

FY 2020 International Economic Research Project on the Development of an
Integrated Domestic and International Economic Growth Strategy
(International Economic Research Project on Measures to Strengthen Japan's
Trade Facilitation (Including the Use of FTAs)) Research Report

March 19, 2021
NTT DATA Management Institute, Inc.

Table of Contents

1. Executive Summary
2. Trends of trade platforms in the world
3. Status of Single Window Construction and Role of Trade Platforms
4. Ensuring interoperability in cooperation with other countries and regions
5. Japan's challenges in digitizing trade procedures

Reference: World Trade Platform Long List

Executive Summary

Executive Summary

Background and purpose of the survey

- In recent years, in order to facilitate trade, trade platforms have emerged that provide electronic services for trade procedures using digital technologies such as blockchain technology, mainly by private companies.
- At the same time, governments around the world are building single-window systems based on the policy of digitization of trade-related procedures to facilitate trade.
- This project aims to understand the trade platforms of each country, the current status of the single-window system being promoted by each government, and the status of digitization of trade procedures, and to conduct research and analysis that will contribute to Japan's policy planning in response to these trends.

Results of a survey

Trends of trade platforms in the world

- The Global top-tier western based trade platforms are interconnected and spread across multiple continents.
- Trade platforms in Asian countries, including Japan, are linked to domestic public systems.

Status of Single Window Construction and Role of Trade Platforms

- Japan's policy is for private trade platforms to take the lead in digitizing trade procedures, while ASEAN and China have a state-led single window, and South Korea has a state-led trade platform at its core

In collaboration with other countries and regions Ensuring interoperability

- As Japan moves forward with collaboration with other countries and regions, differences in systems will not be a technical obstacle to collaboration and use of various platforms and single windows.

Toward the computerization of trade procedures Challenges for Japan

- Japan is lagging behind Singapore and other countries in the development of laws and regulations for the computerization of trade-related procedures, and we are losing our competitiveness as a super city in the field of trade.

Proposal

- For Japan, it is important to realize the speedy expansion of the functions of trade platforms and public systems through private sector initiatives, cooperation with overseas platforms, and expansion of the scope of cooperation with ASEAN and other regions.
- In order to achieve this goal, it will be necessary to establish a position in the global trend of trade facilitation through public-private partnerships that combines "support for institutional development, such as providing a legal basis for eBL" and "provision of global services to realize full digitization of trade."

Trends in global trade platforms

Status of establishment of major trade platforms around the world

- US and European private sector-led trade platforms provide services across multiple continents while collaborating with other trade platforms.
- On the other hand, Asian trade platforms, such as Japan, Korea, and Singapore, are linked to the national public system.

Notes:

- ◆ Linkage with public systems
- ◆ Certificate of origin procedures
- ◆ Blockchain technology
- Inter-platform collaboration

Supply Chain Management

Trade Finance

Both

Multiple continent

TradeLens (5 continents)
CargoX (Europe and Hong Kong)
E2OPEN (Europe, America, Asia)
TradeWindow (Australasia, China, Singapore)

Marco Polo (5 continents)
Komgo (Europe, America, Japan, Australia)
B3i (Europe, America, Asia)
OTB (ASEAN, China, and 61 other countries)

Bolero (5 continents)
essDOCS (5 continents)
MineHub (5 continents)
Insurwave (4 continents)

Specific Region

We. Trade (Europe)
eTradeConnect (Hong Kong, Australia, New Zealand)

Vakt (Europe)
TRADE-VAN (Taiwan, other Asian countries, Australia)

Domestic only

Shippio (Japan)

Bay Area Trade Finance Blockchain Platform (Hong Kong, China)
India Trade Connect (India)
Trusple (China)

TradeWaltz (Japan)
EC3 (USA)
TradeFinex (Singapore)
STANDAGE (Japan)
NTP (Singapore)
UtradeHub (Korea)
Tradelink (Hong Kong)
SMK-DagangNET (Malaysia)

Source: NTT DATA INSTITUTE OF MANAGEMENT CONSULTING, Inc. based on each company's website

Global top-tier trade platform(Overview)

- The features of TradeLens, Marco Polo, Bolero, essDOCS, and Contour, which are currently the world's top tiers in terms of the regions in which they operate and the number of users, are that they all use blockchain technology to ensure the security of trade-related data, and that they have established interoperability by linking and networking among platforms. They have also established interoperability through inter-platform collaboration and network formation.
- This is expected to continue to position the company as a top tier player in the global trading platform market.

Trade Platform	subject (philosophical)	Year of establishment	Region	Number of users	PF Type	Blockchain Technology
TradeLens	IBM Maersk	2018	Five continents with a focus on the U.S.	175 companies	Supply Chain Management	Hyperledger Fabric (IBM Blockchain Platform)
Marco Polo	R3 TradeIX A consortium of 33 companies	2020	Five continents	Approximately 50 companies (number of participating companies in the Marco Polo Network)	Trade Finance	R3 Corda
Bolero	Bolero International SWIFT (Society for Worldwide Interbank Financial Telecommunication)	2020	Five continents	Unknown on its own.	Supply chain management, trade finance	Corda.
essDOCS	essDOCS	2005	203 countries on 5 continents	Over 55,000 companies	Supply chain management, trade finance	unknown
Contour	12 major global banks R3 CryptoBLT Bain & Company	2020	17 countries/regions	Over 80 companies	Trade Finance	R3 Corda

Source: NTT DATA INSTITUTE OF MANAGEMENT CONSULTING, Inc. based on each company's website

Comparison of functions of each trade platform

- The figure below shows a comparison of the functions of the global top-tier trade platforms and Japan's trade platform (TradeWaltz). The global top-tier trade platforms are providing services to a large number of customers over a wide area by taking advantage of their individual strengths and expertise, and are expanding their functions through mutual cooperation.
- On the other hand, TradeWaltz is aiming to position itself as a single-window platform in Japan by linking with public systems such as NACCS.

	Contract-related procedures	Preparation of trade-related documents	Export procedures	Transportation Management	Tariff payment	Import procedures	Payment
	Insurance procedures, etc.	Preparation of certificates of origin, etc.	Digitization of related documents, etc.	Cargo tracking		Digitization of related documents, etc.	
TradeLens		●	●	●	●	●	
Marco Polo	●	●	●			●	●
Bolero		●	●			●	●
essDOCS		●	●			●	●
Contour	●	●	●			●	●
TradeWaltz	●	●	●	●	●	●	●



Implemented



To be implemented / linked with other PF

Source: NTT DATA INSTITUTE OF MANAGEMENT CONSULTING, Inc. based on information available as of March 12 from the official websites of each platform and interviews with TradeWaltz officials.

Global top-tier trade platform(TradeLens)

- TradeLens is a supply chain management platform that aims to make international trade more efficient and secure by enabling trade-related companies to share information and create new business opportunities through new ways of collaboration.
- TradeLens serves the United States and five other continents, with over 175 organizations currently using the service.

TRADELENS ECOSYSTEM

- The ecosystem consists of shippers, freight forwarders, ports and terminals, ocean freight forwarders, customs and government authorities, customs brokers, etc. The companies and organizations that make up the ecosystem can query information on all stages of the supply chain in real time through the platform, enabling them to take necessary actions efficiently.
- At customs, the Netherlands, Saudi Arabia, Singapore, Australia, Peru and customs brokers Ransa and Guler & Dinamik are participating.

MARKETPLACE

- Marketplaces have their own products and services (Solutions) and third party products and services (Solutions).
- Publish the products and services offered on the platform and allow users to select products and services as needed.
- In-house products include document exchange capabilities, eBL, value-added services, and custom services based on data

TRADELENS PLATFORM

- Platform with IBMCloud and IBMBlockchain
- Share information and provide digital tools to all entities involved in global trade.
- In the TradeLens blockchain, members are recognized based on their cryptographic IDs, and "trust anchors" operate the blockchain nodes.

Global top-tier trade platform(Marco Polo)

- The goal of the Marco Polo Network is to create value by facilitating the interaction (emphasis on interoperability) of all participants, including financial institutions, their corporate customers, and the broader trade ecosystem.
- Marco Polo is available on five continents, and the Marco Polo Network has about 50 participants.

Service Description

- Marco Polo is a distributed platform, so each user can run, customize, and deploy it
- Leverage distributed ledger technology (DLT) and extensive trade and supply chain finance expertise to bring all stakeholders together in a single, shared connectivity network, enabling unprecedented levels of value creation.
- Users will be able to connect and exchange data via a DLT-enabled network, creating an interoperable "network of platforms" that can utilize platform components.
- Marco Polo provides a SaaS-based web portal environment for small and medium-sized businesses.

Awarded World's Best Trade Finance Providers 2021

- Marco Polo Network has been selected by Global Finance as one of the best trade finance providers with DLT in the "World's Best Trade Finance Providers 2021". Selected by Global Finance
- The trade finance sector was particularly hard hit by the COVID-19 pandemic, but the Marco Polo Network was recognized for its significant contribution to global trade finance by responding and adapting to unforeseen challenges.
- This will continue to position the Marco Polo Network as one of the top tier global trading platforms, both in name and in reality.

Global top-tier trade platform(Bolero)

- Bolero is a service-managed, trade finance platform that enables organizations to reduce the risk and cost of international transactions, improve operational efficiency, and increase visibility, transparency, and control across transactions.
- Bolero is a member of the Marco Polo Network, which covers five continents.

Service Description

- Bolero brings together in one platform the ability to create and edit letters of credit, collections, guarantees, account opening transactions, and electronic bills of lading (eBL), as well as manage these documents and track their status in the supply chain in real time.
- Value-added additional trade services in the areas of compliance checks, certificates of origin, financing, price quotations, reports, etc.
- Bolero is a member of the Marco Polo Network, which ensures interoperability with the companies and trading platforms that use the network.
- Banks and corporate users can centrally process transactions such as customer letters of credit and eBLs.

Handling of Electronic Bill of Lading (eBL)

Assurance of Originality

- Bolero is designed to create a unique title registry record (a type of DB configuration information) for eBLs, ensuring that you always have a unique eBL document.

Security of material effects

- Bolero's eBL system is a system that has been agreed upon by the contracting parties and approved by the shipping company's mutual insurance association (P&I Club), thus ensuring that the terms and conditions contained in the bill of lading also apply to eBL.

