

Single Window in Thailand

National Workshop on
Establishing a Single Window in Mongolia
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The purpose of this presentation

Sharing lessons learned about

1. Thailand e-Logistics or National Single Window – NSW : IT-based Trade Facilitation Measures/Initiative in Thailand*

2. Its Impacts

3. The Challenges

* NSW–the term used under the ASEAN Single Window Agreement for all 10 ASEAN country members.



Overview: Thailand towards a national single window

Business Models

High-level Policy Commitment

Strategy & Action Plans

Funding secured

Agreement to Establish and Implement ASEAN Single Window signed

Cabinet's allocation of 31 million USD for SWeL implementation

Cabinet's designation of Customs as agency to lead SWeL implementation and MICT to manage the project and allocated budget

Implementation Plan for Thailand's SWeL approved by the Cabinet

Logistics development as one of the national agenda in Thailand's Competitiveness Strategy

Establishment of National Root Certification Authority

Computer Crime Act

Royal Decree on Regulatory Practices in e-Government implementation

TH eGIF

Business model study inclusive of analysis and simplification of business processes in export and import of strategic products

Analysis and simplification of business processes for cross-border movement of goods in 4 modes (road, rail, sea, air)

Data Harmonization Phase 1: transport documents

Electronic Transaction Act (Amendment)

Data Harmonization Phase 2: permits, licenses, certificates, and their application forms from 21 OGAs

Data Harmonization Phase 3: documents required by OGAs and trade community including bank and insurance

Electronic Transaction Act

1998

1999

2000

2001

2002

2003

2004

2005

2006

2007

2008

2009

2010

Submission of declaration manually or electronically via EDI

Both Paper & Electronic Customs Declaration needed.

Electronic application for Certificate of Origin and trade permit from MOC

Electronic application for certificate, permit, and license from DLD and DOF

Paperless customs declaration and clearance (ebXML/XML/PKI)

Paperless Customs Declaration

Pilot information sharing and exchange between Customs and 6 OGAs

Development of NSWx

Development of e-Port, e-Toll, e-Gate

Cross-border information sharing and exchange

Development of Single Window Entry Prototype

Development of trade facilitation systems (ebXML/XML/PKI) in 12 OGAs

Connecting with OGAs

SWeL: Single Window e-Logistics
MOC: Ministry of Commerce
OGAs: Other government agencies
DOF: Department of Fisheries
EDI: Electronic Data Interchange

MICT: Ministry of Information and Communication Technology
TH eGIF: Thailand's e-Government Interoperability Framework
NSWx: National Single Window hub for information sharing and exchange
DLD: Department of Livestock Development
PKI: Public Key Infrastructure

Why we are doing this?

For trade and transport of goods across borders

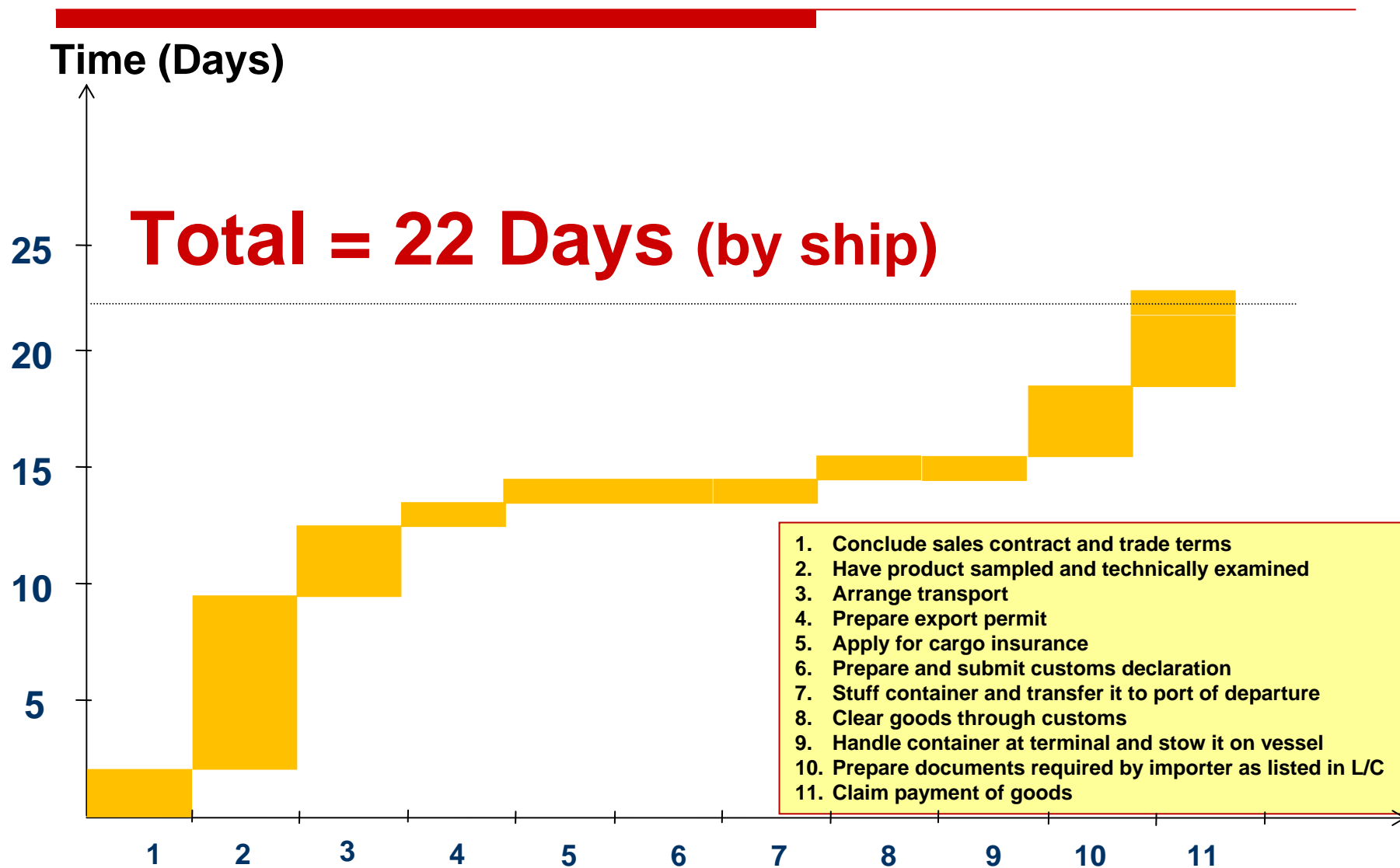
- ❑ Processes remain largely paper dependent
- ❑ Missing and incorrect documentation slows progress through the supply chain
- ❑ Keeping documents & freight in sync is complex and costly
- ❑ Multiple parties capturing the same data is inefficient and error prone

