

Trade Facilitation Journey

– Pathway, Best Practices and Lessons Learnt –

SW Stepwise Roadmap

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**An Integrated Trade Facilitation Strategy for Greece
including Single Window**

19-20 July 2012, Athens, Greece

**Under the leadership of Ministry of Development, Competitiveness,
Infrastructure, Transport and Networks, and of Ministry of Finance,
and in cooperation of all agencies, associations and business stakeholders**



EUROPEAN
COMMISSION

A Chinese Proverb

"If you don't know where you are going,
any road will do."

A Watts Humphrey's Proverb

"But if you don't know where you are,
a map won't help."

1. Deciding about the goal (where we want to go),
2. then having a guiding map will be quite useful,
3. but only if we can assess where we are now referencing to the map.

The Objectives of this presentation

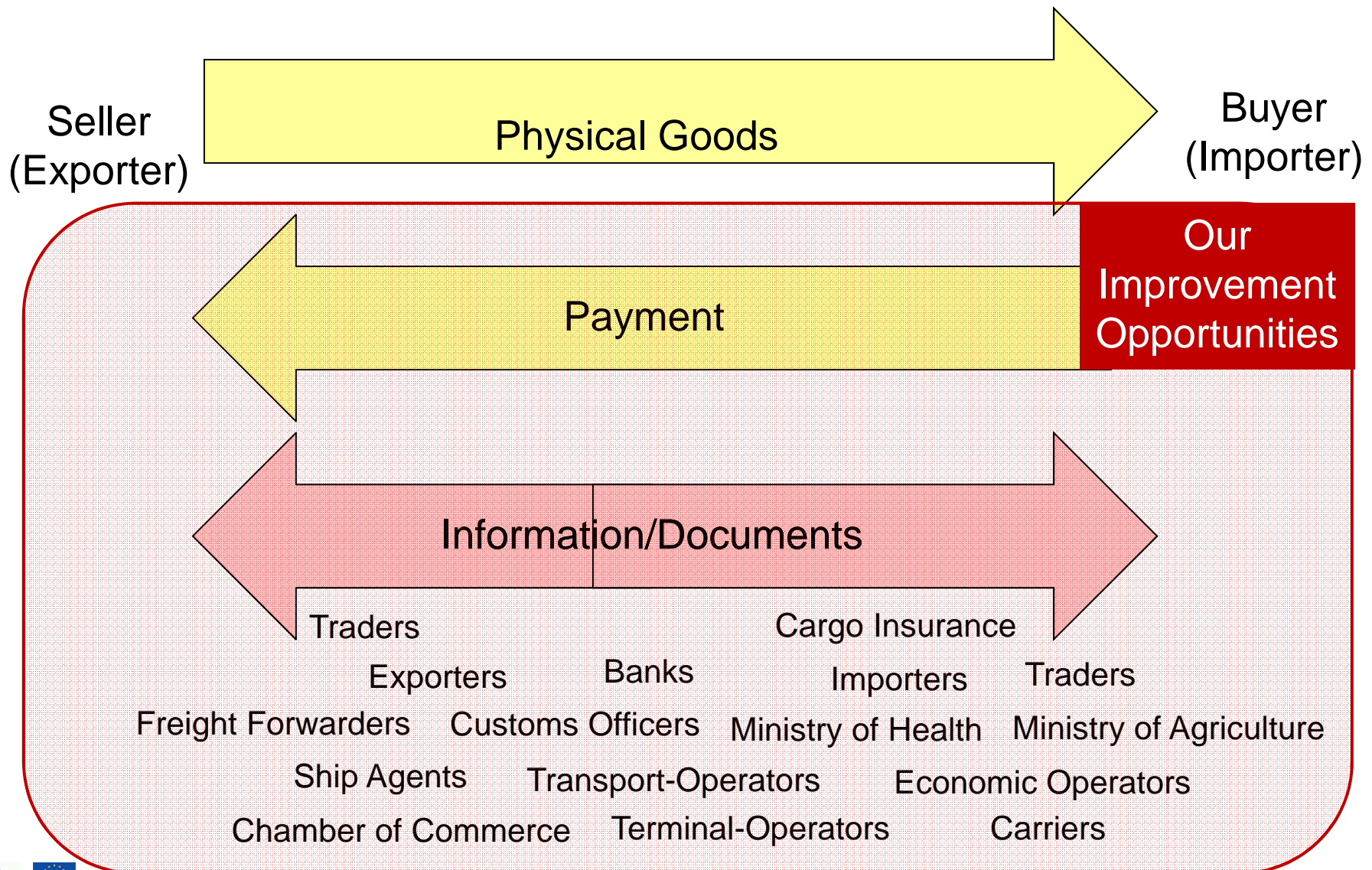
- Opportunities in enhancing national trade competitiveness by improving import/export/trade/transit procedures and documentation handlings
- Potential benefits of SW in enabling the above vision
- Why a systematic framework and guiding map for SW planning and implementation is needed.

The Objectives of this presentation

- ❑ To discuss the **SW Roadmap*** based on its **evolutionary development nature** (different development levels/scopes of Single Window)
- ❑ To suggest that this SW Roadmap shall be used as **a recommended Long-Term Development Roadmap** for Greek engaging in establishing the SW environment, and
- ❑ To be used also as a **Reference Model** for
 1. **assessing the current** or “as-is” condition of the country, and then for
 2. **prioritizing for the next target** or “to-be” SW environment (where the country wants to go/to achieve).

