cross-border e-commerce platforms
		Private	Federation of Malaysian Manufacturers	Represents Malaysian manufacturers, while improving the business environment for electronic trade and protecting manufacturers' interests
		Private	Dagang Net Technologies	Develops and maintains an electronic trade platform and provides related IT services and solutions
Myanmar	<ul style="list-style-type: none"> •The public sector is taking the lead in improving trade and logistics. The private sector is not strong in promoting digitalization. 	Public	Customs Department	NSW is under the Myanmar Ministry of Planning and Finance.
		Public	Ministry of Commerce	In charge of TradeNet, an import/export trade registration and license issuance system
		Private	The Republic of the Union of Myanmar Federation of Chambers of Commerce and Industry	Myanmar Chamber of Commerce and Industry, chaired by the Chair of ASEAN BAC.

Source: Various information

3. Analysis of Current Status of the 10 ASEAN Countries

3.7 Stakeholders (3)

(cont.)

Country	Summary	Category	Key stakeholder	Description
Philippines	<ul style="list-style-type: none"> ·The public side is taking the initiative to improve trade and logistics. ·At the private side, cross-industry initiatives are needed. 	Public	Department of Trade and Industry (DTI)	Supports industry in the Philippines and develops laws and policies for electronic trade
		Public	Bureau of Customs (BOC)	Manages customs procedures for trade and has jurisdiction over the National Single Window of the Philippines
		Private	Philippine Chamber of Commerce and Industry (PCCI)	Represents Philippine commerce and industry and promotes an improved business environment for electronic trade
		Private	Inter Commerce Network Service	It is a leading service provider connected to the NSW in the Philippines and operates a platform that enables exchanges of electronic certificates of origin and customs declarations for ASEAN and other countries.
Singapore	<ul style="list-style-type: none"> ·The public and private sectors are taking the lead in improving trade and logistics, and there are moves such as developing public-private platforms. 	Public	Ministry of Trade and Industry	It makes policy decisions and plans for overall strategies and digital economy agreements related to trade promotion. It has developed an initiative called Trade 2030 to set trade volume targets.
		Public	Infocomn Media Development Authority	Participates in development and operation of trade platforms such as SGTraDex; also implements subsidy policies to promote E-Invoice.
		Public	Singapore Customs	It has jurisdiction over TradeNet, the National Single Window, and NTP, the digital trade platform.
		Private	Singapore International Chamber of Commerce	Singapore's Chamber of Commerce and Industry. User guidance on FTAs and RCEP is available.

Source: Various information

3. Analysis of Current Status of the 10 ASEAN Countries

3.7 Stakeholders (4)

(cont.)

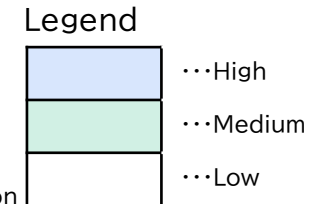
Country	Summary	Category	Key stakeholder	Description
Thailand	<ul style="list-style-type: none"> ·The public side is spread across multiple ministries and agencies, so cross-sectoral collaboration is necessary. ·The private sector is clear on who initiates trade digitalization and addresses cross-cutting initiatives. 	Public	Ministry of Commerce	It has jurisdiction over initiatives related to the digitalization and facilitation of trade procedures. And, it has jurisdiction over the NTR as a gateway for information on electronic commerce.
		Public	Ministry of Digital Economy and Society	It was established through a 2016 reorganization to promote the digital economy. Its predecessor was the Ministry of Information and Communication Technology.
		Public	Thai Customs	It has jurisdiction over the National Single Window of Thailand.
		Private	Joint Standing Committee on Commerce, Industry and Banking: JSCCIB	The committee is the driving body for establishing the NDTP and is a combination of associations from various industries. As an organization, it is equivalent to Keidanren in Japan.
Vietnam	<ul style="list-style-type: none"> ·The government side is taking the initiative to improve trade and logistics, while cross-industry activities are needed at the private side. 	Public	Ministry of Industry and Trade Department of E-commerce and Information Technology	Promotes development of the digital economy, especially in the area of e-commerce. Responsible for digitalization of certificate of origin (C/O) issuance and administration.
		Public	General Department of Vietnam Customs	Responsible for digitalization of customs procedures.
		Private	Vietnam Chamber of Commerce and Industry	The organization develops domestic and international trade by improving the business environment. It is also in charge of issuing certificates of origin (commissioned by the Ministry of Commerce and Industry).
		Private	FPT Information System	It is the service provider of the customs system VNACCS and operates the TradeFlat trade platform.