About 24 documents (~700 data elements) and 15 parties involved in exporting Rice from Thailand

1. Purchase Order
2. Proforma Invoice
3. Commercial Invoice
4. Letter of Credit
5. Packing List
6. Application for the Rice Export Permit (A. 3)
7. Rice Export Permit (A. 4)
8. Application for Certificate of Standards of Product (MS. 13/1)
9. Certificate of Product
10. Certificate of Standards of Products (MS. 24)
11. Application for Phyto-sanitary Certificate (PQ. 9)
12. Booking Request Form – Border Crossing
13. Booking Confirmation – Border Crossing
14. Container Loading List
15. Outward Container List
16. TKT 308.2
17. Equipment Interchange Report (EIR)
18. *Export Declaration*
19. *Manifest*
20. Shipping Particular
21. Bill of Lading
22. Health Certificate
23. *Certificate of Origin*
24. Phyto-sanitary Certificate

Complications of Required Documents for Export & Import

Time & Procedures required for **exporting Rice**

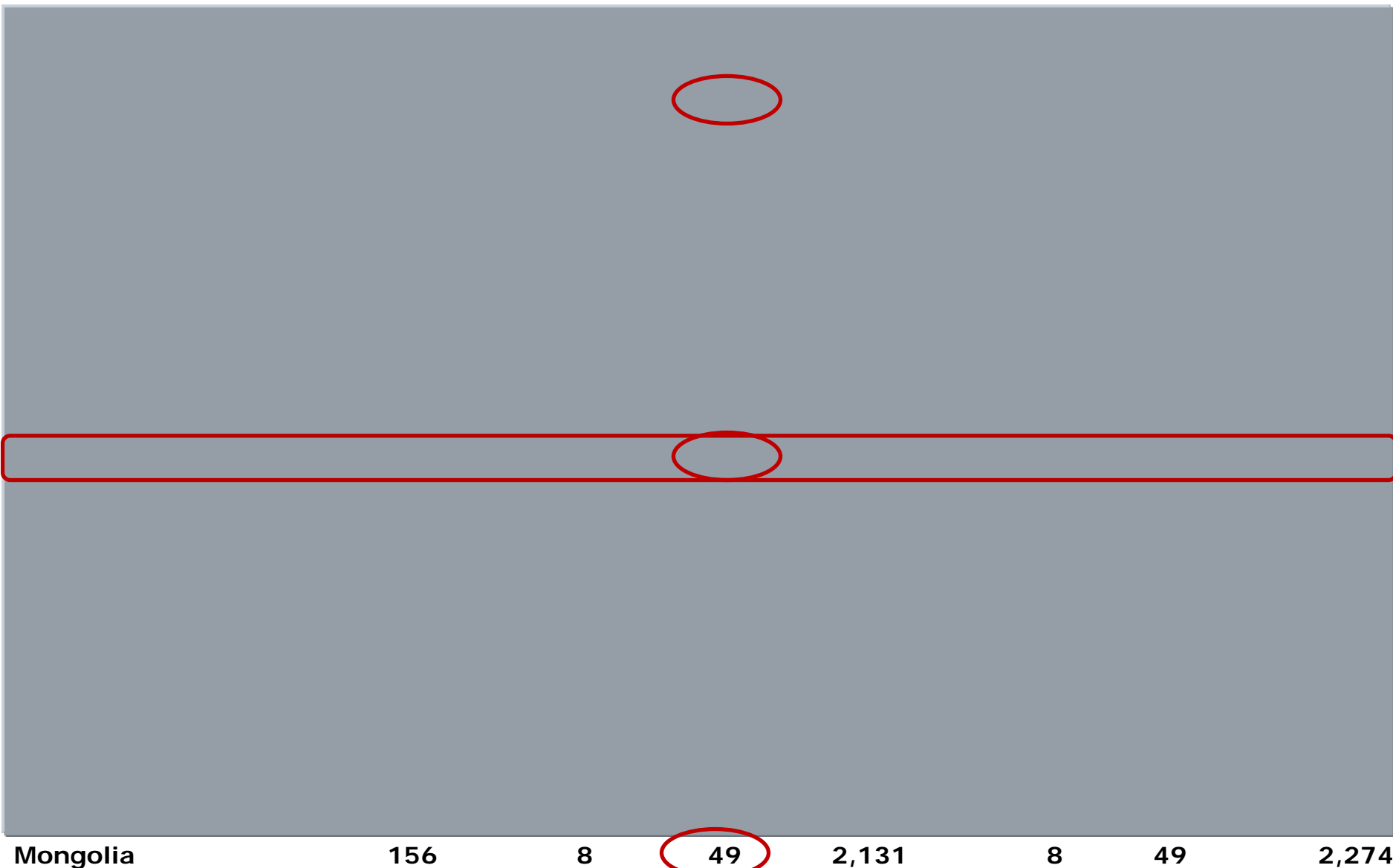


*Data collected by Institute for IT Innovation, Kasetsart University (2007)

