

The 2nd CAREC Digital Trade Forum

Regulatory and system Harmonization as essential to DPI development



[Contents]

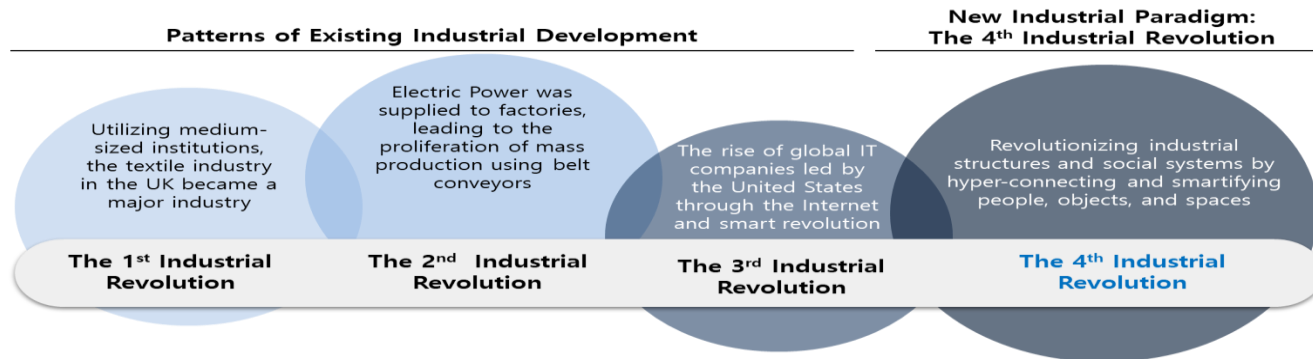
1. Use of Emerging Technologies in DPI
2. (Case Study) Philippines FTA Project
3. (Case Study) EAC SCT Project
4. Implications

[Attachment] KTNET's Experience of Collaboration with ADB, and Etc.

1-1. The 4th Industrial Revolution and Digital Public Infrastructure

The 4th Industrial Revolution

- A revolutionary stage where modern technologies converge to transform traditional industrial and economic models. This includes AI, robotics, IoT, cloud, and blockchain technologies.



Importance of DPI

- It is essential for improving efficiency, accessibility, and responsiveness through the digitization of government services. This enhances the quality of services provided by the public sector to citizens and businesses, thus increasing social and economic benefits.

Connection to Digital Trade

- DPI simplifies cross-border transactions and enables digital trade through digital identity verification, payment systems, data sharing, and security. This lowers the barriers to international trade and reduces costs.

1–2. Key Technologies Innovating DPI

Artificial Intelligence (AI)

- In the public sector, AI enables data-driven decision-making, enhances policy effectiveness through predictive modeling, and provides automated customer services.

Blockchain

- It strengthens the integrity and security of public records, ensures transparent transactions to prevent fraud, and is also used for managing digital identities and credentials.

Cloud Computing

- Cloud-based infrastructure enables centralized data storage and remote access, offering rapid deployment and scalability of public services.

IoT (Internet of Things)

- IoT technology is applied to city and resource management to greatly improve urban operations' efficiency through real-time data monitoring and management.

Big Data

- The collection, storage, and analysis of large volumes of data improve the quality of public services and play a crucial role in predictive analytics and policy-making. For example, air quality management, public safety, and healthcare.

Multi-Factor Authentication (MFA)

- A critical technology for enhancing security in digital public infrastructure. It requires one or more additional forms of verification beyond just a password, thereby improving cyber security and preventing unauthorized access.

1–3. DPI Regulations and System Harmonization

Data Protection and Privacy

- Strengthening information protection and cyber security through cloud platforms.
- Complying with national and international data protection regulations to protect the personal information of citizens (or users) and build digital trust.

Interoperability and Standardization

- Facilitating smooth data exchange and management through the integration of various systems.
- Developing and applying standards to ensure interoperability between digital services and systems. This supports the smooth integration of various technologies.

International Cooperation and Policy Harmonization

- Collaborating with other countries in the region to standardize international trade regulations (creating a consistent international regulatory environment) → lowering barriers to digital trade and expanding opportunities for international trade transactions.

The Case of Korea

- The South Korean government is continuously improving and expanding its digital public infrastructure to enhance the efficiency of digital trade and strengthen its competitiveness in the global trade market.
- Case studies of building and enhancing digital public infrastructure to support digital trade:
 - Transition to digital governance: processing trade procedures based on online platforms.
 - Reliable digital identity verification systems (expanding from accredited certificate to real-time verification like Kakao, Naver, etc.).
 - Advanced digital payment systems (expanding from bank transfers to credit cards to mobile payments).
 - Strengthening data protection and cyber security (such as the Personal Information Protection Act).
 - International cooperation and standardization.

