



HYPERLEDGER

Supply Chain & Trade Finance

SPECIAL INTEREST GROUP

Update of Digital Trade Platform “TradeWaltz”

~ Production release, Global activity, Future plans~

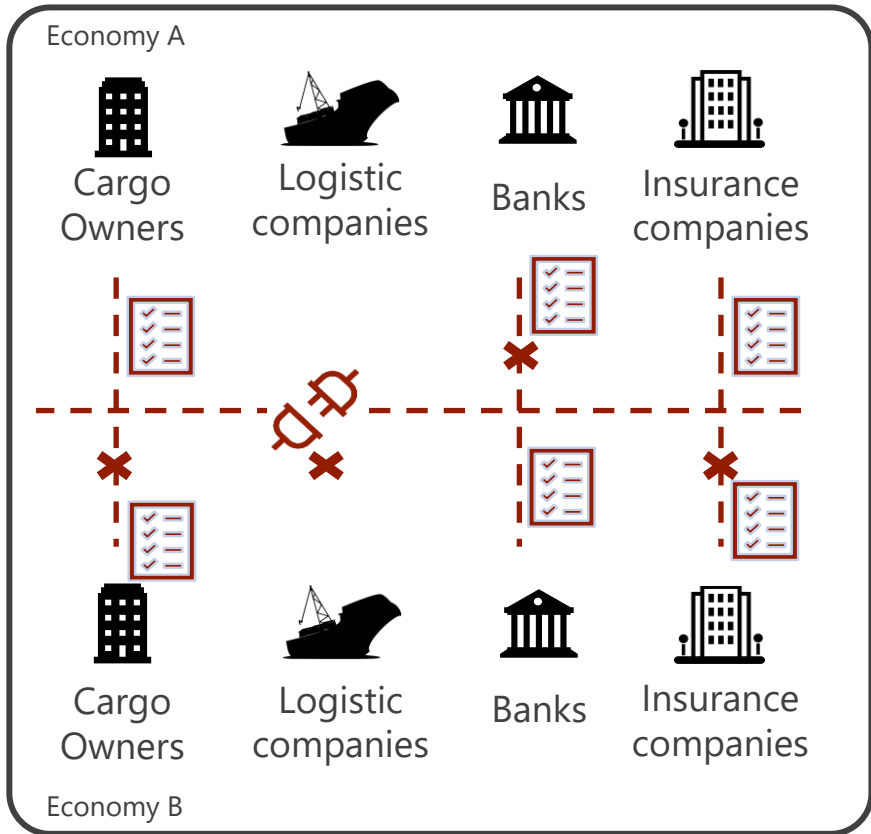
June 17th, 2022



Global Trade entails so much difficulty in covid situation

- In international trade, many business-to-business(B2B) exchanges are still paper or PDF based, and a great deal of time is spent on retyping data and other manual works. This is a huge hassle in covid situation because

AS IS



1 Need to gather in office

To execute paper works and store paper documents

Ref) ASEAN-BAC focal meeting

2 Unclear status of inventory & logistics

Because it's written in paper/PDF or communicate in Telephone

Ref) USER interview

3 Take Time : **72 hours/import&export** in Japan

*235 hours in ASEAN countries, 111 times longer than the EU (digitalized)

Ref) World Bank Research

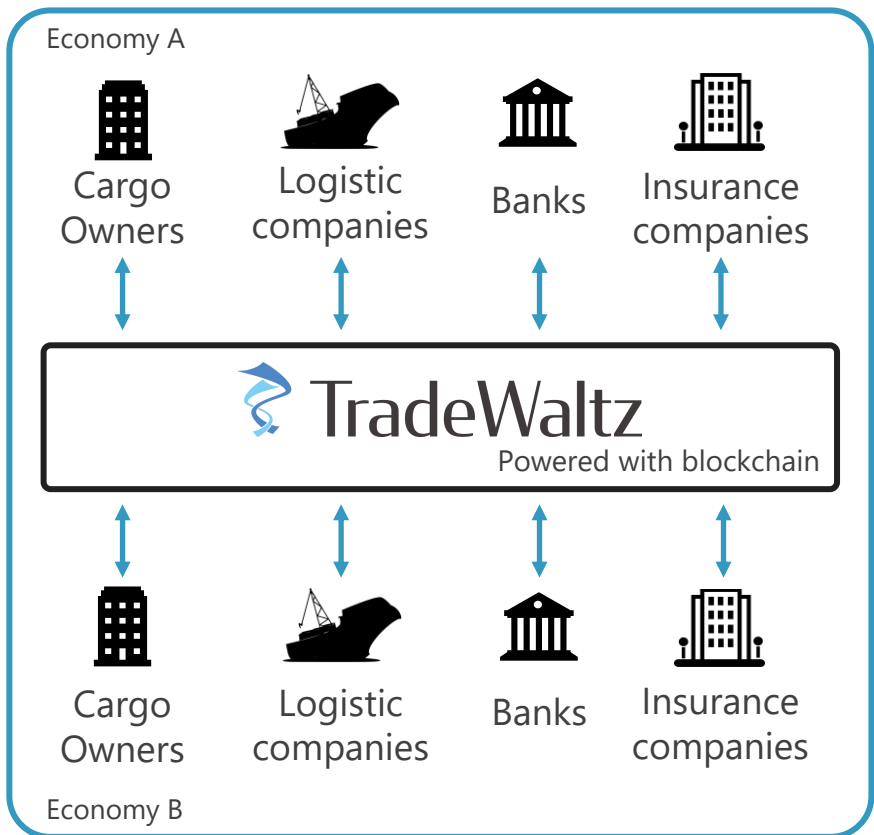
4 Analog work Cost : **USD 342/trade** in Japan

Ref) World Bank Research

TradeWaltz is a B2B communication DX platform to solve

- TradeWaltz is a cross-industrial business to business (B2B) trade platform utilizing blockchain technology and enable trade practitioners easy to do operation in covid situation because

TO BE

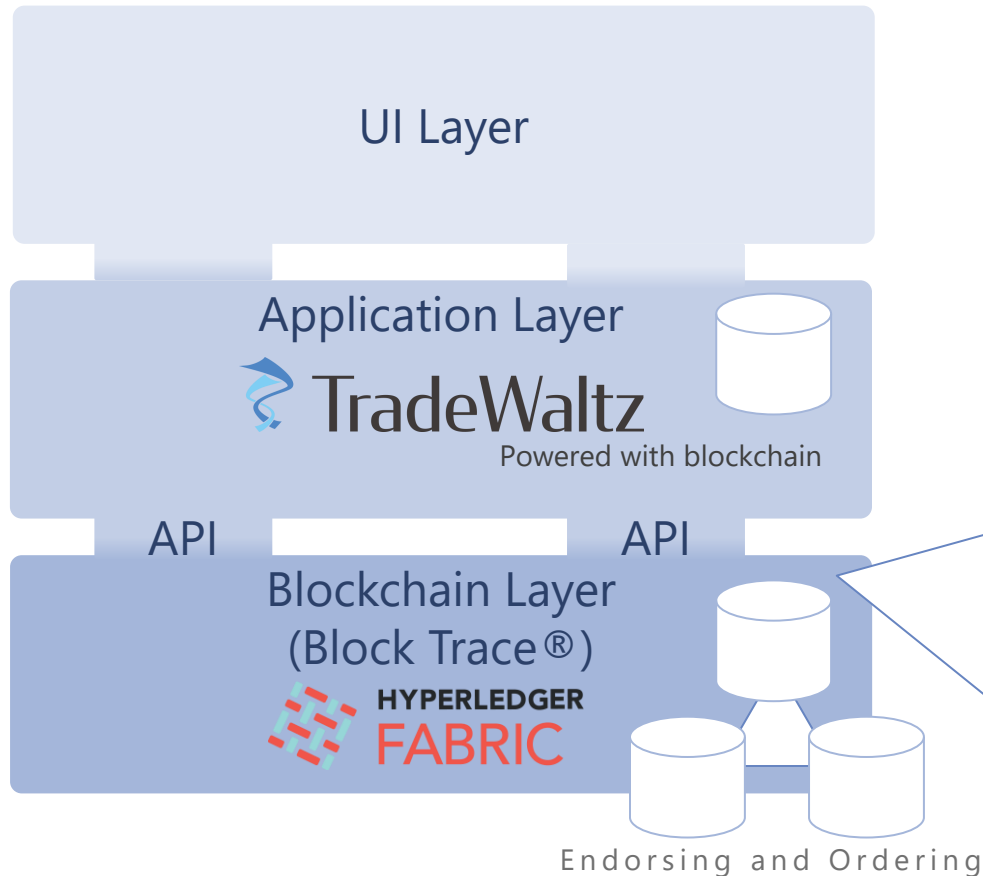


- 1 Don't need to gather in office**
Trade operations can be carried out remotely with a PC and the Internet.
Ref) ASEAN-BAC focal meeting
- 2 Clear status of inventory & logistics**
Because all information can be seen from TradeWaltz dashboard
- 3 Cut Time : 44% in Japan**
*60% in ASEAN economies
Ref) PoC results in 2018-2019
- 4 Cut analog work Cost : 44% in Japan**
Ref) PoC results in 2018-2019

Data authenticity is ensured by utilizing Hyperledger Fabric

- TradeWaltz consists of three layers: UI, Application, and Blockchain.
- The Blockchain layer utilizes Hyperledger Fabric to ensure the authenticity of data.

TO BE



Distributed ledger entry of application layer management information among multiple nodes **to ensure data authenticity**.

- By **having nodes abroad in the future**, data authenticity will be managed in multiple countries to increase reliability.
- Careful selection of recorded information reduces the recording volume, **speeds up processing speed**, and **enhances data governance** by preventing the overseas leakage of confidential information.

TradeWaltz's feature : All in One

1 Cross Industrial Platform

Players:



Exporter



Negotiation Bank



Issuing Bank



Importer



Insurance Company



Forwarder



Carrier



C/O provider

2 Wide coverage of documents

Structured documents **(NOT PDF)** on the platform



Letter of Credit



Invoice



Sea Way Bill



Packing list



Shipping Instruction



Export Permit



Certificate of Origin



Bill of Exchange



Insurance Policy

And attachment files (PDF etc.)

3 Creation of ecosystem

Collaborate with other PFs and utilize the accumulated data to create new business ecosystem.

Cross Industrial Consortium since 2017 for trade digitalization

	Big Participating Companies (as of March. 2020)
Banks	MUFG Bank, Ltd.
	Sumitomo Mitsui Banking Corporation
	Mizuho Financial Group, Inc./Mizuho Bank, Ltd.
Insurance Companies	Tokio Marine & Nichido Fire Insurance Co., Ltd.
	Sompo Japan Nipponkoa Insurance Inc.
	Mitsui Sumitomo Insurance Company, Ltd.
Cargo Owners	Sumitomo Corporation
	Mitsubishi Corporation
	Sojitz Corporation
	Toyota Tsusho Corporation
	Marubeni Corporation
	Itochu Corporation
	Kanematsu Corporation
Mitsui & Co., Ltd.	
Carriers / Logistics Companies	Kawasaki Kisen Kaisha, Ltd.
	Nippon Express Co., Ltd.
	Nippon Yusen Kabushiki Kaisha
	Ocean Network Express Pte. Ltd.
Secretariat	NTT DATA (Blockchain Expert)

Activities (2017)

- Identification and sharing of cross industrial business issues
- Created TradeWaltz prototype
- Proof of concept with NTP Singapore

Activities (2018)

PoC results : 44-60% efficiency improvement

- Research on AI and semantic technology for L/C document check
- Proof of concept in Japan and Thailand
- Research on relevant laws (MLETR) and submission of written request to government agencies

Activities (2019)

Thailand set digital trade as ASEAN agenda

- Release of pilot version
- Trial deployment in Thailand involving 24 companies

Activities (2020)

- Announcement in World Economic Forum 2020 sideline event
- Started commercialization

■ Co-invested partners



TradeWaltz will not only serve as a platform to connect trade practitioners in Japan, but is also moving to connect with platforms in Thailand and other countries around the world to help strengthen global supply chains by connecting trade data from around the world.