* This roadmap is formulated from actual experiences of many countries around the world especially from The 2005 Executive Forum “Paperless Trade in International Supply Chains: Enhancing Efficiency and Security,” and as reported in “A Roadmap towards Paperless Trade (UN ECE/TRADE/371, 2005)” and in “Paperless Trade in International Supply Chains - *Enhancing Efficiency and Security* (UN ECE/TRADE/351, 2008)”.

Trade Movement – 3 Kinds of Flow



The issue is about

Increasing National Trade Competitiveness

by improving
Import/Export/Transit/Trade Procedures and
Documents Handlings
among **Government Agencies,**
Business Entities and
Logistics Service Providers

(this is called **“Trade Facilitation”** improvement)

Documents related to Exportation of Rice

(from purchase order until the cargo container leaving the sea port)

36 Documents involving 15 parties, and more than 1,140 data elements to be filled in

- 1. Proforma Invoice (35)
- 2. Purchase Order (39)
- 3. Commercial Invoice (51)
- 4. Application for Letter of Credit (24)
- 5. Letter of Credit (32)

Buy/Pay Docs

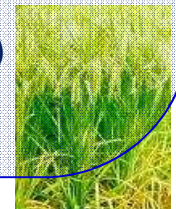
- 6. Packing List (25)
- 7. Cargo Insurance Application Form (20)
- 8. Cover Note (23)
- 9. Insurance Policy (24)
- 10. Booking Request Form – Border Crossing (25)
- 11. Booking Confirmation – Border Crossing (30)
- 12. Booking Request Form – Inland Transport (16)
- 13. Booking Confirmation – Inland Transport (18)
- 14. Bill of Lading (42)
- 15. Empty Container Movement Request (TKT 305) (20)
- 16. Request for Port Entry (TKT 308.2) (27)
- 17. Equipment Interchange Report (EIR) (24)
- 18. **Container Loading List (28)**
- 19. Container List Message (32)
- 20. Outward Container List (34)

Transport Docs

- 21. Master Sea Cargo Manifest(17)
- 22. House Sea Cargo Manifest (37)

- 23. **Export Declaration (114)**
- 24. **Good Transition Control List (27)**
- 25. **Application for Permission to Export Rice (KP. 2) (24)**
- 26. Sales Report (KP 3) (21)
- 27. **Application for the Collection of the Permit for the Export of Rice (A. 3) (35)**
- 28. **Permit for the Export of Rice (A. 4) (35)**
- 29. **Application for Certificate of Standards of Product (MS. 13/1) (44)**
- 30. **Certificate of Analysis (17)**
- 31. **Certificate of Product Standards (MS. 24/1) (45)**
- 32. **Certificate of Fumigation (21)**
- 33. **Application for Phytosanitary Certificate (PQ. 9) (29)**
- 34. **Phytosanitary Certificate (33)**
- 35. **Application for Certificate of Origin (42)**
- 36. **Certificate of Origin (38)**

