

Standard for IT utilization



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Agenda

- 1. IT in Asian Economy**
- 2. IT Utilization and Standard
in Korea**
- 3. Experiences**

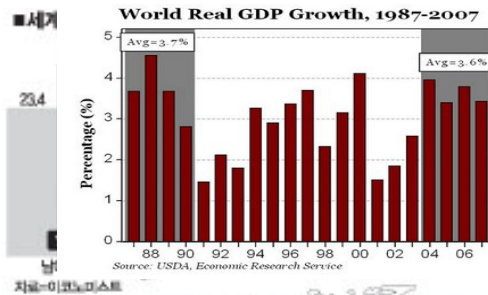


IT in Asian Economy

Single Global Economy

World is interdependent more and more closely.

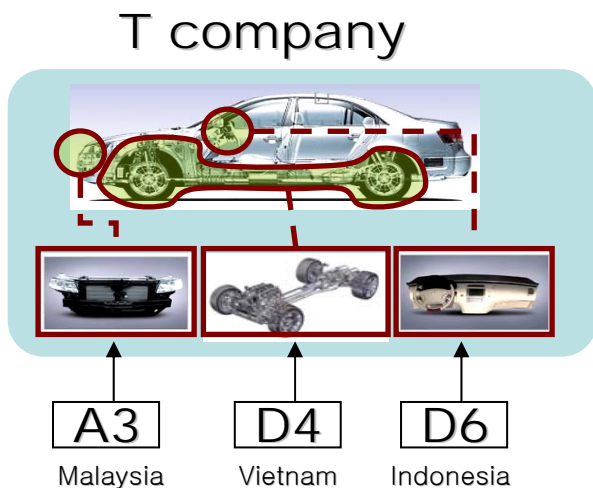
- Subprime(USA), Mellamin(China), SARS(Hongkong) etc...
- Foreign exchange rate, oil price, Environment(Co2), Finance Reports(IFRS)



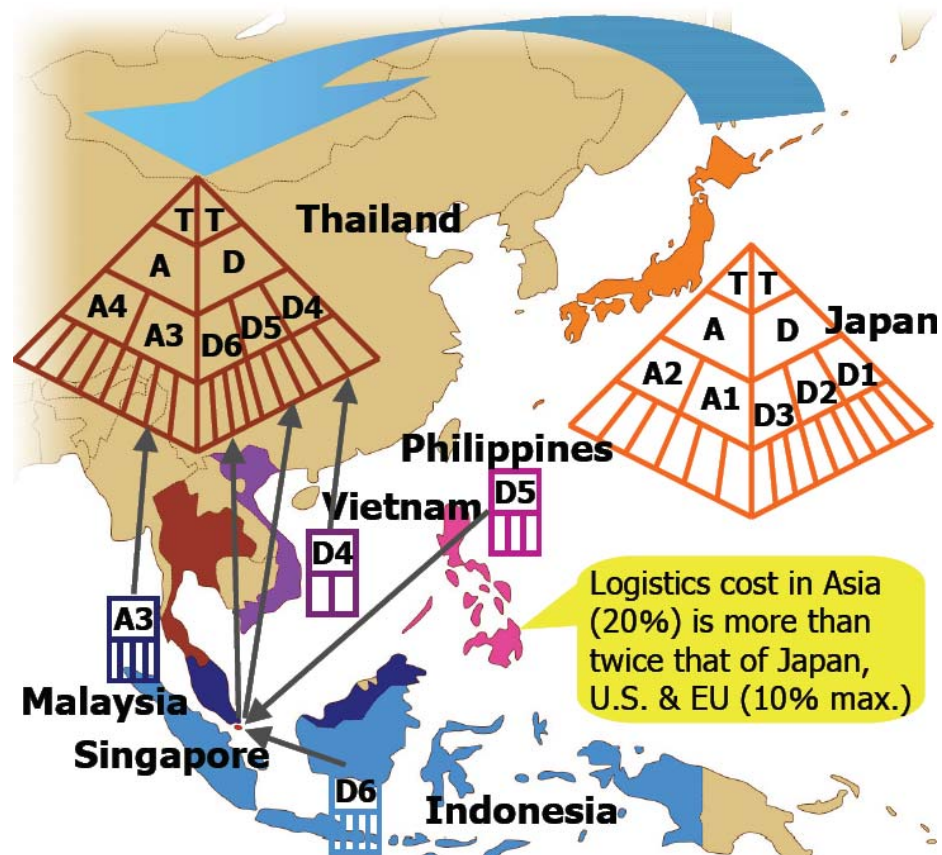
Automotive Industry in Asia

Global Supply Chain

Big company owns IPR and should provide the process standard to local SMEs.



