

# Korea E-Clearance System

**UNI-PASS**

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Korea Customs e-Clearance System

**UNI-PASS**

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# UNI-PASS

Overview & Progress of  
UNI-PASS





# UNI-PASS features

## UNI-PASS

### E-clearance system (40)

**Clearance (8)**

- Im. clearance
- Ex. clearance
- Im. Ex cargo
- Express cargo
- Trade stat.
- Single window
- Integrated customer code
- Unique code

**Audit (6)**

- Audit
- Collection
- Refund
- AEO
- Legal compliance
- HS

**FTA(2)**

- FTA
- Data exchange

**CDW (6)**

- CDW
- Technical assistance
- Service operation
- Resources management
- IT project
- Post refinement

**Big Data (1)**

- Big Data Platform

**Common (11)**

- E-portal
- Relevant agency portal
- Mobile service
- E-repository
- Document
- E-notification
- Customer manag.
- Workportal
- Customer manag.
- Integrated law
- Lawsuit

**RM (2)**

- Integrated RM
- Integrated Risk selection

**Investigation (4)**

- Investigation
- Port, airport surveillance
- Passenger
- CIQ

### Internal data (8)

#### General Admin(6)

- Knowledge portal
- Policy Execution
- Performance
- Integrated HR management
- Policy promotion
- Imagination