Regulatory Docs



* Number in parenthesis is the no. of data elements

A Business Process Analysis - in Exporting Jasmine Rice from Thailand -

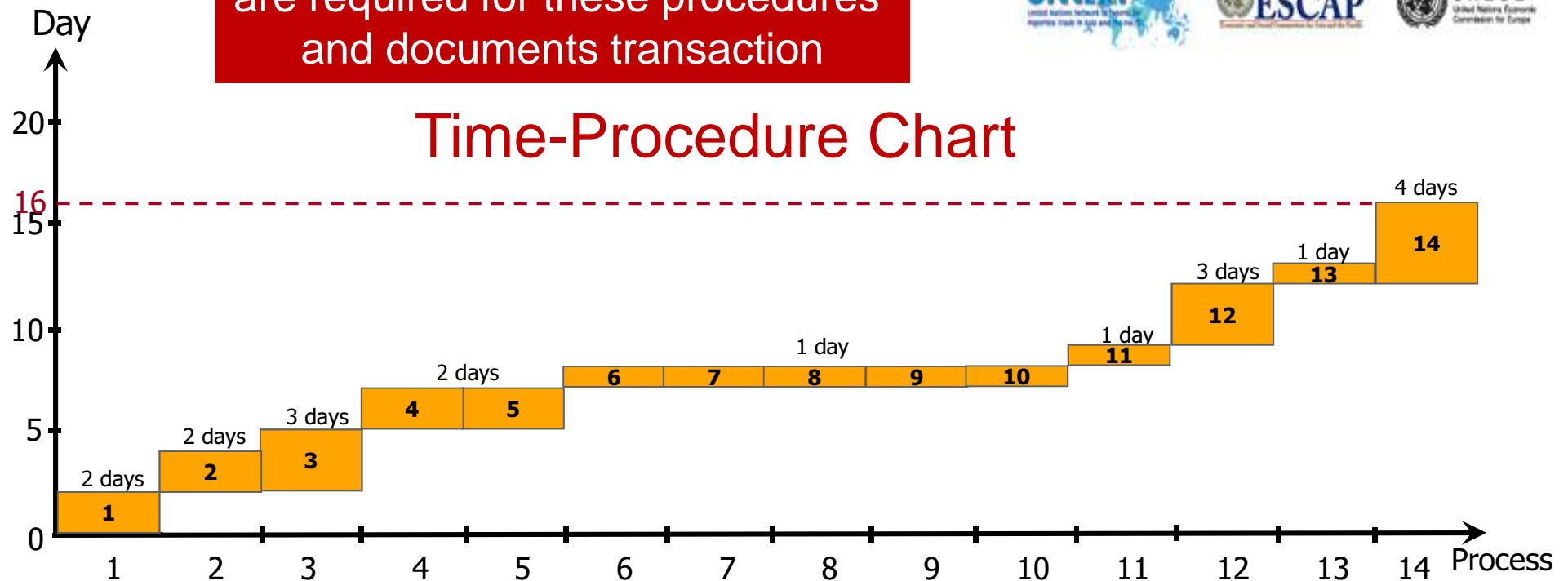
BUSINESS PROCESS ANALYSIS
GUIDE

TO SIMPLIFY TRADE PROCEDURES

16 days
are required for these procedures
and documents transaction



Time-Procedure Chart



1. Buy - Conclude sales contract and trade terms
2. Obtain export permit
3. Arrange transport
4. Arrange the inspection and fumigation
5. Obtain cargo insurance
6. Provide customs declaration
7. Collect empty container(s) from yard

8. Stuff container(s)
9. Transfer to port of departure
10. Clear goods through customs
11. Handle container at terminal and stow on vessel
12. Prepare documents required by importer
13. Verify the accuracy/authenticity of exported cargo
14. Pay - Claim payment of goods

Exporting Rice

(from purchasing time till the vessel leaving the port)

- 36 required documents (only 4-6 e-documents)
- 15 Stakeholders involved
- 14 big steps (123 small steps)
- 16 days needed (all together)
 - 6 days for **regulatory** procedures
 - 7 days for **transport-related** procedures
 - 12 days for **traders, banks** and **insurance** procedures

Indicators can help decision makers to understand the importance of import/export procedures related to national trade competitiveness

World Bank's Trading Across Borders Report (comparing 183 countries)

Indicators	Greece	Thailand	France	Sweden	Singapore
Documents to export (number)	5	5	2	3	4
Time to export (days)	20	14	9	8	5
Cost to export (US\$ per container)	1,153	625	1,078	697	456

Reference - World Bank's Doing Business – Trading Across Border (18 July 2012) www.doingbusiness.org

Comparing among 183 countries, the costs and procedures involved in exporting (and importing) a standardized shipment of goods are studied.

Every official procedure involved is recorded – starting from the final contractual agreement between the two parties, and ending with the delivery of the goods.

Time & Documents needed for export a standardized cargo*



Trading Across Borders in
Greece



Ease of Doing Business in
Thailand

Export Procedures	Duration (days)	US\$ Cost
Documents preparation	14	235
Customs clearance and technical control	2	230
Ports and terminal handling	2	228
Inland transportation and handling	2	460
Totals	20	1,153

Export Procedures	Duration (days)	US\$ Cost
Documents preparation	8	290
Customs clearance and technical control	1	50
Ports and terminal handling	3	85
Inland transportation and handling	2	200
Totals	14	625

Export documents

Bill of lading
Certificate of origin
Commercial Invoice
Customs export declaration
Technical standard/health certificate

5 documents needed

Export documents

Bill of Lading
Certificate of Origin
Commercial invoice
Customs export declaration
Terminal handling receipts