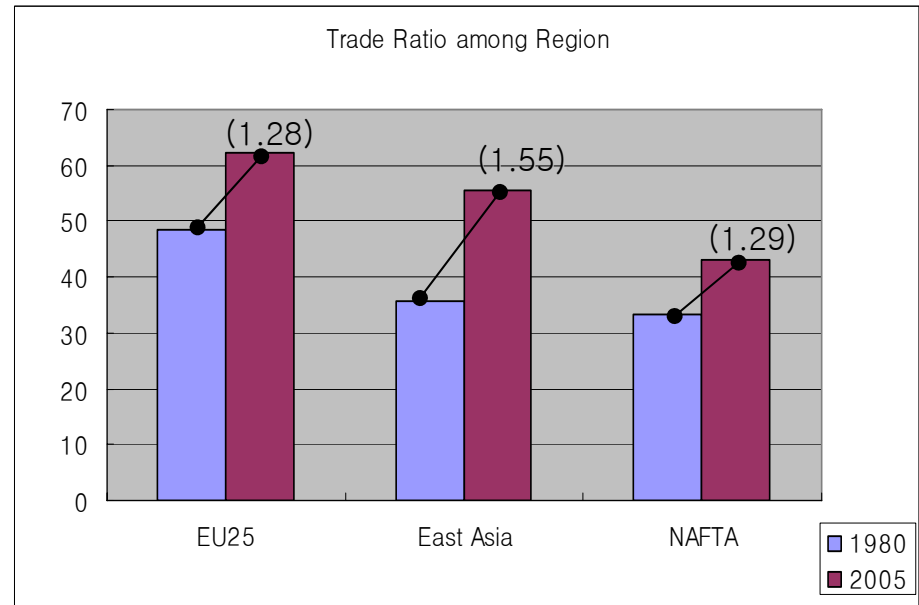
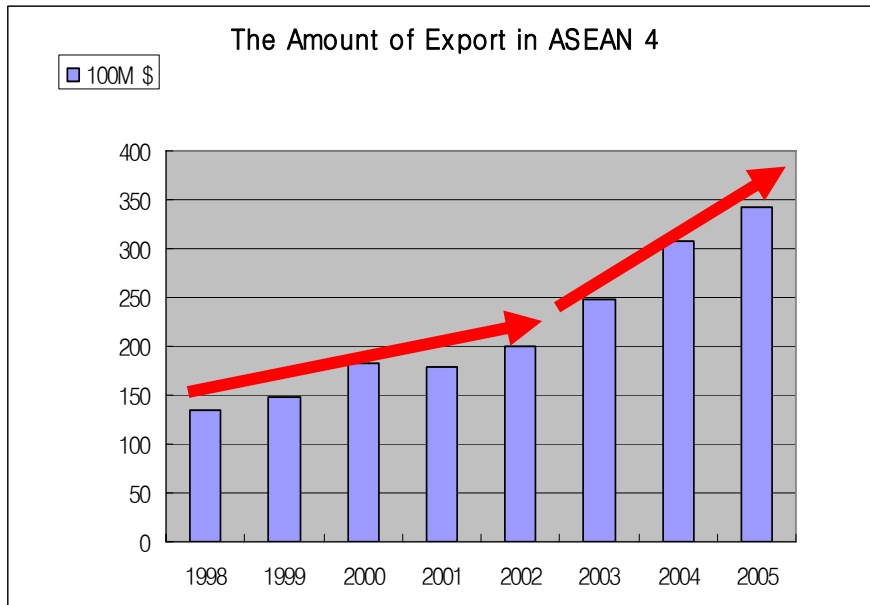
Each local SMEs have their own technology and localized administration



[Source, DENSO WAVE '07 Japan]

Changing Asian Economy

- 1992 AFTA set forth → 2003~ The Amount of Export in Asia (↑)
- Inside of Asia : Trade ratio (↑), Int'l division of labor (↑)



[Source, Trade & Business White Book '07, METI Japan]

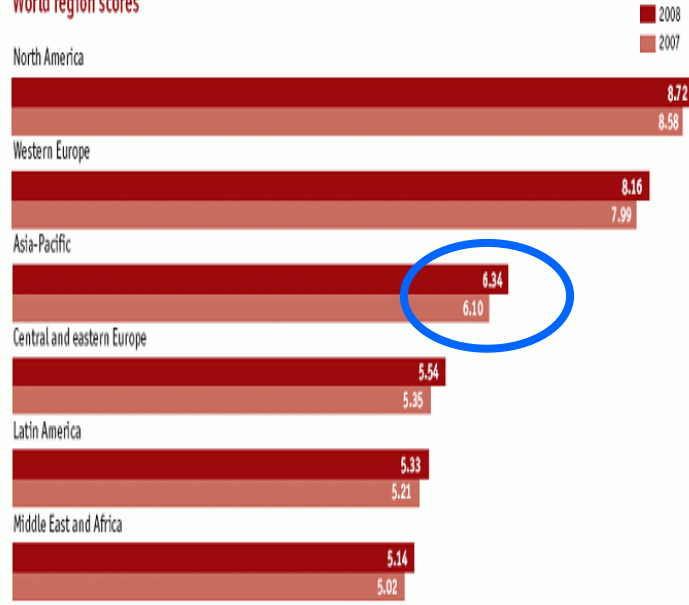
e-Readiness in Asia region

But, weak IT infra

- EIU e-Readiness Score : **Asia-Pacific (6.34)**
- **Digital divide** compared with : North America (**2.38**), West Europe(1.82)

Economist Intelligence Unit e-readiness rankings, 2008

World region scores



Each region's score is based on the e-readiness scores for each of that region's countries covered in our rankings.
Source: Economist Intelligence Unit, 2008.