Procedures

Trading Across Borders

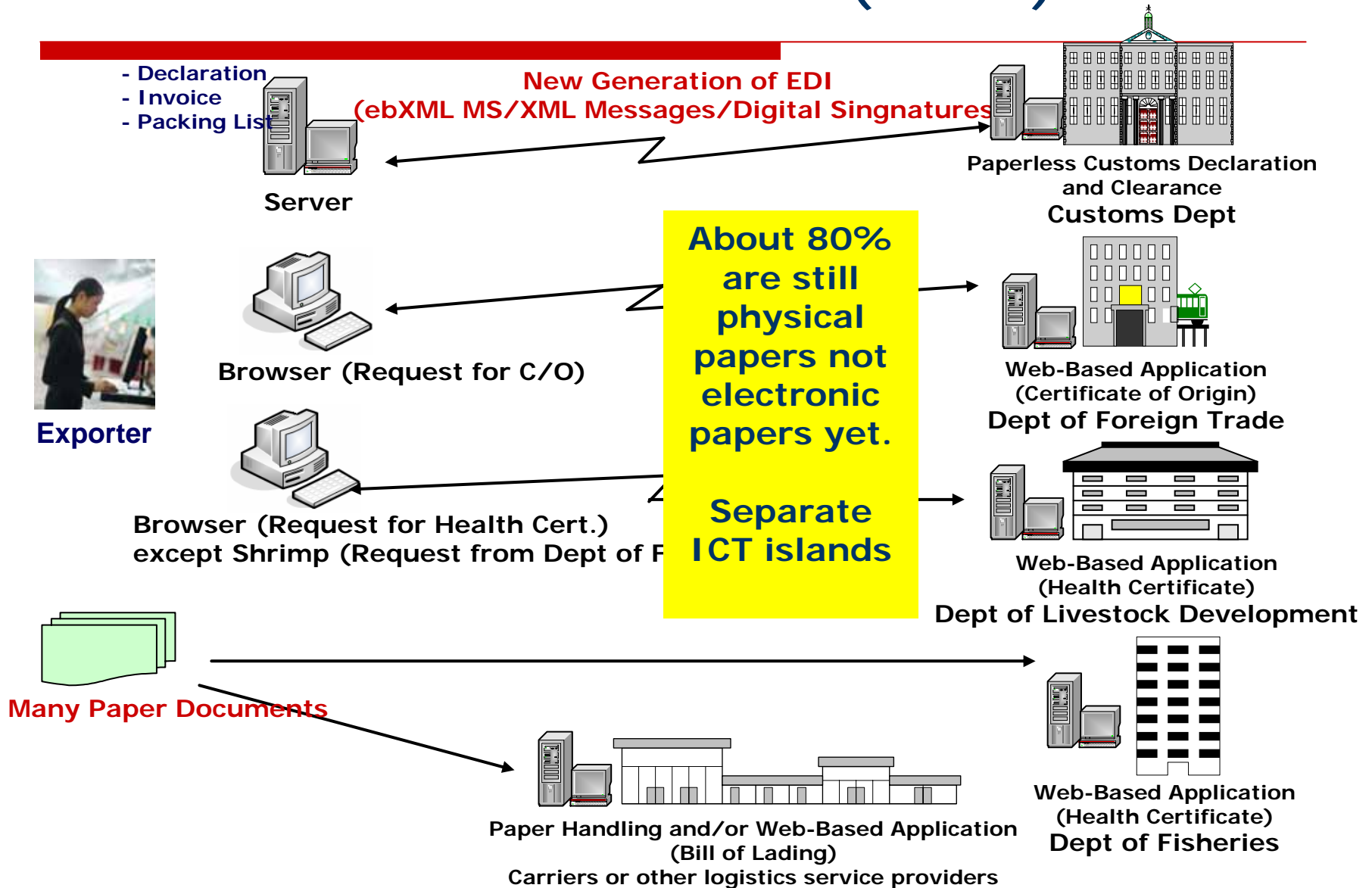
Procedures and documents necessary to export and import a standardized cargo (by ships)



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Current Situation (2007)



National Single Window

Now, technical interoperability standard (e.g. based on ebXML MS) is needed, and common definitions of data elements, and semantic data structures (common data models) among different documents required by different organizations are required also.

New Generation of EDI (ebXML/XMLMessages)



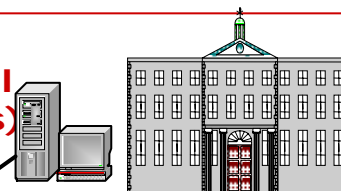
Exporter



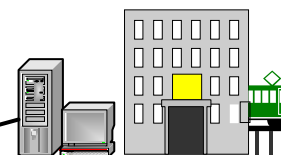
Goal - Single Window/e-Documents
One time submission for each data element but multiple usage for different purposes on different ICT platforms

National Single Window

Data Harmonization



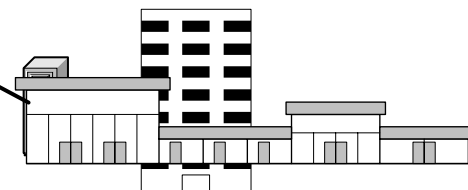
Paperless Customs Declaration and Clearance
Customs Dept



Web-Services (ebXML) Application (Certificate of Origin)
Dept of Foreign Trade



Web-Services (ebXML) Application (Health Certificate)
Dept of Livestock Development



Web-Services (ebXML) Application (Health Certificate)
Dept of Fisheries



Web-Services Applications (e.g. Bill of Lading, and other documents)
Carriers or other logistics service providers

Logistics Development Master Plan (2007 -2011)

endorsed by the Thai Cabinet on Feb 2007



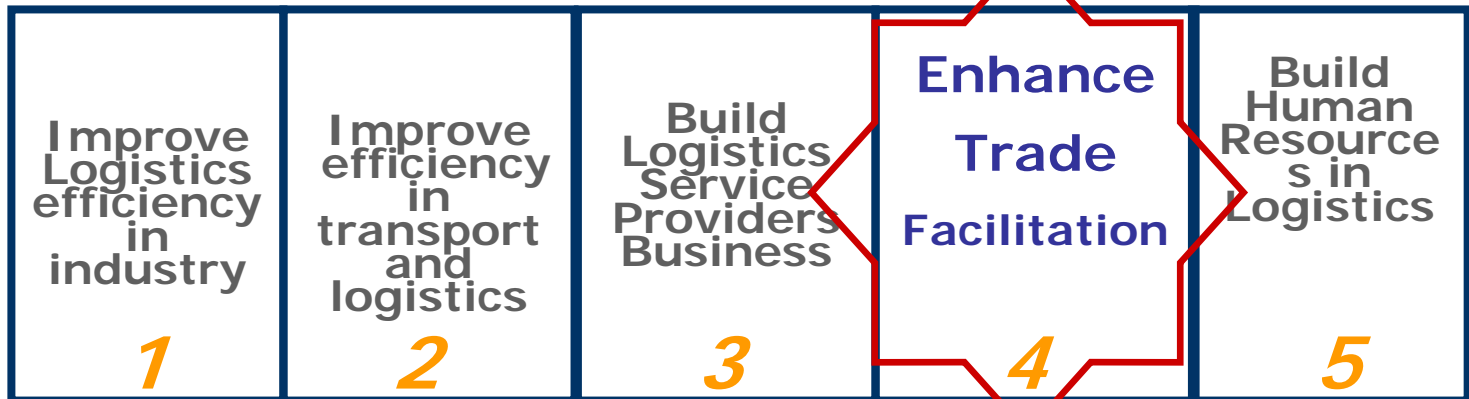
Vision

Having World-class National Logistics Environments to become a Trade Hub for Indochina