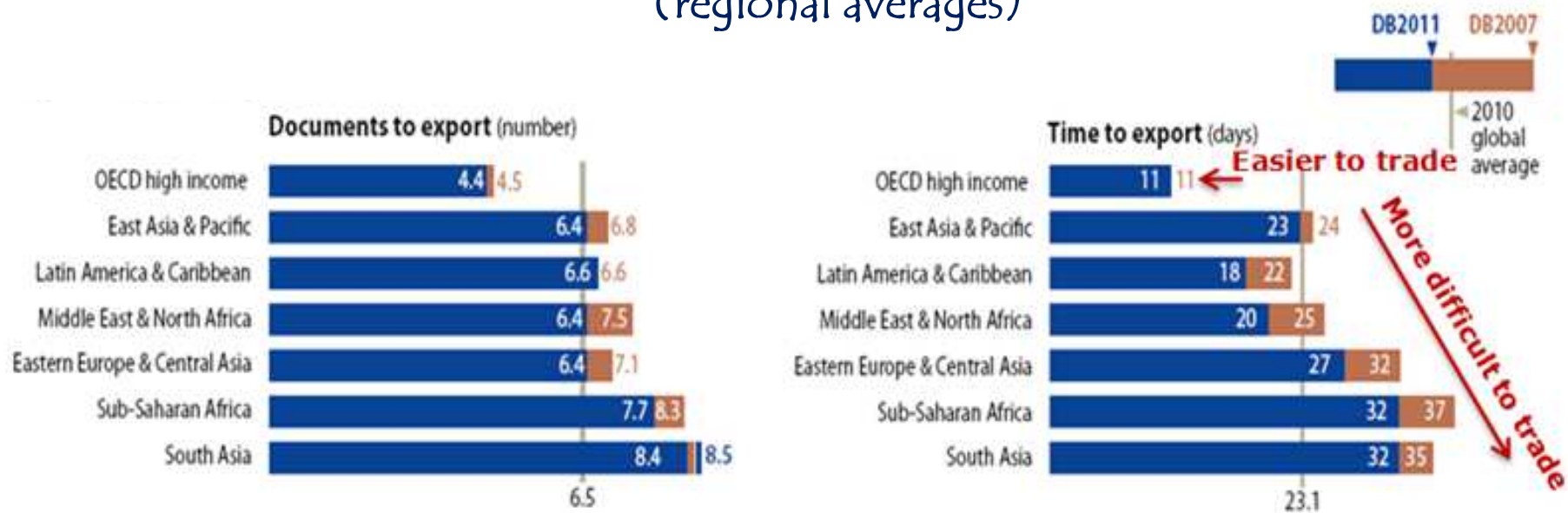
5 documents needed

*** More documents will be needed for agriculture or dangerous goods.**

Reference - World Bank's Doing Business – Trading Across Border (18 July 2012) www.doingbusiness.org

Some countries are easier & faster to trade, but some countries are more difficult to trade with.

Complications in terms of required documents and procedures, and time for exporting a standardized container of goods (regional averages)



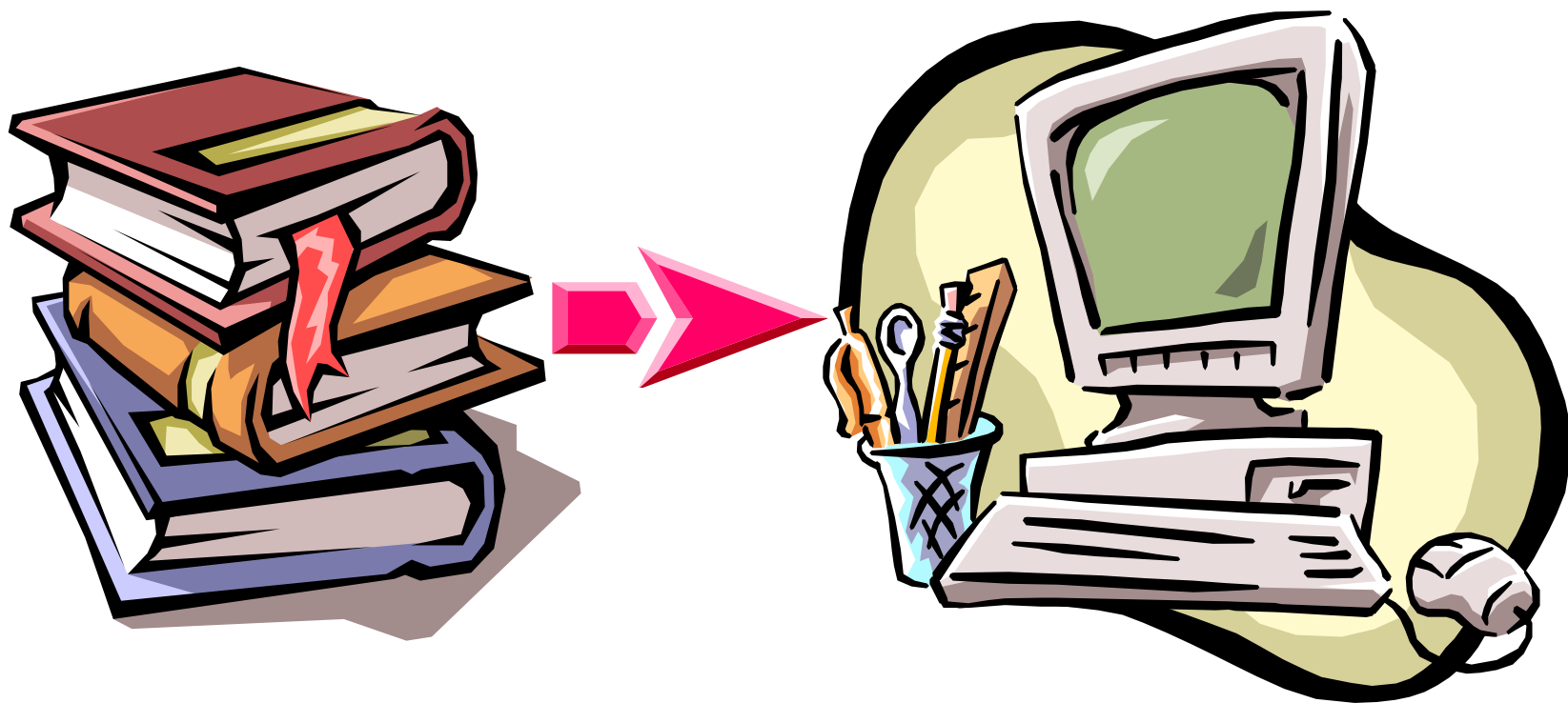
As an example, the average time to export from OECD high-income countries is about 2 times faster than Greece.

Why trading across borders in some countries are more difficult, time consuming and expensive?

- Procedures and documents handling 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**

Why trading across borders in some countries are easier, faster and less risky?