Source: Various information

3. Analysis of Current Status of the 10 ASEAN Countries

3.8 Summary (1)

- Regarding the current status of trade facilitation and digitalization, each ASEAN country has a different status. It is necessary to organize a roadmap for activities based on development status.



Unit: USD million

Country	Trade facilitation		Digitalization							Trade value with Japan (2022)
	TFI*	LPI*	NSW	Trade platform	Network(fixed broadband)	Legal framework	Blockchain	Data flow regulation	e-Invoice	
Brunei	193	2.7	NSW	Not exist	Above world average	E-signature act	Needs improvement	Does not exist	Does not exist	4,091.6
Cambodia	155	2.6	NSW	Not exist	Needs improvement	E-signature act	Regulated properly	Does not exist	Does not exist	1,826.2
Indonesia	197	3.2	NSW	Andalin	Needs improvement	E-signature act	Regulated properly	Strict	For tax admin.	41,513.6
Lao PDR	132	2.7	NSW	Not exist	Needs improvement	E-signature act	Needs improvement	Does not exist	Does not exist	286.5
Malaysia	208	3.2	NSW	ZETRIX	Above world average	E-signature act	Regulated properly	Conditional permit	Under consideration	41,267.1
Myanmar	143	2.3	Non exist	Not exist	Needs improvement	E-signature act	Needs improvement	Does not exist	Does not exist	1,806.5
Philippines	182	2.9	NSW	Not exist	Needs improvement	E-signature act	Regulated properly	Free flow	For tax admin.	23,983.6
Singapore	251	4.0	NSW Linkage with Trade PF	NTP, SGTradex	Above world average	E-signature act, MLETR, Cooperate ID linkage	Regulated, cross-border linkage	Free flow	Corporate	47,538.2
Thailand	203	3.4	NSW	NDTP (SCMnet, PromptTrade)	Above world average	E-signature act, MLETR (Ongoing)	Regulated properly	Conditional permit	Corporate and Tax Admin	58,944.2
Vietnam	211	3.3	NSW	TradeFlat	Above world average	E-signature act	Regulated properly	Strict	For tax admin.	47,350.1
Japan	271	3.9	NSW	TradeWaltz	Above world average	E-signature act, MLETR (Ongoing)	Regulated, cross-border linkage	Free flow	Corporate	—

Source: Compiled by Mitsubishi Research Institute, Inc. from IMF Direction of Trade Statistics for each country in 2022.

3. Analysis of Current Status of the 10 ASEAN Countries

3.8 Summary (2)

- The table shows the results of the analysis of the current status of the 10 ASEAN countries organized by groups with similar characteristics.

Country	Summary
Singapore	<ul style="list-style-type: none"> • In the electronic trade transaction system, the linkage between the National Single Window and related systems, etc., is well developed, and domestic system linkage is being promoted. • Efforts are also being made for international collaboration. • In terms of regulatory framework, regulations for digitalization of documents are stipulated. • The government is the key enabler, and there are efforts to digitalize trade in the public and private sectors. • Trade volume is high in the region, and trade-related data (TFI and LPI) is at a high level.
Thailand, Indonesia, Malaysia, Philippines, and Vietnam	<ul style="list-style-type: none"> • In terms of electronic trade transaction systems, National Single Windows have been developed to a certain extent, but there is interest in improving convenience through an expansion of BtoB functions (Thailand, Indonesia) and interest from the government (Philippines). • In Thailand, there is a unified movement in the industry for BtoB trade electronic trading transactions. • Although a certain degree of progress has been made in the digitalization of the system, trade processes are not fully digitalized, For example, original documents are required to be submitted. • Among stakeholders, the government is the key enabler, but there is a unified movement in the private sector in Thailand. • The market size is moderate, and trade-related data (TFI and LPI) indicators are at a medium level.
Brunei, Cambodia, Lao PDR, and Myanmar	<ul style="list-style-type: none"> • In the electronic trade transaction system, a certain amount of progress has been made in developing a National Single Window, but the need for a BtoB trade platform is low. • Only in Brunei is there a need to introduce digital trade platforms in Borneo (including Indonesia and Malaysia). • Digitalization is an area where institutional development is needed. • Stakeholders are mainly in the government, but only in Brunei is there a unified movement of the private sector. • The market size is small and trade-related data (TFI and LPI) is at a low level.