## Network

# E-clearance system and branding



Patent Acquired in 2006  
Trademark registration in 2007

# Progress of UNI-PASS

Overview & Progress of UNI-PASS

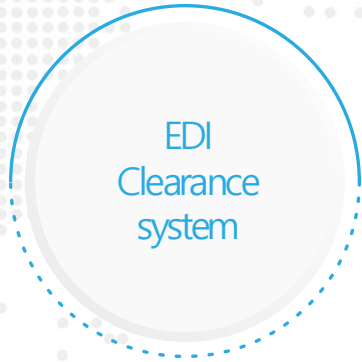
Main systems of UNI-PASS

UNI-PASS around the World

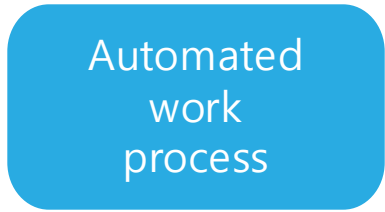
Ways Forward with UNI-PASS



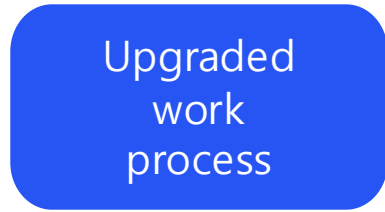
1<sup>st</sup> Generation  
1974



2<sup>nd</sup> Generation  
1994



3<sup>rd</sup> Generation  
2004



4<sup>th</sup> Generation  
2016



# KRW 6.42 trillion of economic benefit by establishing UNI-PASS



Direct benefit equivalent to  
**KRW 1.82 trillion**

Benefit for businesses equivalent to  