Mainly because those countries gradually simplify/transform/reform their paper-based environment into Collaborative e-Government/e-Business platform.



Paper-based Environment

Paperless or e-Document Environment

Economic Impacts

because of the delay on trading across borders

- Each *additional day of delay* (e.g. because of trade logistics procedures) *reduces trade* by at least *1%*

Ref: “**Trading on Time**,” Simeon Djankov, Caroline Freund, and Cong S. Pham, World Bank (2007).

- “**Direct and Indirect Cost** from import/export-related procedures and required documents is about *1-15% of product cost.*”

Ref: “**Quantitative Assessment of the Benefits of Trade Facilitation**,” OECD (2003).

Measurement of Impacts (on time, cost, and complexity reduction)

because of NSW in Thailand (2009) - through reform, and applying IT in Paperless Customs and NSW

A Thai Case

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

The Vision & Goals

- **Vision:** Increasing national trade competitiveness by improving import/export procedures and documentation transactions/handlings
- **Quantitative Goals:**
 - 25% better, faster, and cheaper in trading across borders* within 5 years**

** The quantitative numbers here are given just an example, which happens to be the vision among 21 APEC many economies for 2011-2015.
(APEC = Asia and Pacific Economic Cooperation)

* Referring to World Bank's Index (www.doingbusiness.org)
“better” means better control, e.g. less fraud, less confusion, less number of steps, and better risk management.
“faster” means less numbers of days/hours for procedures and document handling,
and “cheaper” means less cost (both direct and indirect cost).

Why a holistic and systematic framework is needed? (for implementing/transforming this Vision into Reality)

Because there are so many challenges to be tackled to transform this Vision into Reality.



* Referring to World Bank's Index (www.doingbusiness.org)

What is SW Implementation Framework (SWIF)?

- SWIF is a **systematic architecture-based framework** for guiding the Single Window Planning and Implementation into reality.
- SWIF adapts the concept of **enterprise architecture** and **development methodology*** to describe steps how to systematically derive the single window **strategic architecture** and **the master plan** for SW implementation.

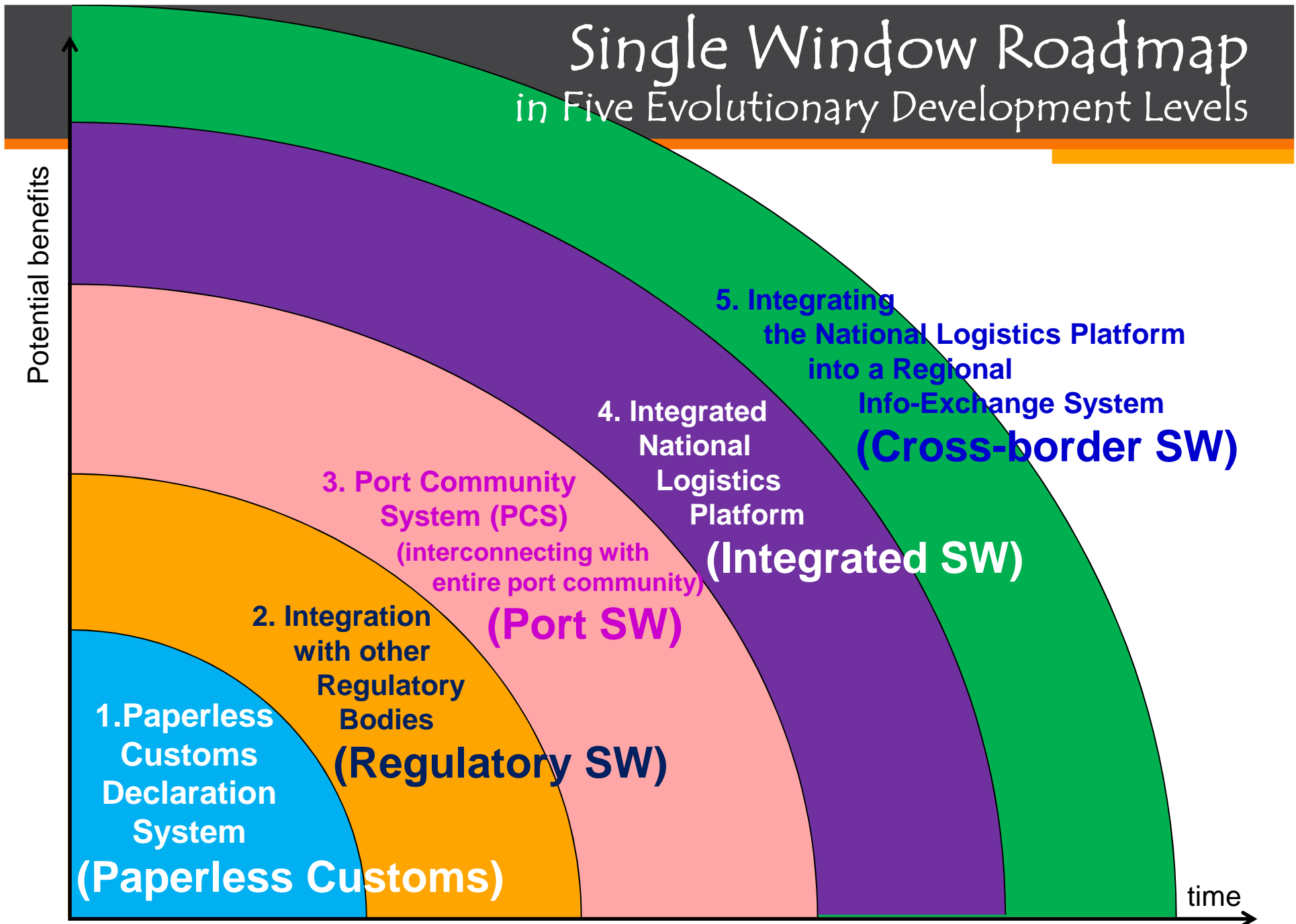
SWIF Authors: Markus Pikart (UNECE), Thayanan Phuaphanthong and Somnuk Keretho (Kasetsart University, Thailand), Wout Hofman (TNO), and Eveline van Stijn and Yao-Hua Tan (Vrije Universiteit Amsterdam)