4. Estimation and Analysis of Social Benefits

- 4.1 Estimation of Social Benefits
- 4.2 Analysis of Social Benefits
- 4.3 Summary

4. Estimation and Analysis of Social Benefits

4.1 Estimation of Social Benefits (1)

- **Estimation of Social Benefits of Digital Trade:** Net benefits were estimated for ASEAN as a whole and for each country by subtracting the investment amount from the cost reduction effect.

Cost reduction benefits (+ effect)

Calculation unit	Description
Market size in each country	Market size for trade digitization.
×	
Trade transactions with trade partners (percentage)	See IMF Direction of Trade Statistics. Percentage of Japan-ASEAN trade transactions is from the total trade value.
×	
Time reduction (hours)	Applying 44% time reduction effect, which is the time reduction effect of the demonstration of the efficiency of trade procedures in the global supply chain by New Energy and Industrial Technology Development Organization's project. (https://www.nedo.go.jp/content/100896162.pdf)
=	
Cost reduction benefit per year (USD)	Annual total amount
×	
Growth rate (CAGR)	The growth rate of each country's trade value from 2017 to 2022 is applied.
=	
Cost saving effect over five years (USD)	Total for five years

Source: Compiled by Mitsubishi Research Institute, Inc. from various sources.

4. Estimation and Analysis of Social Benefits

4.1 Estimation of Social Benefits (2)

- Estimating social benefits obtained by introducing a digital trade platform
 - The effect is USD 10.3 billion if the digital transformation of trade procedures with ASEAN as a whole is realized, and
 - if Japan-ASEAN is taken within the scope, the effect expands to USD 13.7 billion.
 - If digitalization with all trading partners is promoted, the effect is USD 47.7 billion.

Unit: USD million

Country	ASEAN region	Japan-ASEAN	ASEAN-Global
Brunei	151.9	210.7	390.4
Cambodia	209.5	234.6	758.2
Indonesia	1,690.7	2,302.2	7,754.6
Lao PDR	122.5	125.8	215.5
Malaysia	1,500.8	1,853.2	5,530.6
Myanmar	307.5	344.2	791.9
Philippines	1,154.3	1,652.8	4,648.4
Singapore	2,638.3	3,131.7	10,294.7
Thailand	1,211.7	1,788.2	5,723.9
Vietnam	1,305.6	2,071.3	11,564.9
ASEAN all	10,292.8	13,714.8	47,673.2

Note: The electronic documents to be covered assume that all trade documents, including B/Ls, are electronic. The social benefits for Japan-ASEAN and ASEAN-global are shown for the social benefits of only ASEAN, and do not include the benefits of the partner countries.

Source: Compiled by Mitsubishi Research Institute, Inc.

4. Estimation and Analysis of Social Benefits

4.1 Estimation of Social Benefits (3)

- Introducing digital trade platforms also brings about the effects of increasing the volume of trade through the participation of SMEs, environmental impacts, and increased transparency of supply chains.

Expected effects	Contents
Effects on environment, etc.	<ul style="list-style-type: none"> • Reduce energy and CO2 emissions deriving from real document transport through the digitalization of trade documents and processes.
Other qualitative and secondary effects	<ul style="list-style-type: none"> • Increase accuracy and ease of storing data for post audits by customs and compliance, and for preventing double finance etc. • Reduce trade barriers, especially for SMEs (expectation of increased trade volume) • Increase supply chain resilience through other functions such as visualization of cargo and trade process, CO2 emissions (towards Scope 3 on GHG protocol), etc.

4. Estimation and Analysis of Social Benefits

4.2 Analysis of Social Benefits (1)

- Assuming that the manifestation of social benefits changes with the status of trade digitalization and the introduction of trade digital platforms, the following three analyses were conducted.

Analysis		Contents
1	Net social benefits of implementing a digital trade platform	<ul style="list-style-type: none"> Estimation of net social benefits, based on cost savings over five years and system investment and operation costs Calculated for the case of digitization of trade transactions within the ASEAN region, the case of digitization of trade transactions between Japan and ASEAN, and the case of digitization of trade partners in ASEAN countries.
2	Social benefits at 10%, 30%, and 100% of the time	<ul style="list-style-type: none"> Estimate changes in net social benefits in cases with 10%, 30%, and 100% social benefit manifestation Scenario scopes electronic trade transactions between Japan and ASEAN
3	Social benefits per year in the 10% effect case	<ul style="list-style-type: none"> Estimation of year-to-year changes in social benefits in the 10% effect case Scenario scopes the digitalization of ASEAN-Japan trade transactions

Note: Development and operation costs of digital trade platforms were prepared from interviews, using Japan as a case study; construction and operation costs were calculated based on the proportion of labor costs in each country.