Objectives

- 1.Reducing logistics cost (*Cost Efficiency*), increase business *Responsiveness, Reliability* and *Security*
- 2.Create *Value-Added* on logistics industry and related business

Strategic Agenda



To reduce the trade logistics cost from 19% (2007) to 16% (2011) (comparing to GDP)

National Single Window (e-Logistics)

Action Plan to develop data exchange platform among different government agencies and business related to import/export procedures

Policy Directions for National Single Window

as mandated by the Cabinet in 2007

Goals:

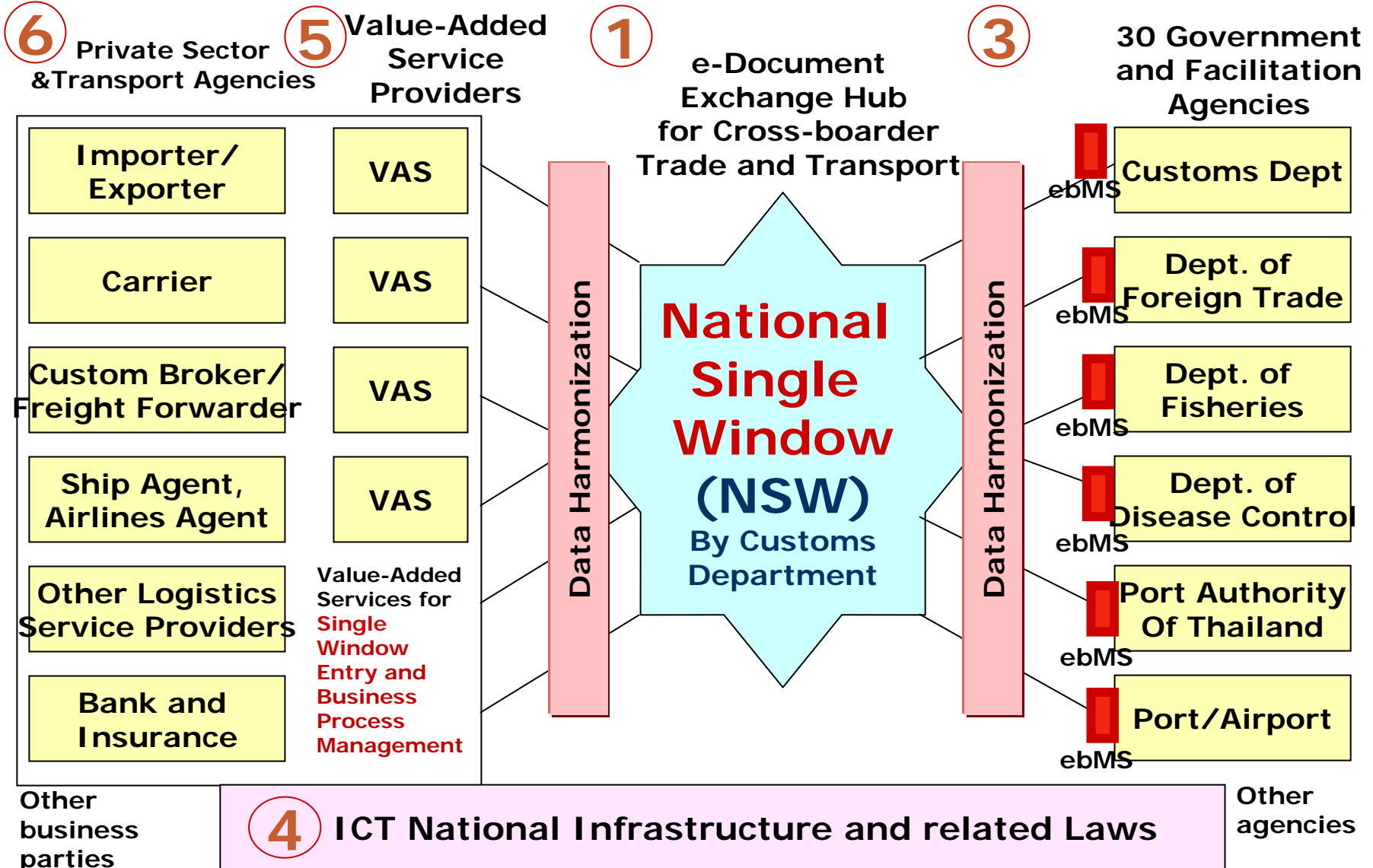
- reducing trade transaction cost
- reducing numbers of days for exporting procedures from 24 to 14 days by 2011 (world bank statistics, www.doingbusiness.org)

Key Strategies:

- Development of **National Single Window** Exchange Hub and **Single Window Data Entry** environment for import/export trade and transport **procedures** and **document requirements**
- Promoting electronic transaction with **e-document exchange** and **interoperability** between G2G, G2B and B2B
 - Define common **standardized data set (Data Harmonization)**
 - Improve **laws and regulations** to enable to adopt of paperless environments.
 - Adopt **Interoperability** (common open protocols)

Thailand National Single Window Framework

2 Governance Mechanism – policy decision, service charge regulation, SLA etc



Scope of **National Single Window** as defined under *ASEAN Single Window Agreement* (for all 10 ASEAN countries within 2012)



Since 2007,
Thai Customs Department
has provided
Paperless Customs
Environment
with e-Declaration,
e-Container Loading List
based on
ebXML Messaging Services,
PKI Digital Signature &
XML Messages,

and getting
Other Government Agencies
and **other parties**
to **interoperate**
electronically.