1-4. Sustainability Assurance Measures

Implementing a Sustainable Digital Trade Ecosystem

Securing Sustainability

Public-Private Partnerships

Integration between Regulatory and System

Cooperation Among Countries in the Region

Government Sector

- Promoting policies for domestic and foreign corporate support and development, alongside the development of technical and legal infrastructure.
- Encouraging international conventions and cooperation related to DPI.

Private Sector

- Participating in the development of innovative technology solutions and the integration of DPI with private sector expertise.
- Additionally, developing digital trade platforms and related services to provide to the trade industry.

Data protection and privacy

Interoperability and standardization

International collaboration and policy harmonization

Digital identity verification

Digital payments

2-1. (Ph. FTA) Overview

Project Name

The Implementation of the Origin Management System for the Promotion of FTA in the Philippines

Co-operational Organization Between PH and KOR

- Steering : EDC / DTI / PHILEXPORT | (KOR) MoTIE / KIAT
- Executing : DTI-EMB | (KOR) KTNET

Period(Official)

July 2023 ~ Dec. 2025 (30 months in total)

Scopes

1) Consulting(Basic plan, PSR), 2) System Development, 3) Capacity Building, 4) Run-time Environment(Cloud Based), 5) Training & Promotion

2-2. (Ph. FTA) Background & Goal

Background

- The Philippine government's strong will to activate FTA usage
- Providing FTA-related Information portal(as a Single Gateway)
- Establishing platform for FTA origin determination/issuance and post-verification preparedness

Goal

- Enhancing the international competitiveness of Philippine MSMEs
- Increasing the utilization of existing Philippine FTAs and preferential trade arrangements
- Reducing the time and costs of Philippine manufacturers and traders to comply with Rules of Origin requirements of FTAs and GSPs)

2-3. (Ph. FTA) Applicable technologies and business areas

Big Data

- Provide information to exporting companies by utilizing import and export statistics by FTA/GSP agreement and by item
- Understanding and forecasting the issuance trends of certificates of origin by FTA/GSP agreement, etc.

Ai

#1

- Recommendation of the accurate HS CODE for import and export items
- Support for mapping of unstructured data items
- Application of the origin determination Rule by agreement

Cloud

#1

- All new platforms being built according to Philippine government policy need to implement commercial cloud infrastructure (Amazon AWS, Azure)

Blockchain/MFA

#1(?)

- Set up information protection for the trade secrets of companies related to the certificate of origin by applying the relevant technology
- Application of multi-factor authentication technology upon access and application when using the platform