4. Estimation and Analysis of Social Benefits

4.2 Analysis of Social Benefits (2)

- Including the cost of developing a digital trade platform to calculate net social benefits, which were divided into the case of electronic trade transactions within the ASEAN region, the case of electronic trade transactions between Japan and ASEAN, and the case of all electronic trade transactions with trading partners in each ASEAN country, the cost savings over a five-year period and social benefits (net) based on system investment and operation costs.
- The benefits of introducing the system are considered to be significant in each country.

Unit: USD million

Country	ASEAN region	Japan-ASEAN	ASEAN-Global
Brunei	1,252	1,741	3,236
Cambodia	1,443	1,616	5,229
Indonesia	10,343	14,084	47,443
Lao PDR	738	759	1,300
Malaysia	9,050	11,177	33,370
Myanmar	1,641	1,837	4,227
Philippines	6,700	9,594	26,987
Singapore	15,295	18,163	59,797
Thailand	6,685	9,868	31,594
Vietnam	8,012	12,712	70,987

Source: Mitsubishi Research Institute, Inc.

4. Estimation and Analysis of Social Benefits

4.2 Analysis of Social Benefits (3)

- In Japan-ASEAN trade transactions, the cost reduction effect is highest when connections with trading partners are advanced, but it can be estimated that there will be benefits even when interconnections with some trading partners are achieved.

Scenario	Description
A. Case with 10% effect onset	Achieving interconnection with some trading partners in Japan and ASEAN, and partial digitalization of trade documents
B. Case with 30% effect onset	Achieving interconnection with major trading partners in Japan and ASEAN, and partial digitalization of trade documents
C. Case with 100% effect onset	Achieving interconnection with all trading partners in Japan and ASEAN, and full digitalization of trade documents

Unit: USD million

Country	Scenario A	Scenario B	Scenario C
Brunei	165	515	1,741
Cambodia	159	483	1,616
Indonesia	1,407	4,224	14,084
Lao PDR	75	227	759
Malaysia	1,112	3,349	11,177
Myanmar	183	550	1,837
Philippines	958	2,877	9,594
Singapore	1,780	5,421	18,163
Thailand	983	2,958	9,868
Vietnam	1,269	3,812	12,712

Source: Mitsubishi Research Institute, Inc.

4. Estimation and Analysis of Social Benefits

4.2 Analysis of Social Benefits (4)

- Although the effectiveness of introduction increases from year to year, the initial benefits of start-up are relatively low in Brunei, Lao PDR, Cambodia, Myanmar, and other countries. It is necessary to reduce initial investment costs and consider measures for digitalization and standardization, as well as measures for user expansion, in parallel.

Unit: USD million

Country	1 year	2 years	3 years	4 years	5 years
Brunei	14	26	32	41	52
Cambodia	22	27	31	37	42
Indonesia	229	253	279	307	338
Lao PDR	12	14	15	16	18
Malaysia	181	202	221	242	265
Myanmar	34	35	37	38	39
Philippines	164	177	191	205	220
Singapore	288	333	359	386	415
Thailand	176	187	197	206	217
Vietnam	206	228	252	278	306

Note: The estimation assumption is based on the social benefits (cost reduction effect) over five years and assumes digitalization of trade procedures (platform connection) for ASEAN-Japan. The cost reduction effect is assumed to be 10%, and system investment costs are assumed to be incurred in the first year. The initial cost is assumed to be incurred in the first year. Also, social benefits on the Japanese side are not included.

4. Estimation and Analysis of Social Benefits

4.3 Summary

- The social benefits are estimated to be USD 10.3 billion in a single year if digitalization of trade transactions for the entire ASEAN region is achieved, and the effect expands to USD 13.7 billion if Japan-ASEAN is taken as the scope of the project. If digitization with all trading partners is promoted, the effect is estimated as USD 47.7 billion.
- Regarding the analysis of social benefits that takes into account system investment costs, the introduction of digital trade platforms and the digitalization of trade will have a significant effect in each country over a five-year period, even in the light of investment costs.
- On the other hand, if the cost reduction effect does not manifest itself, such as a lack of progress in connecting digital trade platforms and digitization of trade, the effect of introducing digital trade platforms will be low.
- Therefore, it is necessary to reduce the initial investment cost, launch digital trade platforms, promote digitalization and standardization, and consider measures to expand users in parallel.