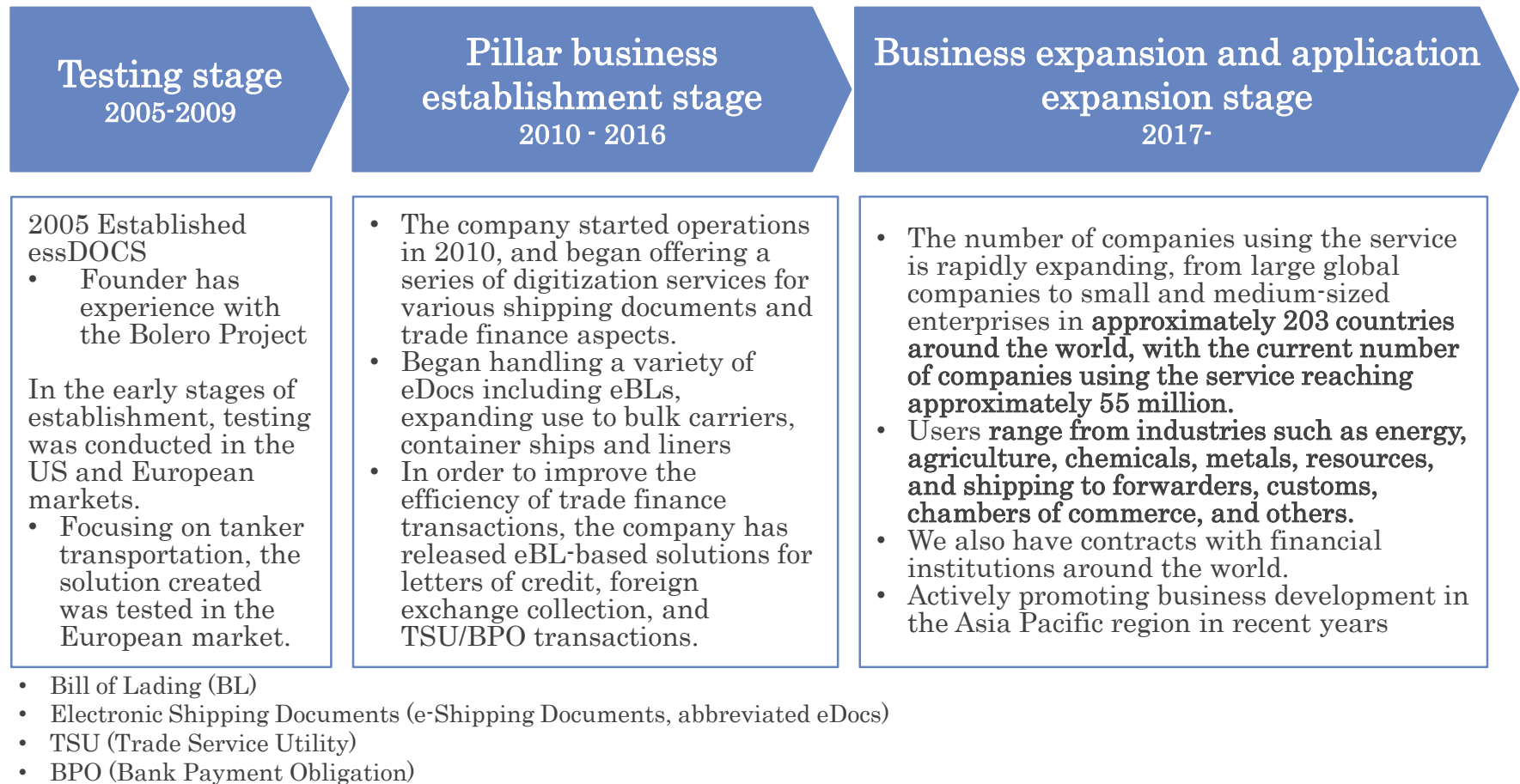
Security assurance

- Bolero is externally audited annually by CSC (Cyber Security Control) in accordance with SSAE16 (replacement for SAS70)
- The system was designed and built by SWIFT, the organization responsible for interbank messaging, and provides a core component to the world of financial services.

Global top-tier trade platform (essDOCS 1/2)

- essDOCS is a supply management and trade finance platform that aims to digitize and make paperless trade operations, logistics, and payments.
- The essDOCS service is available in 203 countries on five continents, with more than 50,000 companies currently using the service.

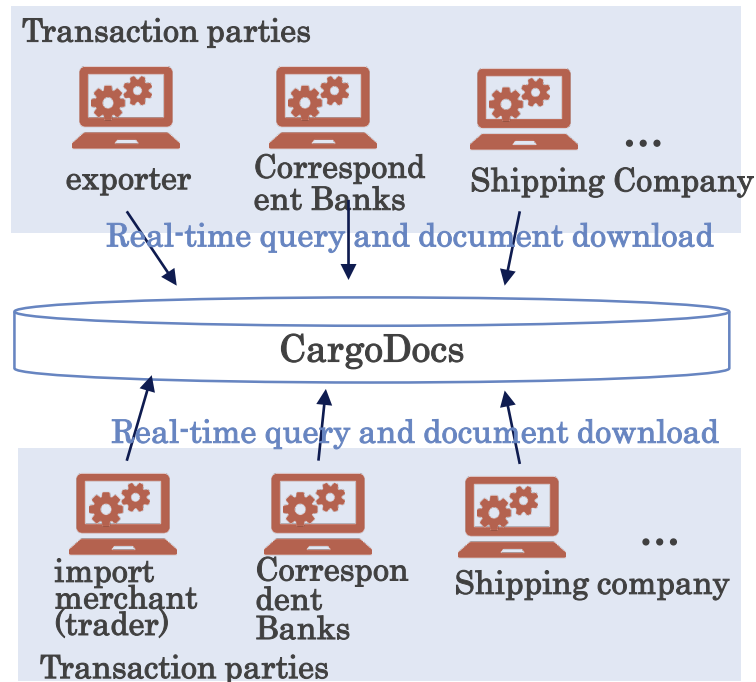
Development stream of essDOCS



Global top-tier trade platform(essDOCS 2/2)

- CargoDocs, an electronic service for shipping documents and trade finance operations, allows parties involved in transactions to query documents in real time using the platform.
- CargoDocs allows all parties involved in a transaction, including exporters, importers, their respective banks, and shipping companies, to log into the essDOCS platform from any Internet-enabled terminal and query eDocs and download documents in real time. efficiency is greatly improved.

Image of CargoDocs usage



Examples of efficiency improvement

Reduce paperwork time

- A certificate of origin created by the exporter in eDocs can be checked by the carrier and the bank at the "pre-issuance" stage.
- This will improve the rate of initial screening.
- Even if the certificate is rejected, the exporter may re-present the revised document within one hour.

Streamlining the application process

- Trade promotion committees and chambers of commerce and industry are also part of the platform, and users apply for proof of origin via the platform.
- Trade promotion committees and chambers of commerce issue certificates of origin.
- Depending on the intended use of the certificate of origin, transaction parties can check the issued certificate of origin on the platform.

Global top-tier trade platform(Contour)

- Contour is a trade finance platform that aims to leverage the power of blockchain technology to build a foundation that will serve as a catalyst for change in the trade finance industry, forming a scalable network that will bring the benefits of digitization to the global trade ecosystem
- Contour has expanded its services to 17 countries and regions in collaboration with Bolero and essDOCS, and has more than 80 users.

Service Description

- Contour provides trade finance services with a core focus on creating, verifying, and sharing trade documents (letters of credit and other financial and settlement-related documents) using blockchain technology.
- However, Contour is still narrower than other trade platforms such as TradeLens in terms of the scope of its solutions, as it only officially went live in October 2020.
- For example, electronic bill of lading (eBL) services are provided via essDOCS.
- In 2021 and beyond, Contour will continue to build relationships with banks, enterprises, and technology partners to develop solutions that work for all users.

The concept of interoperability (Interoperability)

Defining Interoperability

- Joining two networks using an application designed for a single participant to work together.
- It shows a situation where Contour and essDOCS applications are synchronized using an API between the two systems, and the corporate and personal IDs are also synchronized. To put it more succinctly, what happens in essDOCS is updated in Contour, and what happens in Contour is updated in essDOCS.

Contour's Future Plans

- By building a transaction flow between applications, they plan to replicate data across two different networks to not only provide interoperability, but also keep information safe and protected.
- By doing so, users can leverage the benefits of other trade platforms and Contour's services to extend the benefits of each platform to their business.

Japan's trade platform (TradeWaltz)

- TradeWaltz is a supply chain management and trade finance platform established as a result of a public-private partnership and an all-Japan project to improve the efficiency and convenience of administrative procedures by using blockchain technology to enable seamless information sharing among trade stakeholders.
- At present, TradeWaltz is a service for Japan, but in the future, it will target global trade transactions and aims to expand its business domain through overseas node development and alliances with other trade platforms.

Service Description

- By using blockchain technology (Hyperledger Fabric), the originality of trade information can be secured in place of all paper trade documents, including electronic bills of lading and electronic certificates of origin.
- Achieve a wide range of data linkage by connecting APIs with companies' own systems and domestic and overseas trade platforms such as NACCS.
- Save trade documents as structured data instead of PDFs to eliminate duplicate entries and enable data utilization.
- In the future, the system will not only digitize trade-related documents, but will also provide further value-added services such as trade finance and logistics information linkage through the use and real-time sharing of information stored in the platform.

Future Direction

Positioning as a single window

- TradeWaltz has signed a Memorandum of Understanding (MOU) with NACCS for mutual collaboration and cooperation, with the aim of improving the convenience of both companies' services for those involved in international logistics and trade.
- In the future, it is expected that the two companies will be able to link up not only with NACCS, but also with the systems for applying for proof of origin that are being promoted by various countries, and to improve the efficiency of shippers' interactions (BtoG) with customs offices in overseas importing regions. In this way, we aim to position the system as a single window in countries around the world.

