

ESCAP-ADB Capacity Building Workshop on Single Window
Implementation

Logistics Automation for Global Supply Chain Management

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- ▶ ROK's Information Standard
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Global Logistics SCM

- ❑ Ensure International Logistics Visibility
- ❑ Construct an effective and flexible system through new technology
- ❑ Maximize work efficiency as defining with standard business process



Supports logistics activity against increasing global logistics traffic

Export/Import Cargo Information Linking for seamless logistics flow

Background

International/Domestic Standard for Korean Logistics Information

Logistics Information Linking and Standardization

Reflects international/domestic logistics changing environment
Constructs a Standard Plan for Logistics Information`

Environment Changing

- Increase a Association Needs between business entities
- Needs High-Quality Logistics Service
- Request to integrate with u-Business service

Technical Changing

- Logistics Systemized Project under government leading in Korea
- Needs National Logistics Standard because of Heterogeneous system or data

Logistics Environment Changing

- Diversification on Strategic goal
 - Simply inventory control → flexibility, green, customer orientation etc.
- Flexibility : establishment of risk supply chain management (NOKIA)
 - Fire in New Mexico → prompt product supply from overseas factories
 - > Increase Worldwide market share 27% to 30%
- Green : Reverse SCM (HP)
 - recall & re-producing center
 - Generate additional profit from resale a reproduced products
- Customer orientation : Need (McDonald)
 - moving toward to customer oriented from product
 - Mc café is not only low price policy but also quality for customer's preference

BARRIER FACTORS TO IMPLEMENTATION

○ Structured problems

- Complicated network structure : coexist with existing system, EDI, telephone, email and etc.
- Difficulty on interconnection among systems

○ Severance & Security problems

- Severance and information gap on cargo movement and tracking
- Unpredictable delay and recovery on supply chain
- Insufficient on visibility and security

○ Resource management problems

- Resource waste : unpredictable activities such as additional charge and request on express delivering order

Critical Issue

○ Working process

- overuse on paper and overtime from manual working process
- Human intervention on information sharing during interoperation among public sector

○ Technology

- different types of data and data transfer protocol (enable to interconnect)
- Coexist with difference data information system
- Lack of verification of meaning on biz process and data contents

○ Standardization

- unable to correspondence with global standard

Resolving Method

○ Standardization on DATA

- Data sharing and utilizing by using common use forms
- Standard Data & Code, global mutual-application

○ Visibility on Logistics Flow

- Real-time data integration based on u-IT
- Reduce logistic cost from capturing data with seamless logistics flow

○ Enhancement on Security

- Prompt and safe cargo movement to meet with the standard security requirement

Resolving Method

- System Integration => Single Window
- Information (data, code) Standardization => UN/CEFACT
- Reducing paper forms => Electronic forms (UNeDocs)
- Real-time based cargo and vehicles tracking system
=> u-IT (RFID, GPS)
- Security Enhancement => AEO, C-TPAT, e-Seal ...

Logistics Information System

This system supports logistics management to be closely associated with information which is related to transportation, shipping and discharging, keeping, packaging, etc. for goods moving.

Area	Logistics System	Logistics Information System
Sea	<ul style="list-style-type: none">- Port Management System- Terminal Gate In/Out System- Dangerous Declaration System	<ul style="list-style-type: none">- Port-MIS, SP-IDC(B2G)- PLISM(B2B)- Manifest, Customs(B2G)
Railroad	<ul style="list-style-type: none">- Railroad Cargo Transport System- Railroad CY Gate In/Out System- In-Land Gate In/Out System	<ul style="list-style-type: none">- KROIS(B2G)- Busanjin CY(B2G)- In Land(B2B)
Others	<ul style="list-style-type: none">- Immigration- Door-to-Door Delivery System	<ul style="list-style-type: none">- Immigration Declaration(B2G)- Not Yet

Korea Standard Status

□ Public Section

- around 100% processed by e-Document (EDI)
- Ex : Sea Transport, Railway Transport, Customs, Immigration, Dangerous Goods Inspection, Quarantine, etc.
- Problem : Non-Standard Data/Code, exchanging protocol, Heterogeneous Matching Key(impossible to associate between each other)

□ Private Section

- around 50% process by e-Document(But, container is 100%)
- Problem : Heterogeneous Data/Code even though same meaning Multiple Standard Code(Container Type/Size, etc)