* Adopted from An Enterprise Architecture Framework, called TOGAF-9.

Key Concepts and Guidelines within SWIF

1. **Visions & Goals Alignment** – formulating SW visions and goals, where possible with quantitative indicators, by aligning also with national and/or regional policy directions.
2. **SW Stepwise Roadmap** – as a reference model and long-term development roadmap
3. **Critical Success Components** - systematically decomposing and structuring SW implementation challenges into smaller and easier manageable components (10 components are proposed).
 - SW Vision Articulation and Political Will Creation
 - Stakeholder Collaborative Platform Establishment
 - Business Process Analysis and Simplification
 - Data Harmonization and Document Simplification
 -
4. **SW Management Process** for analysis, planning and overseeing the SW projects by walking through those 10 components iteratively.

Single Window Roadmap in Five Evolutionary Development Levels



Note that in many countries, Maturity Level 3 (PCS) was fully developed before Maturity Level 2 (integration with other regulatory bodies).
An Integrated Trade Facilitation Strategy for Greece including Single Window, 19-20 July 2012, Athens, Greece

Single Window Roadmap

in Five Evolutionary Development Levels and their Key Capabilities

Level 1: Paperless Customs Declaration System (Paperless Customs)

Submission of paperless Customs declaration, e-payment with banks for Customs duty, e-Container loading list (to associate between Customs declaration and physical containers of those declared goods), and risk-based inspections.

Level 2: Integration with other Regulatory Bodies (Regulatory SW)

Extending the paperless Customs system by interconnecting with other governments' IT systems for exchanging import/export e-permits and e-certificates with Customs Department for more accurate and faster Customs clearance, single window data entry for electronic submissions of application forms, and status e-tracking.

Level 3: Port Community Systems (PCS) in major sea/air ports (Port SW)

Interconnection and e-document exchange for efficient port operations among all related stakeholders, e.g. customs brokers, freight forwarders, transporters, terminal operators, Customs department, warehouses, port authority, and other control agencies.

Level 4: An Integrated National Logistics Platform (Integrated SW)

Extension the interconnection with importers/exporters, logistics-service providers, insurance companies, banks for online payment of services and goods,

Level 5: A Regional Information-Exchange System (Cross-border SW)

Cross-border e-document exchange between two or more economies.

EDI = Electronic Data Interchange

Note that in some cases, PCSs in major ports (as in Level 3) within a country were being fully developed before Level 2.
And some countries start exchanging e-document across the countries (as in Level 5) even though they haven't fully completed Level 3 or 4.
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Single Window Roadmap in Five Evolutionary Development Stages