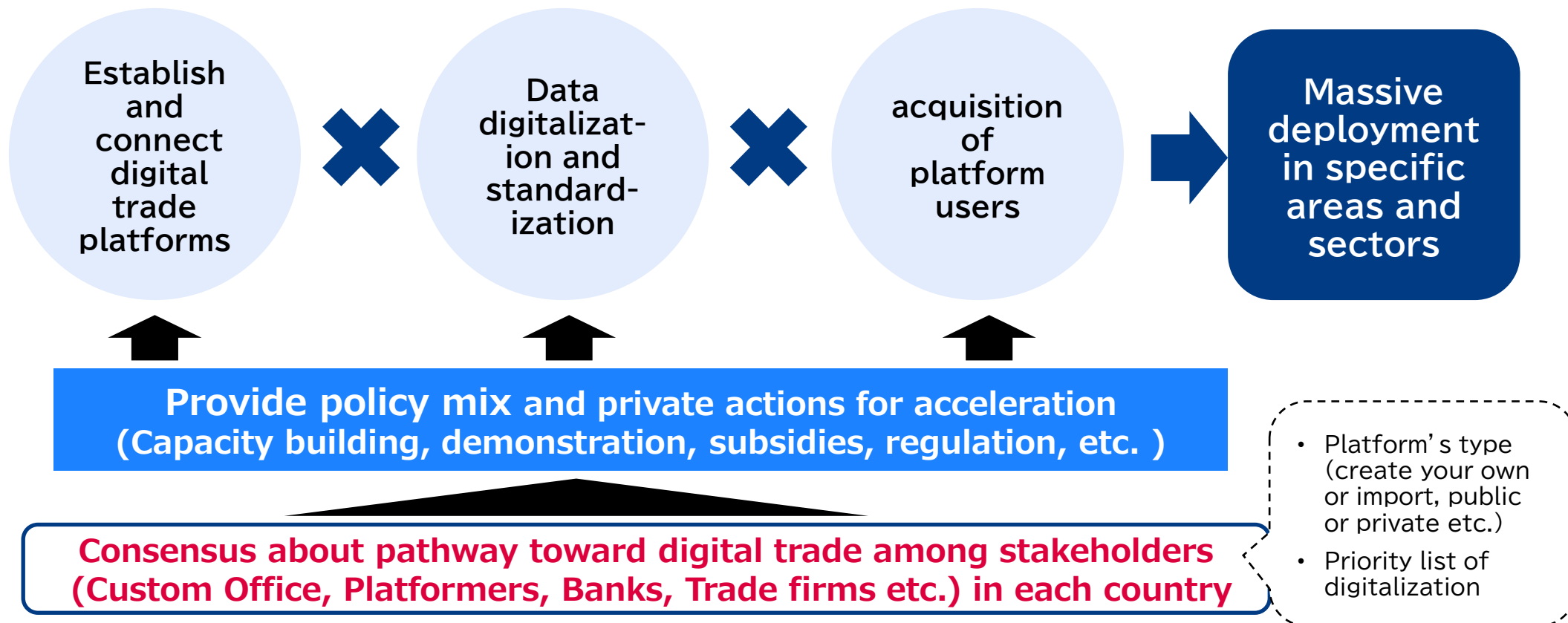
5. Policy Recommendations and Roadmap Development

- 5.1 Principle of Acceleration of Trade digitalization
- 5.2 Policy Recommendations for ASEAN
- 5.3 Policy Recommendations
- 5.4 Roadmap
- 5.5 ASEAN-Japan Cooperation