2008 e-readiness rank (of 70)	2007 rank	Country	2008 e-readiness score (of 10)	2007 score
1	2	United States	8.95	8.85
2	4	Hong Kong	8.91	8.72
3	2	Sweden	8.85	8.85
4	9	Australia	8.83	8.46
5	1	Denmark	8.83	8.88
6	6	Singapore	8.74	8.60
7	8	Netherlands	8.74	8.50
8	7	United Kingdom	8.68	8.59
9	5	Switzerland	8.67	8.61
10	11	Austria	8.63	8.39
11	12	Norway	8.60	8.35
12	13	Canada	8.49	8.30
13	10	Finland	8.42	8.43
14	19	Germany	8.39	8.00
15	16	South Korea	8.34	8.08
16	14	New Zealand	8.28	8.19
17	15	Bermuda	8.22	8.15
18	18	Japan	8.08	8.01
19	17	Taiwan	8.05	8.05
20	20	Belgium	8.04	7.90

[Source, EIU e-Readiness Rankings '08]



IT Utilization and Standard

Status and Experience in Korea

Status of IT Utilization in Korea

E-Commerce covers more than 25% market in Korea

	2001	2002	2003	2004	2005	2006	2007
Total Market Size e-Commerce	119.0	177.8	235.0	314.1	358.5	413.6	516.5
Annual Growth Rate	-	49.5%	32.2%	33.6%	14.1%	15.4%	24.9%

E-Government Readiness (UN)

	2003	2004	2005	2008
Country Ranking	13	5	5	6
Web Measure (ranking)	18	4	4	6
Infrastructure (ranking)	10	12	9	10
Human Capital (ranking)	20	15	12	10

E-Business Readiness (EIU)

	2007	2008
Country Ranking	16	15
- Business environment	80.8	81.3
- IT infrastructure	61.7	49.3
- Human capital	74.8	74
- Legal environment	66	67
- R&D environment	56.6	59.9
- Support for IT industry	74.3	63.9

IT Utilization in Korean Enterprise

• The Benefits by using e-Business Systems

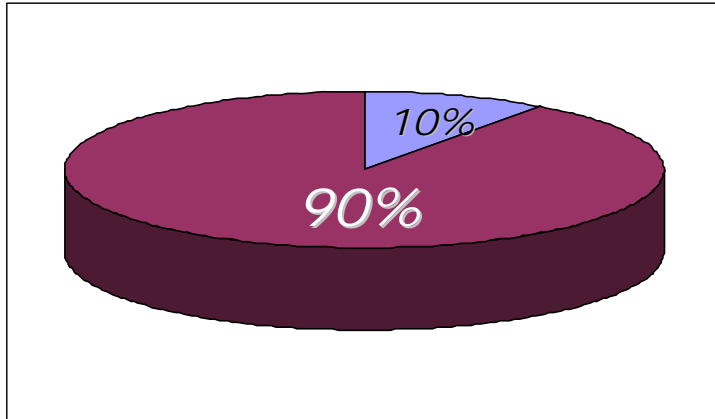
(Unit: %)

	System User Group	IT Productivity			
		Sales Increase	Cost Reduce	Transaction Time Reduce	Customers Increase
ERP (Enterprise Resource Planning)	25.9	33.5	41.5	78.3	5.6
e-Procurement System	15.0	31.9	29.0	39.2	4.1
SCM (Supply Chain Management)	4.2	9.8	37.4	74.8	5.8
CRM (Customer Relationship Management)	4.7	20.2	32.6	70.8	23.3
B2BI (Biz. To Biz. Integration)	4.1	16.6	44.7	70.3	6.2
HRMS (Human Resource Man. Sys)	4.2	3.7	26.0	80.8	-
MES (Manufacturing Execution Sys)	2.0	5.7	44.3	84.7	-
KMS (Knowledge Management Sys)	3.6	10.4	38.9	63.2	3.4
Online Education System	4.2	7.1	30.0	67.4	-
eAI (Enterprise Application Integration)	3.4	7.0	66.8	96.2	-
PLM (Product Lifecycle Management)	0.8	10.7	33.7	78.7	-
ERM (Enterprise Risk Management)	0.5	-	67.1	92.0	9.5
SEM (Strategic Enterprise Management)	0.5	38.3	24.7	74.5	-
BPM (Business Process Management)	0.2	17.2	68.2	64.4	-

[Source: Statistics of Korea e-Business, KIEC 2007]