Thailand Data Harmonization

DH Phase 1 (2007) – Data Harmonization of documents needed for import/export procedures through **4 modes of transportation** (trains, trucks, ships and airplanes)*

- ❑ 58 documents - **1,378 data elements**
- ❑ The number of harmonized data elements -> **213 data elements**

Phase 2 (2008) – documents required by 21 regulatory agencies (including request forms, permits, certificates, licenses)**

- ❑ 189 documents – **6,765 data elements**
- ❑ The number of harmonized data elements -> **259 data elements**

Phase 3 (2009) – documents required by other governments, logistics providers, and business** (including banks, insurance, etc.)

Adoption & Implementation of the above Data Models (2008-2009-2010)

- ❑ MICT has granted about 4.5 million US\$ for e-Documents Systems Development of 12 government agencies.
- ❑ NSW exchange hub (about 9 million US\$, commissioned by Customs)

* commissioned by Ministry of Transport

** commissioned by MICT with collaboration with Customs Dept

Data Harmonization Process

- **Step 1:** Capture business processes to identify documents in the information flow
 - UN/CEFACT Modeling Methodology (UMM)
 - Unified Modeling Language (UML)
- **Step 2:** Define each data element extracted from each document in terms of **definition**, data type, data format, and data constraints in actual operation
 - United Nations Trade Data Elements Directory
 - WCO Data Set
 - UN/CEFACT Core Component Library
- **Step 3:** Analyze data elements across various documents and organize them in a comparable manner
 - United Nations Layout Key (UNLK) Document Family
 - Single Consignment V.S. Multiple Consignments V.S. Transport Equipment
- **Step 4:** Map the data elements to a reference data model
 - Complies with UN/CEFACT Core Component Specification
 - Covers data requirements of the international supply chain

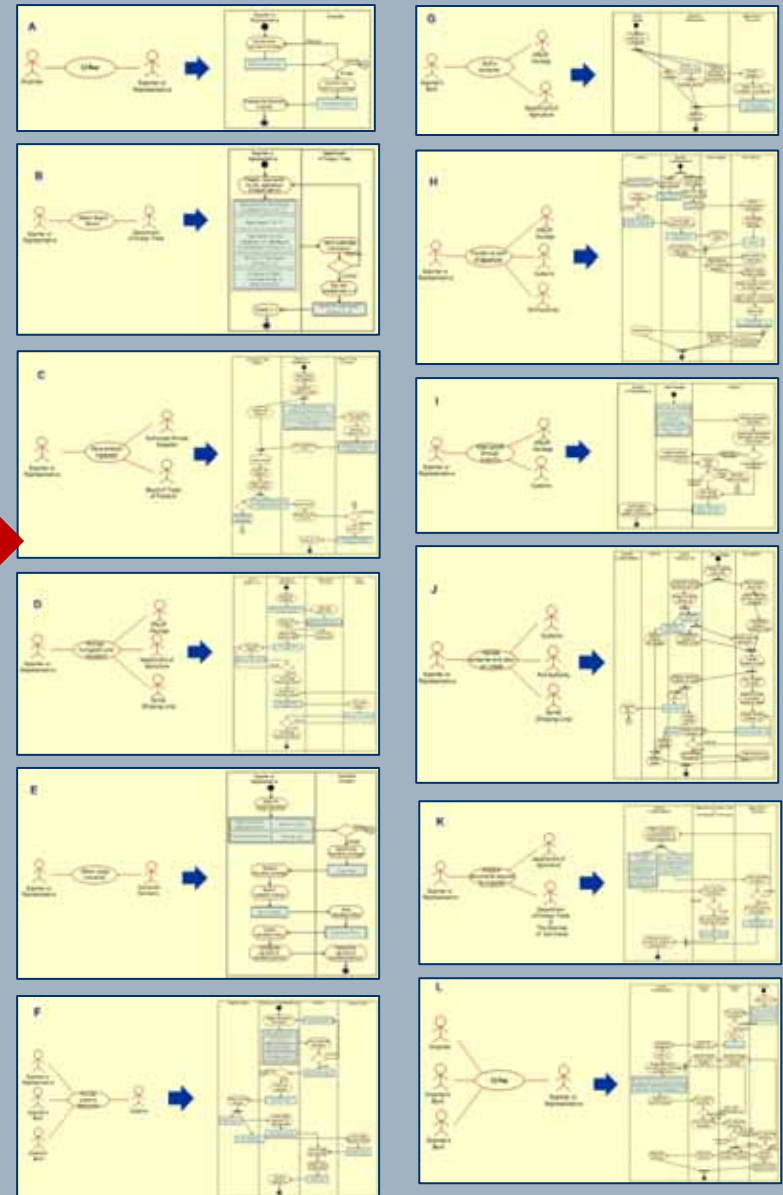
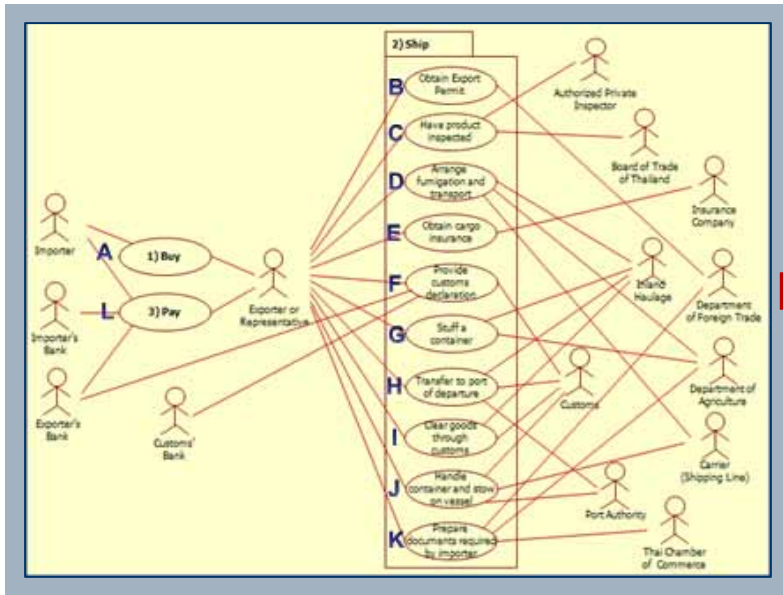
**Reference for
Data Harmonization and
Core Component Based
Message Development**