**Asia-Pacific
Economic Cooperation**

Utilizing Digital Technology in the Field of Trade Facilitation
under the Current COVID-19 Pandemic and Beyond:
Best-Practices Sharing Workshops
~ 1st Workshop – Trade Facilitation through Trade Platforms ~

National Digital
Trade Platform
("NDTP")
from Thailand

TradeWaltz from Japan

TradeWaltz's Vision for 2022
Live-link with the trade platforms of
5 economies including Australia

from Singapore

**TradeWindow from New Zealand
and Australia**

METI fund
support project

+challenge of
eCO linkage

+visualizing CO2
emission

Future Plan : (expansion) ASEAN – discussed with PM Hun Sen, the ASEAN chair country

On April 23, 2022, before the dinner with Prime Minister Kishida of Japan, TradeWaltz Director Someya and investor Mitsubishi corporation was given time to meet with Prime Minister Hun Sen of Cambodia, the ASEAN chair country, to make an offer regarding TradeWaltz' expansion into Cambodia and ASEAN.



Reported in Media

- [Khmer Newspaper ①](#)
- [Khmer Newspaper ②](#)
- [Facebook of PM Hun Sen](#)

Future Plan : (expansion) Vietnam

TradeWaltz's relationship with Vietnam began in August 2020 with a "trade platform" conversation at a meeting between Japanese Minister Kajiyama and Vietnamese Minister Tran Tuan Anh.

For about two years, we have been in discussions with Vietnam's system integrator and mega bank regarding the deployment, and comments were issued during Prime Minister Kishida's recent visit.



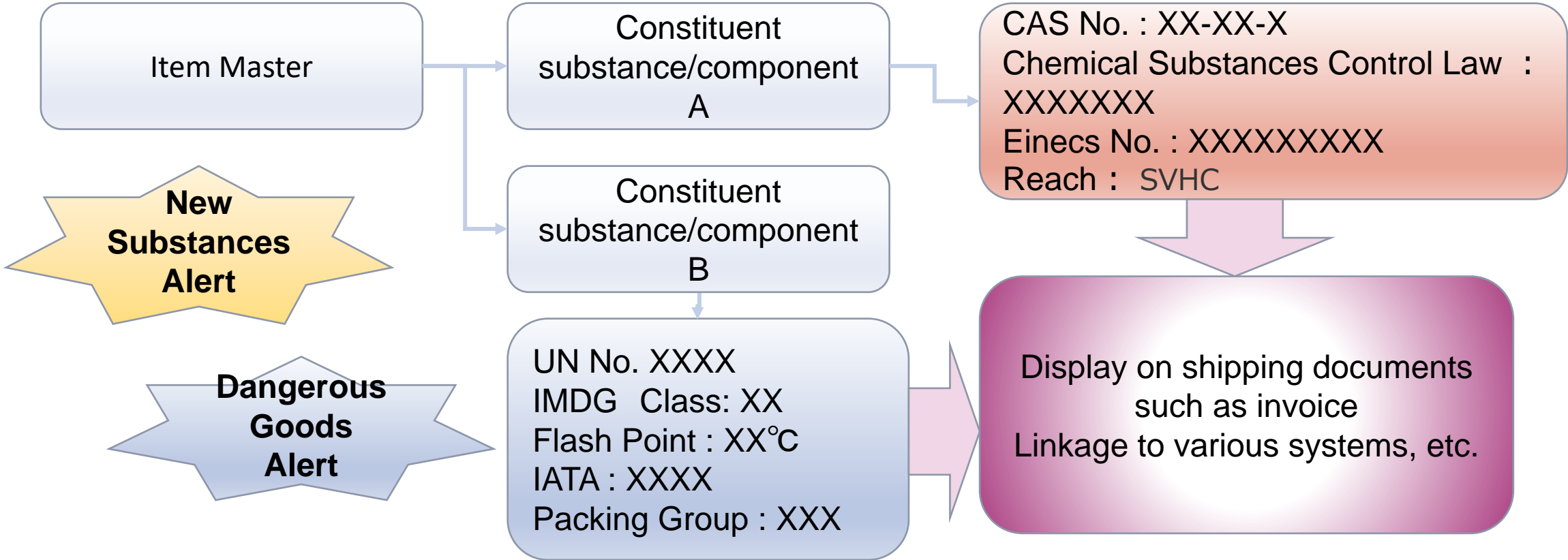
PM Kishida's comment

Digital transformation is expected to enable Japan and Vietnam to cooperate in solving social and economic challenges in a wide range of fields.

For example, the private sector in Japan and Vietnam have begun working together to improve efficiency by digitizing paper-based trade procedures.

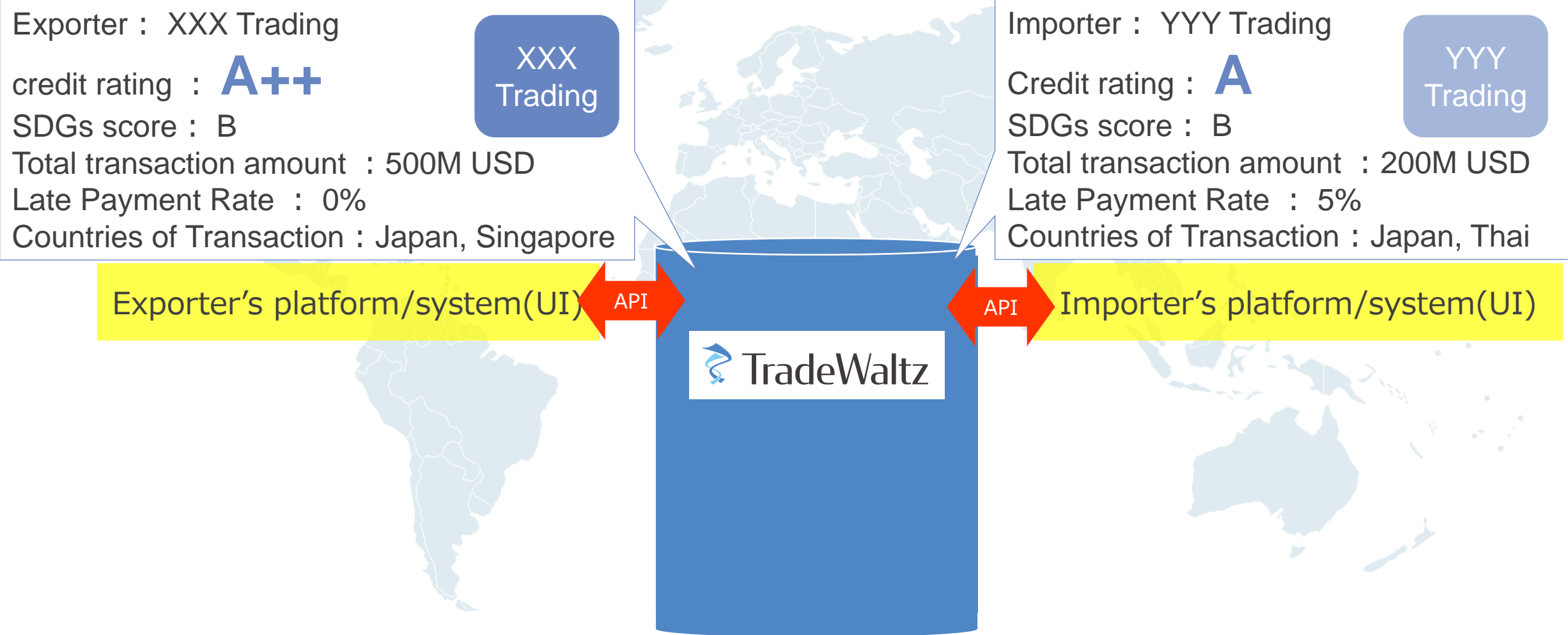
Future Plan : (add value 1) Compliance check

The system can match the prior registration of constituent substances with the data of each law and regulation, and alert the user in advance if a substance is new or hazardous, allowing the user to comply with the necessary notifications and other laws and regulations.



Future Plan : (add value 2) Credit ratings based on transaction data

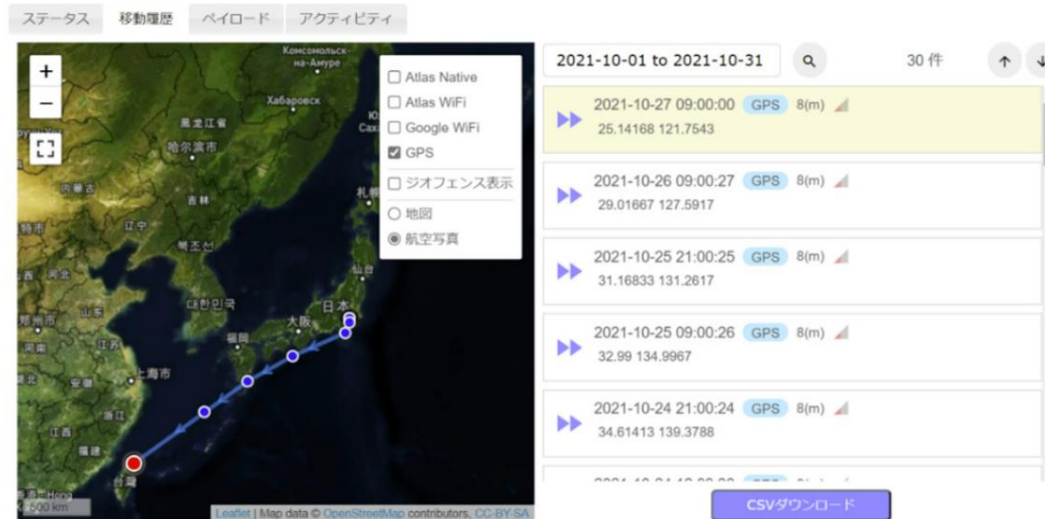
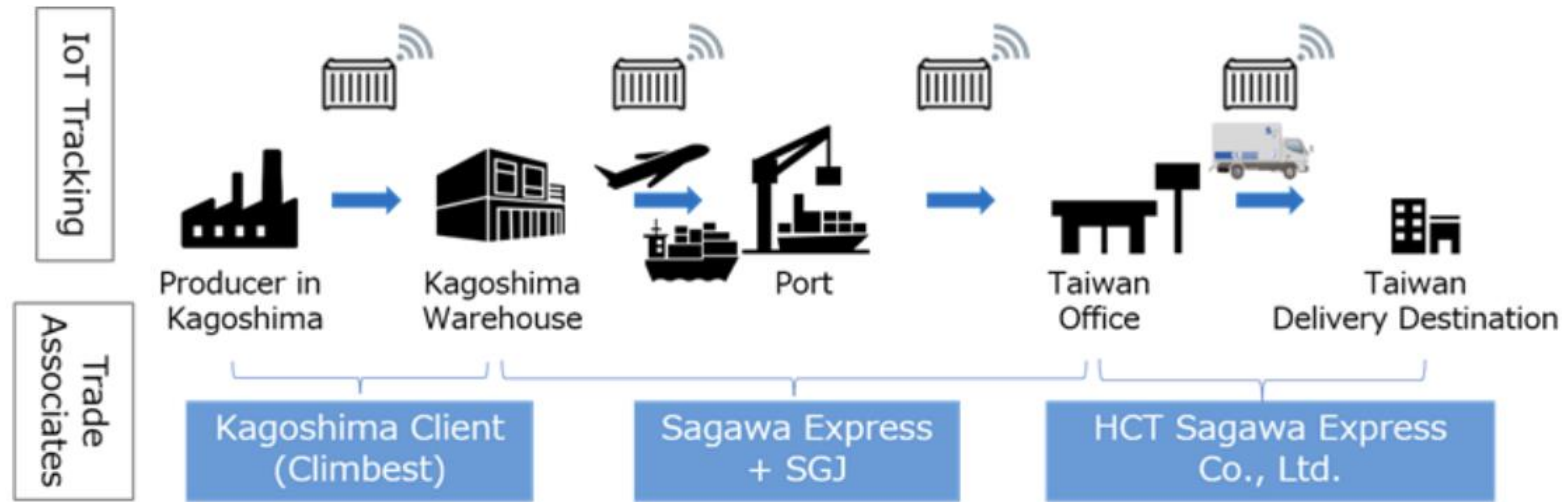
Judging and presenting the creditworthiness of companies, regardless of size, based on past transaction and payment data, etc. Facilitates participation in trade by small and medium-sized enterprises (SMEs) and makes it easier to find business partners in countries where SMEs have not yet entered the market.