**KRW 4.6 trillion**

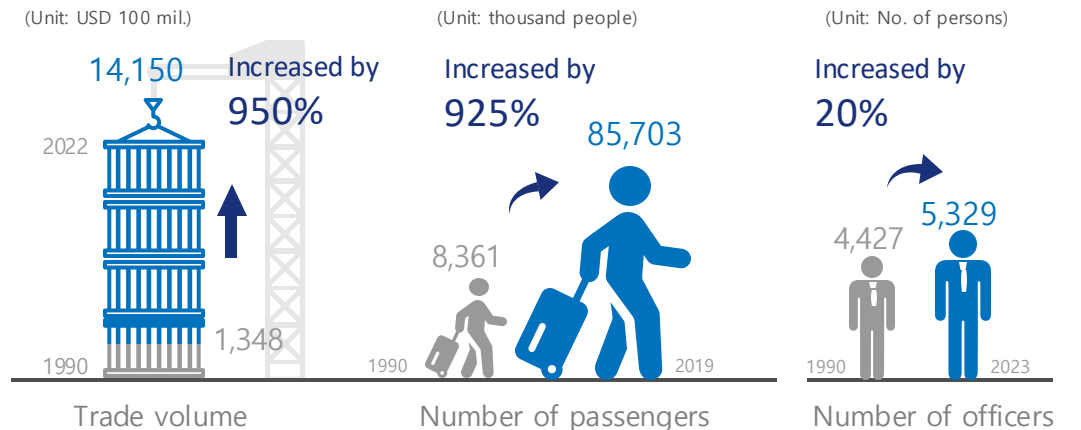
▶ In/external process time reduction

▶ Improved work process

- Average clearance time by generation of UNI-PASS



- Response to upsurge of workload over workforce







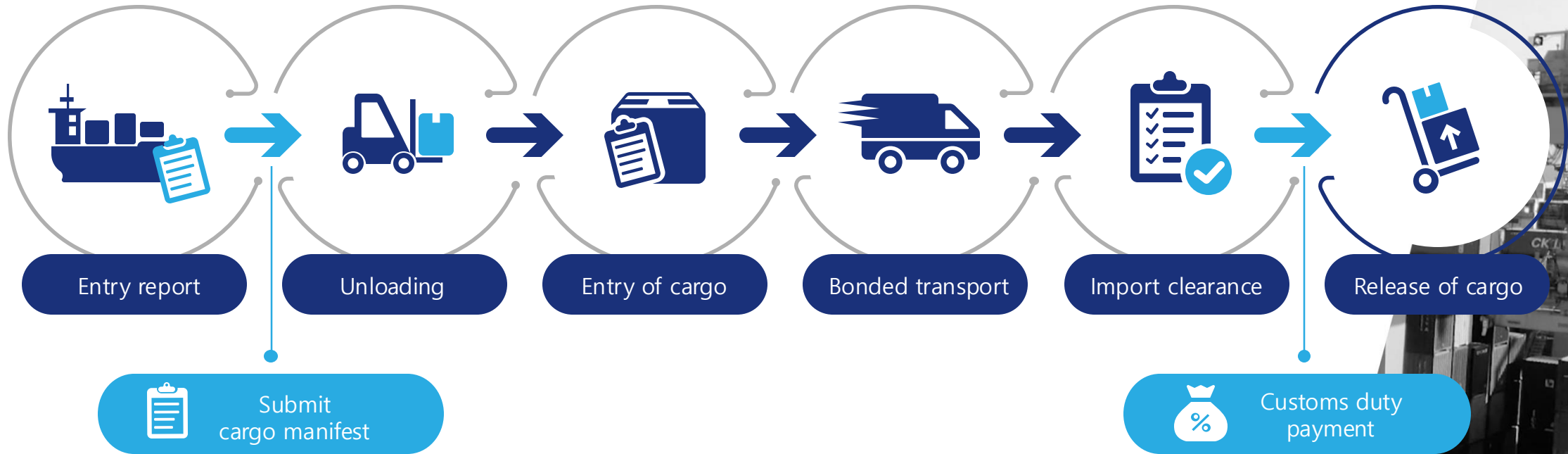
## Main systems of UNI-PASS

- Clearance, cargo management, tax collection
- Single Window
- Customs data warehouse
- Risk management
- New technologies





Import clearance process



Im/Export clearance

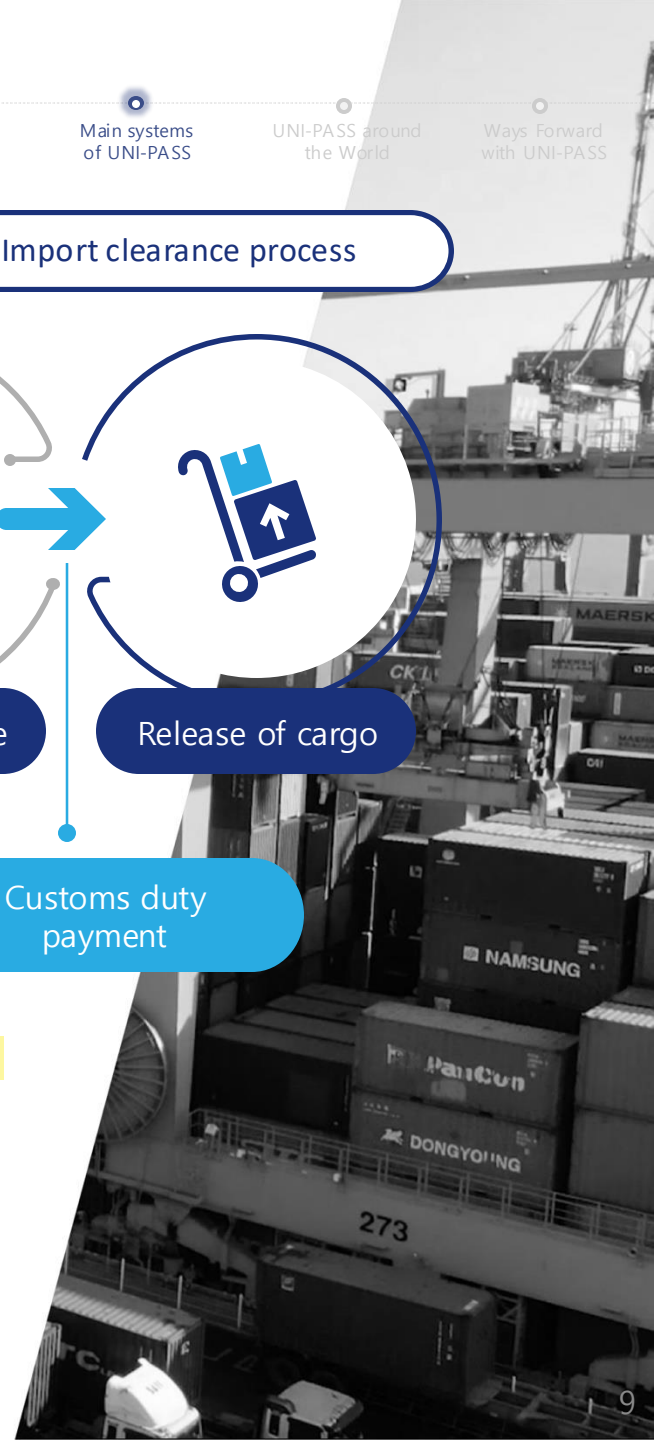
Based on 100% paperless e-document environment, non-stop services are provided around the clock, all year round.