“APEC Project on Data
Harmonization towards
Single Window Paperless
Environment”

www.apec-dh.org

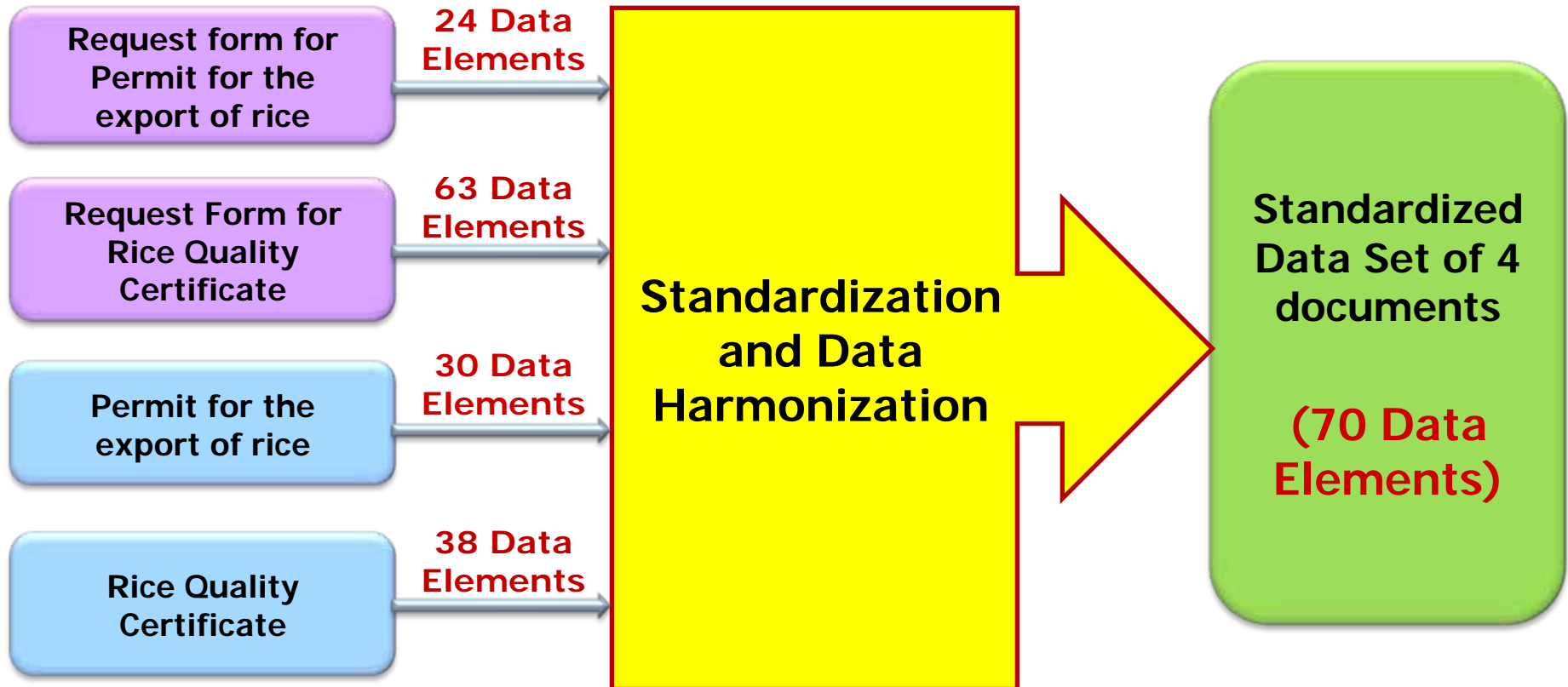
Capture business processes to identify documents in the information flow using UMM and UML