□ Needs to reflect current requirement, Green Logistics

Seamless Logistics

u-Logistics of Seamless Logistics

Realize the
advanced Seamless
Logistics System

Single View Point
with User Focus

Information Linking
and Common
Utilization

Logistics Automation

Logistics Information Systemization

Request for single view point
about export/import business

- No mutual connection
- No Cross-linking and Off-Line checking method
- Service system of provider viewpoint not user viewpoint

Request for holding an
information in common

- No supports to hold information in common
- Non-standard data
- No existing of information link and utilization method

Request for logistics
automation and systemization

- Drive for the corresponding entity systemization
- Expansion of IT infra for u-Logistics

Logistics is very
important in e-business

Focus : low cost, fast
processing, visibility

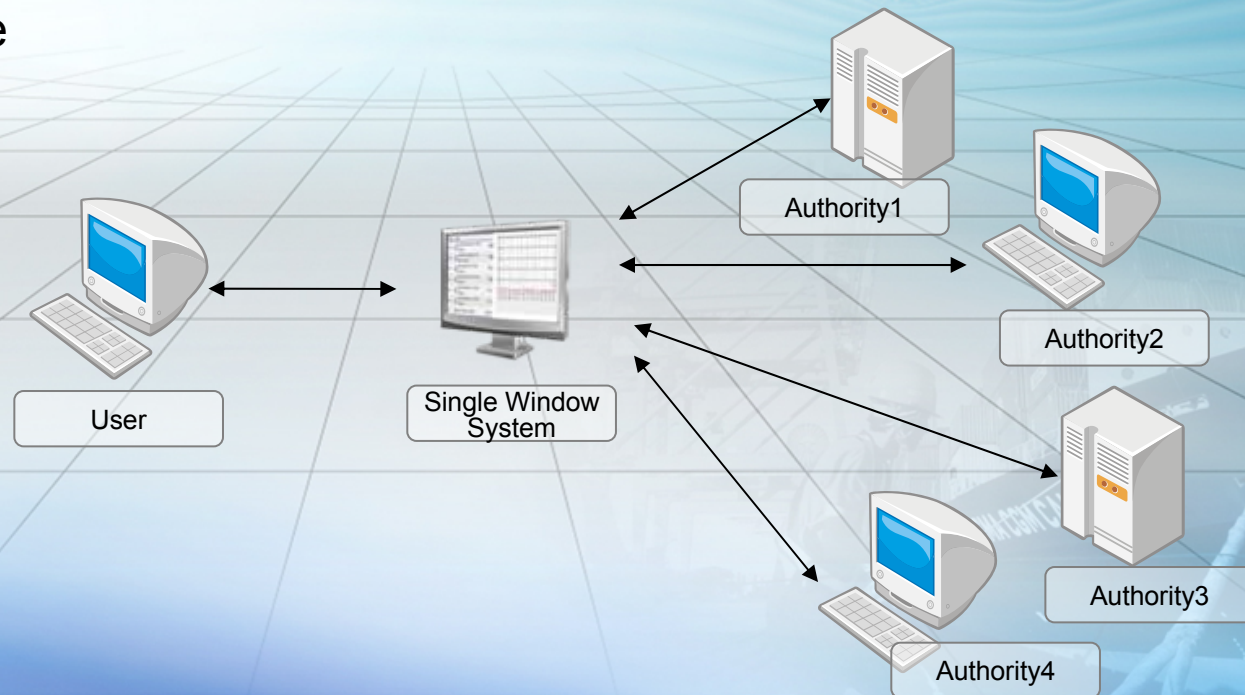
International logistics
environment changing

IT convergence using
new technology

Seamless Logistics - Single Window

❑ Definition of Single Window

- ◎ A facility that allows parties to lodge standardized information and documents with a single entry
- ◎ If information is electronic, then individual data elements should only be submitted once