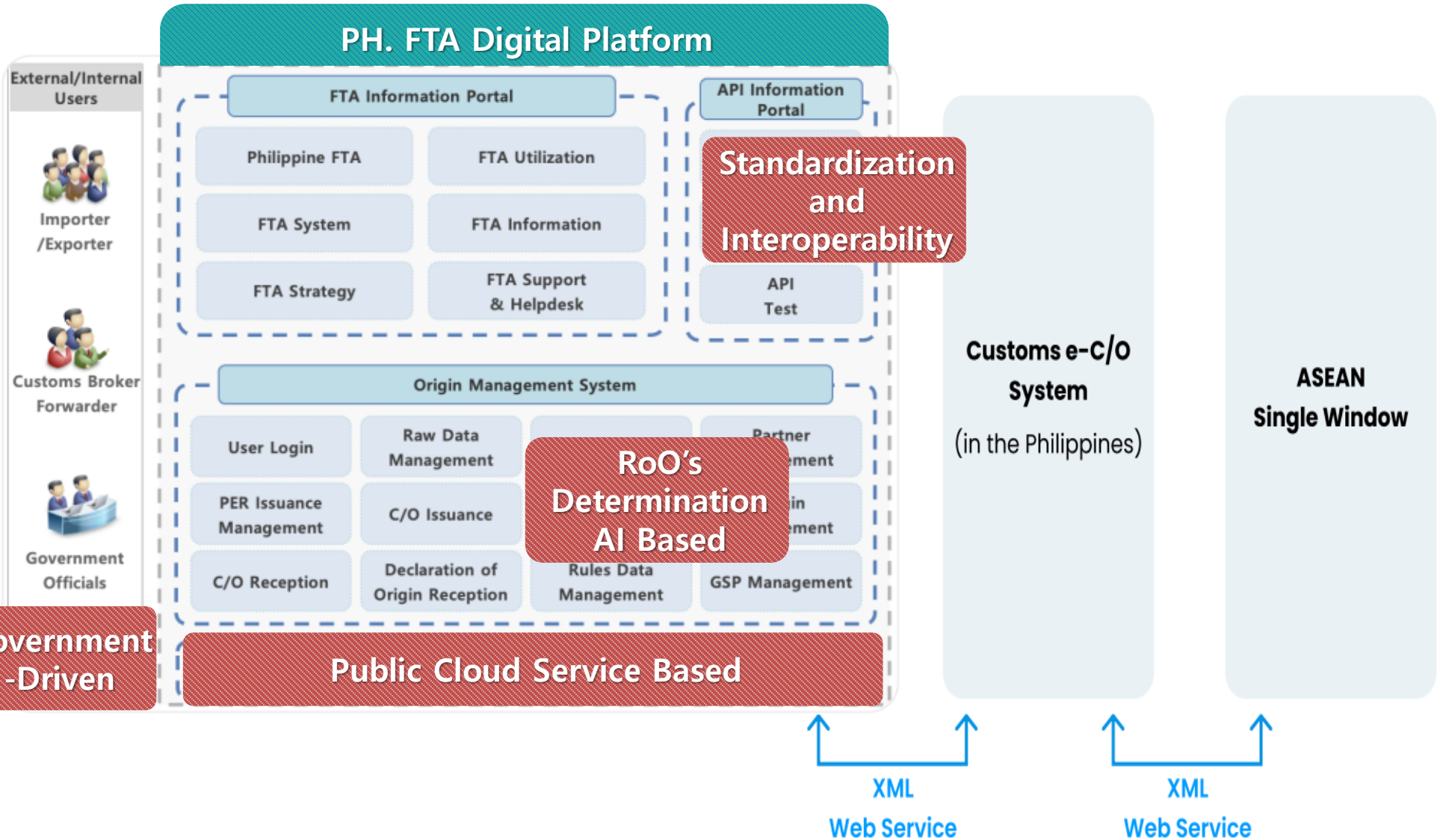
Biz. Bot

- Provide user convenience throughout the entire Value-Chain process
- Provide notifications between processes through integration with messenger platforms

MR(AR/VR)

- Used for immersive learning experiences and provides interactive educational content
- Support for certificate of origin service applications, issuance, and other tasks through interaction with digital content integrated into the physical environment

2-4. (Ph. FTA) Concept Diagram (Draft) & Regulation



2-5. (Ph. FTA) Expected Benefits For Exporters

Transforming Philippine SMEs into **AGILE EXPORTERS** through proactive use of FTAs

1 Reducing costs and time associated with FTA C/O

- Digitalization of FTA C/O Processes in the Philippine FTA Origin Management Platform

2 Trade volume Growth through Export Competitiveness

- Secure price competitiveness by applying FTA tariff rates and GSP(+) preferential tariff rates

3 Efficient post-verification response through platform-based C/O management

- Minimizing the risk of additional customs duties through compliance with origin determination and related documentation

3-1. (EAC SCT) Background: Challenges

Application of Law	Difference in application of Customs Laws & instruments
Duplicated Procedures	Multiple Customs declarations At internal borders
Security Bonds	Multiple Security Bond regimes
Varying Valuation	Application of varying Valuation approaches
Enforcement	Weak Enforcement Mechanisms
Non tariff Barriers	Multiple road blocks along Transit corridor
Cargo Flow	Restricted Flow of cargo
Congestion	At the Ports and Border Stations
Complex clearance	Complex Clearance Procedures involving many Government Agencies

CONGESTION AT MARIAKANI WEIGHBRIDGE BEFORE SCT



MULTIPLE POLICE ROAD BLOCKS ALONG THE CORRIDOR



3-2. (EAC SCT) Background: the framework

External Users

- Members of the business community are engaged in cross-border trade within the East African Community countries although businesses are severely hampered by inefficient trade facilitation systems.

Regulatory

- The EAC Partner States have embarked on implementing the Single Customs Territory (SCT) whose framework was adopted by the EAC Summit of Heads of States in November 2013.