Future Plan : (add value 3) IoT Tracking

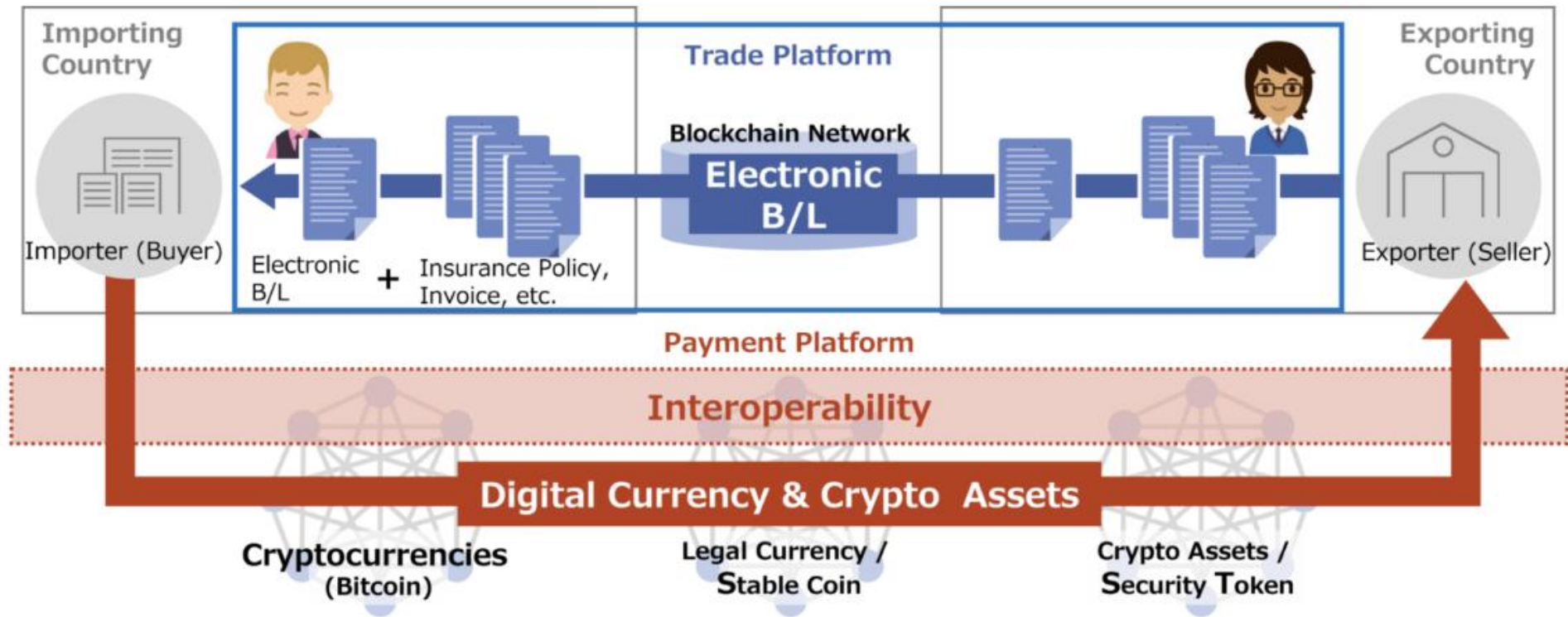
Last year, TradeWaltz successfully conducted a PoC with Sagawa Express to attach IoT sensors to cargo to gain real-time location information.

This will allow users to automatically track the fulfillment of contracts on the blockchain.



Future Plan : (add value 4) Digital currency payment

TradeWaltz has successfully demonstrated with Standage last year that the transfer of eBL data on TradeWaltz can trigger digital currency payments on other blockchain platform for the first time in the world.



日本経済新聞

東京海上、デジタル通貨で貿易決済 最大1カ月が即時に

金融機関 + フォローする
2021年12月25日 000 (有料会員登録)

保存 共有 印刷 通知 投稿

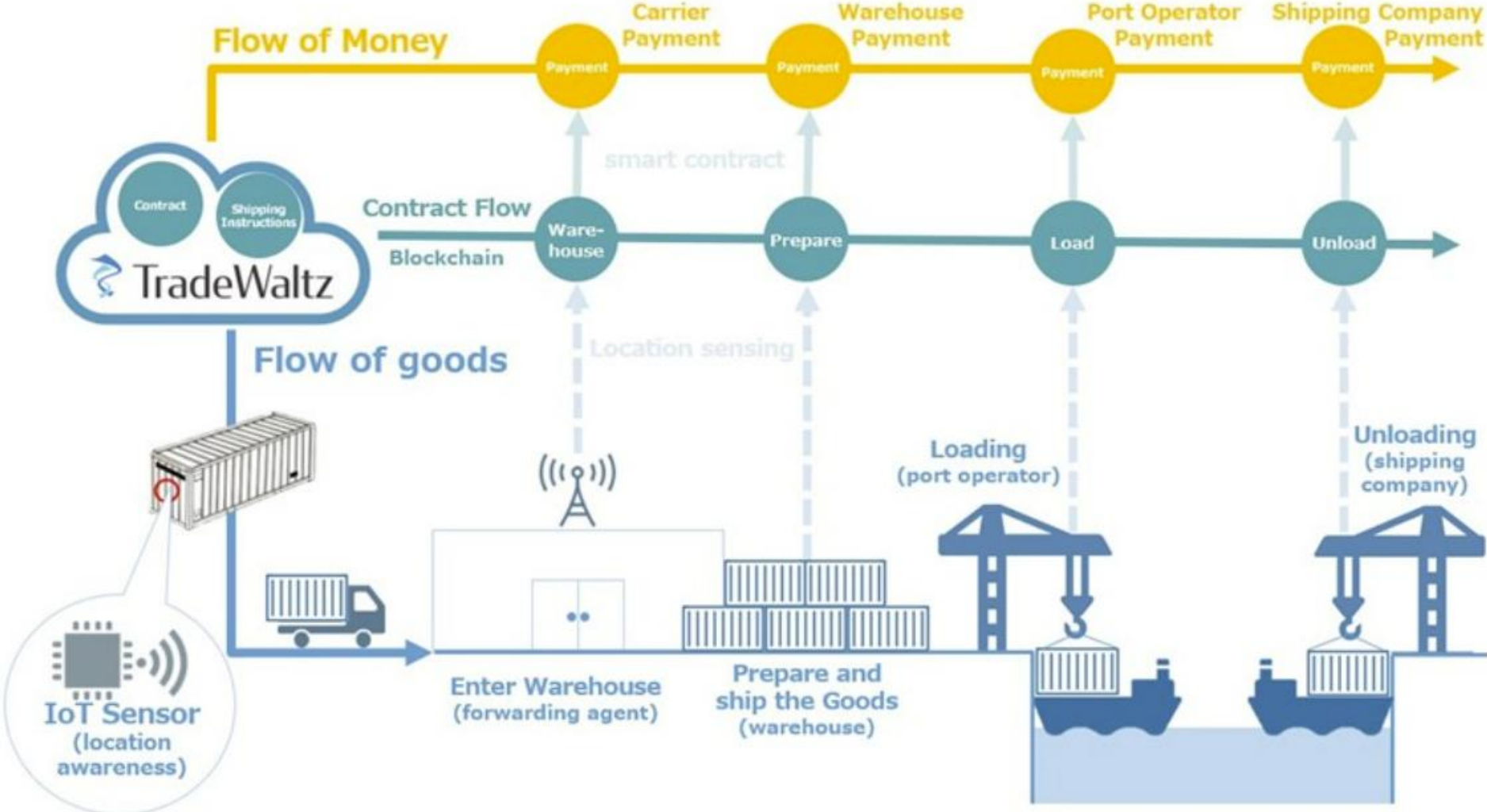


新たな仕組みで決済コストも3分の1に下がる（大井埠頭）

東京海上日動火災保険はデジタル通貨を使った貿易決済支援に乗り出す。米ドルに連

Future Plan : (add value 5) Trade automation

In a future where contract information is managed on the blockchain on TradeWaltz and contract fulfillment is monitored by IoT, and digital currency payments can be initiated by smart contracts, trade practices will be partially automated.





Thank you for listening and please feel free to contact us if you have any query.



TradeWaltz

info@tradewaltz.com

Satoru Someya

Managing Director

- Head of CEO's office

- Head of Global & Alliance business dept

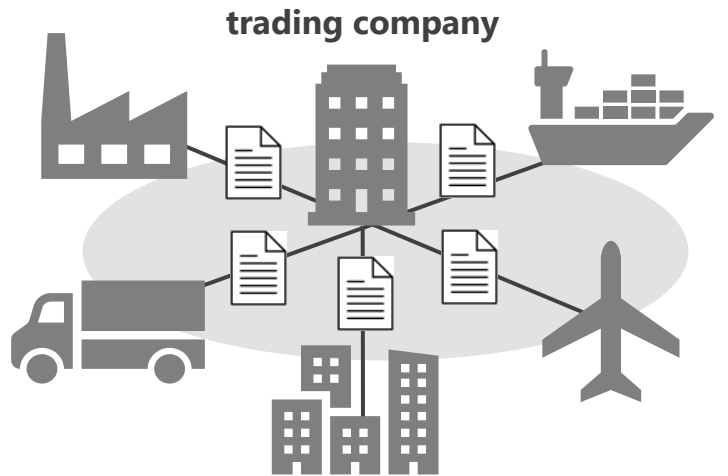
TradeWaltz Inc

Appendix

Trade DX platform from Japan and APEC| "TradeWaltz®"

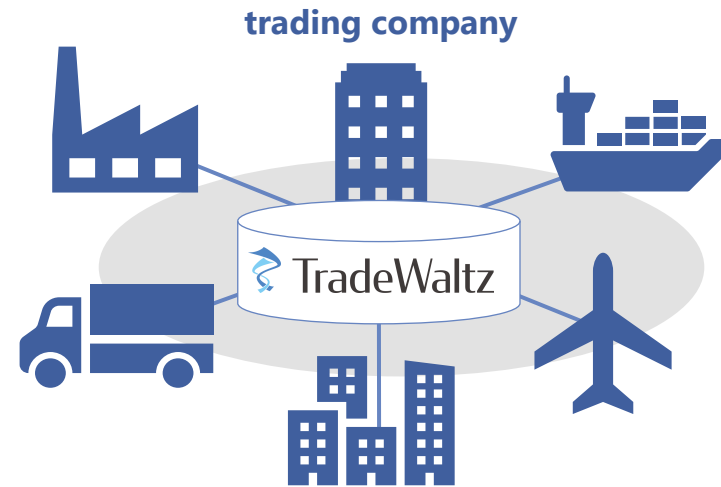
Leverage blockchain technology to streamline trade processes and digitize trade data across industries. Digitization not only improves work efficiency and allows employees to work from home, but also contributes to CO2 reduction.