Seamless Logistics - Single Window

Single Window For Maritime Transport

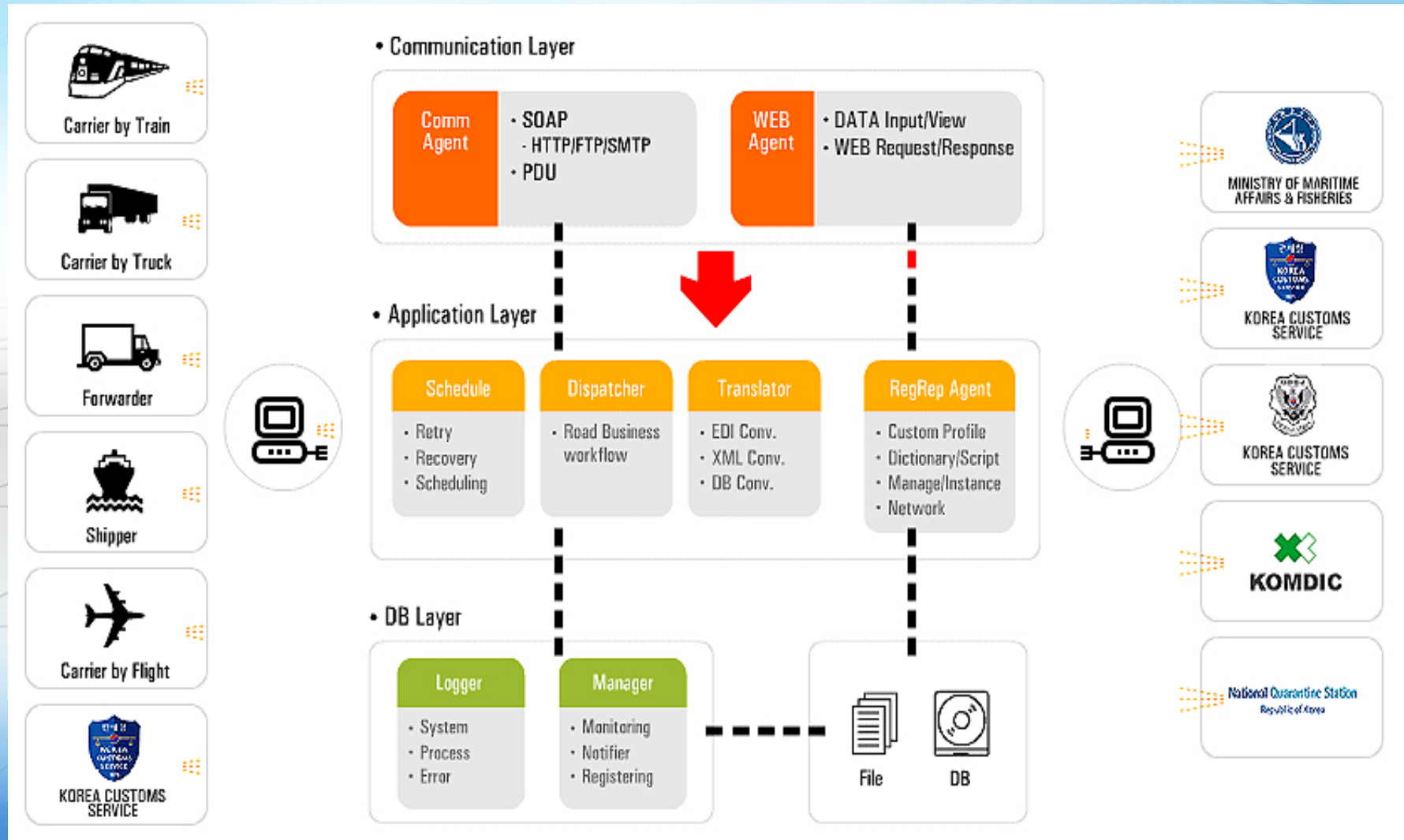


Seamless Logistics - Single Window

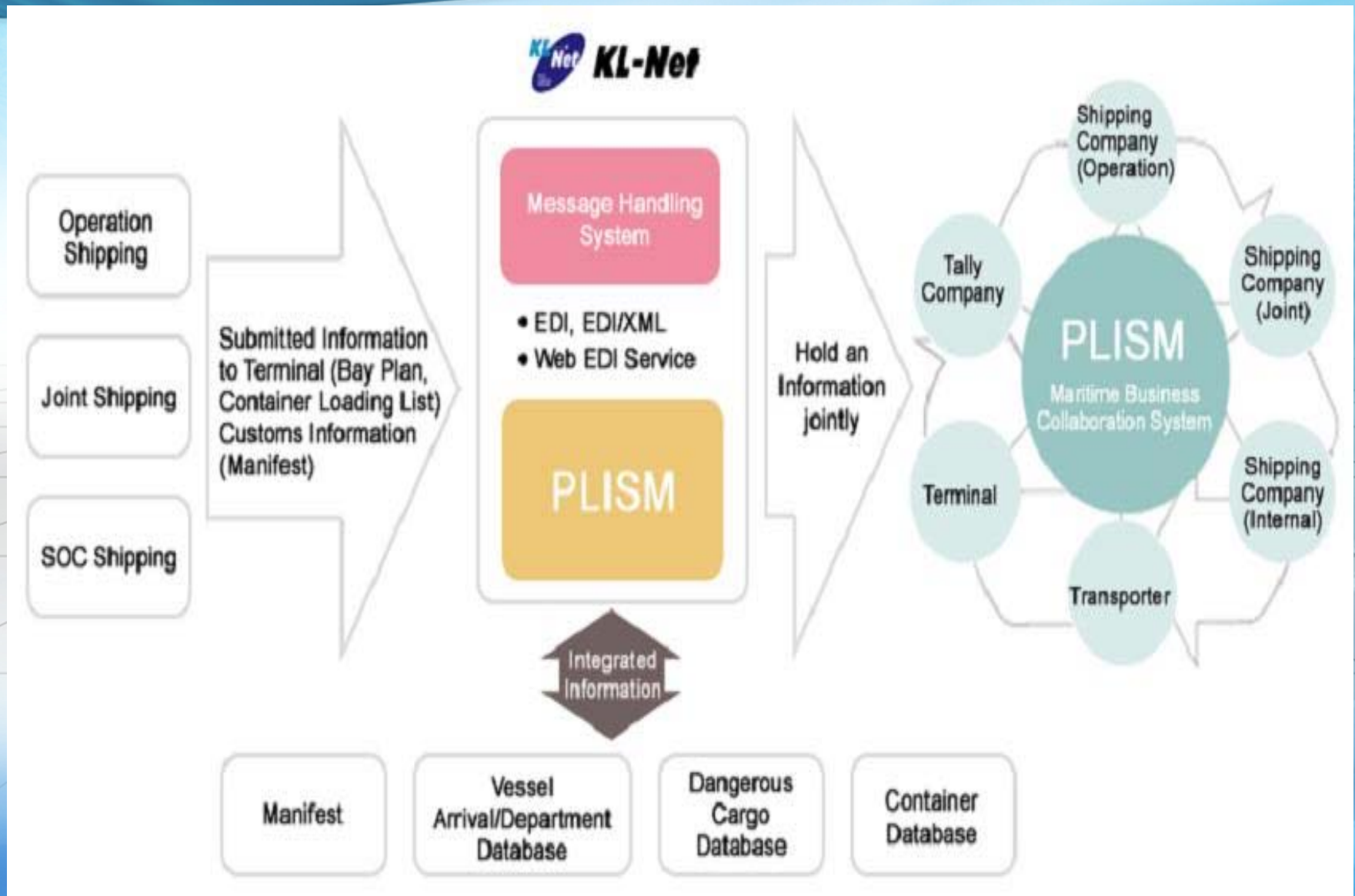
Sender/Receiver for Single Window

XML Infrastructure System

Official Authority of Korea



Seamless Logistics - B2B Collaboration System



Seamless Logistics - B2B Collaboration System

SOA

(Service Oriented Architecture)