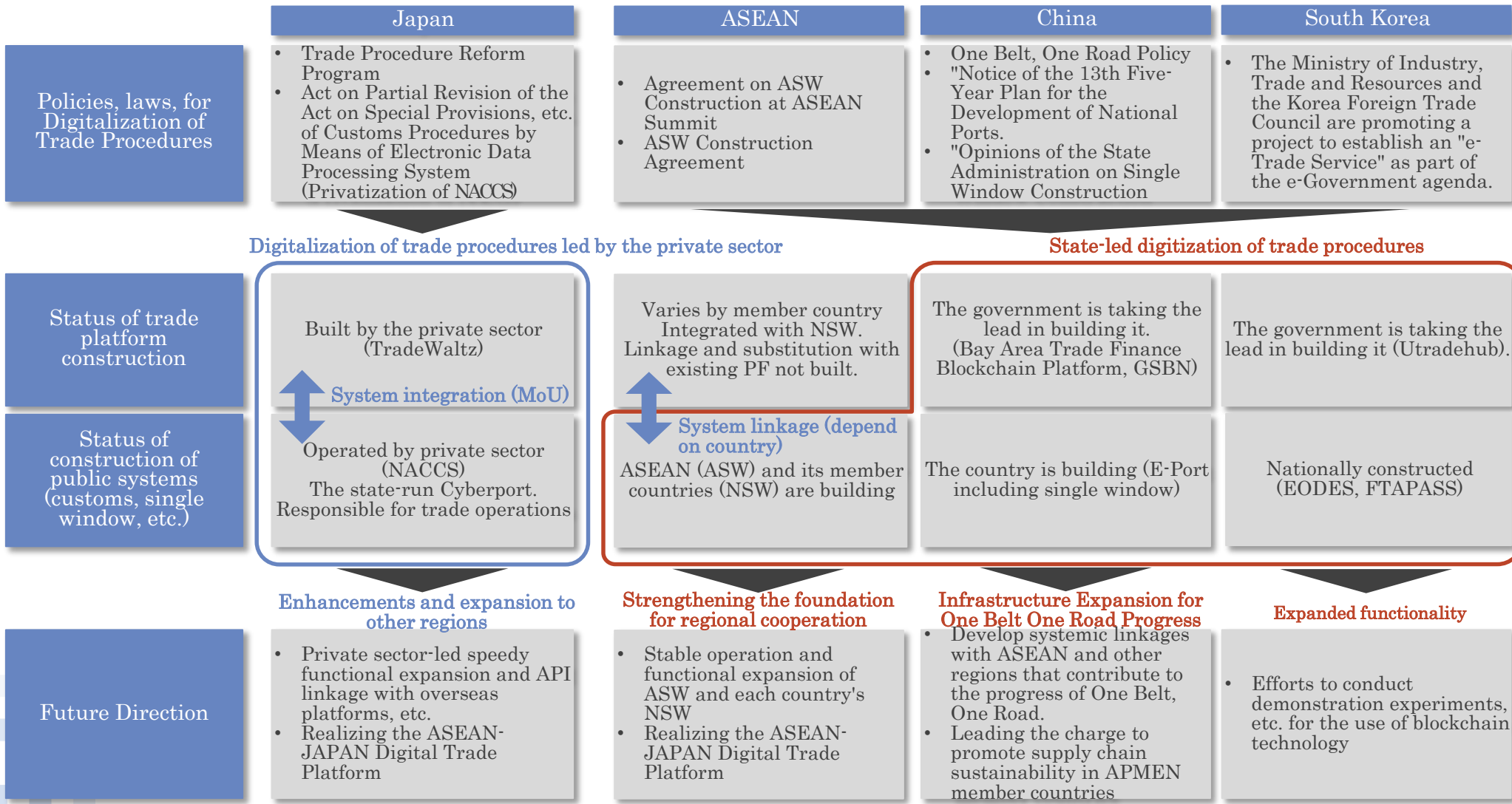
Expansion of services to other regions

- In terms of expansion into other countries and regions, we are first aiming to collaborate with ASEAN by implementing a hybrid P2P model.
- In addition, we have already started conversations with top-tier trading platforms by function overseas, such as MineHub, Marco Polo, and Bolero, and we will aim to achieve API integration (BtoB) and expand functions.

Status of Single Window Construction and Role of Trade Platforms

Comparison with ASEAN, China, and Korea on Electronic Trade Procedures Policy

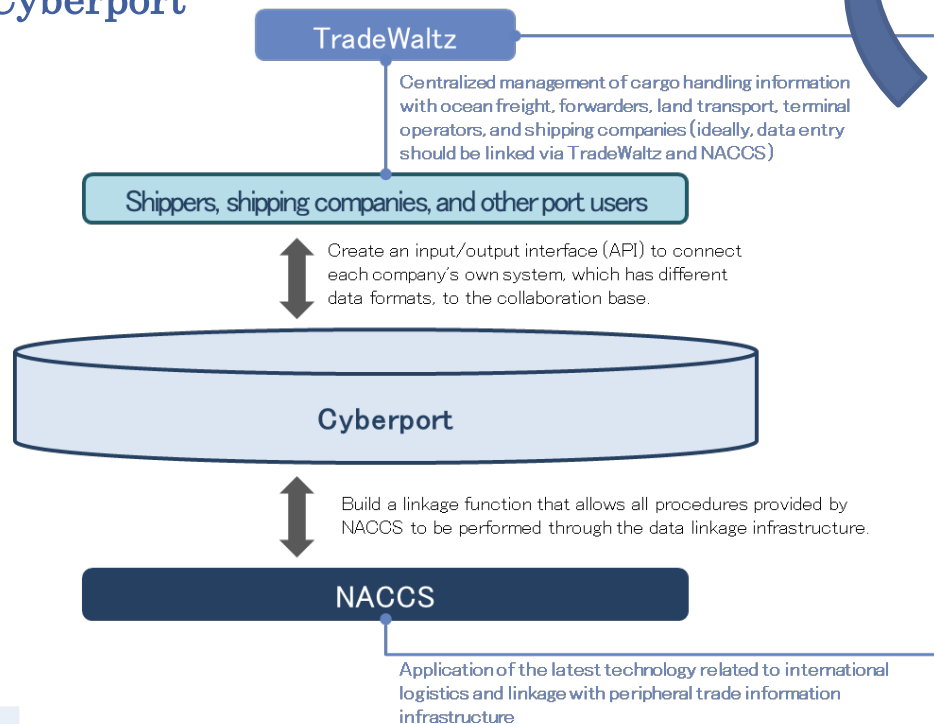
- While Japan is aiming for cooperation with other countries and regions with a trade platform at its core, China is promoting cooperation with a focus on the computerization of procedures for certification of origin as part of its One Belt, One Road policy, and South Korea is focusing on demonstration experiments to expand its own infrastructure.



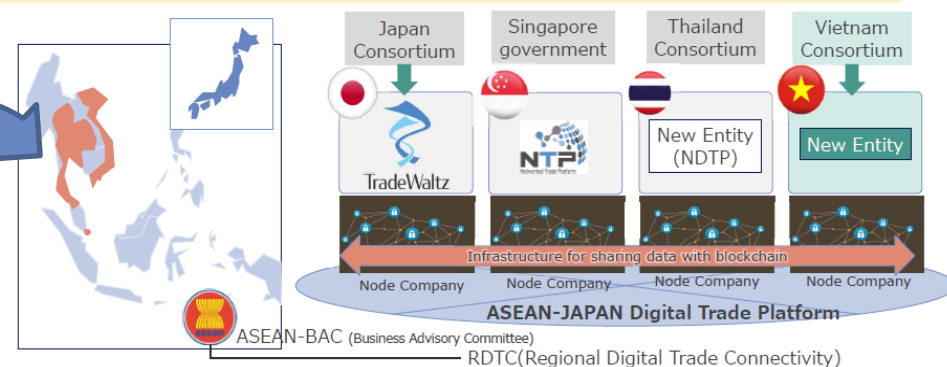
Computerization of trade procedures in Japan (establishment of single window function)

- In Japan, the direction is to build a single-window function through the collaboration of TradeWaltz, NACCS, and Cyberport to realize all-Japan integrated trade information management.
- In developing other countries and regions, first aim to collaborate with ASEAN by implementing a hybrid P2P model.

Building functions as a single window by linking TradeWaltz, NACCS, and Cyberport



Source: NTT DATA INSTITUTE OF MANAGEMENT CONSULTING, Inc. based on "About the Committee to Promote the Digitalization of Ports and Harbors (Cyberport)," Ministry of Land, Infrastructure, Transport and Tourism, November 2, 2018.



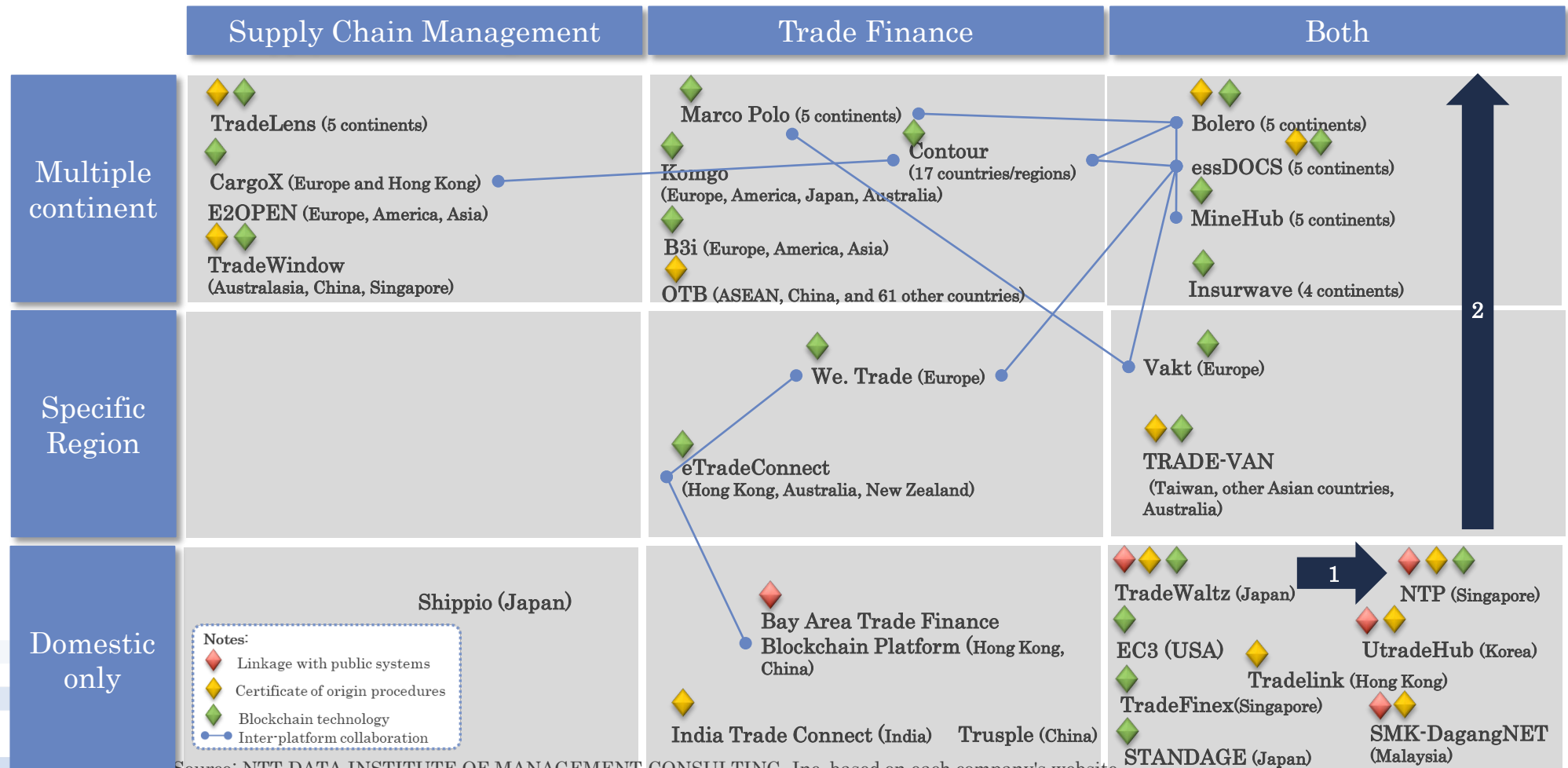
Source: TradeWallet, Inc.