Standard survey in Korea

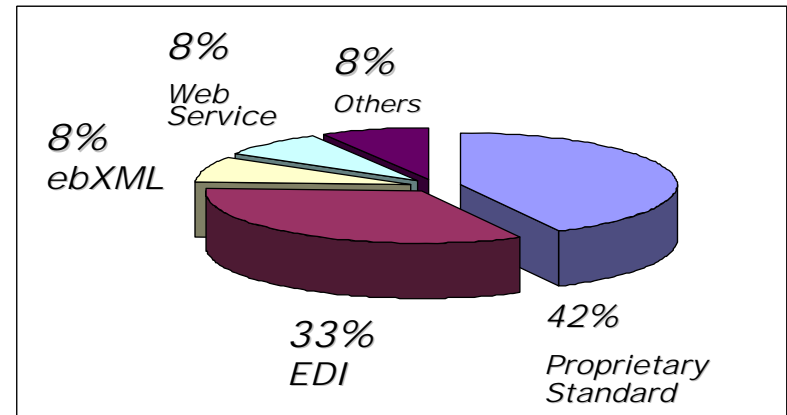
The importance of Standard



90% answers that standard enhances the IT productivity in business

VS.

Adopted Standard



More or less 50% operate different and diverse e-business system

- ***IT hubs (service providers) adopt standard well, but enterprise comparatively don't know it.***

[Source, KIEC e-Business Standardization Survey 2008]



Experiences

How to enhance e-Readiness
in overall Asia region?

Learned from Success

“Single Window”, “Onestop Service”, “Integrated Platform”

1. **The success of onestop service depends on standard very strongly.**
 - G2B, Customs & Trade Gateway, e-Document(Gov) Delivery Gateway
2. **An integrated platform is a good e-government model.** It bridges governmental efforts with private sector. It can save time and money of private sector.
 - G2B, Customs & Trade Gateway, G4B etc...
3. **Interoperable Single Windows in Asia regions could poster Asia Economy in future.**
 - PAA, Korea, Malaysia, Thailand, Iran.... etc

Learned from Success

Procurement

‘Korea Online e-Procurement System’
Korea Public Procurement Service
(www.g2b.go.kr)

Korea Online e-Procure System built in 2002 is a single window for comprehensive information on procurement of all public organizations, providing one-click online service for government procurement.

- Korea Online e-Procurement System adopted ebXML (ebMSv1.0, CC) in 2001.
- ebMS could handle huge G2B traffics successfully.

“Experiences and Learned Lessons”

- Because Korea Public Procurement Service had owned experiences with EDI and XML/EDI, they understand e-business standard exactly.
- Korea Public Procurement Service provide not only G2B platform but also some regulations for handling online-bidding process etc.
- G4B is integrated with 700 partners. Effects of process innovation in G4B are shared even with 700 partners (G4B save 3,200 Billion Won in a year).

Learned from Success

Trade

'u-Trade Hub System'
Korea Trade Association
(www.utradehub.go.kr)

After the **uTrade Hub** officially opened its service in May 2007, phase 3 uTradeHub project which included electronic **Bill of Lading (e-B/L)**, and **electronic Negotiation (e-Nego)** was implemented in 2007 and 2008

Customs

'UNI-PASS'
Korea Customs Service
(www.portal.customs.go.kr)
['07, 120 Million transactions]

UNI-PASS provides customs administration such as exp/imp clearance system, duty collection system, exp/imp cargo management system, duty drawback system, and the clearance Single Window.

- uTrade Hub and UNI-PASS is an integrated web platform by adopting both web service and ebXML/UBL effectively.
- This system handles huge trade traffics successfully.
 ('07, u-Trade Hub 80 Million transactions, UNI-PASS 120 Million transactions)

“Experiences and Learned Lessons”