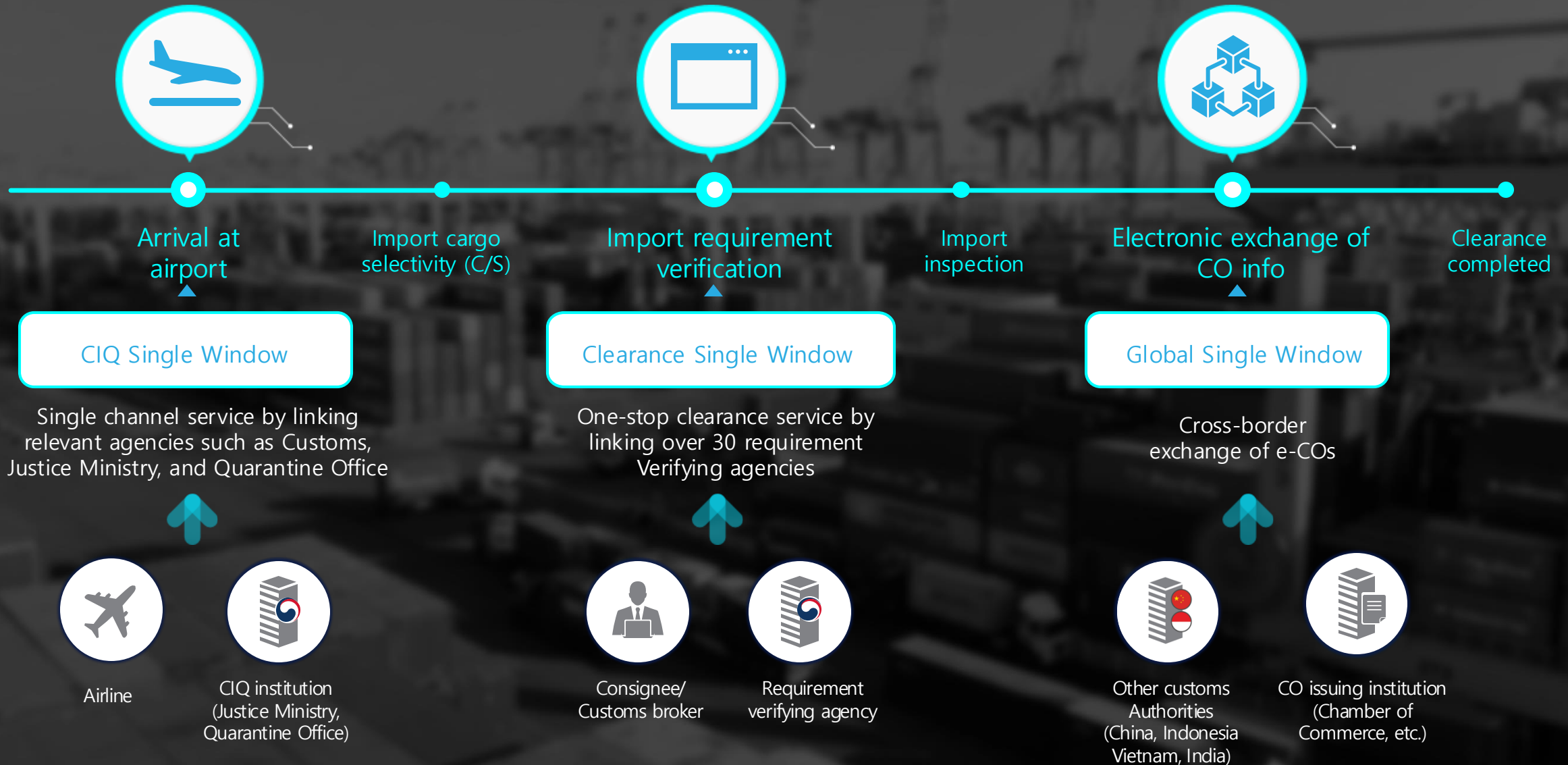
Cargo management

Airtight cargo management from entry to release of cargo with real-time tracking

Tax collection

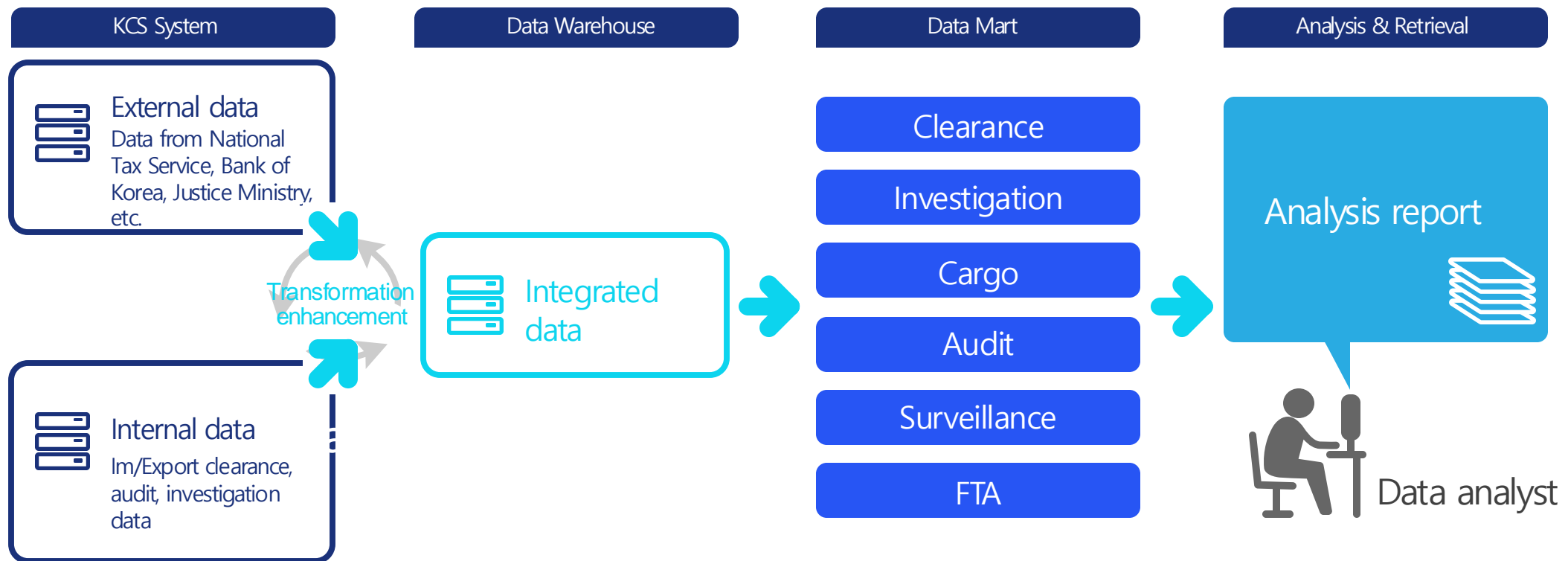
By linking Korea Financial Telecommunications & Clearings Institute with banks, e-payment and automated refund of customs duties





# Customs-Data Warehouse

- Consolidated database of internal data (e.g. im/export clearance data) and external data (from Tax Service and Bank of Korea, etc.)
- Implementation of the environment where necessary information can be accessed with convenience for data analysis to be used in decision making







# All work carried out electronically

➔ Fast, accurate, transparent

- ✓ Uninterrupted service 24/7, 365 days
- ✓ All import and export procedures 100% electronically carried out
- ✓ Centralizing clearance data (Connecting transportation, cargo, passenger data)
- ✓ Manage total air and maritime cargo
- ✓ Clearance data is offered in real time
- ✓ Set up Customs risk management