Implementation of a hybrid P2P model for collaboration with ASEAN

- TradeWaltz will work to realize the ASEAN-JAPAN Digital Trade Platform, the concept of the ASEAN-BAC's Regional Digital Trade Connectivity (RDTC).
- The initial members are Japan, Singapore, Thailand, and Vietnam. The blockchain infrastructure layer will be "common" to enhance international data interconnectivity and tamper-resistance, while the application layer will be "independently developed" by each country. It is envisioned that a hybrid P2P model will be implemented in the ASEAN region.

Digitalization of Trade Procedures in Japan (TradeWaltz's Strategy)

- TradeWaltz has a hybrid strategy that combines the strengths of Asian countries' one-stop services, including governmental services (arrow 1 in the above figure), with the global reach of Western trading platforms (arrow 2 in the above figure).
- It is important to collaborate with overseas platforms, etc. and to expand the scope of collaboration with ASEAN and other regions.



Electronic Trade Procedures in ASEAN

- The NSWs of ASEAN member countries (Vietnam, Indonesia, Malaysia, Singapore, Thailand, Brunei, Cambodia, Laos, Myanmar and the Philippines) have already achieved intra-regional electronic exchange of certificates of origin (ATIGA e-Form D) via ASW.
- On the other hand, the status of the establishment of trade platforms and their role (relationship with NSW) varies from country to country.

Relationships among NSWs and Trade Platforms in ASEAN Countries and Status of Electronic Certification of Origin

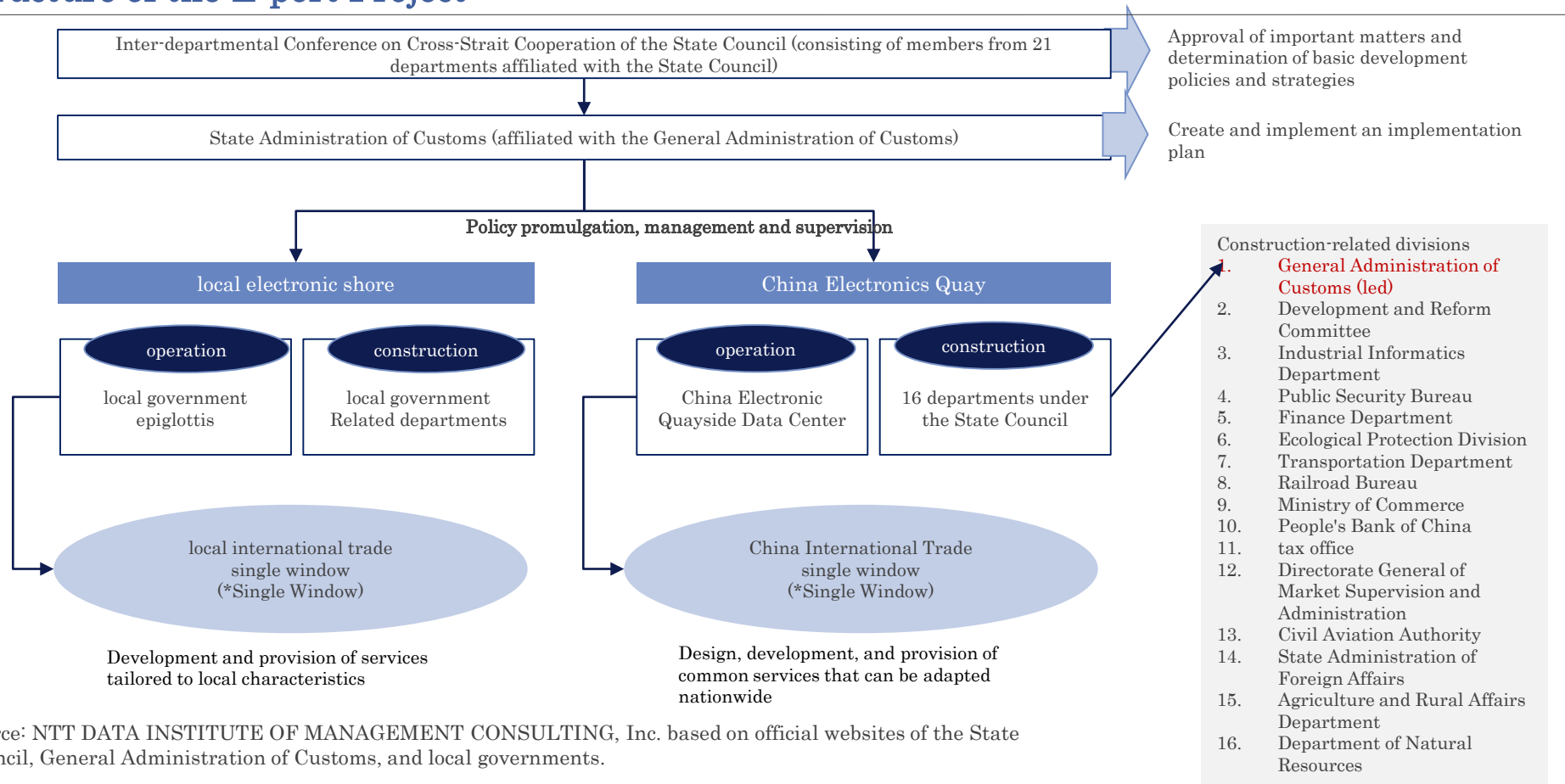
country	National Single Window (NSW)	Trade Platform	Trade platforms and Cooperation with NSW	Connection to ASW	Digitization of Proof of Origin
Singapore	NTP (TradeNET)	NTP (TradeXchange)	BtoG's public system (TradeNET) and BtoG's trade platform (TradeXchange) integrated to form NSW (NTP)	NTP is connecting as Singapore's NSW.	Intra-ASEAN linkage of ATIGA e-Form D (via NSW), electronic exchange of certificates of origin based on the FTA agreement with China
Thailand	Thailand National Single Window	NDTP (developed by TradeLens) Plans to connect with NSW	NDTP under development	NSW is connected.	Intra-ASEAN linkage of ATIGA e-Form D (via NSW)
Vietnam	VNSW (VNACCS/VCIS)	Not built.	—	NSW is connected.	Intra-ASEAN linkage of ATIGA e-Form D (via ECOSYS connected to NSW)
Indonesia	INSW	Using TradeLens, not building in the country Not connected to NSW	TradeLens has the ability to upload trade related documents to INSW.	NSW is connected.	Intra-ASEAN linkage of ATIGA e-Form D (via NSW)
Malaysia	MyTRADELINK	SMK-DagangNET (service integration with My TRADELINK)	SMK-DagangNET is integrating its services with MyTRADELINK	NSW is connected.	Intra-ASEAN linkage of ATIGA e-Form D (via NSW)
Philippines	TRADENET	Not built.	—	NSW is connected.	Intra-ASEAN linkage of ATIGA e-Form D (via NSW)

Source: NTT DATA INSTITUTE OF MANAGEMENT CONSULTING, Inc. based on various information

Electronic Trade Procedures in China (Overview)

- The Chinese government is focusing on the establishment of a single window in China as one of the key implementations of the construction of China's Electronic Port (E-Port).
- The basic principles of E-port construction are to provide maximum port accessibility services to the whole society and enterprises, to reduce government administrative costs, and to improve the overall competitiveness of the port.

Structure of the E-port Project



Source: NTT DATA INSTITUTE OF MANAGEMENT CONSULTING, Inc. based on official websites of the State Council, General Administration of Customs, and local governments.

Digitization of trade procedures in China (the process of building a single window)

- China committed to building a single window in China in 2017 at the WTO-sponsored Bali Conference in 2013, and construction of the single window began in 2014
- Later, the target area was expanded from Shanghai to the coastal areas, and by 2017, it covered all of China.

Single Window promotion progress

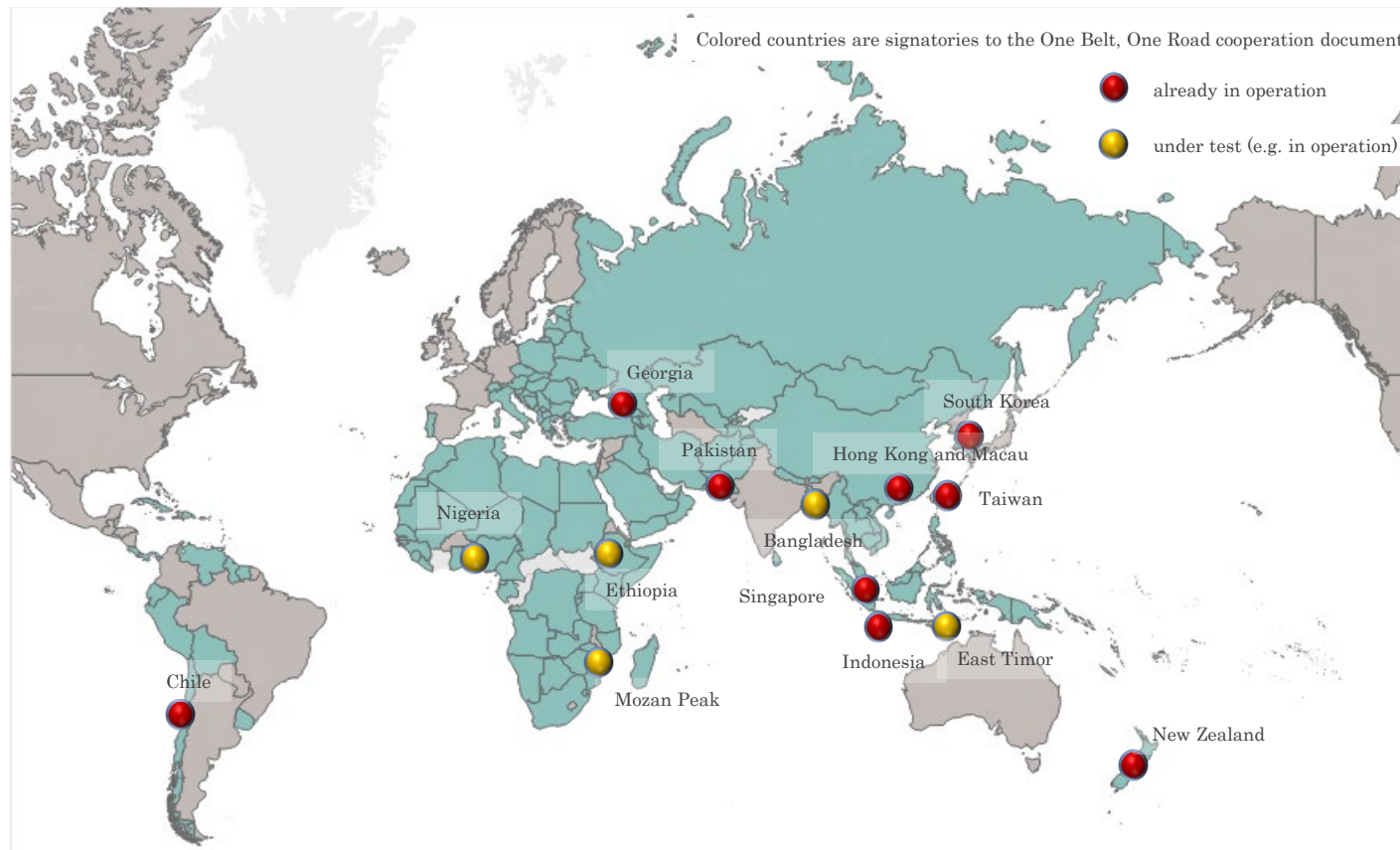


Source: NTT DATA INSTITUTE OF MANAGEMENT CONSULTING, Inc. based on official websites of the State Council, General Administration of Customs, and local governments.