- ebMS KorBIT interoperability testbed

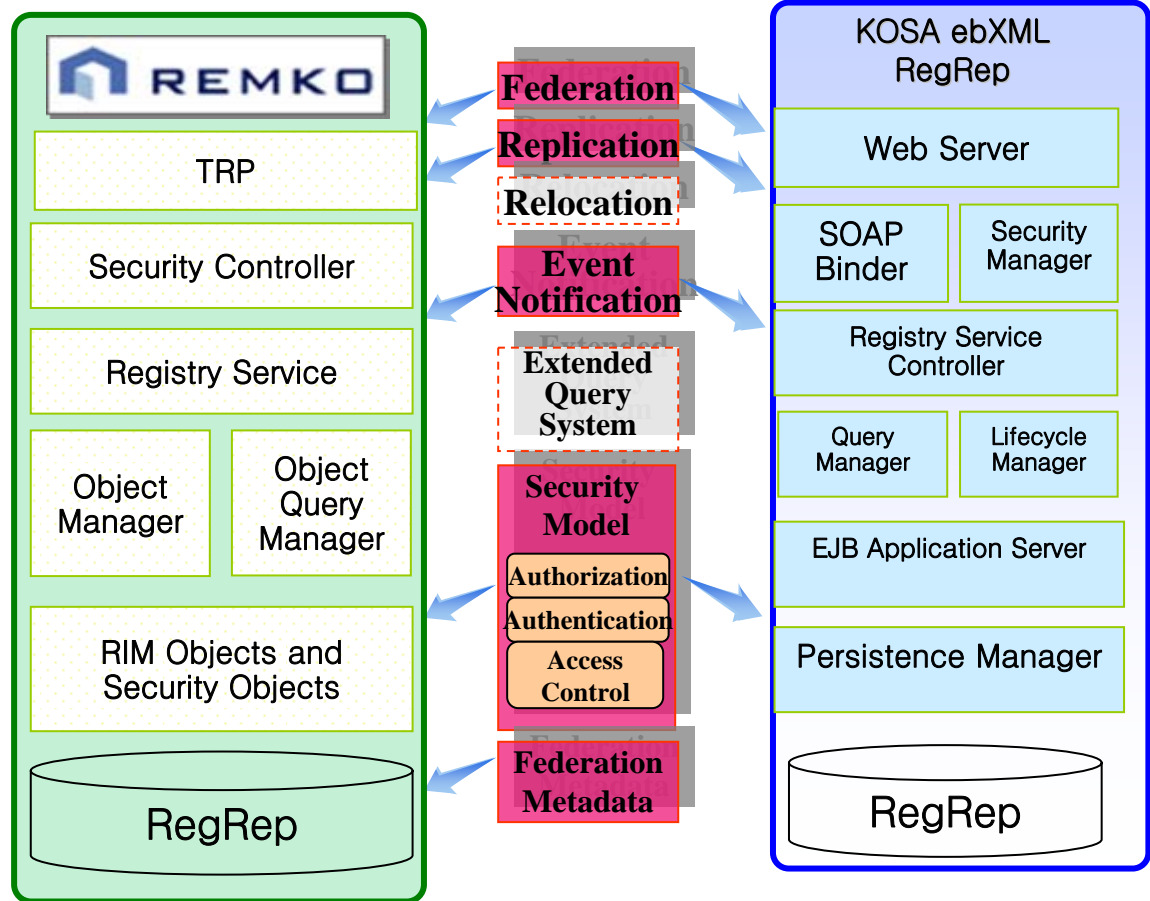
Learned from Failure

Federation is

“a group of societies or other organizations which have joined together ”

Federated RepRep is

“a registry Repository which joined together by sharing metadata ”



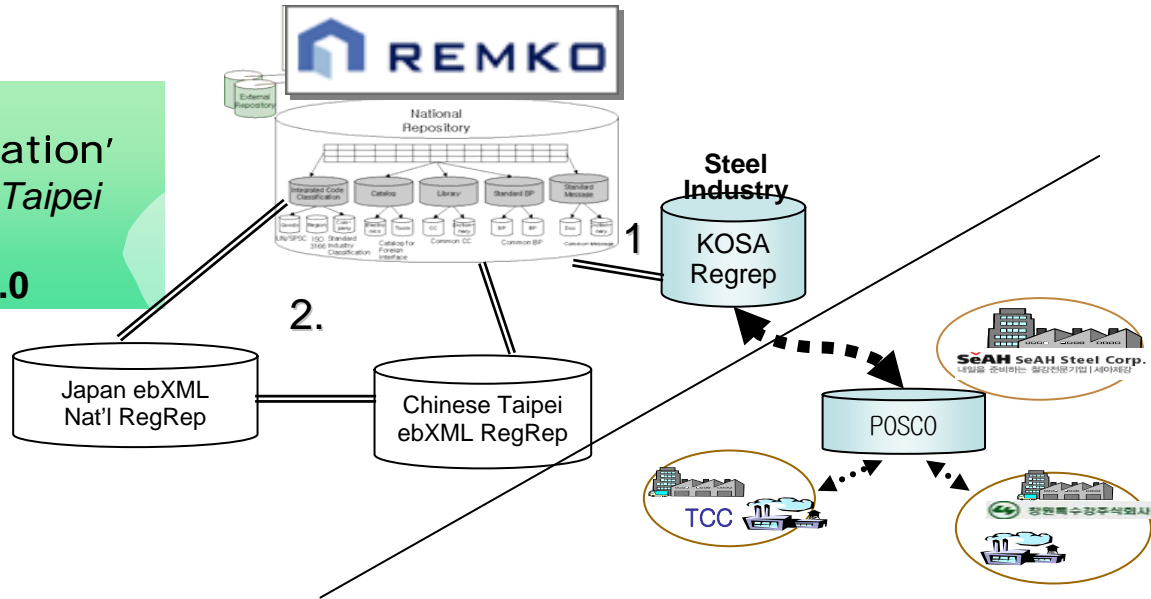
Learned from Failure

Federation Projects

Purpose : Collaboration with neighbour
Share the contents

1. 'Domestic Federation'
KIEC with KOSA(Korea Steel Association)
('03~'04)
ebRegRep v2.0