5. Policy Recommendations and Roadmap Development

5.1 Principle of Acceleration of Trade Digitalization

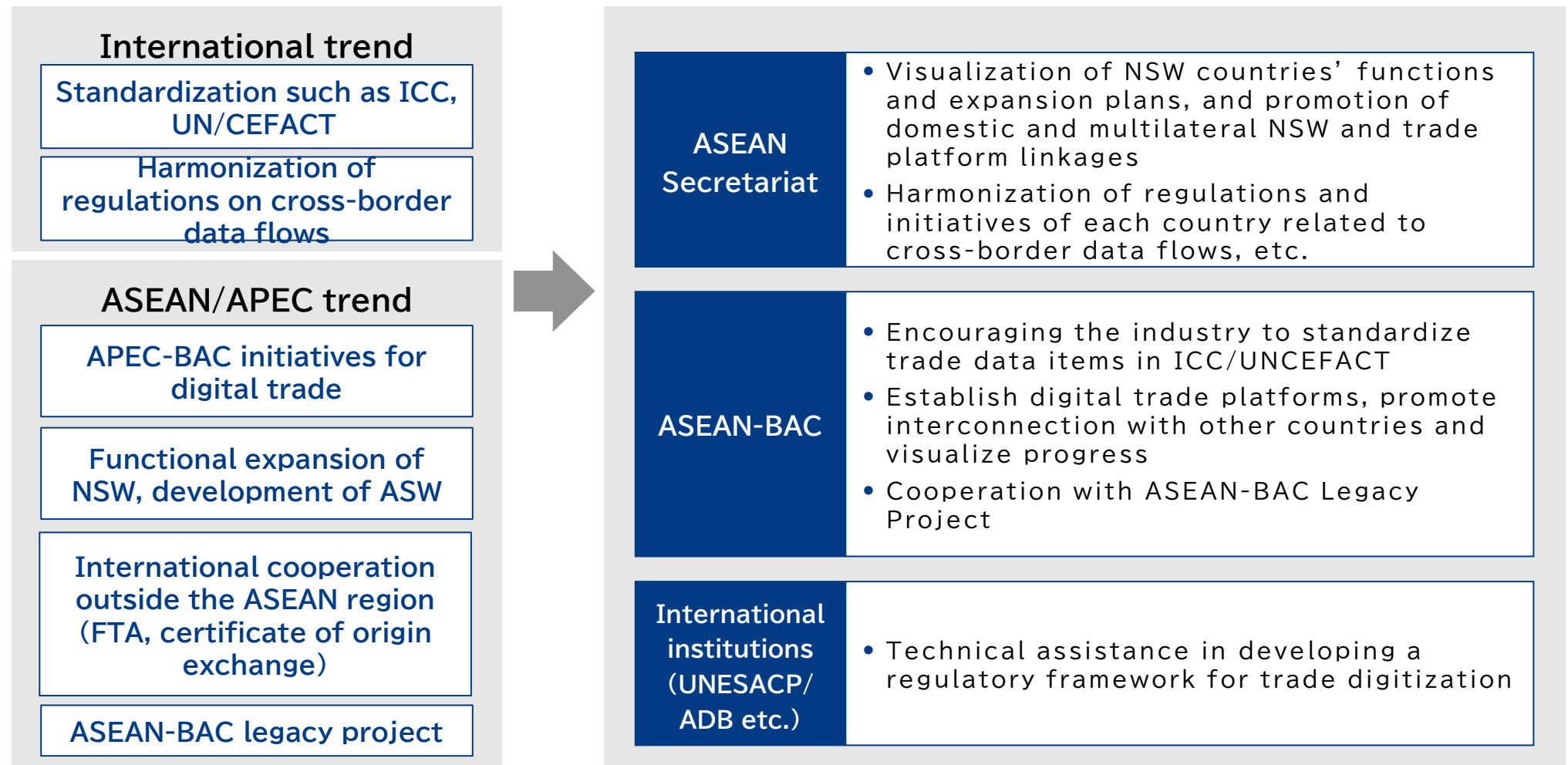
- Basic principle for the massive deployment of digital trade composes three elements, which can be accelerated via policies and actions.
- However, the pathways differ by country, so each pathway should be decided and shared through public-private collaboration



5. Policy Recommendations and Roadmap Development

5.2 Policy Recommendations for ASEAN

- To accelerate the digitalization of trade, it is necessary for stakeholders to work together and to work on ASEAN.