UMM: Business Domain View



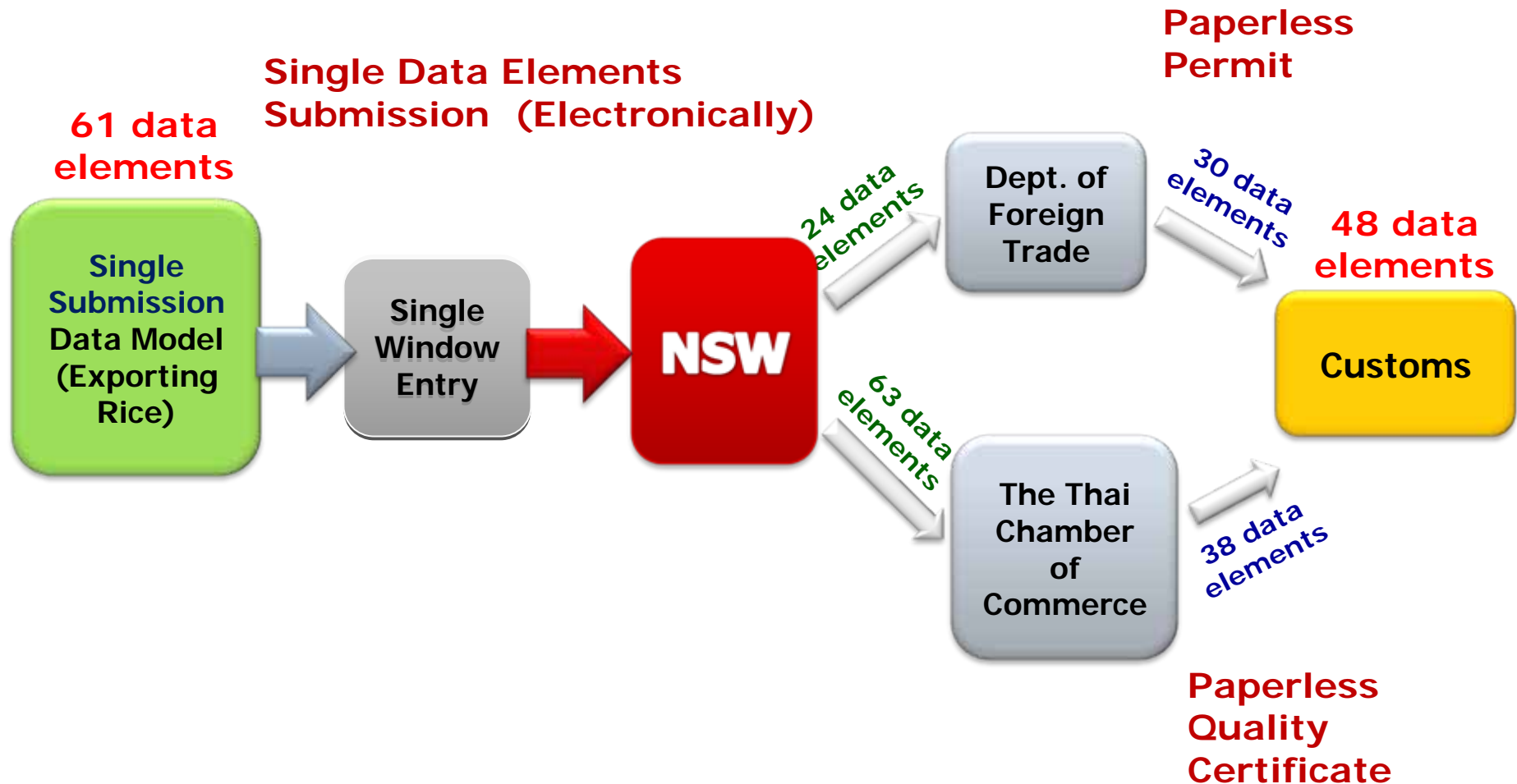
UMM: Business Requirement View

Example - Data Harmonization of 4 documents (Exporting Rice)



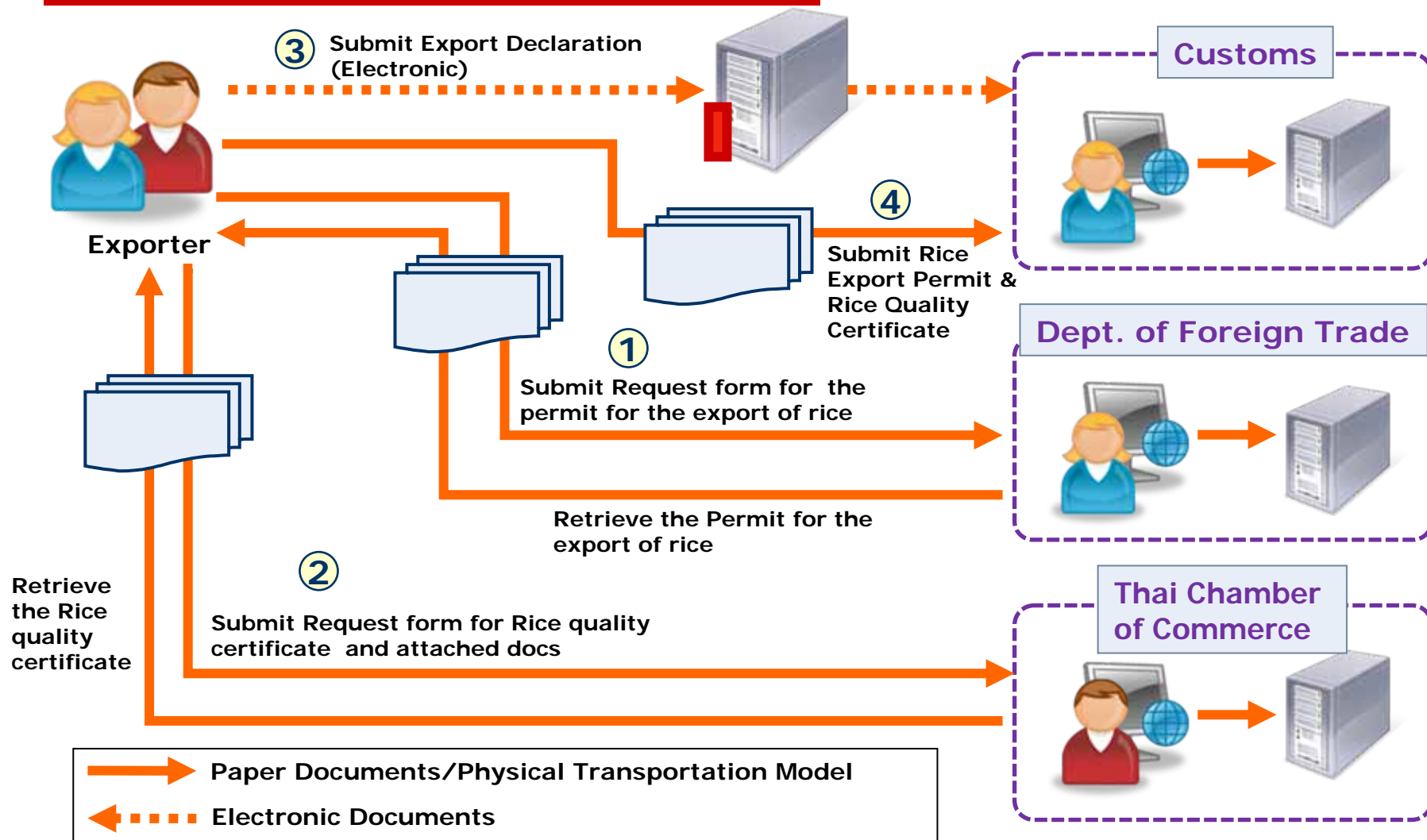
Standardization and Harmonization can reduce the data elements from 24+63+30+38=155 data elements from 4 documents to **70 data elements** for a standardized data set