2. 'Global Federation'
Korea, Japan, Chinese Taipei
('04~'05)
ebRegRepv2.0, v3.0



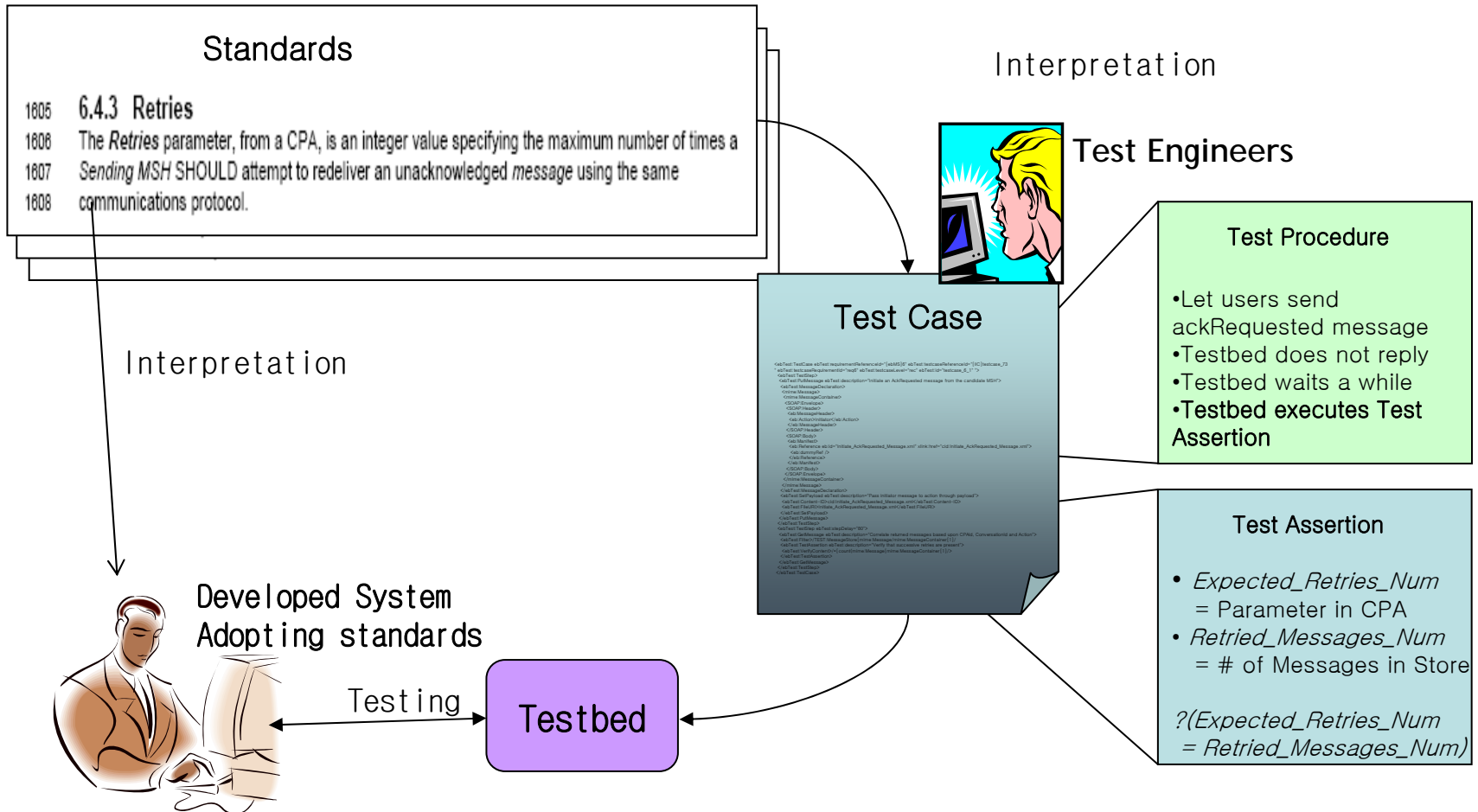
Learned from Failure

“Experiences and Learned Lessons”

- Federation is good idea, but without business needs it can not success.
 - Even if federated RegRep System is implemented, without it can not maintained and update content continuously.
 - **Let the market build it.**
- A thing may be really complicated with other things.
 - Main issue : Federation between registry and repositories
 - Problems : each regrep is more or less different because of its business.
Therefore there are some problems such as different Contents Classification Type, Code, etc