Strong Will

- The Summit directed that the SCT commences on 1st January 2014 and that all operational requirements be finalized by June 2014

3-3. (EAC SCT) Principles of SCT

MAP OF EAC REGION



The Principles of SCT

- The cargo is cleared at the first port of entry.
- A single import declaration for the destination country.
- Customs duties are paid at the destination while the cargo is at the first port of entry.
- The cargo moves and is transported from the port to the destination under a single regional bond.
- Cargo in transit/transport is monitored by an electronic cargo tracking system.
- Interconnection between customs systems.
- Minimized internal controls/inspections.

3-4. (EAC SCT) How SCT is composed?

Customs System Interoperability

The customs systems of EAC member states are connected via an SCT connectivity module (KTNET developed modules for the south corridor). Data and code harmonization, standardization of export, import, and transit declaration and manifest messages, process reengineering, and border control coordination were the prerequisites for implementing the SCT system among EAC member states. A single import and export declaration for the destination country is made at the entry point.

=> Single Customs Territory Connectivity Module, customization of customs systems

Cargo Status Monitoring

CCTV and e-SEAL tracking of transit cargo monitor Cargo in real-time. The E-SEAL on the container transmits real-time location and status updates to the Cargo Monitoring System, ensuring no need for cargo inspection during transit.

=> e-SEAL, CCTV, Cargo Monitoring System

EAC Single Cargo Bond

Under the Single Customs Territory policy, EAC countries have adopted a unified regional bond. This allows cargo to be transported from the port to the final destination under a single regional bond, streamlining and simplifying the process.

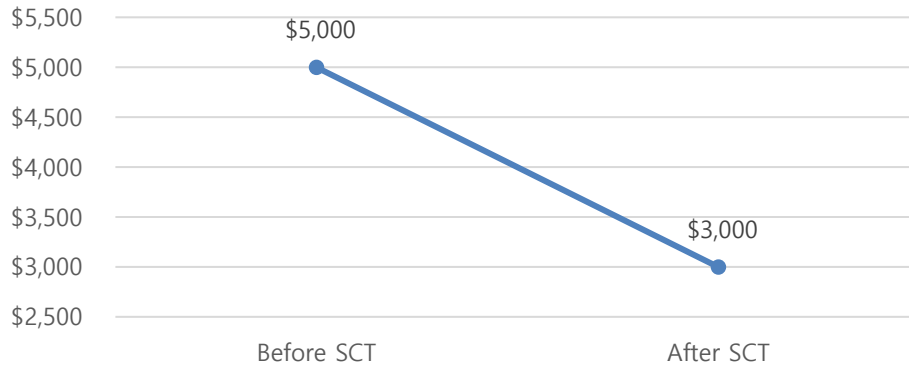
=> Single Regional Bond System, e-Payment

3-5. (EAC SCT) How does SCT work?

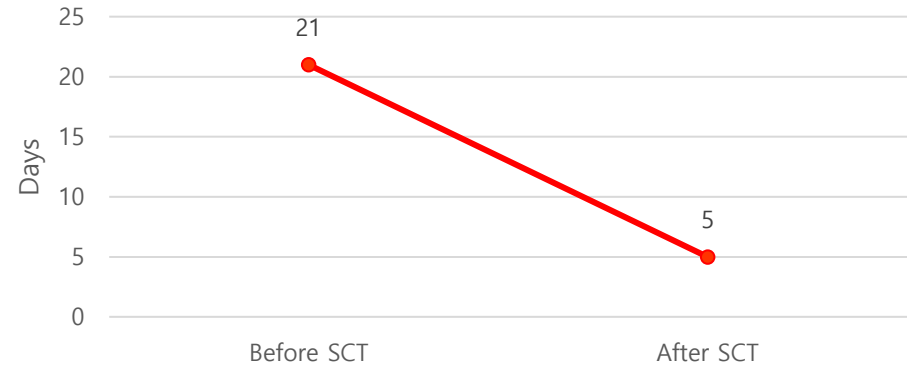
- This requires that any Cargo entering the Region must be cleared at the First point of Entry and Taxes paid at Destination before release.
- For goods destined to Bonded Warehouses in the importing Country, appropriate Warehousing procedures have to be finalized at destination before release.
- Cargo destined to outside the Region is cleared under the Transit Regime.
- For Local Exports, declaration is made in the importing Country before release by the Exporting Country.
- Release of both INTER & INTRA is done by the Revenue Authorities Customs Officers of the Destination Country who are now based at the Ports of Entry and Major Cities e.g. Mombasa, Nairobi, Nakuru & Kisumu.