**UNI-PASS**

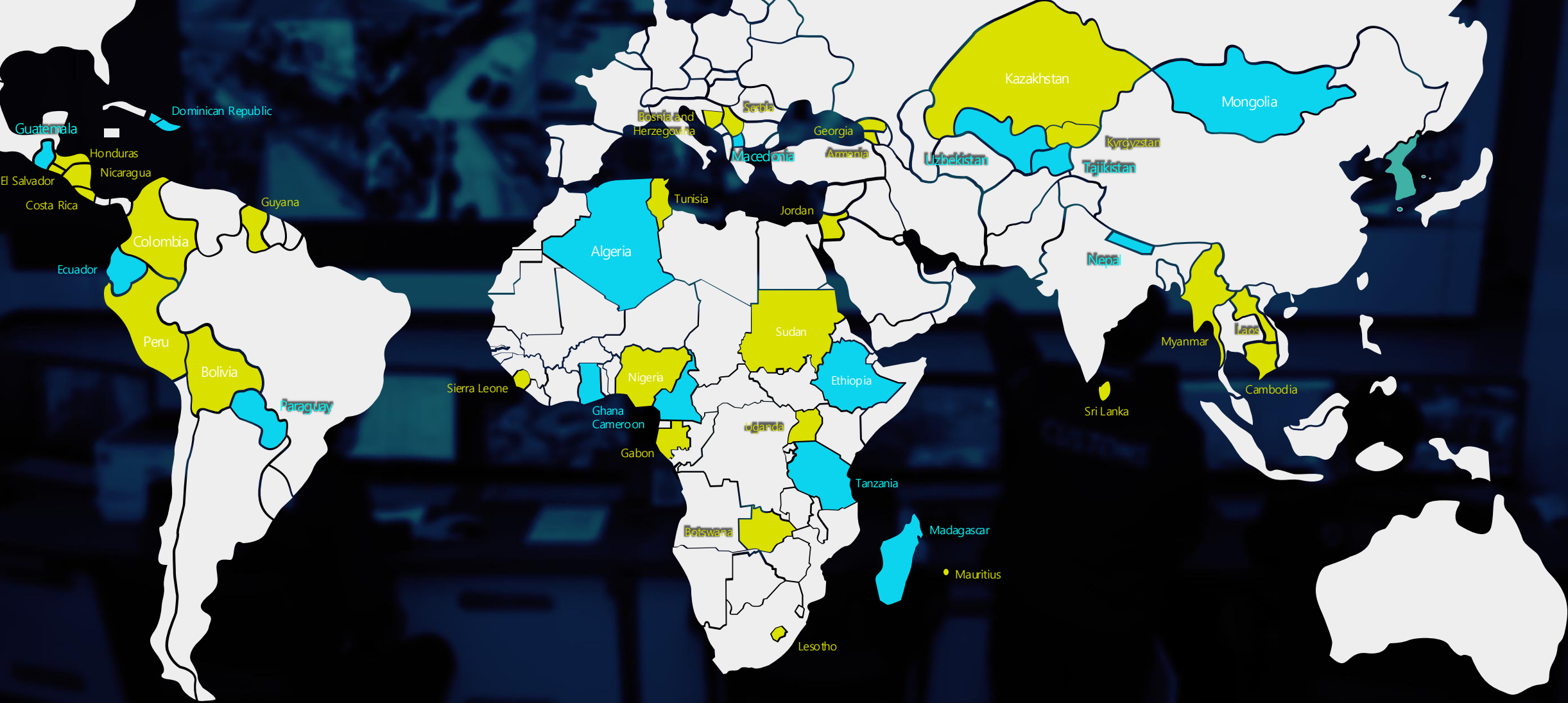
UNI-PASS  
around the World



UNI-PASS around the World

Customs Modernization Consulting Project  
(42 countries, \* 14 African countries)

USD 321.67 million export contract  
Set up UNI-PASS (15 countries)




# BPR Project in 42 countries



Analysis of current  
status of customs  
procedures



Designing of future  
models with  
international standards



Consultation on ways to  
establish e-clearance  
system



## Contents

- ✓ Share techniques through invitation seminars
- ✓ Dispatch officers, on-site training for sharing knowledge



# UNI-PASS established in 15 countries

Korea Customs e-Clearance System



For developing countries

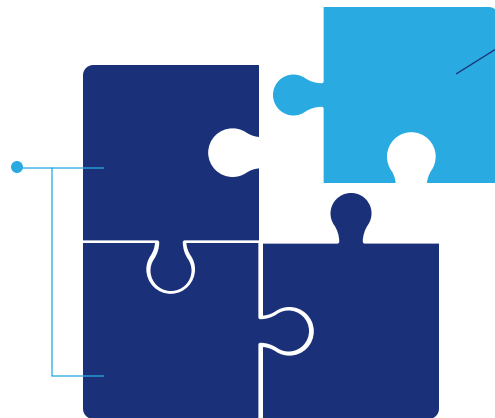
- 1 Based on UNI-PASS
- 2 In line with the needs
- 3 Customized e-clearance systems

## Establishment types of UNI-PASS

## Status of funding types for UNI-PASS establishment

Full UNI-PASS package

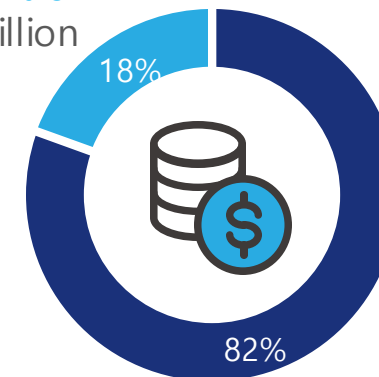
- Costs approx. KRW 50 billion
- Takes 3-5 years