Conventional analog trade



Paper-based communication

Future of digital trade



electronic interaction

Trade DX

Benefit for "TradeWaltz" users

- Increased Work Efficiency
- Cost Reduction
- Working from home
- CO₂ Reduction

Up to **431ton**/year

IT and digital technology contribute to
GX (Green Transformation)

ESG Management

ESG Key Challenges Addressing Climate Change Issues

Our group set greenhouse gas emission reduction targets and obtained SBT certification
Continuously work with clients to reduce CO₂ emissions across the entire society by using IT

NTT DATA Carbon-neutral Vision 2050



SCIENCE
BASED
TARGETS

Reduce CO₂ emissions by **60%**
by FY2030 (Compared to FY2016)

**Our company's own reduction of
CO₂ emissions**
(Green Data Centers, etc.)

Green of IT

Reducing CO₂ emissions from IT systems

**CO₂ reduction by customers and
society as a whole**
(Green IT solutions, etc.)

Green by IT

Reducing CO₂ emissions through the use of IT

Climate Change Action Promotion Committee



**Green
Business**



Green power



**Green
purchasing**



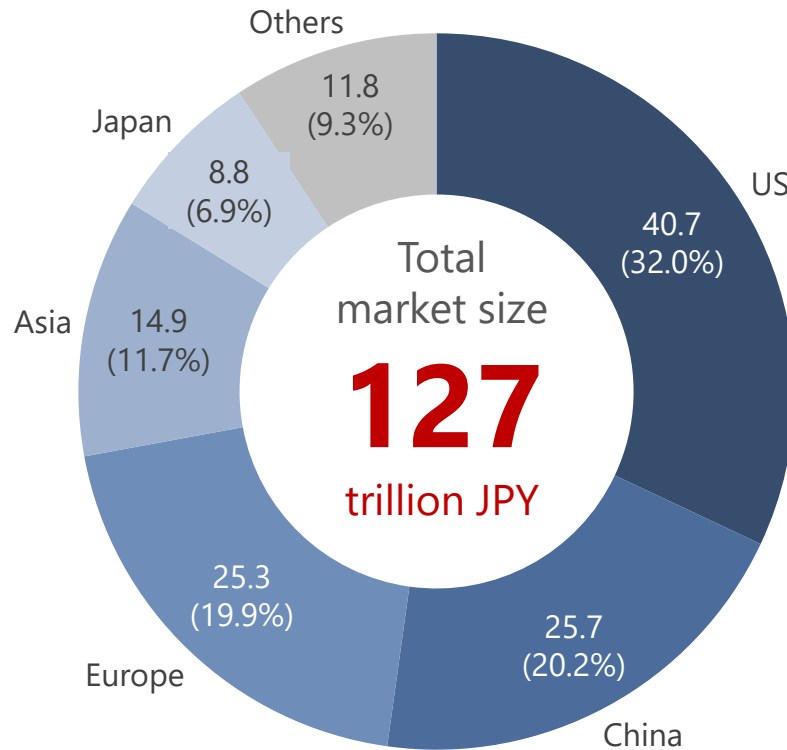
**Work style reform
NewNormal**

As you know... DX market is emerging

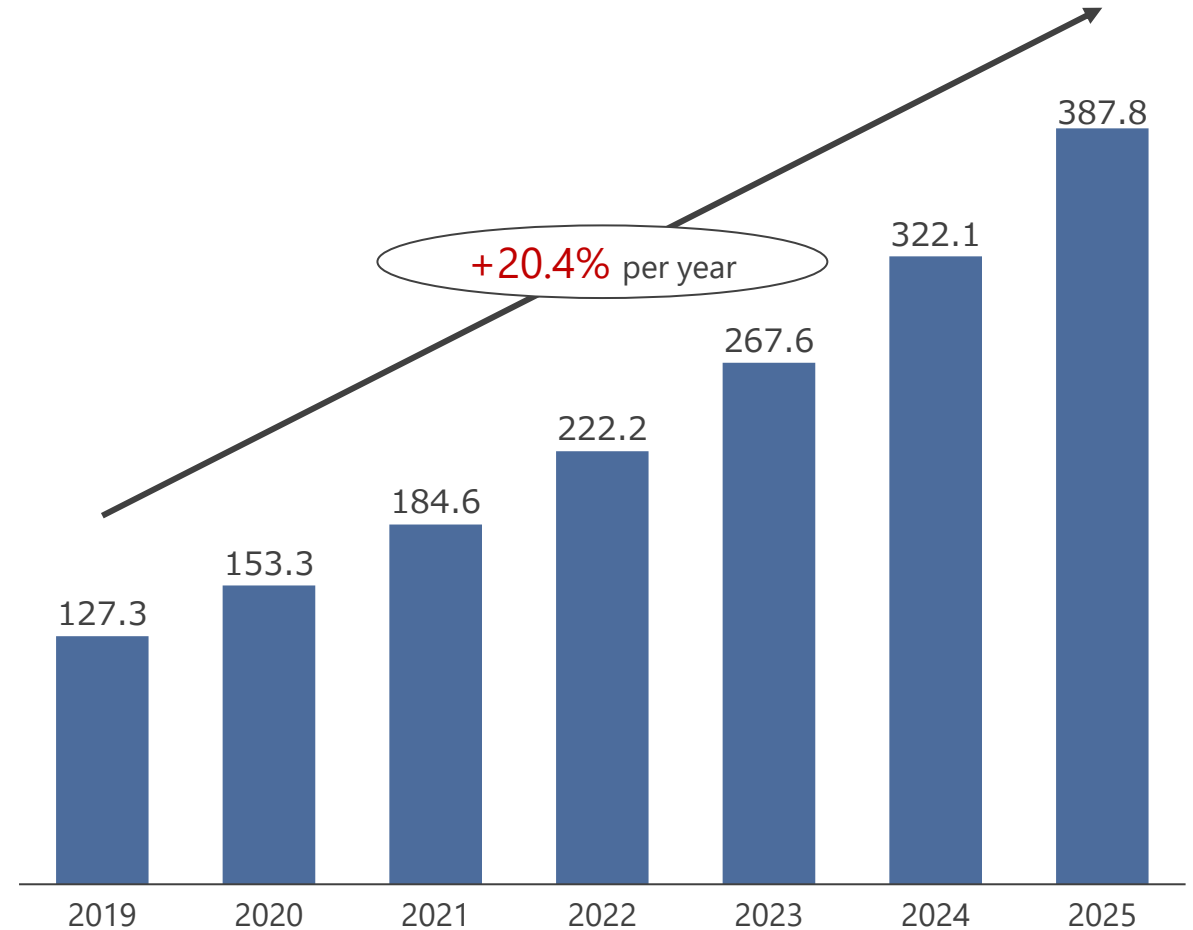
Global DX market size is reaching 127 trillion JPY in 2019.

Growing by 20% each year and may be accelerated by COVID-19.

Region-wise DX market size(2019 | trillion JPY*)



Expected market growth(Global | trillion JPY*)

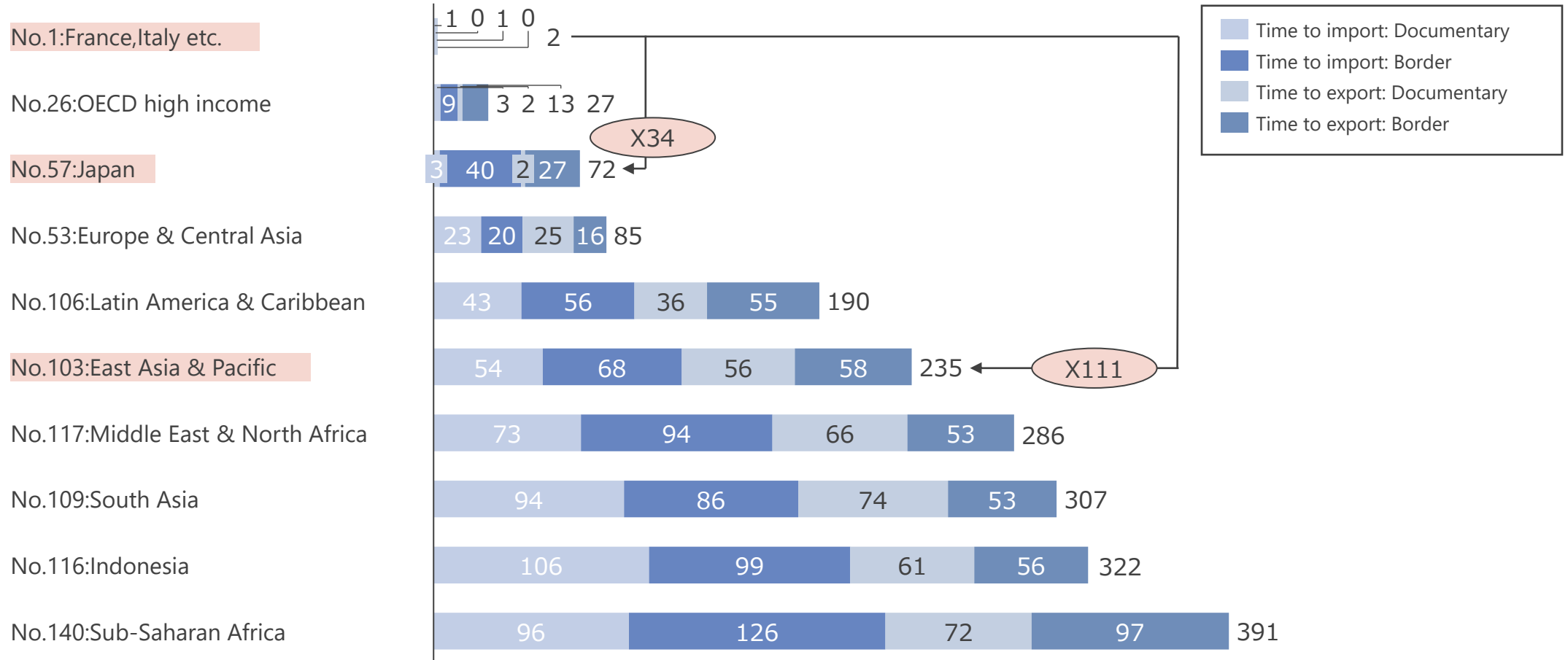


*Calculated as 107.9JPY/USD
Ref : IDC『Worldwide Semiannual Digital Transformation Spending Guide』

Our targeting issue 1) Operation efficiency, speed

- Japan and ASIA respectively take 34 and 111 times more man-hours than EU to process trade transactions.
- EU is going forward at the point of regulation and digitalization.