- System Design per layer with component-concept under e-Business environment

Data Merging

- Combine basic data with other business information
- Generate New data

Community

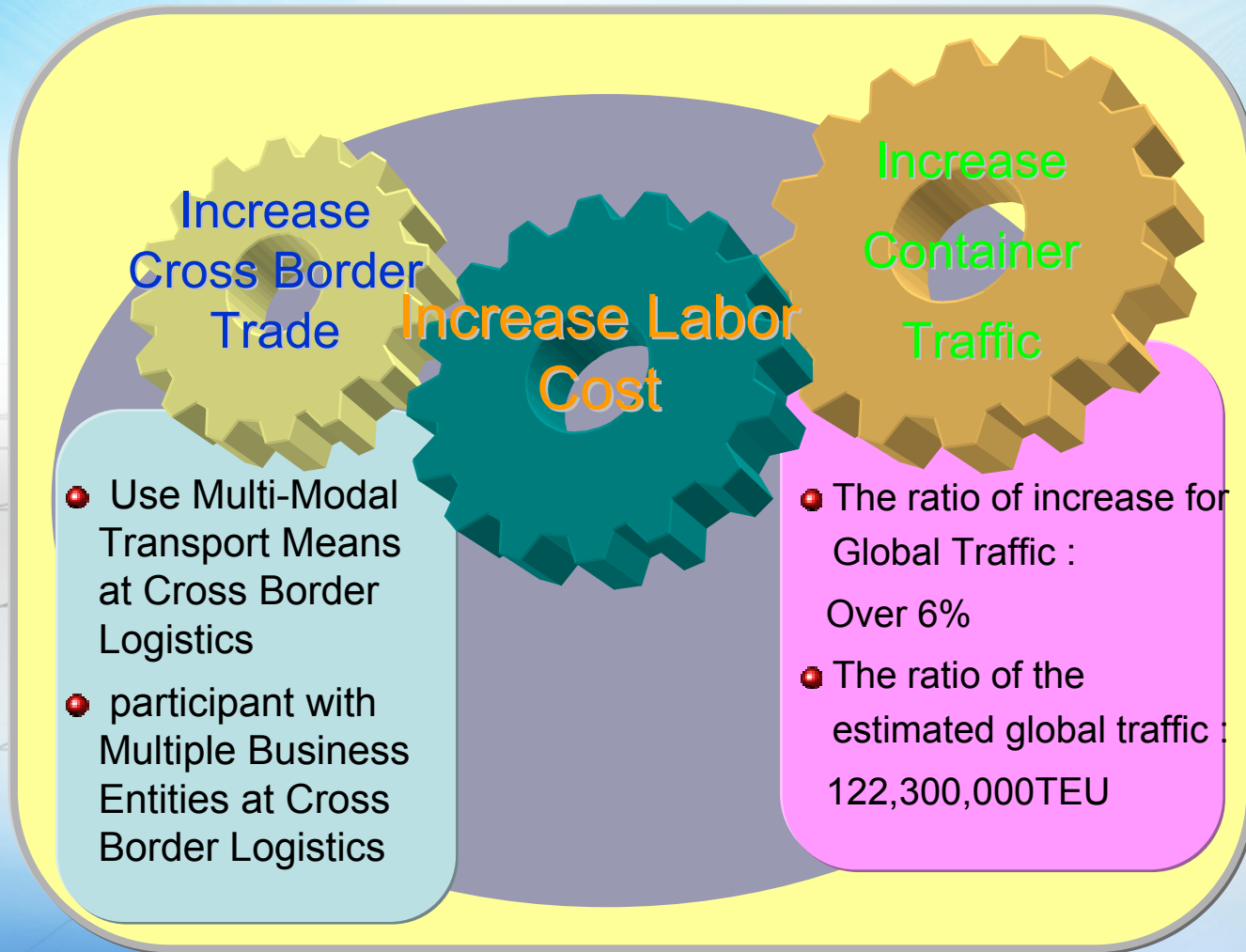
- Hold the correct data on common
- Integrated with Corresponding Entities

IT Leader of ROK Maritime Business

Reduction : duplication, error, waiting time, Loading time, cost, etc.