Computerization of trade procedures in China (in cooperation with FTA signatory countries)

- China has implemented the electronic information exchange of trade-related documents, including certificates of origin, with nine of the above FTA signatories, and is conducting operational tests of electronic information exchange with five of them.
- In China, in the One Belt, One Road economic zone that is being established through FTA negotiations, the digitization of trade procedures is being aggressively promoted.

Status of establishment of electronic exchange systems for certificates of origin with FTA countries

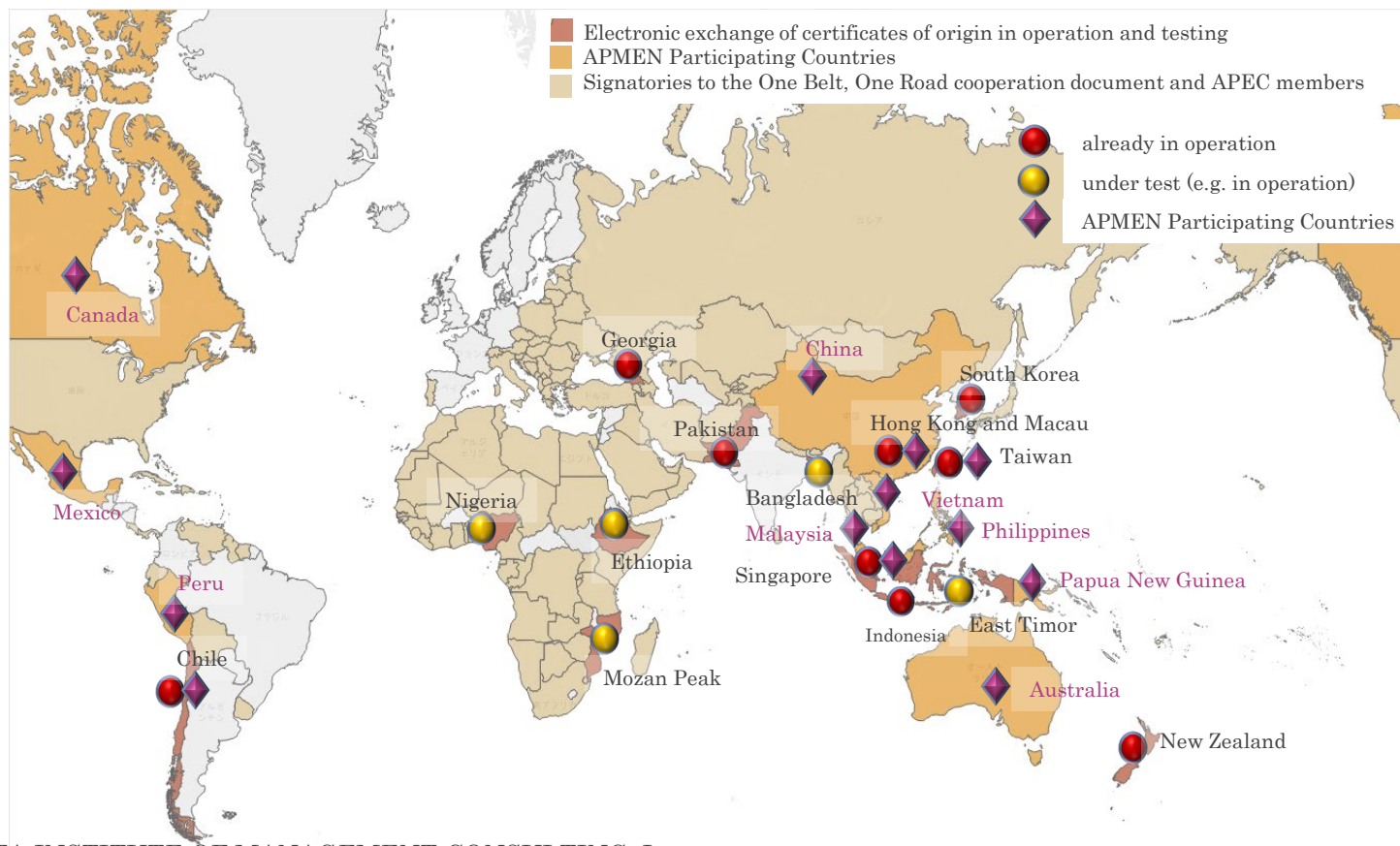


Source: NTT DATA INSTITUTE OF MANAGEMENT CONSULTING, Inc.

Digitalization of trade procedures in China (in cooperation with APMEN participating countries)

- The Chinese government is leading a project (APMEN) established at APEC 2014, and is actively promoting projects related to the electronic exchange of certificates of origin and mutual authentication between China and APMEN participating countries.
- In the future, China will take the lead in building an infrastructure for electronic trade procedures within the One Belt and One Road zone by connecting the single windows of China and other countries in the context of the progress of One Belt and One Road.

Status of establishment of electronic exchange systems for certificates of origin with FTA countries



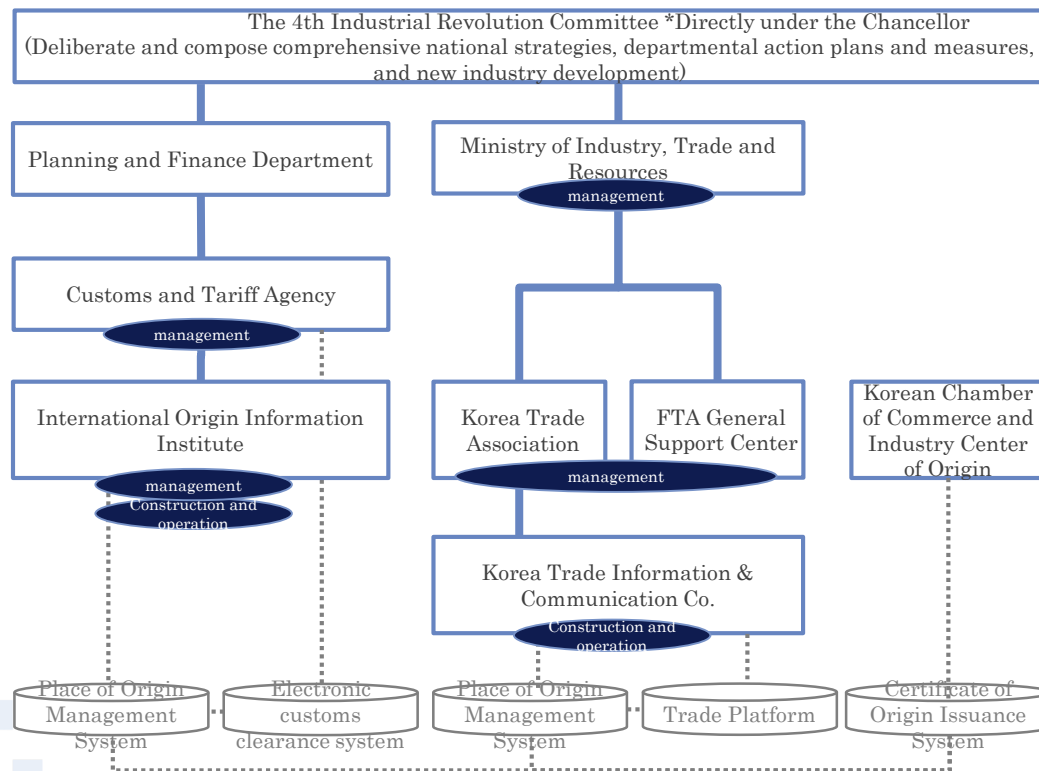
Source: NTT DATA INSTITUTE OF MANAGEMENT CONSULTING, Inc.

Computerization of Trade Procedures in Korea (Overview)

- The South Korean government is promoting the digitization of trade procedures through an organization formed around the Fourth Industrial Revolution Commission, which reports directly to the president.
- Regarding the computerization of trade procedures, the Electronic Trade Promotion Act (a law under the jurisdiction of the Trade Policy Division of the Ministry of Industry) stipulates that the exchange of specific documents in trade procedures must go through a domestic electronic trade infrastructure provider.