Time Spent on Trade Transactions (unit: hour)



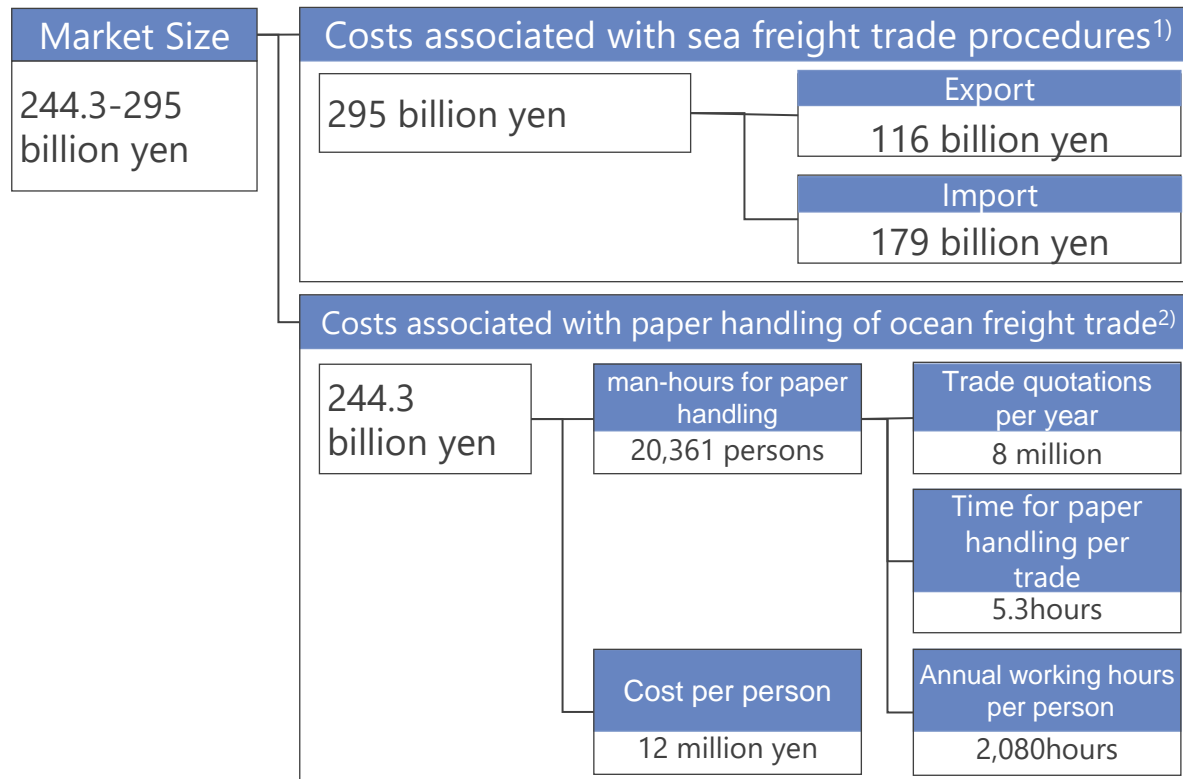
Ref : Trading across Borders(THE WORLD BANK)

Our targeting issue 2) Paper-work cost

- The market size of the issue in Japan is about 244.3-295 billion JPY per year for the cost of maritime cargo trade procedures.

Market size of this business

The market size of this project is approximately 244.3-295 billion yen, which is the cost of ocean freight trade procedures and paper handling.



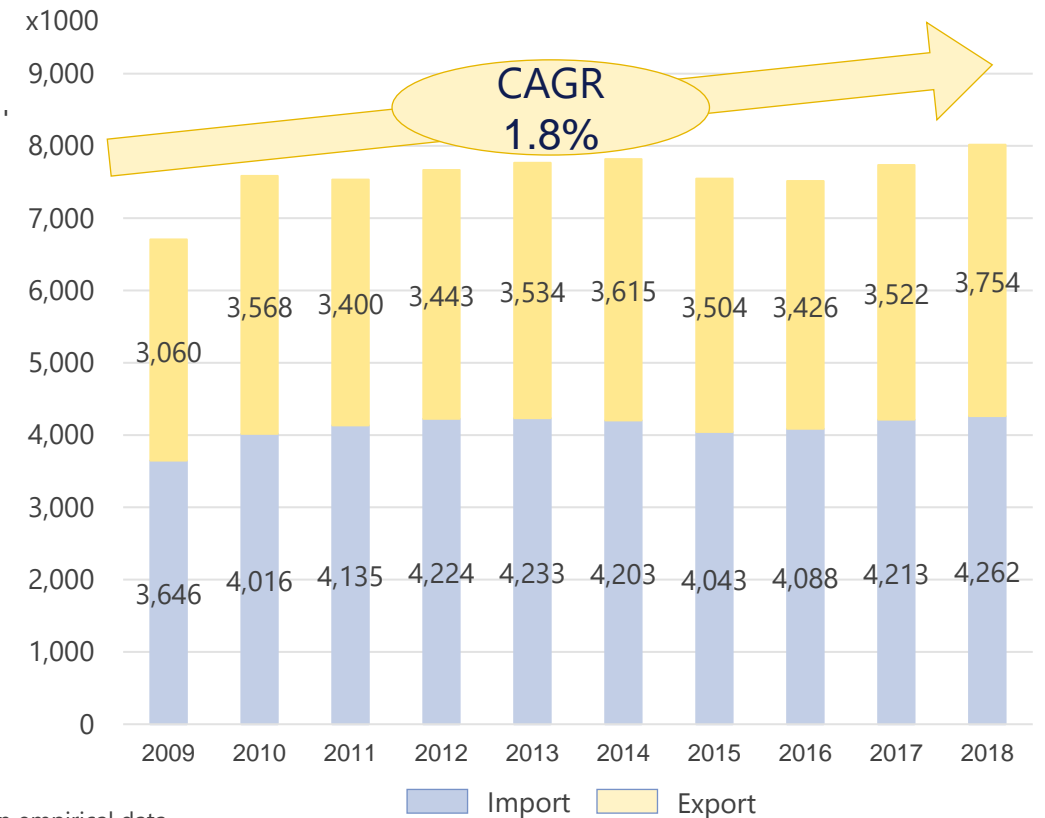
1) Calculated based on the World Bank Group's "Doing Business-Trading Across Borders".

2) Calculated based on empirical data.

3) Based on the number of import/export licenses provided by NACCS. 97% or more of all trade transactions since 2009 have been conducted through NACCS.

Quotations for seaborne trade in goods³⁾

The number of sea freight trade transactions has been steadily increasing at a CAGR of 1.8%.




Our targeting issue 3) Needs of remote work in COVID-19


- Due to many tasks that still require paperwork, trade employees in Japan need to come to the office 1-2 times a week even during the spread of COVID-19.
- EU is going forward at the point of rules and digitalization.



Changes in personal behavior

 Social Distance
Work From Home

Stagnation of economic activities

 Supply Chain Disruption
Shortage of essential goods



By moving from a paper-based trade document to one that is digitalized, ASEAN enjoy major benefits such as reduced face-to-face operation, avoid supply chain disruption.



Make trade procedures easy, anytime, anywhere – non face to face operation



Make it easy to find alternatives to trading partners-Strengthening Supply Chain

<u>Issue</u>	<u>Solution by Digital</u>
Analogue & Paper based operation with personnel	Digitized operation with handled remotely

The supply chain breaks at the export source

Continuing the Supply Chain by finding alternative suppliers

Ref : ASEAN-BAC focal point meeting 2020(Trade Digitalization)

Our targeting issue 4) Other trade issues

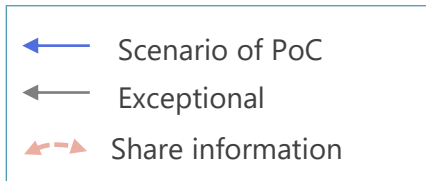
Import / Export	Customs Regulations	<ul style="list-style-type: none"> • Complexity of, and delay during the procedures • Differences in requirements for issuance of certificates by persons in charge (Preferential Certificate of Origin, etc.) • Lack of clarity around import-related risk management laws, etc.
	Repetitive and Inefficient Administrative Procedures	<ul style="list-style-type: none"> • Notices and letters unable to be posted all at once, due to time lags and the limited timeframes they are given to be on the board • New regulatory standards and applications being vague • Demand for a bribe, etc.
	Remittances	<ul style="list-style-type: none"> • Complexity of procedures (i.e. being required to attach documents that are not necessary for the transaction) • Overseas remittance by companies with accumulated deficits not being allowed • Restrictions on foreign currency borrowing and use • High overseas remittance fee, etc.
	Import/Export Regulations & Customs Duties	<ul style="list-style-type: none"> • High import/export duties • Safeguard • Lack of transparency in tariff system and suspension of exports • Various import regulations (e.g. used machinery, etc.), etc.
	Others	<ul style="list-style-type: none"> • Restrictions on entry by foreign companies, shortage of relevant industries • Intellectual property management • Employment system • Land ownership restrictions, etc.