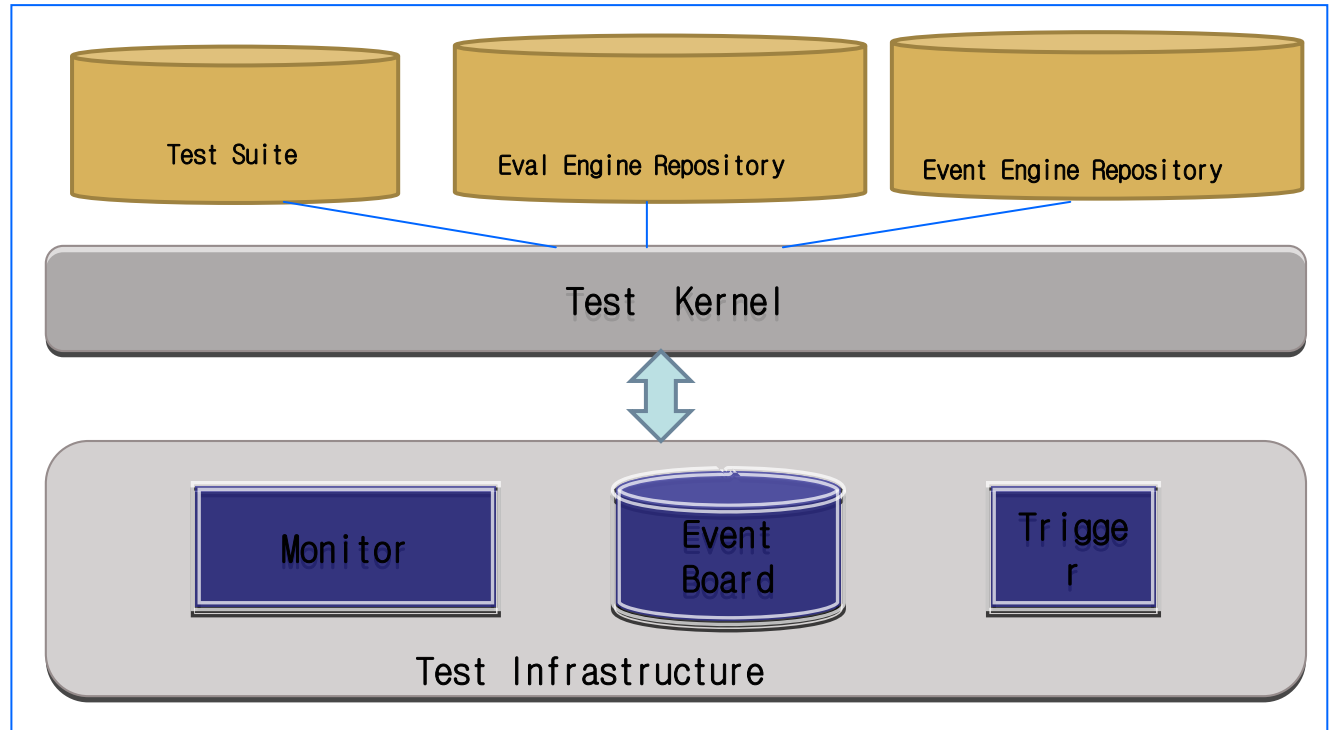
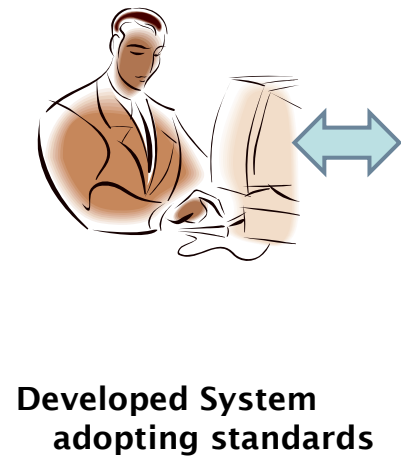
Learned from Best Practice

Interoperability & Conformance Test is



Learned from Best Practice

KorBIT Testbed



Learned from Best Practice

- KorBIT Interoperability Testbed (www.korbit.org)

[Test Scope]

- : ebMS(ebXML Messaging Service) v2.0
- : Schema validation of ebXML Message (NDR, CCL)

[International Cooperation]

- : Korea(KIEC, Postech), USA(NIST, OASIS), EU (ETSI, FP7), Asia(eAC)

[Test]

- : 03 ~ eAC Interoperability Test (Korea, Japan, HK, Chinese Taipei etc)
- : 06 ~ Invited to 'ETSI Plugtest' by ETSI
- : 07~ OASIS TAMIE, TAG

[Benefits]

- : Qualified (Certified) ebMS solutions deployed on Korean Single Window Projects
- : Qualified (Certified) ebMS solutions made projects successful

Learned from Best Practice

“Experiences and Learned Lessons”

- Need tremendous efforts (complex technology in standard stacks), but skilled experts are lack
- Open cooperation is a key to continue these huge jobs.
- Interoperability test can contribute to qualify Single Window.