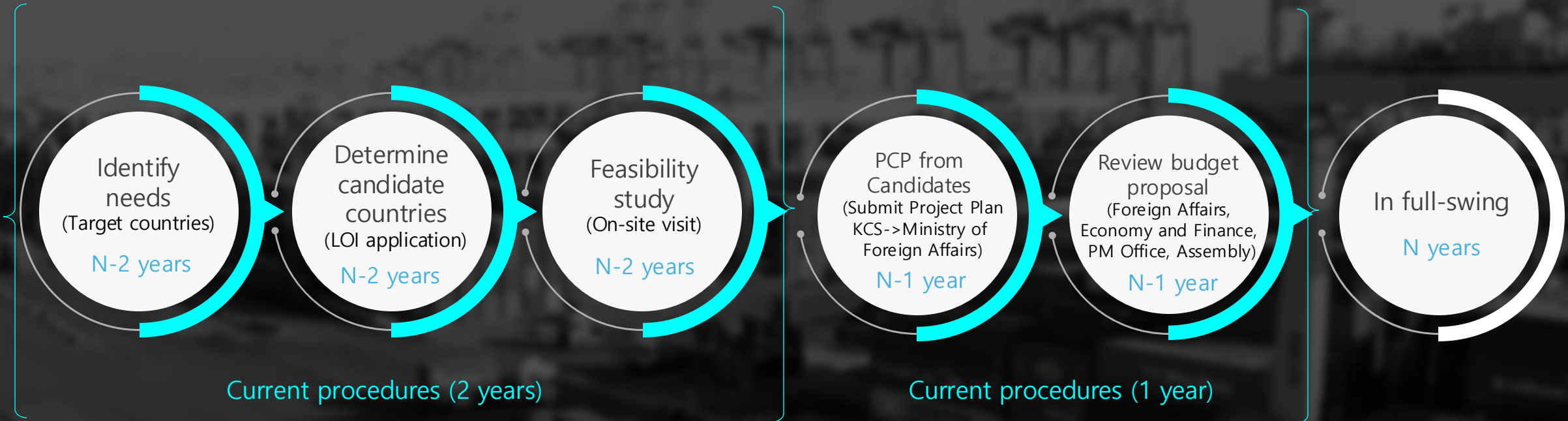
Systems modules (DW, RM, etc.)

- Costs approx. KRW 6-7 billion per module
- Takes 2-5 years

ODA grant of USD 58.97 million



Self-funding (incl. loans) of USD 262.70 million



The logo for UNI-PASS, featuring the text "UNI-PASS" in a bold, blue, italicized sans-serif font. A horizontal line is positioned above the "UNI" portion. A red circle with a white dot inside is located above the "U". The "SS" at the end of "PASS" is rendered with horizontal lines, giving it a sense of motion or speed.

**UNI-PASS**

Ways forward with UNI-PASS





## KCS Vision & Smart Innovation

Dynamically **Innovative** Korea Customs Service  
for **Forward-Leaping** Korea as a Global Pivotal State

### Smart Innovation



The Korea Customs Service takes the lead in public security, national prosperity, and global trade standards through constant smart innovation.