Can be eliminated by electronic transactions

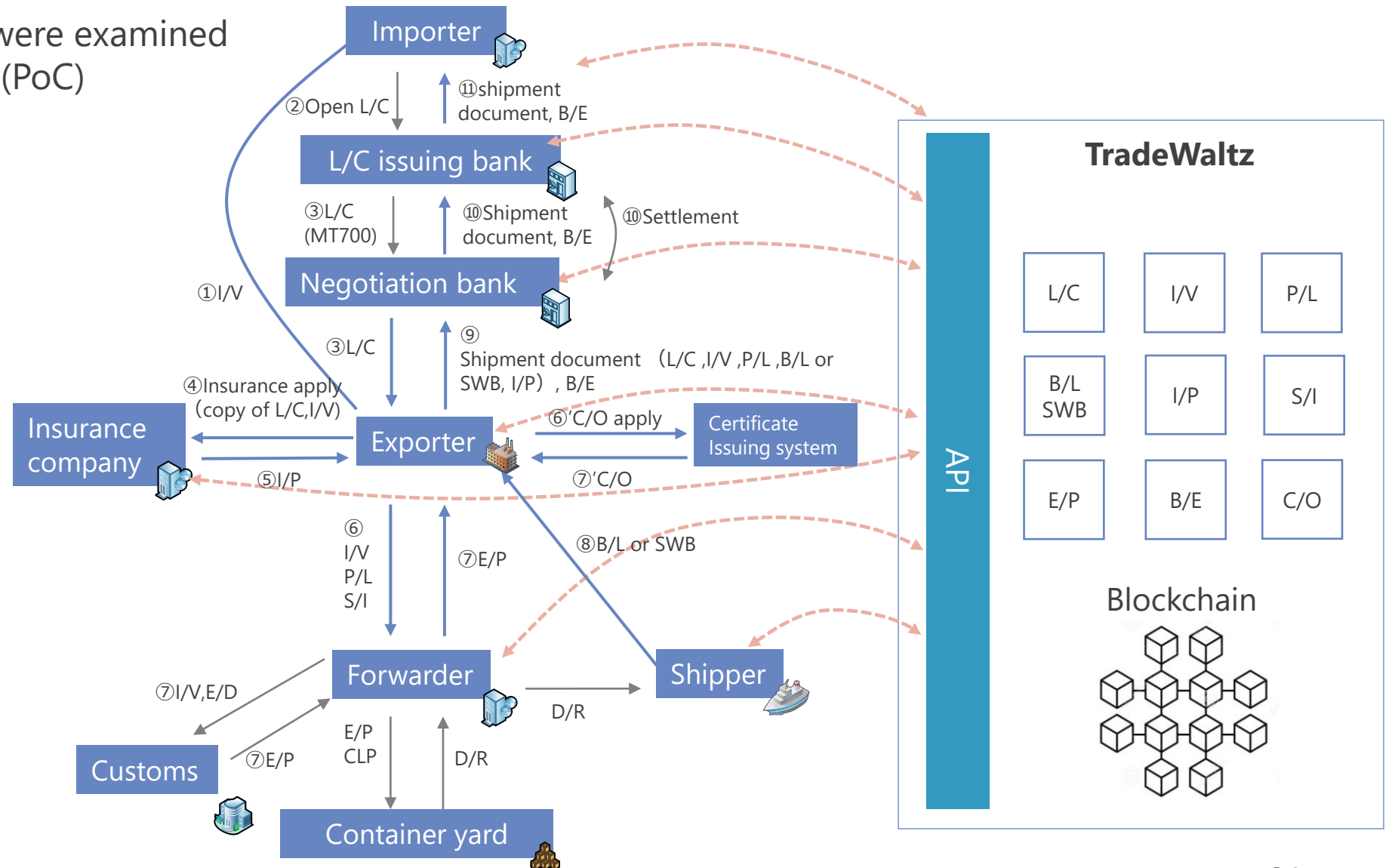
Require governmental support

Proved benefits in Japan

Benefits of TradeWaltz were examined in the proof of concept (PoC) conducted in 2017.



L/C: Letter of Credit
 I/V: Invoice
 P/L: Packing list
 S/I: Shipping Instructions
 I/P: Insurance Policy
 C/O: Certificate of Origin
 E/D: Export Declaration
 E/P: Export Permission
 CLP: Container Load Plan
 D/R: Dock Receipt
 B/L: Bill of Lading
 SWB: Sea Waybill
 B/E: Bill of Exchange



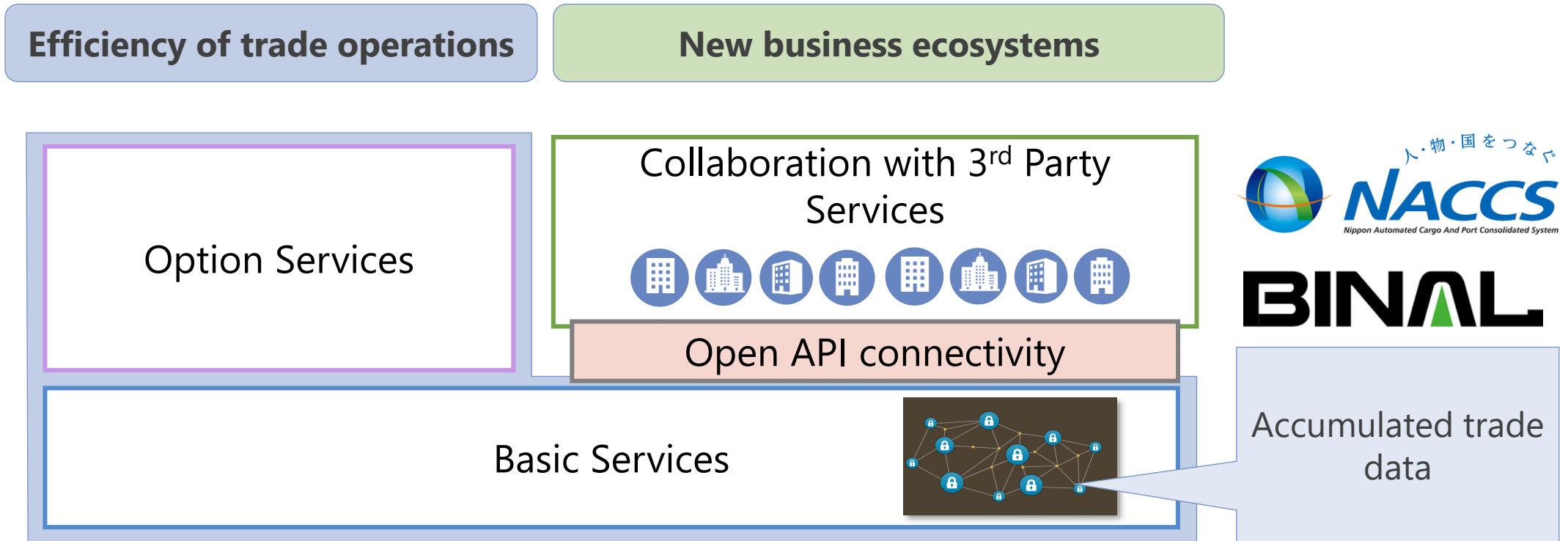
Built TradeWaltz platform prototype

- We created the TradeWaltz platform prototype using blockchain.
(https://www.youtube.com/watch?v=y_-d9DBM0CQ)



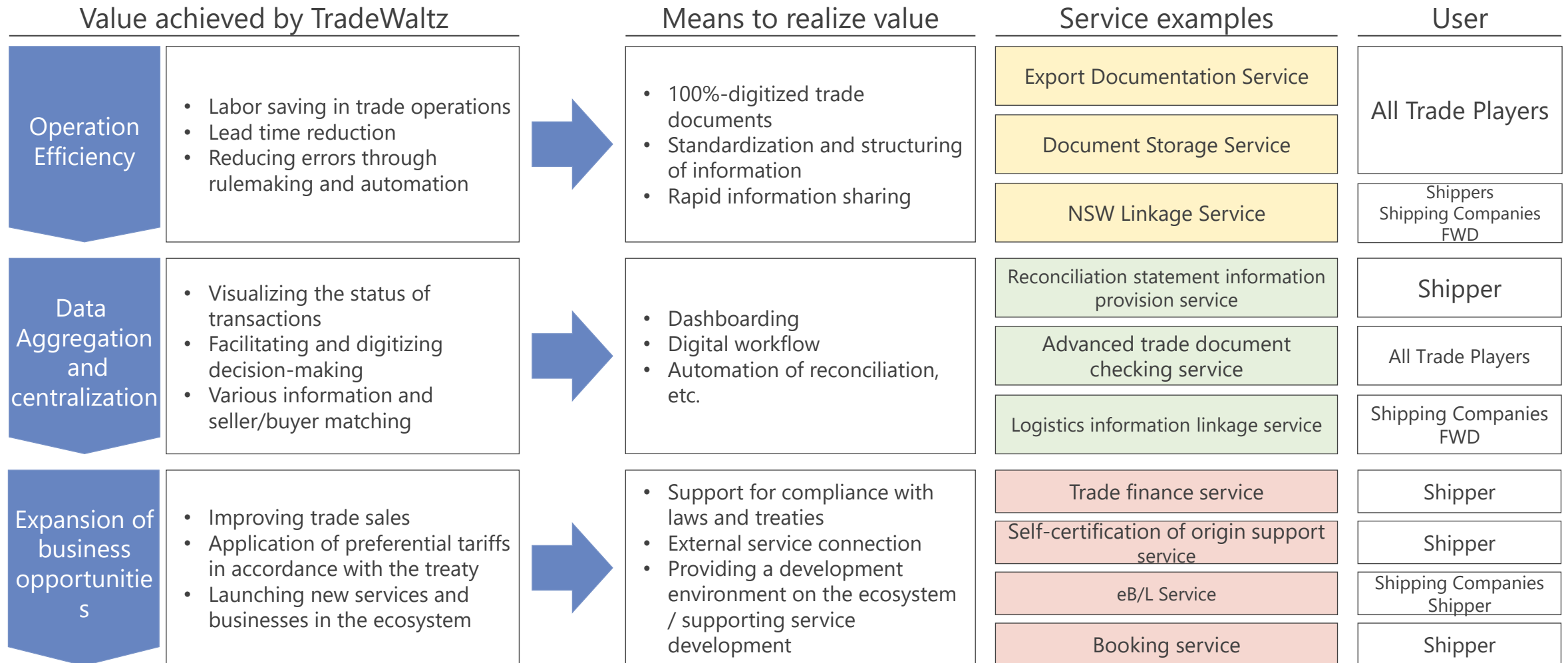
Built TradeWaltz platform prototype: Business variation

- TradeWaltz will expand its business by providing new value-added services and involving 3rd parties to create an ecosystem which will continuously deliver profitable, attractive and innovative services.



Built TradeWaltz platform prototype: Business variation

- TradeWaltz will provide a series of services to improve operational efficiency, aggregate the related data, and expand business opportunities in trade.



Proved benefits in Japan

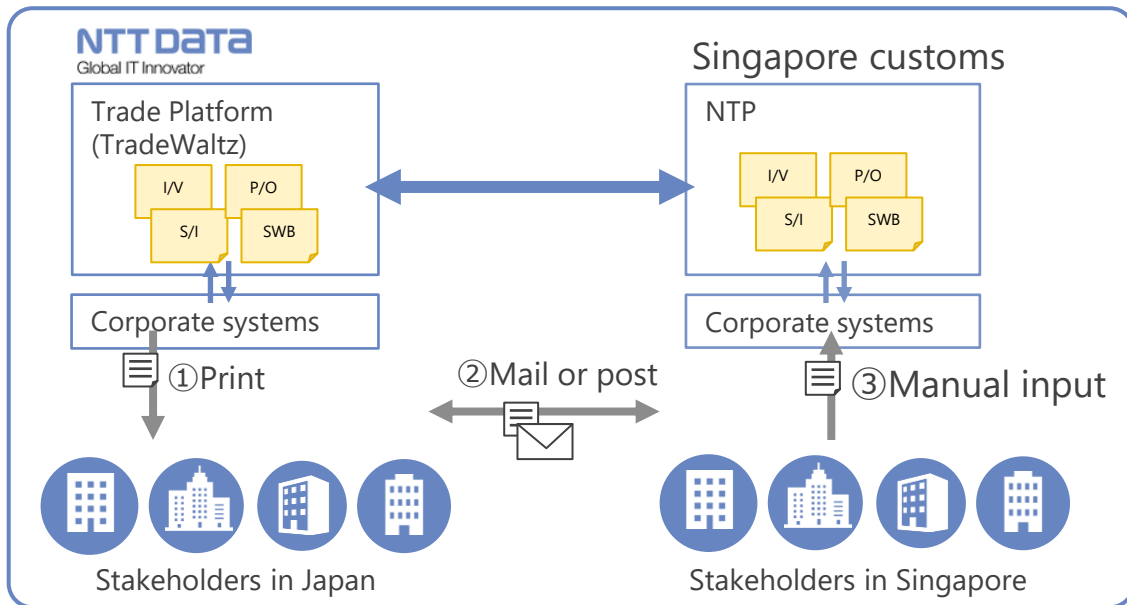
Based on the result of the cross-industrial PoC, TradeWaltz was confirmed that it contributes to the improvement of operational efficiency and the cost reduction effect.