“Contributions”

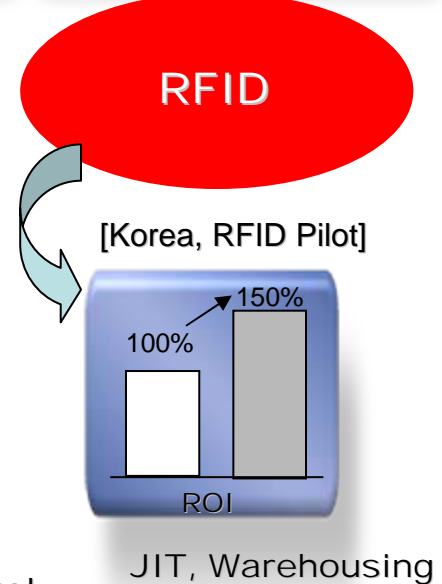
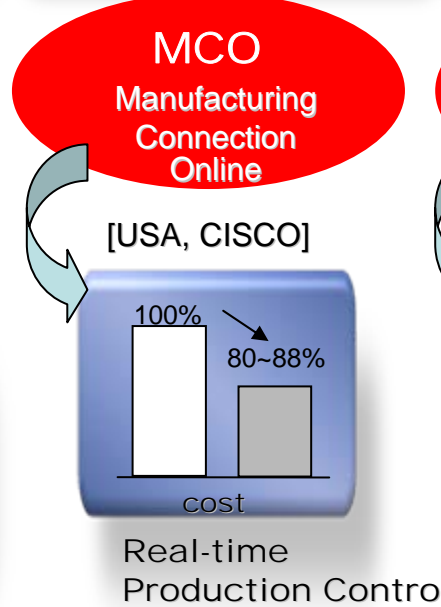
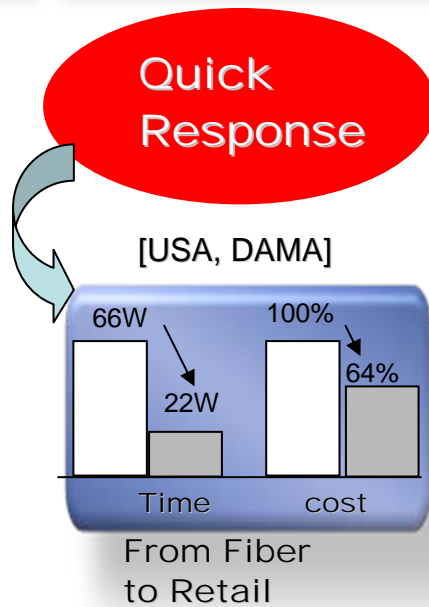
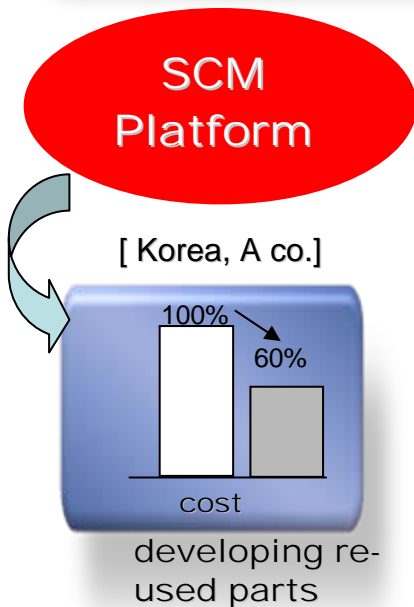
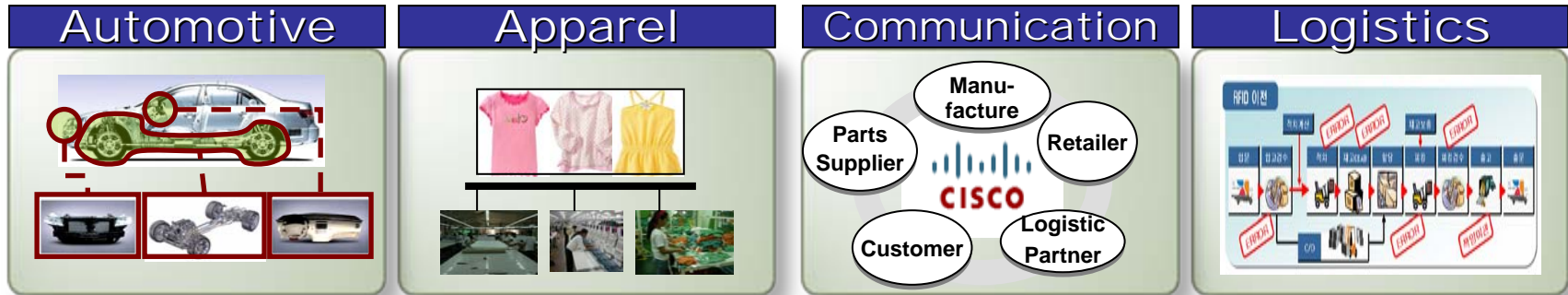
- Drummund Certification (USA) testing fee over 20,000 USD
- KorBIT (Korea) testing fee “Free of Charge”

My Message

- Now, whole Asia IT infra is too weak for enterprise to make e-business easy.
- Interoperable Single Windows in Asia could bridge IT and benefits.
- For that purpose, its framework(guideline) and testbed are very important.

Future AFACT should play more important role
in bridging IT within Asia region
in order to poster Asia Economy
by utilizing IT and Standard

Case Study : IT innovation



- Thank you
- 감사합니다.
Gam sa ham ni da