An Application Scenario of Single Window Entry and Paperless Environment



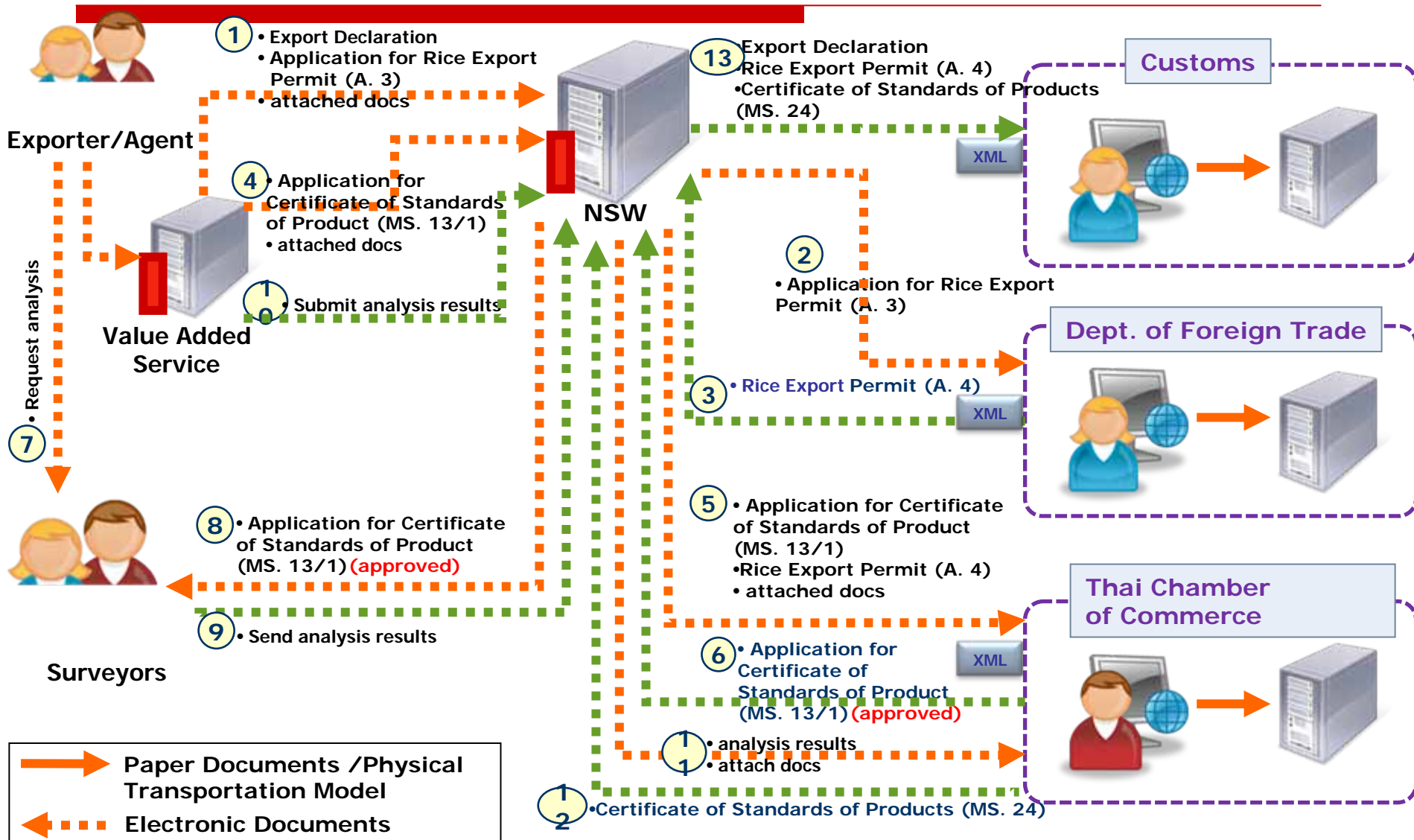
Example – Existing Process for Exportation of Rice

(5 visits to 3 different locations, 4 different paper forms, 1 e-document, 155 data elements)



Example – A New Process for Exportation of Rice

(about 70 data elements, electronic submission – no physical visit)



Impacts of IT-based Trade Facilitation Measures in Thailand

(through reform, and applying IT for Paperless Customs and NSW)

Trading Across Borders data	Doing Business 2007	Doing Business 2008	Doing Business 2009
Rank		51	10
Documents for export (number)	9	7	4
Time for export (days)	24	17	14
Cost to export (US\$ per container)	848	615	625
Documents for import (number)	12	9	3
Time for import (days)	22	14	13
Cost to import (US\$ per container)	1042	786	795

**Transaction Cost reduction from 848 to 625 (~220 USD) per container
(x 3.5 million TEU per year) = 770 Million USD transaction cost reduction per year**

SMEs also benefit from the reduction of procedures and cost.

By World Bank www.doingbusiness.org Feb 2009

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Recommendations

- Creation of the political will of government and industry
- Creation of effective collaboration platform

Comprehensive & Integrated Approach

- ***National-level Strategy*** to align business and ICT strategies, action plans, and financial budget be fully developed and endorsed by the Cabinet.
- ***National-level Committees & Working Groups*** comprising of all related government agencies, and industry representatives appropriately formed with a right combination and long-term commitment.

*Key persons – High-level Policy Makers,
Policy Managers and
Experts*

Recommendations

- Creation of acceptable business models, *e.g.*
 - *How is it financed? (Public or private sectors, or PPP?)*
 - *How will the SW be sustained over the coming year?*
 - *What are the user fees (if any)?*
 - *Do the revenues generated cover operational costs or do they make a profit?*

- *Scope and Overall Architecture should be established and agreed.*
 - *What are the key components of NSW?*
 - *Relationships between components?*
 - *Which agency is in charge of each component?*

Recommendations

- ❑ Reforming related regulations and laws
- ❑ *Process Simplification should be continuously exercised* (Visualizing with UMM & UML are recommended).
- ❑ *Data Harmonization* among document/data requirements of all import/export-related procedures (governments, business and logistics-related providers) be a very important exercise to *enable data interoperability*, thereby realizing the Single Window Development.
- ❑ *Technical Interoperability* using open and international standards be adopted.
- ❑ *Implementation Plan & Resources must be secured.*

What are the main lessons learned from implementing NSW?

- ❑ *Collaboration* – Meeting, Meeting & Meeting
[*90% Talking & 10% Doing* is a norm.]
- ❑ *Most important:*
All people to tow one rope in the same direction!
- ❑ *“Build the Great Wall bricks by bricks”*



Ref: UNECE Case Studies on Implementing A Single Window, June 2006.

Recommendation

- Support and participate actively with the UN Network of Experts for Paperless Trade in Asia and the Pacific (**UN-NExT**)

<http://www.unescap.org/unnext/>

- to exchange knowledge, experience, practices and lessons learned more effectively
- for stronger alliances and partnerships (spearheaded by UNESCAP and UNECE)





Thank you

Q & A

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