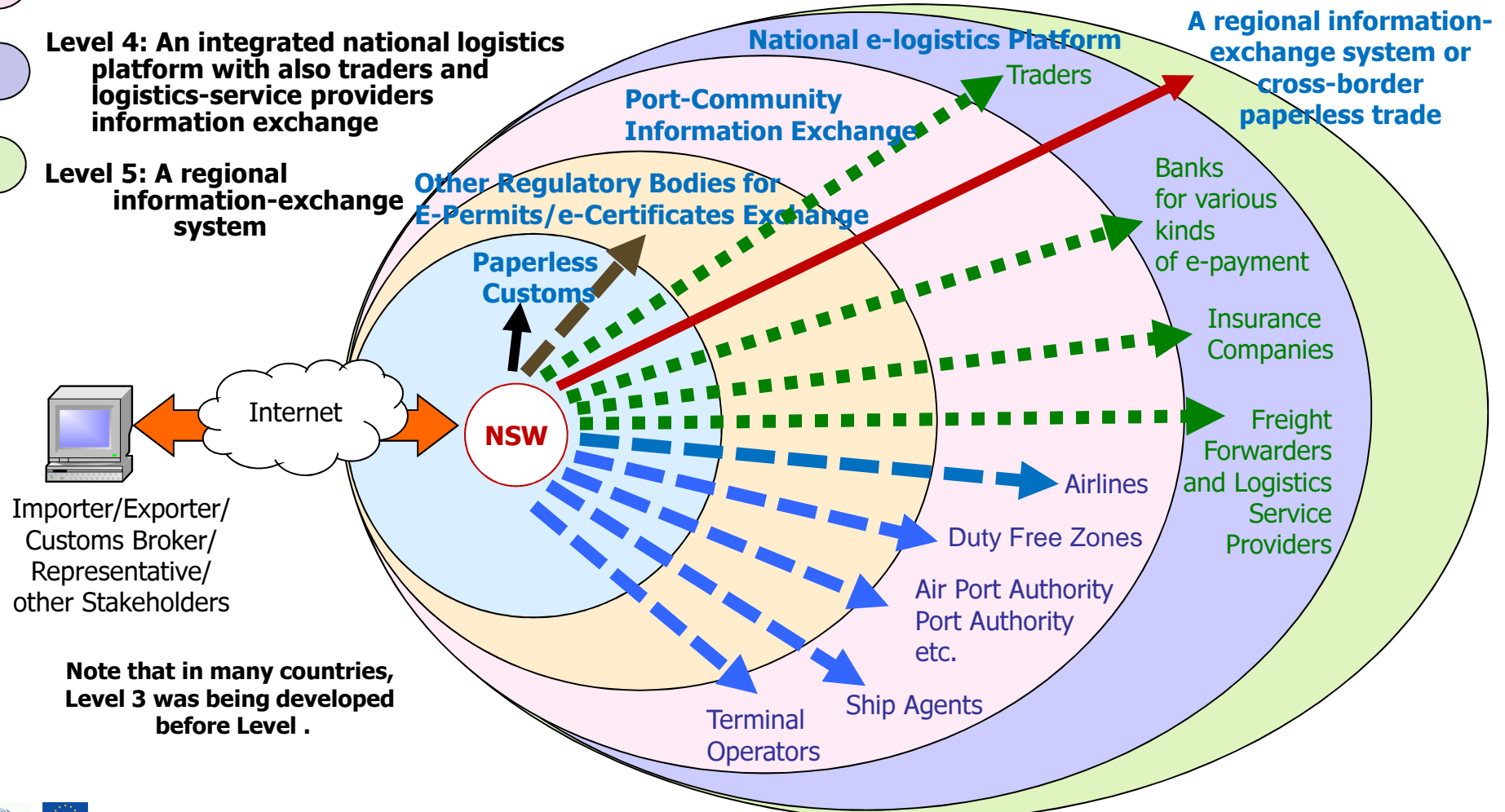
Level 1: Paperless Customs + e-Payment for Customs Duty + e-Container Loading List + and electronic risk-based inspection

Level 2: Connecting Other Government Back-end IT systems, and e-Permit Exchange with Paperless Customs System

Level 3: e-Documents Exchange among Stakeholders within the (air, sea) port community

Level 4: An integrated national logistics platform with also traders and logistics-service providers information exchange

Level 5: A regional information-exchange system



Note that in many countries, Level 3 was being developed before Level .

Single Window Roadmap

Five Evolutionary Development Levels – Few Case Examples & Variations

Level 1: Paperless Customs Declaration System (Paperless Customs)

- ❑ **Belize, Chile, Estonia, Pakistan, Turkey:** Electronic Data Interchange for Customs Declaration
- ❑ **Morocco, Nigeria, Palau, Suriname, Vietnam:** Using Risk-based Inspections
- ❑ **Thailand:** Paperless Customs with Risk-based Inspection, and online Customs Duty Payment

Level 2: Integration with other Regulatory Bodies (Regulatory SW)

- ❑ **Singapore: TradeNet** where traders submit electronic data in a single window to obtain all necessary import/export-related permit/certificate and customs declarations.

Level 3: Port Community Systems (PCS) in major sea/air ports (Port SW)

- ❑ **Germany: DAKOSY**, a port community system used at the Hamburg sea port

Level 4: An Integrated National Logistics Platform (Integrated SW)

- ❑ **Hong Kong, SAR: DTTN (Digital Trade and Transportation Network)**, integrating EDI/Paperless Customs with the Regulatory SW and Trader Community.
- ❑ **Republic of Korea: u-Trade Hub**

Level 5: A Regional Information-Exchange System (Cross-border SW)

- ❑ **e-SPS (Sanitary and Phyto-sanitary)** documents exchange between **Australia (AQIS)** and **New Zealand (NZFSA)** to facilitate cross-border trading on Agri-food products
- ❑ **e-CO (Certificate of Origin)** information exchange between **Korea** and **UK**
- ❑ **ASEAN Single Window:** Cross-border data exchange among 10 ASEAN members (in progress)

Recommendations

□ Countries may use the SW Roadmap **SW reference model** for the development of the national SW to

1. **assessing the current** or “as-is” level of the national SW, and for
2. **prioritizing for the next target** or “to-be” SW development

For example, by comparing the “as-is” condition of the country with the SW reference model (from Level 1 up to Level 5), and finding out that

- **If** the country doesn't have any Customs EDI system or risk-based inspections in place yet, **then** the first priority for development is the **Paperless Customs with risk-based inspections (Level 1)**.
- **If** the country's already established a full paperless Customs but not interconnecting with any other regulatory agencies and there are a lot of cumbersome procedures related to import/export permits/certificates, **then** the **regulatory SW** could be the next target to be developed **(Level 2)**.
- **If** the country's already established a full paperless Customs and/or a regulatory SW, but there are a lot of stakeholders and **transaction complications at the major ports**, **then** there are opportunities to interconnect e-documents among stakeholders in those major sea port(s) and air port(s) – **establishing Port Community Systems (Level 3)**.