Organization for Establishing Electronic Trade Procedures

Related organization chart



Name of Institution

Role

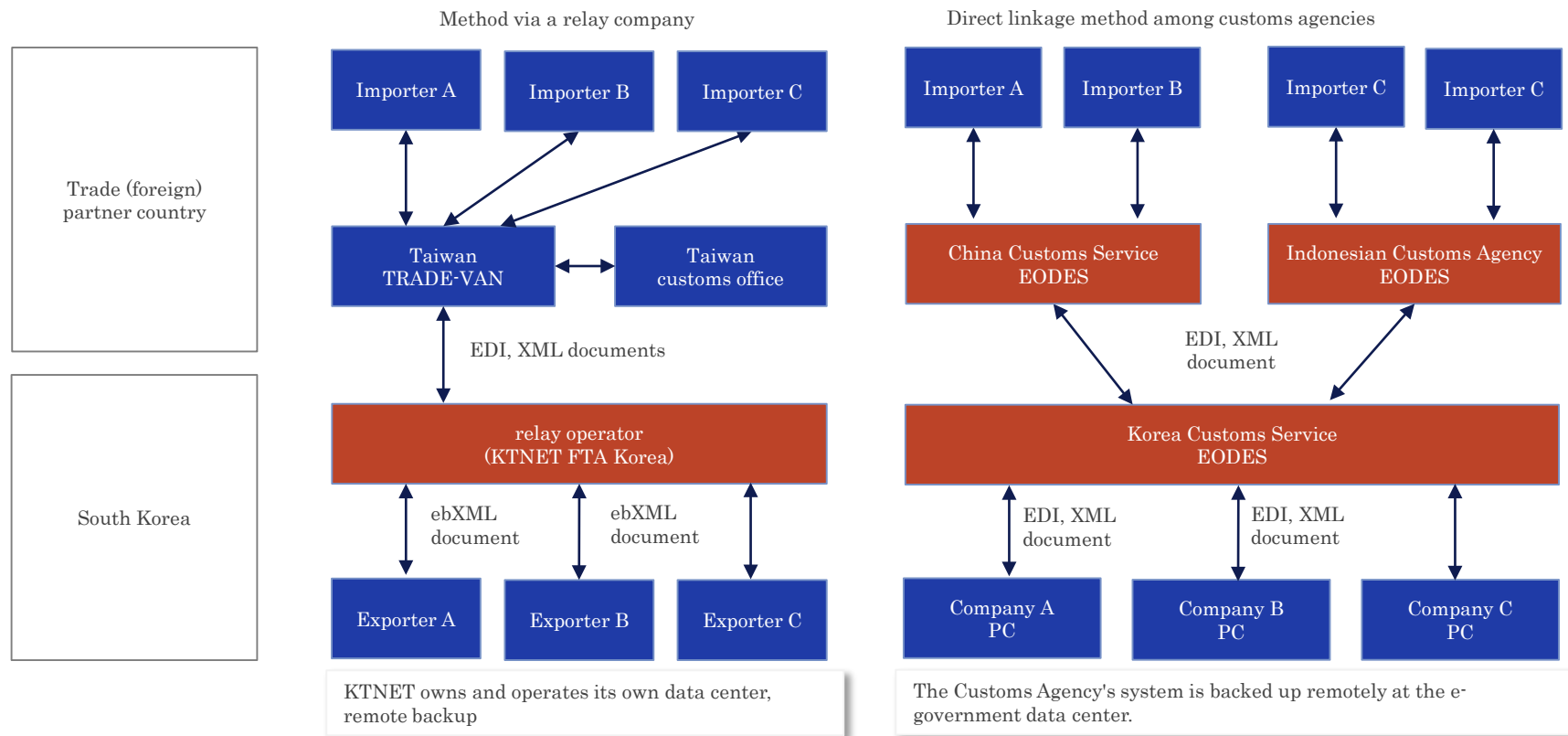
Planning and Finance Department	Economic policy planning, medium- and long-term economic and social development policies, and annual economic policy planning
industrial trade Resources Division	Affairs related to industry, trade, industry, and commerce; trade negotiations and supervision of negotiations and mediation; affairs related to industrial technology research and development policy, etc.
Customs and Tariff Agency	Imposition, reduction, and collection of tariffs, customs control of trade goods, and crackdown on smuggling
International origin intelligence agency	Support for the development and dissemination of origin control systems, training of FTA experts, surveys of origin information, operation of the YES FTA Education Support Center, etc.
Korea Trade Association	Trade promotion, private-sector trade cooperation activities, trade infrastructure building, research and study think tanks
Korea Trade telecommunications	Establishment and operation of national e-Trade infrastructure, provision of related services, etc. (subsidiary of Korea Trade Association)
Comprehensive FTA Support Center	FTA utilization support, FTA information provision, free consultation, consulting, call center
Korean Chamber of Commerce and Industry Center of Origin	Agency issuance of certificate of origin

Source: NTT DATA INSTITUTE OF MANAGEMENT CONSULTING, Inc. based on the official websites of the Ministry of Industry, Trade and Resources, FTA PASS, and FTA Korea

Digitalization of Trade Procedures in Korea (Cooperation with Other Countries 1/2)

- In Korea, in addition to FTA Korea established by Korea Trade Information and Telecommunications (KTNET), EODES established by Korea Customs Service stands side by side.
- KTNET manages trade-related documents, and these documents can be processed by large companies through UtradeHub's relay system, which is directly linked to their ERP systems.

Overview of Links with Trade Systems of Other Countries



Source: NTT DATA INSTITUTE OF MANAGEMENT CONSULTING, Inc. based on information available on the web and results of interviews

Digitalization of Trade Procedures in Korea (Cooperation with Other Countries 2/2)

- The Customs and Tariff Agency is currently working on a demonstration experiment using blockchain technology in response to global trends toward faster customs clearance procedures, promotion of FTA use, and upgrading of the trade environment through improved procedures for proof of origin.

A demonstration experiment to speed up procedures for certification of origin and improve the trade environment using blockchain technology

practical experiment Overview

- Test construction of a blockchain-based electronic certificate of origin data exchange system between South Korea and Vietnam
- Customs officers will process and manage applications for proof of origin, and exporters will have the ability to access relevant information through FTA portals and mobile devices.
- Building a function to link the blockchain and the customs clearance system in order to utilize customs clearance information sent from the Vietnamese side
- Building a platform for bi-directional data transmission and reception for electronic data exchange between Korea and Vietnam
- Provide Vietnam Customs and importers with a web-based screen that allows them to inquire about electronic proof of origin and customs clearance information sent by the Korea Customs Service, and to enter customs clearance information for individual electronic proofs of origin.
- Configure four nodes on the blockchain: Korea Customs Service, Vietnam Customs, Korean exporters, and Vietnamese importers.
- Leverage private blockchains (blockchains managed within a single organization), which are open source infrastructure.

background

- Although Korea's trade with free trade agreement countries accounts for a high percentage of its trade, the rate of FTA utilization remains low due to logistical delays caused by the procedures for the exchange and examination of electronic proof of origin documents.
- Currently, there is a growing movement to apply blockchain technology to the trade industry to share reliable information in real time based on a high level of international security.

expected effect

- **(Increase in the rate of use of FTA exports)** Expedited customs clearance through simplification of procedures for issuing and examining certificates of origin will increase the rate of use of FTA exports by exporting companies, which is expected to increase corporate profits.
- **(Reduction of logistics costs for exporting companies)** By eliminating the need to submit original certificates of origin and shortening the examination time, the annual logistics costs between Korea and Vietnam are expected to be reduced by approximately 24.5 billion won.
- **(Enhancing export competitiveness)** Issuance of blockchain-based electronic certificates of origin with guaranteed reliability is expected to improve the country's credibility and increase the competitiveness of companies through faster customs clearance and increased use of FTA exports.
- **(Improving the reliability of systems based on new technologies)** The leading application of blockchain technology can be expected to lead the market for blockchain in the trade field and expand overseas exports of electronic customs clearance systems based on new technologies.

Source: NTT DATA INSTITUTE OF MANAGEMENT CONSULTING, Inc. based on information available on the web and results of interviews

Ensuring interoperability in cooperation with other countries and regions

Impact on interoperability due to differences in systems such as items in certificates of origin

- The Japanese trade platform (TradeWaltz) is also considering the implementation of a function to generate various forms from the entered data related to certification of origin, as is the case with other trade platforms.
- As a result, differences in input items for certificates of origin and other items will not be a major obstacle for the Japanese government and private companies to cooperate with and use various platforms in the future.

Differences in the items of the certificate of origin in the agreements that ASEAN has signed.

agreement	Form Name	Checklist items for trilateral trade
ACFTA	Form E	Issued Retroactively/Exhibition/Movement Certificate/Third Party Invoicing
AKFTA	Form AK	Third Party Invoicing/Exhibition/Back-to-Back CO
AFTA	Form D/ ATIGA e-Form D	Third Party Invoicing/Exhibition/Accumulation/De minimis/Back-to-Back CO/Issued Retroactively/Partial Cumulation
AIFTA	Form AI	Third Party Invoicing/Exhibition/Back-to-Back CO/Cumulation
AANZFTA	Form AANZ	Third Party Invoicing/Exhibition/Accumulation/De minimis/Back-to-Back CO/Issued Retroactively/Partial Cumulation
AJCEP	Form AJ	Third Party Invoicing/Back-to-Back CO/Issued Retroactively

Various trade platforms, including TradeWaltz, and single windows in various countries have implemented or are planning to implement functions to output the input information in various forms.

Japan's challenges in digitizing trade procedures

Issues to be addressed by the public and private sectors (1/2)

- For Japan, it is important to realize the speedy expansion of the functions of trade platforms and public systems through private sector initiatives, and to expand the scope of cooperation with overseas platforms, etc. and with ASEAN and other regions.
- In addition, it is losing its competitiveness as a super city in the field of trade because it is lagging behind Singapore and other countries in the development of laws for the computerization of trade-related procedures.

Issues to be addressed to promote the computerization of trade procedures in Japan

Current situation

- In order to promote the computerization of trade procedures for trade facilitation, it is necessary to ensure the legal validity of the computerized documents, but in Japan, although there is an agreement between the parties on the computerized BL, this is not a **requirement to oppose the physical validity to a third party.**

Issue

- In the three years that Japan's legal reform was halted, Bahrain became the first country in the world to successfully enact the law, and Singapore became the second country in the world to successfully enact the law in October 2020.
- In the future, global trading platforms will be able to set up their headquarters in Singapore to ensure that their services are governed by Singapore law.
- **As a result, Singapore is ahead of Japan in terms of super cities in the trade sector, and the country is losing its industrial competitiveness and opportunities for tax revenue in this sector.**

Issues to be addressed by the public and private sectors (2/2)

- In the global trend of trade facilitation, Japan is required to build a position that combines "support for institutional development such as giving legal basis to eBL" and "provision of global services to realize full digitization of trade" through public-private partnership.

Image of Public-Private Partnership in Electronic Trade Procedures in Japan

The Role of Government

In order to promote the computerization of trade procedures, it is important to support the development of a system that provides a legal basis for computerized trade-related documents, especially electronic bills of lading (eBL).



Establishing a position that combines "support for the development of systems, such as providing a legal basis for eBL" and "providing global services to realize full digitization of trade."

Role of the private sector

It is important to realize the speedy expansion of the functions of the trade platform and the public system through private sector initiative, as well as cooperation with overseas platforms, etc., and the expansion of the scope of cooperation with ASEAN and other regions.

(Reference) Long list of results of organizing
basic information on trade platform

TradeWaltz (Overview) *Includes information provided by NTT Data personnel.