#### Public Security

Prevent entry of life-threatening items

Tackle trade crime

Secure trade security

#### National Prosperity

Support businesses

Address inconveniences

Promote new industry growth

#### Lead Global Standards

Global standard

Enhance partnership

### 4 strategies of smart innovation



Regulation  
innovation

Digital  
innovation

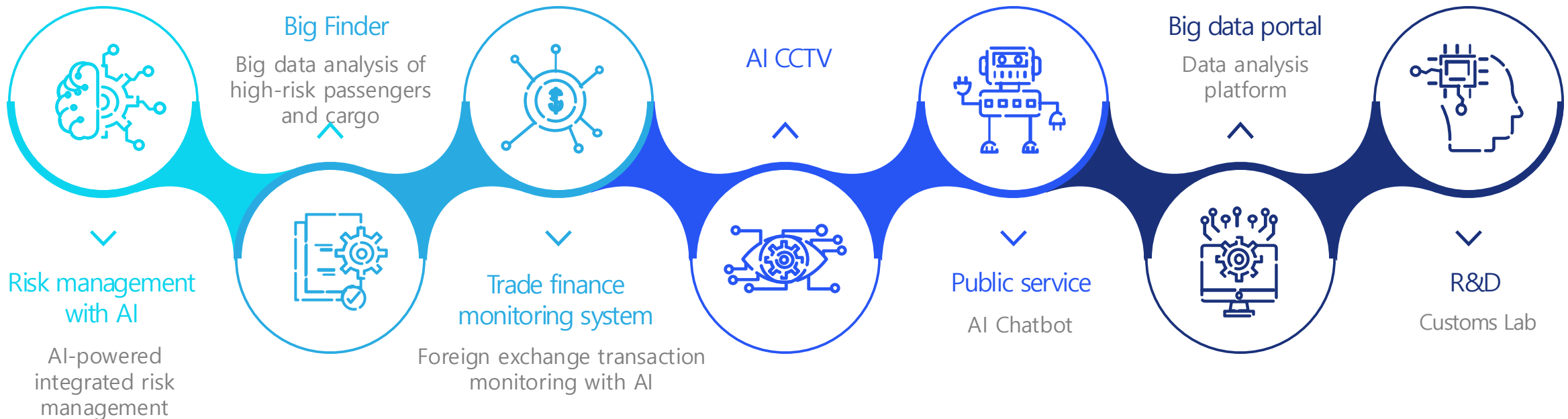
Make innovative  
infrastructure

Share knowhow,  
cooperation



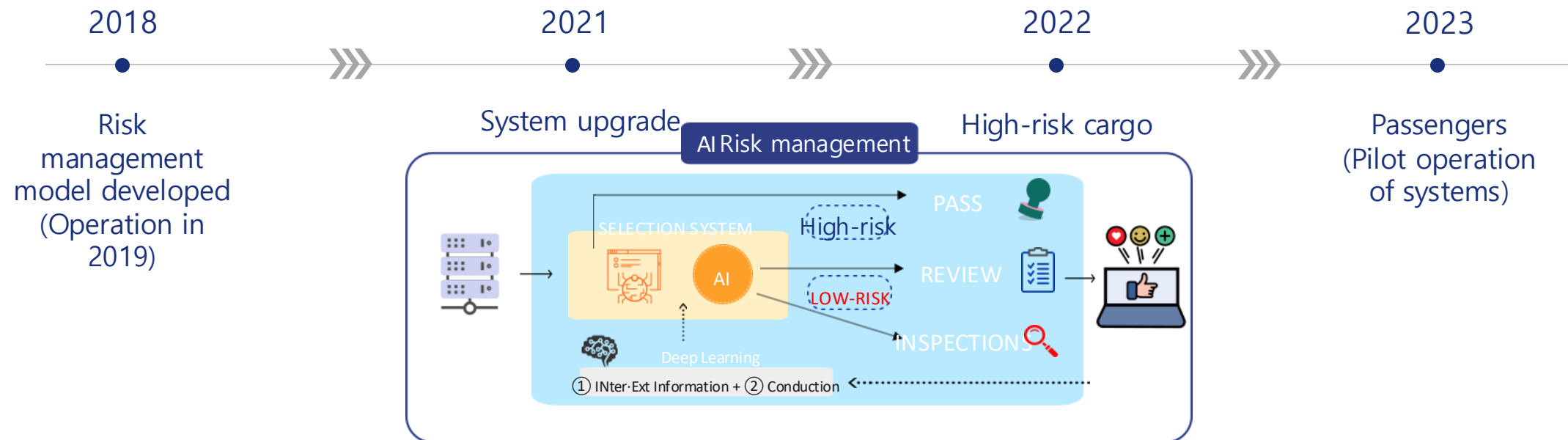
## SMART CUSTOMS

# UNI-PASS system incorporating new technologies

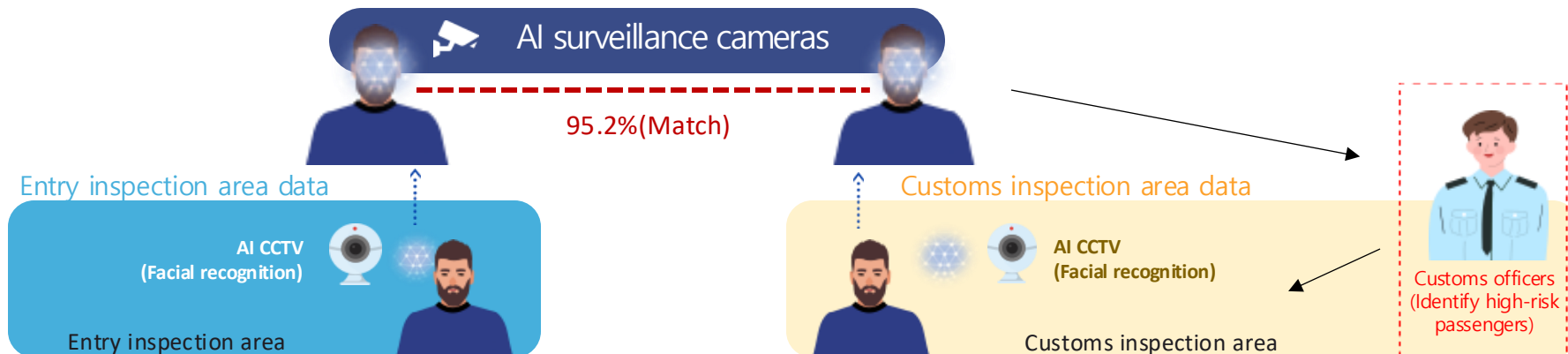


# Enhanced data-driven risk management of imports/exports

➔ With interconnected and analyzed risk information, integrated imports safety management system is established.