Industries	Procedures	Operational Efficiency/ Cost Saving
Cargo owners	C/O application	60+% Time saving for creating document by pulling data of I/V
Banks	Apply for negotiation of documentary bill	60+% Time saving for confirming the integrity of documents by check function
	Negotiate documentary bill	60+% Time saving for confirming the integrity of documents by check function
Banks	Deliver documentary bill	30 to 60% Time saving for delivering documents to customers
	Issue insurance policy	30 to 60% Cost saving for managing original documents
Insurance Companies		60+% Time saving for creating I/P by pulling data of L/C
Carriers/ Logistic Companies	Issue SWB (B/L)	60+% Cost saving for delivering · managing documents by paperless and collection cost when revising I/P
		60+% Reduction of B/L operation by paperless of SWB(B/L)

Proved benefits in Japan and ASEAN

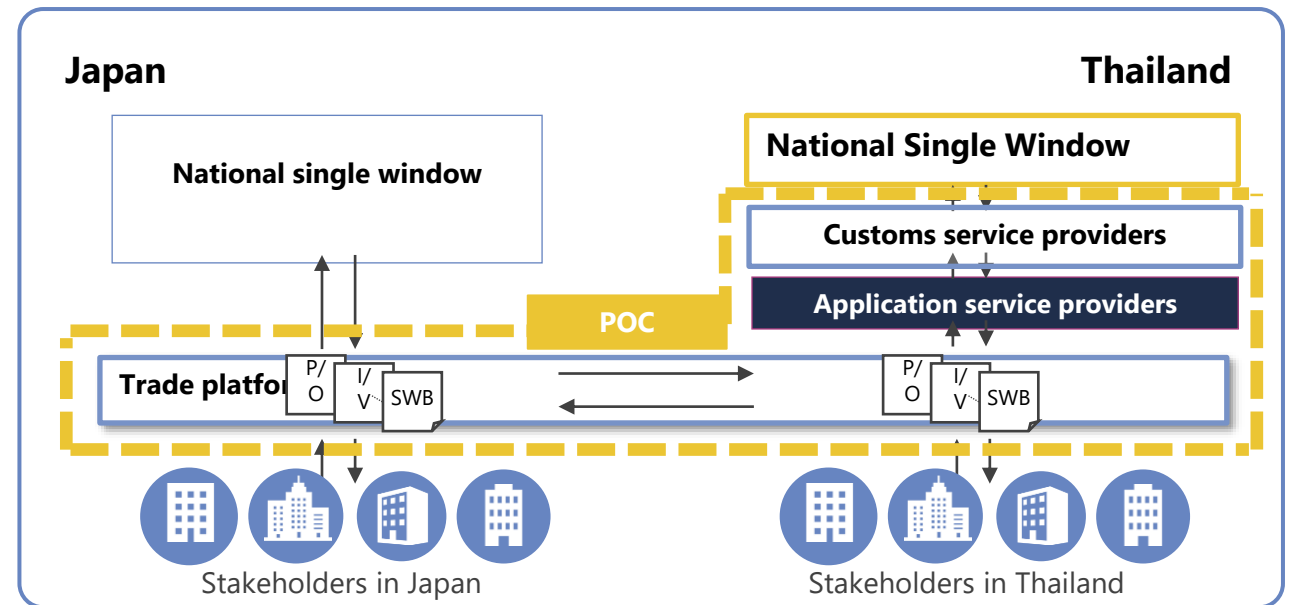
Other Proof of Concepts have also been conducted with Singapore and Thailand. With Singapore, it was confirmed that NTTData has interoperability with Singapore platform. With Thailand, the introduction of TradeWaltz proved over 50% of operational efficiency improvement and accelerate remote work.

Proof of concept with Singapore NTP (2017-2019)



Proved **Interoperability** Between Platforms

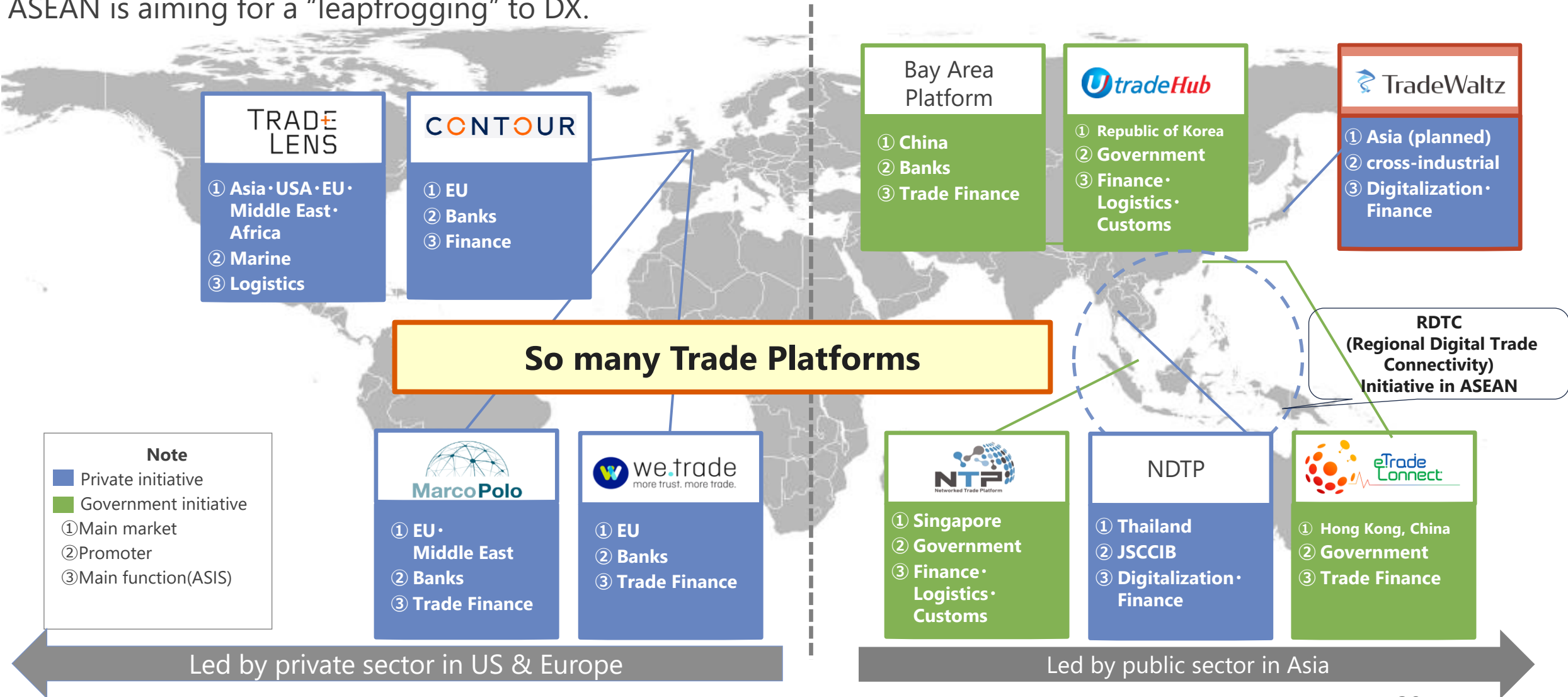
Proof of concept with Thailand (2019-2019)



Proved **over 50%** Operational Efficiency improvement in Stakeholders and accelerate remote work

The number of digital trade PFs is increasing

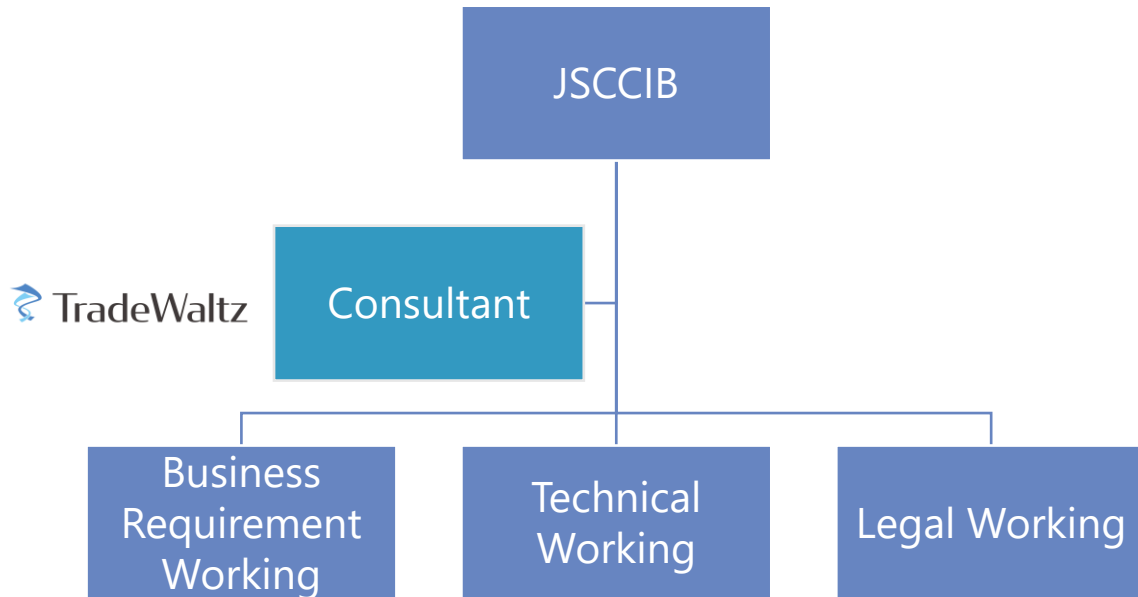
Same as in Europe & US, Trade PF initiatives are gaining momentum in Asia. ASEAN is aiming for a "leapfrogging" to DX.



Thailand, 2019 Chair of ASEAN, started considering with TradeWaltz support

- JSCCIB Thailand takes the lead to drive forward the NDTP.
- (JSCCIB : Joint Standing Committee of Commerce, Industry and Banking.)