5. Policy Recommendations and Roadmap Development

5.3 Policy Recommendations

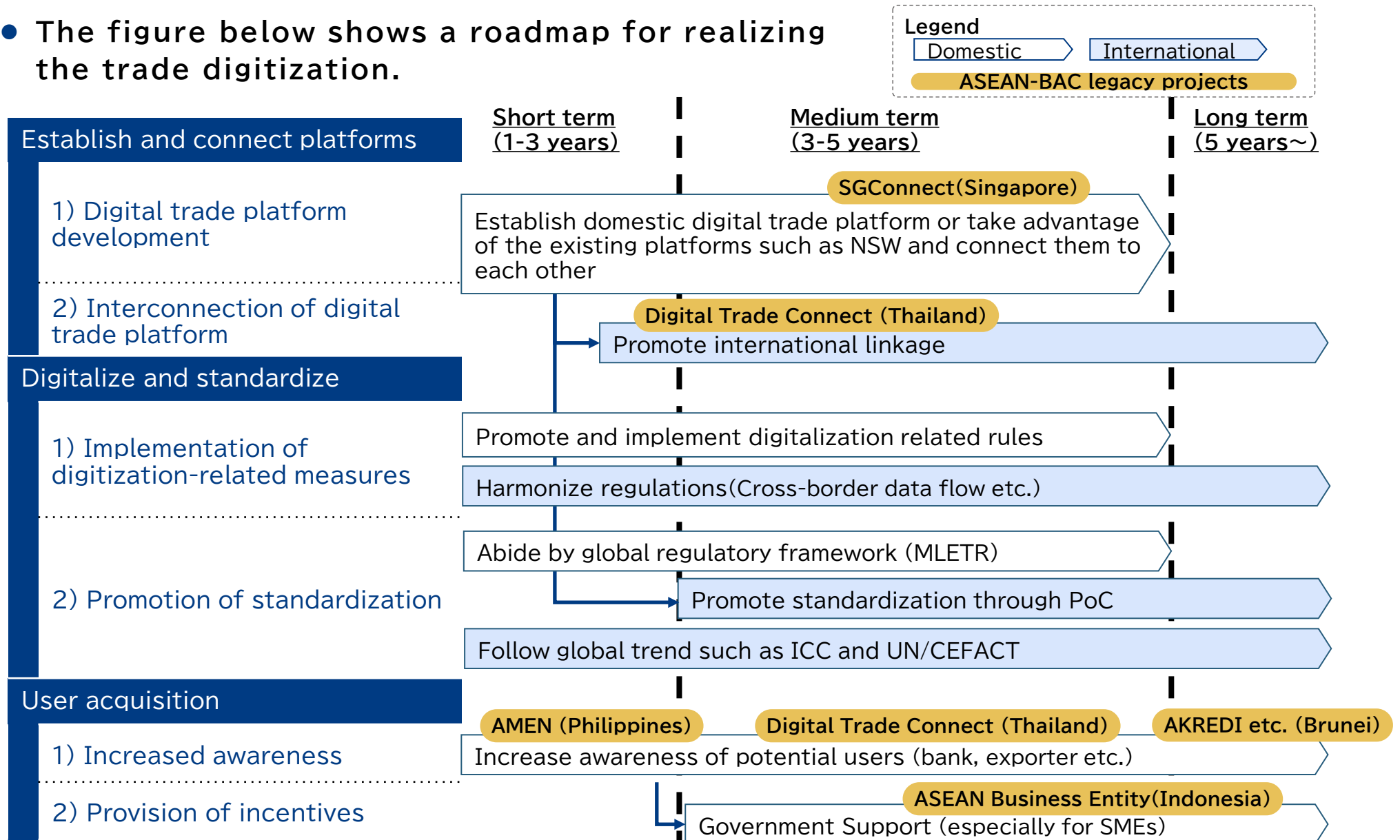
- Detailed action items for accelerating trade digitalization are as follows.

A. Establish and connect platforms	1) Digital trade platform development	Customs, economic and finance ministries	<ul style="list-style-type: none"> • To develop digital trade platforms and promote connection to National Single Window and domestic industry platforms
	2) Interconnection of digital trade platform	Customs, Trade platform Operator	<ul style="list-style-type: none"> • Promote multilateral connectivity of digital trade platforms through proof of concept (PoC), etc. Accumulate know-how on use cases, standardization, business models, etc. through PoC and small-scale connections.
B. Digitalize and standardize	1) Implementation of digitization-related measures	Digital-related ministries	<ul style="list-style-type: none"> • Promote measures for digitizing domestic documents as a basis for electronic signatures, electronic invoices, digital IDs, etc., • Harmonization of regulations such as personal information protection, etc., with awareness of cross-border data flows.
	2) Promotion of standardization	Chamber of Commerce and Industry	<ul style="list-style-type: none"> • In coordination with the activities of UN/CEFACT and ICC, standardize the trade data items for digital trade platforms • Revise national laws and guidelines, especially for documents that require revision of national laws such as the MLETR.
C. User acquisition	1) Increased awareness	Chamber of Commerce and Industry players	<ul style="list-style-type: none"> • Capacity building for shippers and forwarders for a better understanding how to make current procedures efficient using a platform.
	2) Incentives for trade digitalization	Economic and finance ministries	<ul style="list-style-type: none"> • Provide tax incentives and subsidies (especially for SMEs with limited investment capacity) for introducing digital trade platforms.
Enabler	1) Identification of stakeholder	ASEAN-BAC, Economic and finance ministries	<ul style="list-style-type: none"> • Identify and clarify the government and private sector stakeholders who will promote the digitization of customs procedures. For customs procedures, it is necessary to involve the Customs Department, the National Single Window facilitators, trade-related ministries, and digital-related ministries.
	2) Public-Private partnership	Customs	<ul style="list-style-type: none"> • Create and operate a scheme (e.g., cross-industry study consortium) to clarify issues to be addressed across industries and by the public and private sectors in collaboration.