# Strengthen tracking and inspection on high-risk passengers based on AI surveillance cameras, which learned declaration data, inspection records or seizures



※ Utilized in port surveillance area → Adopted at entry site in Airport in 2024 (To be)

1

Manual remote surveillance by officers transitioned to scientific surveillance based on AI surveillance cameras



# Timeline for Big data analysis platform establishment



- External research
  - Information Strategic Planning (ISP)
  - Trial analysis
- (Analysis of accompanying passengers of high-risk passengers)



- Developed trial analysis models (Analysis of accompanying passengers of high-risk passengers)



- Built integrated system
- Developed designated platform
- Developed 24 big data analysis & AI models
- Created self-service analysis environment

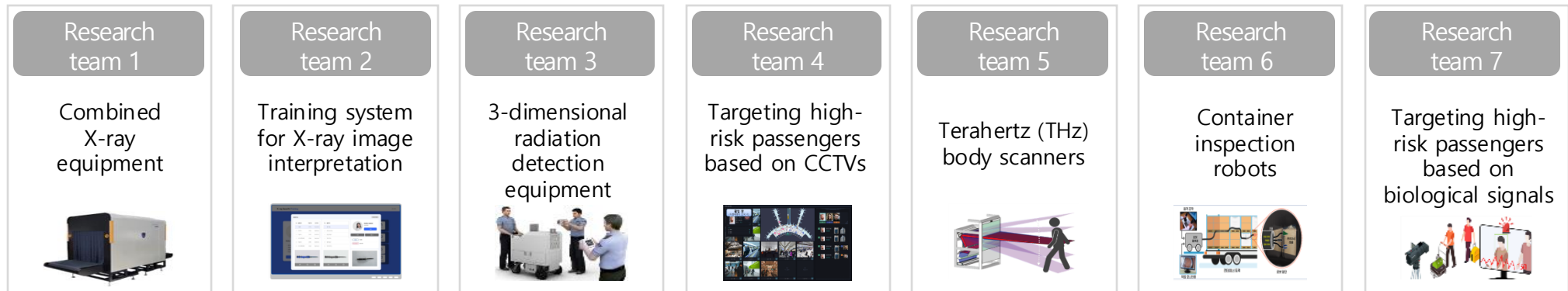


- System upgrade
- Developed more big data & AI models (4 models in 2022/2 in 2023)
- Improved self-service analysis environment
- Developed RPA models

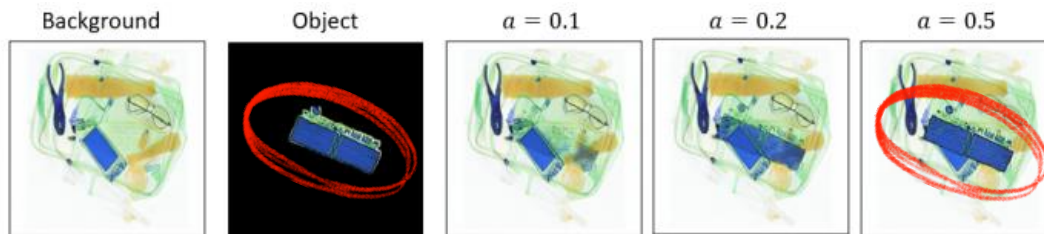


# Customs Lab 1.0 as a field-centric technology development project

➔ From 2021 to 2024, a total of KRW 33 billion was invested.



Develop virtual training programme where one can do X-ray reading training in an environment similar to the real situation by using AI image compositing technology



Create new learning image with AI compositing technology  
(Illegal goods + general goods)



Provide training environment similar to the real situation  
with AI image



### X-Ray reading training system

- Create or labelling new image in various forms mixed with illegal hazardous items
- Create training environment similar to real situation by applying AI image compositing model
- Intelligent program on tailor-made learning experiences

# Linking X-ray images with cargo information development of image search techniques for similar images of illegal goods

## AI X-SyNC



the images by checking  
5 individual screens\*

\* X-ray images, declaration data, on-site CCTVs, etc.



view everything on a single display  
screen\* for image interpretation

\* Simultaneous display of X-ray images together with declaration data, similarity with detected illegal goods, etc.



Integrated AI image management solution

- Technology enabling X-ray images to be separated for individual cargo and to be saved with corresponding declaration data
- Provision of a single display screen by linking with various related information for image interpretation (images, cargo info, etc.)
- Search technology for similar detected goods' X-ray images such as the ones for narcotics



# Overview of Capacity Building Program for Analytical Experts

## ICT Specialists



130 officers

Total trainees  
(2017~2023)

Over 6 months

Focused training on analytical  
competence using big data & AI

48 cases

Completed analysis tasks using  
customs big data and AI

- New Divisions: Big Data Analysis Division with 13 officers (established in June 2022)  
R&D and Equipment Division with 12 officers (in March 2021)



THANK YOU