Main constituent	NTT Data, Mitsubishi Corporation, Toyota Tsusho, Kanematsu, Mitsubishi UFJ Bank, Tokio Marine & Nichido, and Somo Japan jointly invest in the project.
Year of establishment	2020
Region	At the moment, the service is only for Japan (and overseas offices of Japanese companies and group companies that trade with Japan), but in the future, the company aims to expand its business domain by targeting global trade transactions, developing overseas nodes, and forming alliances with other PFs.
Number of users	The service will be launched by the end of fiscal 2020, and the number of users will be gradually expanded.
Type of PF	Supply chain management, trade finance
Role and main functions	<p>Role The system is designed to manage a wide range of documents related to trade in a unified electronic format, and to serve as a cross-industry platform for the coordination of trade information among companies.</p> <p>Main functions By using blockchain technology, the originality of trade information, such as electronic bills of lading and electronic certificates of origin, can be secured instead of paper. A wide range of data linkage can be achieved by connecting APIs with companies' own systems and domestic and overseas trade PFs such as NACCS. Save trade documents as structured data instead of PDFs to eliminate duplicate entries and enable data utilization. In the future, the PF will not only digitize trade documents, but also provide further value-added services such as trade finance and logistics information linkage through the use and real-time sharing of information accumulated in the PF.</p>
Blockchain Technology	Hyperledger Fabric

Source: <https://www.tradewaltz.com/>, NTT Data officials

STANDAGE (Overview)

Main constituent	STANDAGE
Year of establishment	2017
Region	Japan, Nigeria (*Nigeria is only export-related business)
Number of users	unknown
Type of PF	Supply chain management, trade finance
Role and main functions	<p>Role Trade settlement platform service using blockchain technology Export business to Africa</p> <p>Main functions Digital exhibition hall, cross-border EC International remittance and trade payment support Logistics arrangements (preparation of shipping documents, pickup, tracking) Finance support for trading businesses</p>
Blockchain Technology	Ethereum

Source: <https://standage.co.jp/>

Vakt (Overview)

Main constituent	Joint venture by 12 companies including banks, trading companies, and an oil company (Saudi Aramco Energy Ventures), Deloitte, ThoughtWorks
Year of establishment	2018
Region	Europe (service area to be expanded through collaboration with Komgo and essDocs)
Number of users	Initial users are BP, Equinor, Shell, Gunvor, and Mercuria
Type of PF	Supply chain management, trade finance
Role and main functions	<p>Role Improving operational efficiency through electronic sharing of trade documents in commodity (oil) transactions</p> <p>Main functions Conclusion of contract (smart contract) Trade Finance Logistics Management Invoice Issuance</p>
Blockchain Technology	Quorum (Ethereum) by JP Morgan

Source: <https://www.vakt.com/>

essDOCS (Overview)

Main constituent	essDOCS
Year of establishment	2005
Region	203 countries on 5 continents
Number of users	Over 55,000 companies
Type of PF	Supply chain management, trade finance
Role and main functions	<p>Role Management of trade documents Certification of origin procedures</p> <p>Main functions CargoDocs (PF for trade document exchange) EssCert (procedures related to certification of origin)</p>
Blockchain Technology	Hyperledger

Source: <https://essdocs.com/solutions/banks/cmatch>

Bolero (Overview)

Main constituent	Bolero International, SWIFT (Society for Worldwide Interbank Financial Telecommunication)
Year of establishment	1998 (Galileo Trade Finance Platform was launched in 2020)
Region	Five continents (part of the Marco Polo Network)
Number of users	Unknown on a stand-alone basis (Marco Polo Network has about 50 participating companies)
Type of PF	Supply chain management, trade finance
Role and main functions	<p>Role Seamlessly connect companies, counterparty financial institutions, and their key logistics partners to transact with financial institutions around the world.</p> <p>Main functions Create, edit, and manage letters of credit, collections, guarantees, account opening transactions, and electronic bills of lading Additional trade services in areas such as compliance checks, certificates of origin, discrepancies, financing, price quotations and reporting</p>
Blockchain Technology	Corda.

Source: <https://www.bolero.net/company-overview/>

NTP (Overview)

Main constituent	Singapore Customs, Government Technology Agency (GovTech), Standard Chartered Bank, Ltd.
Year of establishment	2018
Region	Singapore (operated by Singapore Customs, so users are likely to be mainly domestic companies)
Number of users	Unknown (user registration required to view detailed information, user network search function available)
Type of PF	Supply chain management, trade finance
Role and main functions	<p>Role Import/export declarations, inspections, customs payments, permits and licenses, and documents are electronically processed to improve efficiency. Convenience of shipping and insurance arrangements, various payments, and real-time tracking</p> <p>Main functions Marine transportation and logistics arrangements Customs clearance services Insurance arrangements Payment related Digitization of trade documents Certificate of origin</p>
Blockchain Technology	NTT Data and UFJ Bank Launch a Demonstration Experiment to Connect a Trade Information Collaboration Infrastructure Using Blockchain Technology to NTP (December 6, 2017)

Source: <https://www.ntp.gov.sg/home/?TYPE=login>https://www.jetro.go.jp/world/asia/sg/trade_05.html

UtradeHub (Overview)

Main constituent	Ministry of Industry, Trade and Resources, KITA (Korea International Trade Association), KOTRA (Korea Trade-Investment Promotion Agency), EC21, ECPlaza (private organization), KTNET (designated as an electronic trade infrastructure operator by Korea Trade Information and Communication)
Year of establishment	2003
Region	South Korea (Since it is operated by the South Korean government, it is assumed that the users are mainly domestic companies)
Number of users	100,000 companies
Type of PF	Supply chain management, trade finance
Role and main functions	<p>Role Instant confirmation of letter of credit limits, check letter of credit progress process at any time, and quickly communicate to third parties Reduce the time, cost, and operational burden associated with physical transportation, and allow for early capitalization of export proceeds.</p> <p>Main functions Digitization of trade documents (B/L, L/C, L/G) Import and export contracts Customs clearance services Shipping, insurance Proof of origin e-NEGO (Export Bill of Exchange Purchase (Collection) Application) LogisView (logistics information inquiry) Payment for goods</p>
Blockchain Technology	unknown

Source: https://www.utradehub.or.kr/porgw/japanese/html/jap_main.html

TRADE-VAN (Overview)

Main constituent	Trade-Van (Guanmao Network), Privatization of the Import/Export Automation Promotion Group, which was established by the former Executive Yuan of Taiwan.
Year of establishment	1996
Region	Taiwan, New Zealand, Thailand, Singapore, India, Philippines, planning to look at Europe in the future
Number of users	Number of registered customs clearance APPs: 160,000
Type of PF	Supply chain management, trade finance
Role and main functions	<p>Role Trade cost reduction and efficiency improvement Provides comprehensive services in customs clearance, distribution, taxation, land, insurance, and finance.</p> <p>Main functions Customs clearance (shipping, air transportation, declaration, tax, etc.) Digitization of trade documents Trade Brokerage Freight and logistics instant reconciliation Certificate of Origin *For Korea, Singapore and Thailand only.</p>
Blockchain Technology	unknown

Source: <https://www.tradevan.com.tw/index.do?language=2>

Tradelink (Overview)

Main constituent	Tradelink, DTTN_ Subsidiary of Tradelink _ Blockchain-based document conversion PF provider
Year of establishment	1997
Region	Hong Kong (Since the company provides services related to export declarations to China, Japan, the U.S. and Canada for Hong Kong companies, the users are considered to be mainly domestic companies)
Number of users	unknown
Type of PF	Supply chain management, trade finance
Role and main functions	<p>Role Import/export declarations, inspections, customs payments, permits and licenses, and documents are electronically processed to improve efficiency. Convenience of shipping and insurance arrangements, various payments, and real-time tracking</p> <p>Main functions Customs Declaration (TDEC) Tax Permit (DCP) Certificate of Origin (CO) Cargo Manifest (EMAN) Payment Insurance Cargo information verification Biological identification systems (iris, face, fingerprint)</p>
Blockchain Technology	unknown

Source: <https://www.tradelink.com.hk/tc/index.html>

SMK-DagangNET (MyTRADELINK) (Overview)

Main constituent	Dagang Net Technologies Sdn Bhd (Dagang Net).
Year of establishment	1989
Region	Malaysia
Number of users	Unknown (currently integrating services with MyTRADELINK, Malaysia's NSW)
Type of PF	Supply chain management, trade finance
Role and main functions	<p>Role Establishing paperless electronic customs-related services to facilitate and streamline international trade procedures among importers, exporters, traders, and distributors. Electronic processing of customs-related operations, electronic payment of customs duties, and electronic data transactions between trading communities consisting of customs offices. Increase data reusability and reduce risk of errors Improve efficiency by connecting to more institutions. Simplify the CO application process, especially for manufacturers.</p> <p>Main functions nsw_single_window ePCO_Certificate of Origin ePermit_Multiple Permit Application ePermitSTA _STA2010 Regulatory Compliance Application eManifest_list of port usage, cargo application eDeclare_Declare ePayment_Electronic Payment ASW_ASEAN Single Window Interconnection</p>
Blockchain Technology	unknown

Source: <http://www.dagangnet.com/>

MineHub (Overview)

Main constituent	Minehub, IBM, ING Group, Wheaton, Ocean Partners USA, Kutcho Copper, Capastone Mining, Kimura Capital
Year of establishment	2019
Region	Canada (partnership with essDOCS allows for expansion to 203 countries on up to 5 continents)
Number of users	unknown
Type of PF	Supply chain management, trade finance
Role and main functions	<p>Role Designed with a supply chain platform for the mining and metals industry to digitize mine to market origination, contract management, credit management, invoicing and payment. Members streamline operations, improve key process efficiencies, and bring trust and transparency. Automating the acquisition of mineral provenance data will significantly reduce analysis and logistics conflicts.</p> <p>Main functions Trade in minerals Delivery of minerals Payment</p>
Blockchain Technology	Hyperledger Fabric (IBM Blockchain Platform)

Source: <https://minehub.com/>

TradeFinex (Overview)

Main constituent	TradeFinex, Xinfin
Year of establishment	2017
Region	Singapore
Number of users	unknown
Type of PF	Supply chain management, trade finance
Role and main functions	<p>Role Enables peer-to-peer contracting between funders, suppliers, and beneficiaries, minimizing the role of intermediaries. Funding is available at globally competitive rates. Track project progress in real time, enabling suppliers to overcome supply chain uncertainty and instability.</p> <p>Main functions Invoice Payment L/C Credit collateral Bill of Lading</p>
Blockchain Technology	R3 Corda, Hyperledger Besu, Oracle

Source: <https://www.tradefinex.org/>

EC3 (Overview)

Main constituent	Skuchain
Year of establishment	2014
Region	America
Number of users	unknown
Type of PF	Supply chain management, trade finance
Role and main functions	<p>Role Securely share data between organizations in a blockchain network. At the same time, it provides selective obfuscation of sensitive data down to the field level.</p> <p>Main functions Data storage and sharing</p>
Blockchain Technology	Hyperledger Fabric, Corda

Source: <https://www.skuchain.com/ec3/>

Insurwave (Overview)