Recommendations (cont)

For example, by comparing the “as-is” condition of the country with the SW reference model (from Level 1 up to Level 5), and finding out that

- ❑ **If** the country’s already established **a regulatory SW** and **Port Community Systems within major ports**, and there are a lot of small and medium importers/exporters and logistics providers still lacking of good supporting tools for document transactions and procedures, **then** there may be some opportunities to interconnect e-documents among business traders, logistics service providers, the regulatory SW and/or perhaps the Port Community Systems – **establishing Integrated National Logistics Platform (Level 4)**.
- ❑ **If** the country’s already established the Paperless Customs, and/or the regulatory SW, and/or Port Community Systems within major ports, and any bi-lateral or sub-regional trade agreement is established, **then** there are some good opportunities to develop a cross-border information exchange between and among the regional members – **establishing a Regional Information-Exchange System (Level 5)**.

Summary

- ❑ Improving import/export procedures and documentation is realized by many countries as a strategy for enhancing national trade competitiveness
 - ❑ It is important to establish and mandate these **vision** and **quantitative goals** as a strategic development agenda for the nation.
- ❑ From the experience of many countries, these vision and goals could be realized by **gradually** and **systematically transforming** related **paper-based environment** into more efficient **paperless/electronic-document environment**.
 - ❑ **IT-enabled SW environment** along with its associated reform has the potential to enable the above vision.
- ❑ Many complicated challenges of implementing the vision of SW into reality is a reason why **a holistic and systematic framework and guidelines for SW planning and implementation** are needed.
 - ❑ Some key concepts and guidelines within this framework are introduced.

Summary

- ❑ The scopes (and definitions) of, so called, Single Window (IT-enabled trade facilitation environments) are quite diverse in reality.
The evolutionary SW Roadmap should assist the policy managers and policy makers to understand the **overall** and **long-term roadmap** of SW development and its potential benefits in each maturity level (stage).
- ❑ This SW Roadmap could be used as a reference model for at least 2 purposes
 - ❑ For **assessing** the “as-is” conditions of a country by comparing to this reference model (**to understand where we are in the map**).
 - ❑ For **prioritizing** the next “to-be” stage **where we want to go**.

Recommendations for Greece

Conduct a detailed **Business Process Analysis** to identify bottlenecks and propose improvement recommendations, with e.g.

1. **Simplification** of Customs Declaration and Clearance
 2. **Elimination** of Unnecessary Documents in the pre-Customs procedures, e.g. some certain certificates
 3. **Automation** (Development) of Paperless Customs System
 - **Electronic Submission** of Customs Declaration (without submitting any physical papers)
 - Improving Customs **risk assessment** and reducing the percentage of physical examination...
 4. **Extending** the Paperless Customs System gradually with other government agencies (**Regulatory SW**), e.g. e-permit exchange,
 5. **Integrating Regulatory SW** with **Port SW**.....
.....etc....
- Quick Win
- Medium Term Goals
- Long Term Goals

Wish You
A Successful TF/SW Journey!

Thank you for your kind attention.

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Reflexion

- Referring to the WB's trading-across-borders report:
 - ❖ Discuss the “as-is” quantitative indicators of your country,
 - ❖ Define realistic “to-be” target quantitative goals that you think can be achieved within the next five years.
- Identify the level of SW development in your country using the Single Window Roadmap as a reference model.
- What would be the next step for the SW development in your country?

Speaker – Somnuk Keretho, PhD



Somnuk Keretho is an assistant professor of Computer Engineering Department, and the founding Director of Institute for IT Innovation (INOVA), a research and development institute of Kasetsart University, Thailand, specializing in ICT-enabled innovation, trade facilitation and e-logistics initiatives including National Single Window strategic planning and implementation, enterprise information architecture for e-government and e-business, business process analysis and improvement, data harmonization and modeling, ICT-related standards and interoperability, e-transaction related laws, and process-oriented quality software engineering.

He has led several ICT strategic projects at organizational, national and regional levels. For the past nine years, he has assisted Ministry of Information and Communication Technology, National Economic and Social Development Board, Ministry of Transport, Port Authority of Thailand, and Ministry of Agriculture in architecting “Thailand Single-Window e-Logistics” related projects including its national e-logistics strategy, implementation plans, interoperability and standards, harmonization and simplification of trade and transport-related documents and procedures, automatic electronic-gate systems development for the Bangkok Port and the Leamchabang Sea Port, and related software development projects.

Several of those projects are being aligned with some regional and international collaborations, in which Mr. Keretho has actively engaged mostly related to trade facilitation, single window and paperless trading initiatives through UNESCAP, UNECE, APEC, ASEAN and GMS. He has played several roles in catalyzing the creation of and actively contributing to the United Nations Network of Experts for Paperless Trade in Asia and the Pacific (www.unescap.org/unnext), and providing several technical supports to the APEC Paperless Trading and ASEAN Single Window Initiatives. He is the main author of the UNNExT Business Process Analysis Guide, the UNNExT Data Harmonization Guide and the UNNExT Guide for Single Window Planning and Implementation.