PLISM *Port Logistics Integrated Information System*

Future Logistics System



Requires a
Needs for
Speedy•
inexpensive
Logistics

Future Logistics System

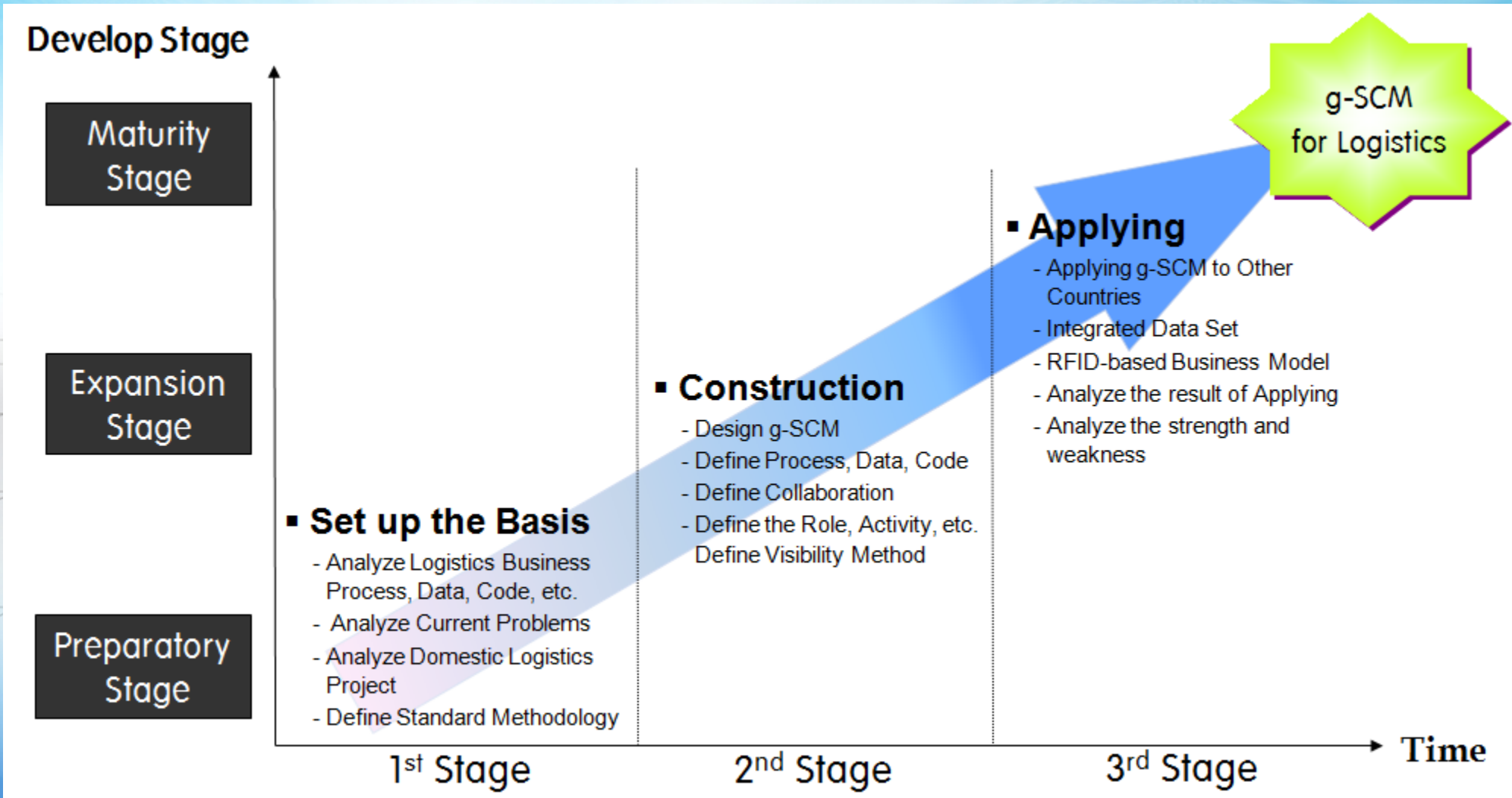
- Must be Intelligent & Sensible System

- Use Sensing, GPS and Image Processing technology
- Enhance validation functionality

- Must support global supply chain's visibility for inter-continental business

- Use Standard document and exchange protocol
- provide interoperability

Future Stage



Future Goal

Vision

u-Logistics for seamless Logistics

Goal

"Standard, Visibility, Information Linking"

Goal II

Simplified

- Re-Define Business Process
- Define Common Elements
- Define the related Entities

Standard Methodology

Association

- Collaboration Process
- Link with each country
- Provide user-friendly requirements

Standard Protocol

Efficiency

- Analyze delay reason
- Analyze Disruption Reason
- Extract resolving Method

Logistics Lead Time

Initiatives

Define Logistics Business Model and International standard based IT system

Environment

Changing Factor
(Policy/Social/International)

- Logistics environment and Trend Changing
- Logistics Business viewpoint changing due to FTA
- Logistics Process Improvement through Standardization

Changing Factor
(Market/Data/Econimoc)

- Apply New Technology
=> ex, RFID, Mobile, Ubiquitous
- Strengthen the competitiveness
- Increase without border and paperless trade

Q & A

For Global SCM

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감사합니다 !!!