3-6. (EAC SCT) Benefits of SCT

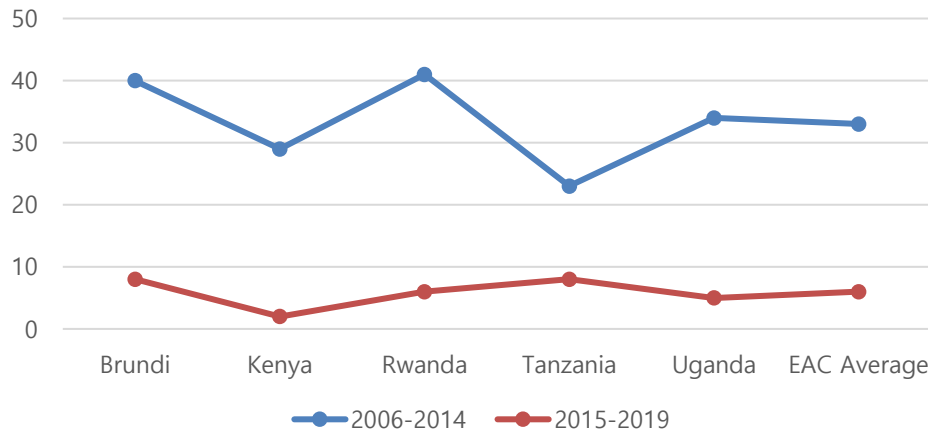
Dar es Salaam → Kigali Container Transportation Fee



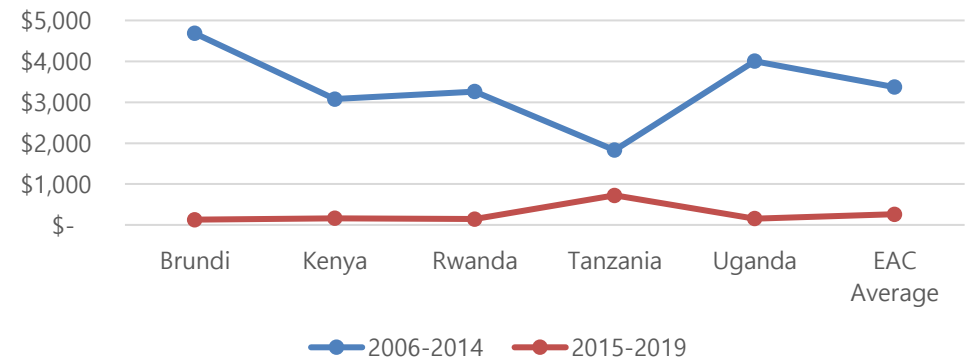
Dar es Salaam → Kigali Container Transportation Days



Average Export Days



Average Container Export Transportation Fee



4. Implications

Strong Will

- **Setting up a cooperative foundation for trade facilitation within the region**

(Philippine FTA) Linking the FTA certificate of origin through the ASW

(EAC SCT) Interlinking cargo/customs information for each tax authority in participating countries

Regulation

- **Establishing (or modifying) regulations related to information exchange between countries within the region**

(Philippine FTA) Mutual recognition of electronic certificates of origin for exporting countries (document standardization, omission of paper document submission, etc.)

(EAC SCT) Standardization of declaration forms by tax authorities within the region, changes in customs processing procedures

Infrastructure

- **Establishing an electronic linkage base within the region through the advancement of related infrastructure**

(Philippine FTA) Development of an integrated origin management platform (in progress)