5. Policy Recommendations and Roadmap Development

5.4 Roadmap

- The figure below shows a roadmap for realizing the trade digitization.

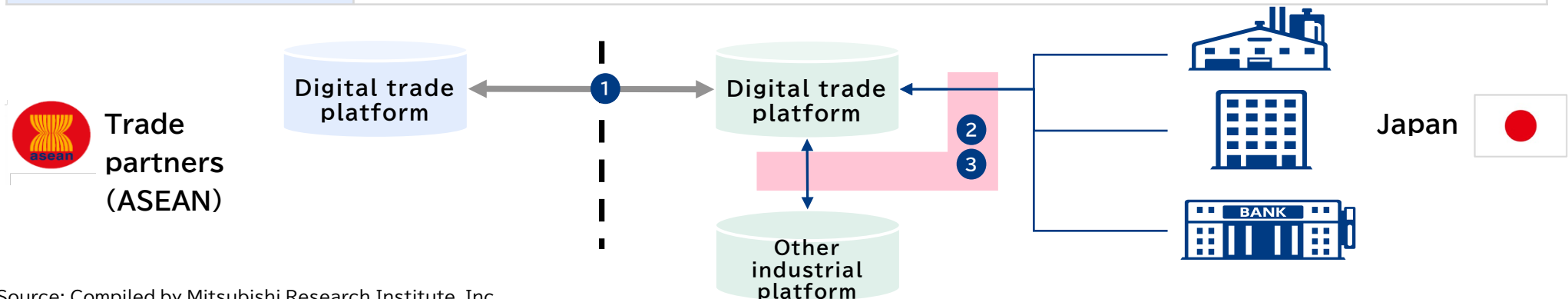


5. Policy Recommendations and Roadmap Development

5.5 ASEAN-JAPAN Cooperation(1)

- In Japan, a cross-industry trade consortium has been established and the public sector is also supporting trade digitalization.
- The following three measures are taken for tackling the challenges of trade digitalization.

Challenges	Direction
① Collaboration with trade partners	Promote linkages between trade platforms and data linkage with not only Japan, but also among ASEAN countries.
② Improvement of data linkage in trade sector	Promote the use of data standard based on International standard institution (UN/CEFACT) - Request UN/CEFACT and others to reflect requests for additional data items from Japanese companies etc.
③ Expanding user base	Share good examples of digital trade based on cooperation from key shipper companies to maximize the network effects of trade platforms (knowledge sharing). Partially subsidize costs from the government for connections between trade PFs and users and other trade platforms.



Source: Compiled by Mitsubishi Research Institute, Inc.

5. Policy Recommendations and Roadmap Development

5.5 ASEAN-JAPAN Cooperation(2)

- Suggestions on areas and contents where ASEAN-Japan can cooperate are as follows.

	A. Establishing and connecting platforms	B. Digitalizing and standardizing	C. User acquisition
Countries with digital trade platforms	<ul style="list-style-type: none"> • Promotion of Interconnections among Digital Trade Platforms (PoC) • Development support for commercializing digital trade platform connections • Support for the functional expansion of National Single Window (financial cooperation, technical assistance) 	<ul style="list-style-type: none"> • Promotion of the MLETR and cooperation in its enforcement • Bilateral and multilateral cooperation on standardization of data items in trade documents 	<ul style="list-style-type: none"> • Organizational and human resource development support (technical assistance, training) • Knowledge sharing on trade consortium management and other promotion initiatives in Japan (technical assistance)
Countries that do not have digital trade platforms	<ul style="list-style-type: none"> • Support for the development of digital trade platforms or the deployment of Japanese digital trade platforms (financial and technical assistance) • Support for the functional expansion of the National Single Window (financial cooperation, technical assistance) 	<ul style="list-style-type: none"> • Support for regulatory frameworks related to domestic digitization (technical assistance) 	<ul style="list-style-type: none"> • Organizational and human resource development support (technical assistance, training) • Knowledge sharing and transfer of know-how on trade consortium management and other promotion initiatives in Japan (technical assistance)