Main constituent	EY, Guardtime, Inc., A.P. Moller-Maersk Company, Microsoft Corporation, Insurance companies (e.g., Will Towers Watson, XL Catlin, MS Amlin, ACORD)
Year of establishment	2018
Region	Europe, Russia, North America, Brazil, Republic of South Africa, Japan, China, India, ASEAN
Number of users	unknown
Type of PF	Supply chain management, trade finance
Role and main functions	Role Promote digitalization in the transportation and logistics industries. Reduce inefficiencies and frictional costs in traditional marine insurance operations by helping to automate manual processes. In the future, it will be used for insurance in other areas (marine transportation, global logistics, aviation and energy). Main functions Support automation of ledger transactions Risk management support for commercial vessels Insurance claim, agreed settlement Shippers track assets and share data with insurance brokers and insurers Insurers track risk exposures in near real time.
Blockchain Technology	unknown

Sources: <https://www.eyjapan.jp/newsroom/2018/2018-06-01.html>, <https://insurwave.com/>

Shippio (Overview)

Main constituent	Shippio
Year of establishment	2016
Region	Japan
Number of users	unknown
Type of PF	Supply Chain Management
Role and main functions	<p>Role Improve the productivity of trading operations in addition to forwarding operations</p> <p>Main functions Marine transportation Air transport Customs clearance services Land transportation arrangement Request a Quote Case Management Cargo movement management on MAP Delivery date management document management Chat support</p>
Blockchain Technology	unknown

Source: <https://www.shippio.io/>

TradeLens (Overview)

Main constituent	IBM, Maersk
Year of establishment	2018
Region	Five continents with a focus on the U.S.
Number of users	175 companies (as of December 2019)
Type of PF	Supply Chain Management
Role and main functions	<p>Role Real-time and seamless sharing of trade documents and cargo information</p> <p>Main functions Cargo Tracking (Visibility) Electronic sharing of trade documents (Document Sharing) Alert</p>
Blockchain Technology	Hyperledger Fabric (IBM Blockchain Platform)

Source: <https://www.tradelens.com/>

E2OPEN (Overview)

Main constituent	Hitachi, Ltd. IBM, LG Electronics, Panasonic, Nottel, Seagate, Solectron
Year of establishment	2000
Region	United States, Europe (United Kingdom, Germany, Denmark, France), Asia (China, Malaysia, India)
Number of users	90 companies
Type of PF	Supply Chain Management
Role and main functions	Role Consolidate everything you need for global trade management into the world's most comprehensive content Main functions Export control and import control Customs warehouse management Support for utilizing trade agreements and other systems Customs declaration
Blockchain Technology	unknown

Source: <https://www.e2open.com/>

OTB (Overview)

Main constituent	Global eTradeServices (GeTS), a subsidiary of Crimson Logic, an electronic solutions company, China Dongxin, CIC, Suzhou Industrial Park (SIP), Suzhou, China, KTNET (Korea Trade Information and Telecommunications), Trade Van
Year of establishment	2018
Region	Singapore, Association of Southeast Asian Nations (ASEAN), China, etc. 61 countries
Number of users	175,000 companies
Type of PF	Supply Chain Management
Role and main functions	<p>Role To improve the security and transparency of trade document transactions and to increase the efficiency of transactions</p> <p>Main functions Digitization of trade documents Certificate of origin B/L issuance Invoice Issuance</p>
Blockchain Technology	unknown

Source: <https://otb.globaletrade.services/mainpage>

CargoX (Overview)

Main constituent	CargoX, Examples of logistics companies: fracht AG, Milsped Group of Serbia
Year of establishment	2018
Region	Europe, Hong Kong
Number of users	unknown
Type of PF	Supply Chain Management
Role and main functions	<p>Role Encrypted documents can be issued, exchanged, and signed by carriers, shippers, consignees, assignees, banks, forwarders, and other parties in various supply chains without a central server or registry for the purpose of establishing, tracking, managing, storing, and transferring ownership of documents. Predictive analytics, inbound material preview, business planning, document integration, and secure exchange for the manufacturing industry For financial institutions, we provide loan processing, trade finance analysis, and auditing functions.</p> <p>Main functions Digitization of trade documents Document data sharing Improved security with encryption</p>
Blockchain Technology	Ethereum

出典 : <https://cargox.io/solutions/for-transport-and-logistics/>

TradeWindow (Overview)

Main constituent	TradeWindow, ASB Bank
Year of establishment	2019
Region	Australasia (Australian continent, New Zealand, New Guinea and surrounding islands), China, Singapore
Number of users	12,000 companies (in New Zealand only)
Type of PF	Supply Chain Management
Role and main functions	<p>Role Cost savings (time and money) Visibility and transparency of the supply chain Traceability and asset security</p> <p>Main functions TradeWindowDocs (digitization of trade-related documents and tasks) TradeWindowCube (platform for communication, documents, etc.) TradeWindowOrigin (creation, signature and application of certificate of origin) TradeWindowTrack (real-time tracking of supply chain) TradeWindowAssure (end-to-end traceability, product safety verification, quality assurance) TradeWindowProdoc(preparation of export-related documents)</p>
Blockchain Technology	Hyperledger Fabric

出典：_COPY17、<https://www.ledgerinsights.com/asb-bank-invests-tradewindow-supply-chain-blockchain/>

eTradeConnect (Overview)

Main constituent	HKMA (Hong Kong Monetary Authority), 12 major banks in Hong Kong, Australia and New Zealand (including 7 initiating banks), OneConnect
Year of establishment	2018
Region	Hong Kong, Australia, New Zealand Integration with Bay Area Trade Finance Blockchain Platform Service area will be expanded in cooperation with We.trade.
Number of users	unknown
Type of PF	Trade Finance
Role and main functions	Role Improving efficiency and transparency of trade finance (prevention of fraud) Main functions Electronic sharing of trade documents Open account financing Cooperation with ERP Monitor duplicate loans to the same PO.
Blockchain Technology	Hyperledger Fabric

Source: <https://www.etradeconnect.net/Portal>

Komgo (Overview)

Main constituent	Joint venture by 15 companies including banks, trading companies, and oil companies
Year of establishment	2018
Region	Japan, U.S., Europe, Australia (service area to be expanded in cooperation with Vakt)
Number of users	Over 4 banks, over 140 other companies (over 1000 registered users)
Type of PF	Trade Finance
Role and main functions	<p>Role Electronic efficiency of KYC Digitization of trade finance processes, reduction of fraud by forged documents</p> <p>Main functions Digitization of trade documents (letters of credit, etc.) Document data sharing for KYC Improved security with encryption Provision of trade finance services</p>
Blockchain Technology	Quorum (Ethereum)

Source: <https://www.komgo.io/>

Marco Polo (Overview)

Main constituent	R3, TradeIX, A consortium of 33 companies
Year of establishment	2020 (Marco Polo Network was established in 2017)
Region	Five continents
Number of users	Approximately 50 companies (number of participating companies in the Marco Polo Network)
Type of PF	Trade Finance
Role and main functions	<p>Role Streamline the management of commercial and working capital between banks and customers</p> <p>Main functions Liquidation of accounts receivable Payment guarantee Financing for accounts payable ERP integration</p>
Blockchain Technology	R3 Corda

Source: <https://www.marcopolo.finance/>

Contour (Overview)

Main constituent	12 major global banks, R3, CryptoBLT, Bain & Company
Year of establishment	2020 (Official Launch into live production)
Region	17 countries/regions (already collaborated with Bolero and essDOCS)
Number of users	Over 80 banks and other companies
Type of PF	Trade Finance
Role and main functions	<p>Role Improving transaction efficiency and preventing fraud with electronic letters of credit</p> <p>Main functions Preparation, verification, and sharing of trade documents</p>
Blockchain Technology	R3 Corda

Source: <https://www.contour.network/>

We. Trade (Overview)

Main constituent	Consortium and joint venture of 14 European banks, IBM
Year of establishment	2018
Region	15 countries in Europe (service area to be expanded through collaboration with eTradeConnect)
Number of users	16 banks
Type of PF	Trade Finance
Role and main functions	<p>Role Improve the efficiency of trade transactions and provide factoring services for SMEs in Europe</p> <p>Main functions Automatic payment based on specific conditions Payment guarantee by the importing bank Loans based on payment guarantees Financing based on I/V</p>
Blockchain Technology	Hyperledger Fabric (IBM Blockchain Platform)

Source: <https://we-trade.com/>

Bay Area Trade Finance Blockchain Platform (Overview)

Main constituent	The People's Bank of China (the central bank), led by the Digital Currency Research Lab of the Bank of China., BYD, Shenzhen Financial Technology, Bank of China, Standard Chartered Bank, Ltd., China Ping An Insurance Co.
Year of establishment	2018
Region	China and Hong Kong (in collaboration with eTradeConnect)
Number of users	Unknown (as of the end of 2020, we have not been able to confirm the official website)
Type of PF	Trade Finance
Role and main functions	Role Banks and companies can store order, logistics and payment data in the system to improve efficiency. Regulators will have broader oversight and small companies will have access to more sophisticated financing tools. Main functions Digitization of trade documents Fundraising and financing
Blockchain Technology	unknown

Source: <https://www.ledgerinsights.com/hong-kong-trade-finance-blockchain/>

India Trade Connect (Overview)

Main constituent	Infosys Finacle, Finacle Trade connect, Formed a consortium of seven banks (ICICI Bank, Axis Bank, Standard Chartered Bank, etc.), Consortium name: Blockchain Infra Company
Year of establishment	2017
Region	India
Number of users	unknown
Type of PF	Trade Finance
Role and main functions	Role Digitization of trade finance Main functions L/C Letter of Credit Bank guarantee Collection of invoices C2C, B2C transactions Financial loans
Blockchain Technology	R3's Corda, Hyperledger Fabric, and Ethereum stacks

Source: <https://www.edgeverve.com/finacle/casestudy/india-trade-connect/>

Trusple (Overview)

Main constituent	Ant Group
Year of establishment	2020
Region	China
Number of users	unknown
Type of PF	Trade Finance
Role and main functions	<p>Role Blockchain technology aims to solve the credit problem in international trade. This will ensure the reliability of transactions without the need for a third party, and improve the efficiency of the complex process of international trade.</p> <p>Main functions L/C Letter of Credit Financial loans Electronic Payment</p>
Blockchain Technology	unknown

Source: <https://www.trusple.com/>

B3i (Overview)

Main constituent	B3i, Insurance company
Year of establishment	2018
Region	Europe, Asia, North America
Number of users	Over 40 companies
Type of PF	Trade Finance
Role and main functions	<p>Role Simplification of business processes common to the insurance industry Improve data redundancy, inefficiencies in data conversion and integration in reinsurance transactions, and provide a "single source of reliable information"</p> <p>Main functions Insurance data management</p>
Blockchain Technology	Corda

Source: <https://b3i.tech/home.html>