(EAC SCT) Cargo tracking system

Collaborations with ADB

<< Customs Administration Modernization in Mongolia >>

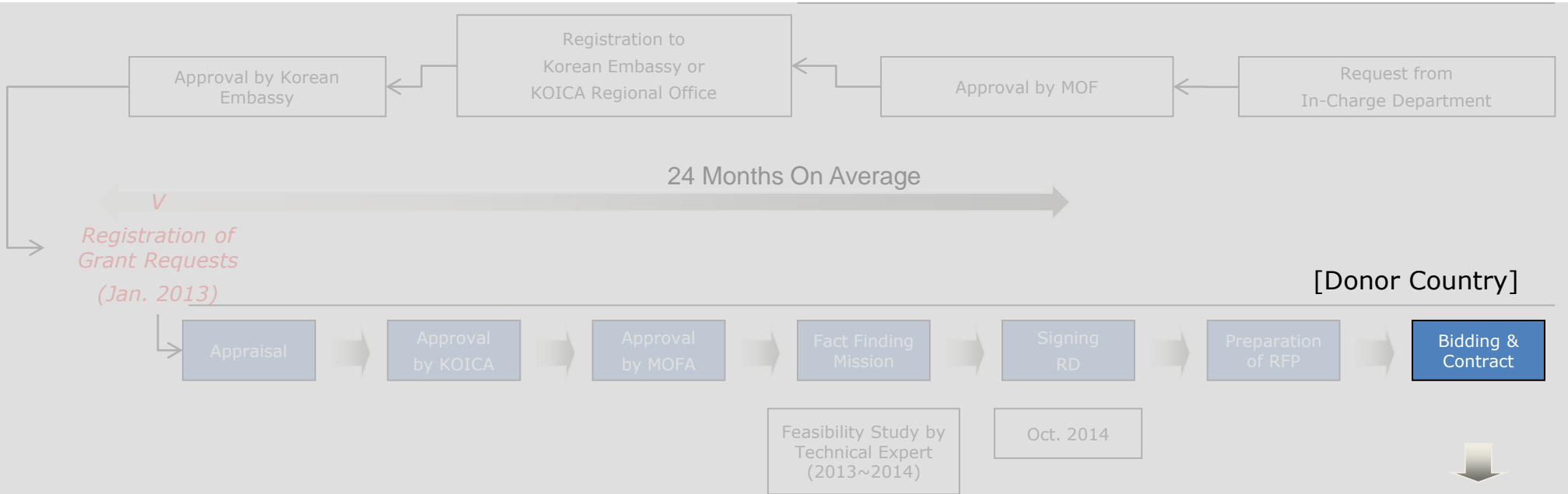
- (In 2006, KTNET) The feasibility study for the modernization of Customs Administration
- (In 2007, KTNET) Using KOICA ODA Fund(2.1 Billion Won), The Project has started
(By 2009) The Project finished successfully
- (In 2008, KTNET) Made a Contract with ADB(3.0 Million US\$)
(By 2010) The Service Open of Customs Automated Information System(CAIS)
- (In 2011, KTNET) Disaster Recovery System in Customs (ADB Loan)
- (In 2015~2016, KTNET) The Enhancement of 'CAIS' using KOICA ODA Fund
- (In 2019 ~, by Local ICT Companies) On The Enhancement of 'CAIS' using ADB Loan
- (In 2024) KTNET is on Consideration to participate in the Project for the Export/Import Certificate System in Mongolia(ADB Loan)

Identifying the Project for Enhancing the Risk Management System with KOICA.

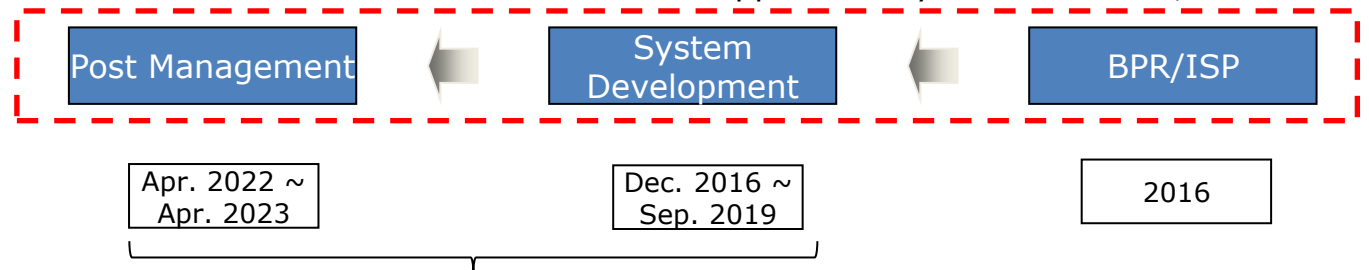
ODA Implementation System

The Probe for Implementation of ICT

[In Uzbekistan]



Apprximately 7.7 Million US\$ / 7 Years



< Glossaries >

- MOF: Ministry of Finance
- MOFA: Ministry of Foreign Affairs
- RD: Record of Discussion
- RFP: Request for Proposal

By KTNET for Uzbekistan Standard Agency

KTNET is Ready to collaborate with

<< In the field of Digital Trade as below; >>

- FTA Origin Management System
- Export/Import License Service
- Integrated System for the Certificate of product conformity and ISO for the standard agencies
- Customs Administration Modernization
- e-Commerce System
- e-Procurement System and etc.

Thank you for your time and attention

KTNET(Korea Trade Network)

Sung Young, KANG

paperse@ktnet.co.kr