JSCCIB's hierarchy in NDTP consideration



JSCCIB organization Structure



Thai Banker's Association



Thai Chamber of Commerce

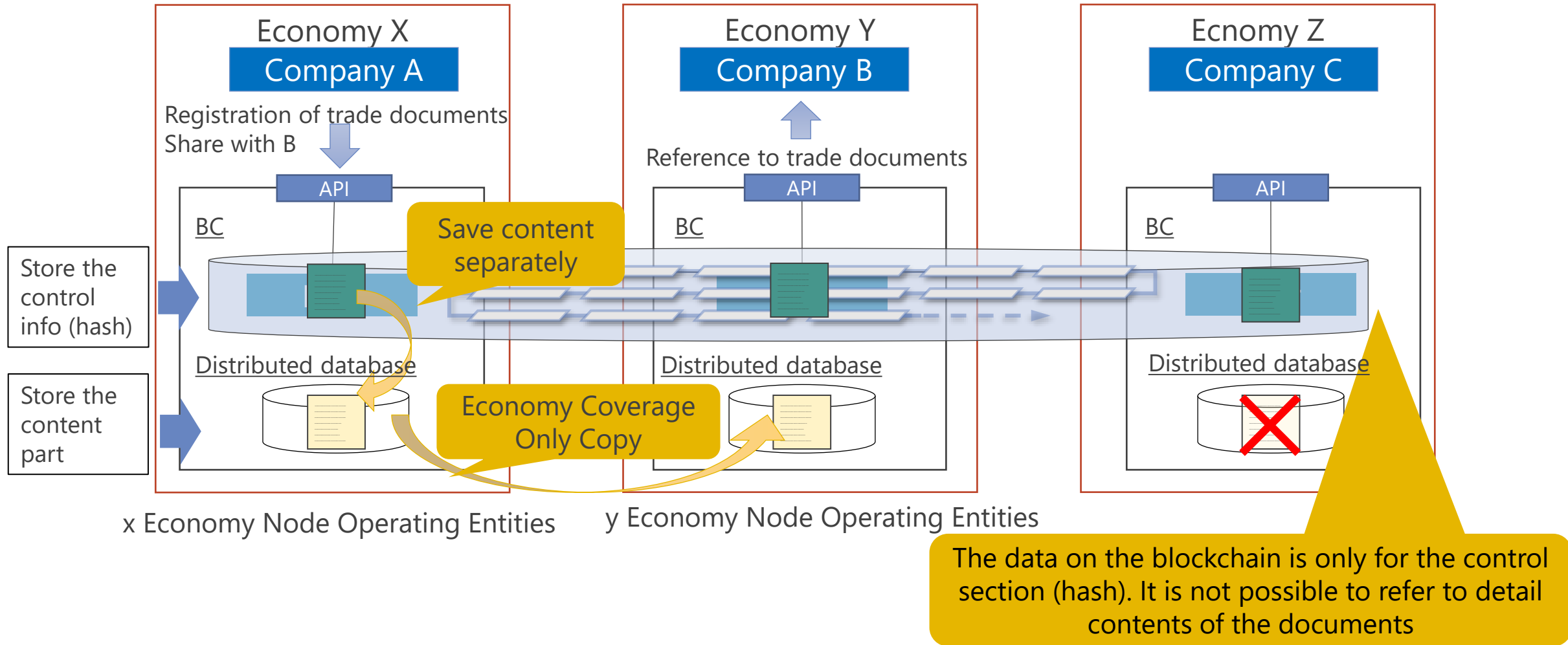


The Federation of Thai Industries

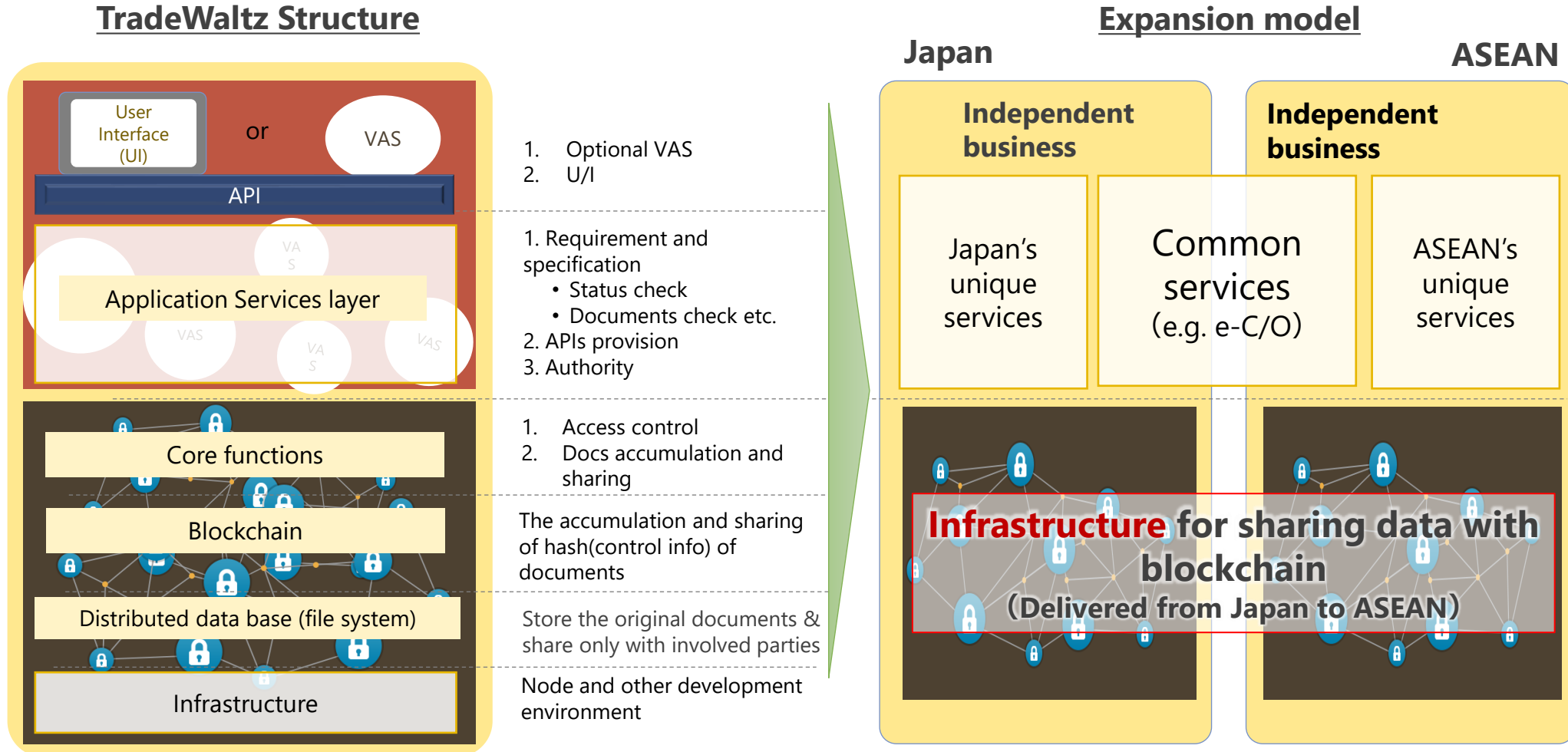
The project started around 2018.
Domestic agenda by the Thai government in 2019.

NTT DATA(TradeWaltz) cooperates with JSCCIB to test the effectiveness of having a B2B trade platform in 2019.

Considered Hybrid data model for security



Ex) suggesting blockchain-sharing model of TradeWaltz



Thailand set digital trade as ASEAN agenda

Bangkok Post

THAILAND WORLD BUSINESS OPINION AUTO LIFE LEARNING VIDEO MORE

Hironari Tomioka, President and CEO of NTT DATA Thailand, said the benefits of using electronic documents for international trade were examined by 47 trial participants, including Thai banks, forwarders, origin providers and Japanese companies.

Trade documents such as purchase orders, sea waybills, certificates of origin and trade finance documents were examined.

"Production costs will be reduced through document processing and other digitalization."

Information sharing via trade platforms can help prevent the illegal practice of double financing from multiple financial institutions.

The company plans to introduce the platform in cooperation with local government agencies.

In 2017, NTT DATA developed the platform in Japan in collaboration with a cross-industry consortium including representatives from banks, insurance companies, cargo owners and carrier/logistics companies which shared a mutual interest in paperless international trade.

BUSINESS

Business forum maps out digital future

New trading platform roll-out set to make bloc's businesses more efficient

SECTION: NEWS
DDEE ARUNMAS

border
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y.



NTT DATA, which develops digital trade solutions in Japan, collaborated with the JSCCIB in studying the feasibility and benefits of a cross-industry trade platform.

PF's interoperability (hybrid model) was mentioned at the World Economic Forum 2020 sideline event

International partners ink pact with IMDA to collaborate on digital trade

THE International Chamber of Commerce (ICC) and 17 major multinational firms have signed a cooperation agreement with Singapore's Infocomm Media Development Authority (IMDA) to boost digital trade, which could result in wider adoption of Singapore's TradeTrust framework for connecting digital trade platforms.

Signed at Davos on Wednesday alongside the annual World Economic Forum meeting, the agreement is part of efforts to move from the existing paper-based system for world trade to digitally-enabled trade. The parties agreed to advocate and adopt open and neutral networks, and interoperability.

Moving towards digitalised trade records, trading system, and interoperability noted Minister for Communications Digitalisation Forum. The TradeTrust

TradeTrust aims to ensure interoperability allowing digital trade documentation

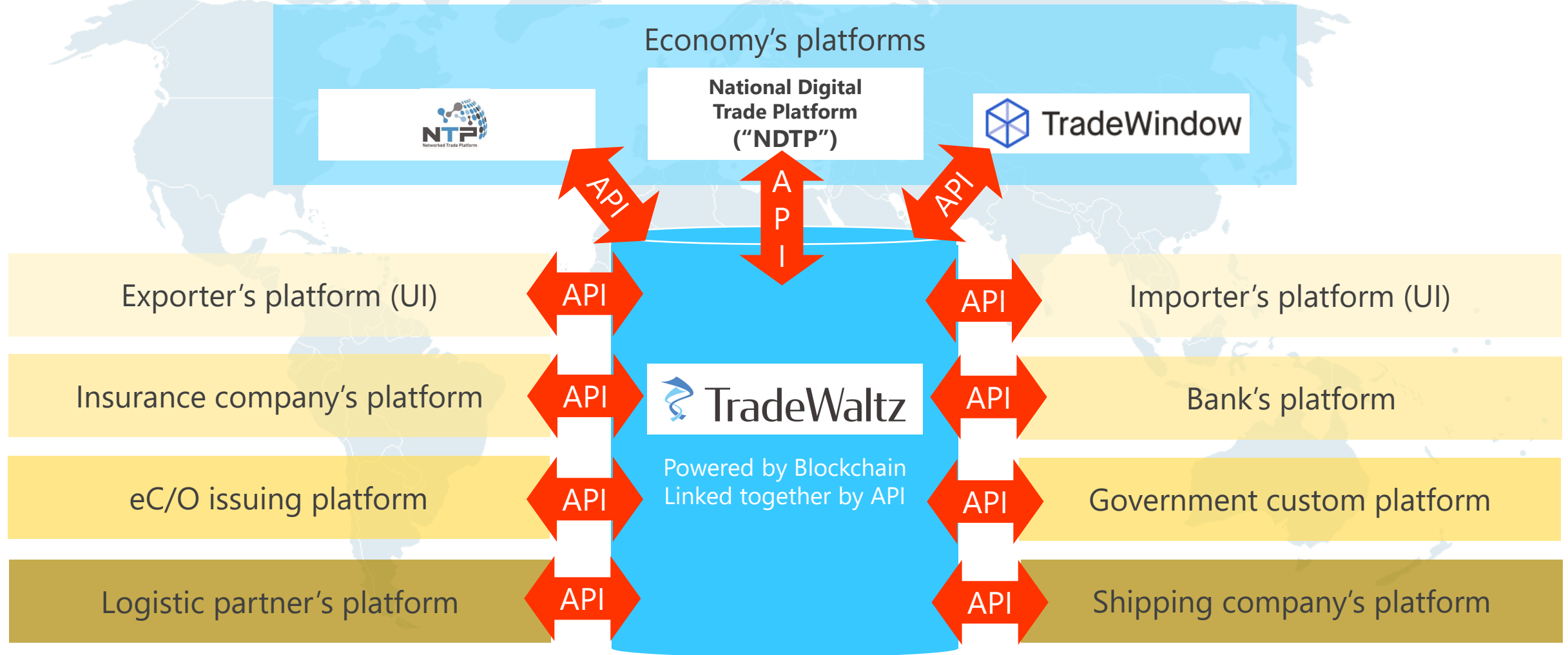


SINGAPORE and ICC collaborate with seventeen key industry partners to enable further digitalisation in international trade



We shall proceed further collaboration (like API linkage) with 30 other platformers (Exporter's, Importer's, etc.) to build digital trade ecosystem in the world.

Interoperability





TradeWaltz