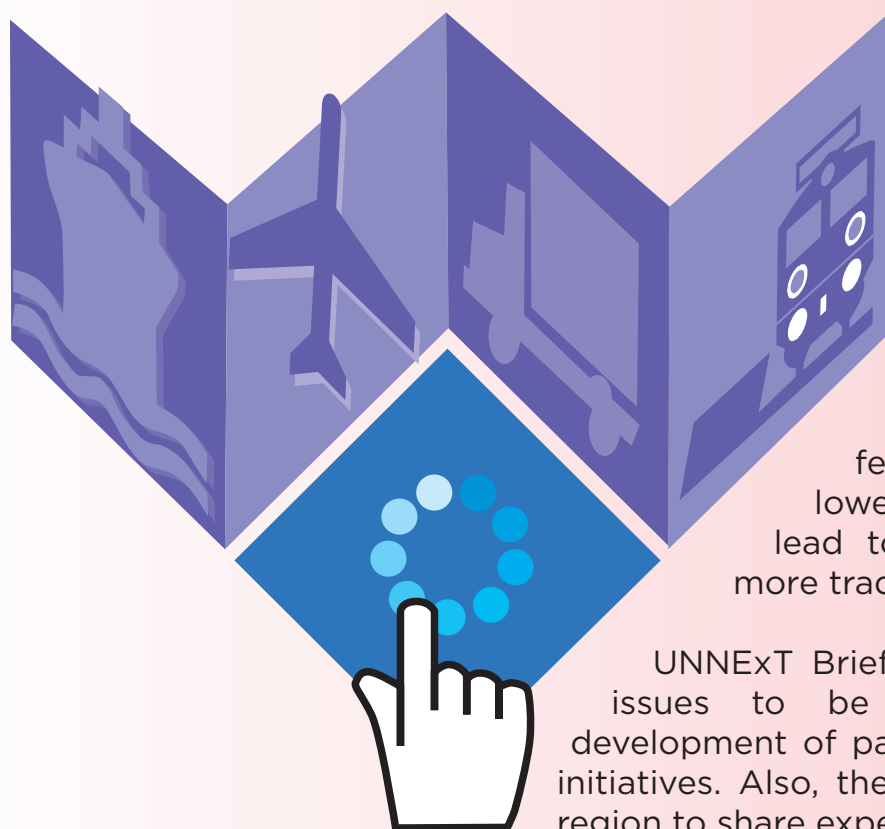


TOWARDS A SINGLE WINDOW TRADING ENVIRONMENT

Case of Korea's National Paperless Trade Platform – uTradeHub



A number of countries in the Asia-Pacific region are in the process of establishing national Single Window (SW) facilities. A Single Window would help to simplify trade processes and procedures and improve transparency and predictability in international trade transactions. This means fewer complexities, less delays and lower costs of trade that can ultimately lead to improved competitiveness and more trade.

UNNExT Brief series covers a range of critical issues to be addressed in the successful development of paperless trade and Single Window initiatives. Also, they showcase best practices in the region to share experiences and lessons learned.

This Brief introduces Korea's national paperless trade platform, uTradeHub, which is recognized as a good practice in the region as well as in the world. The Brief covers policy background and legal framework, evolution of the system and its services, governance structures for its operation, and future enhancement plans. The Brief also highlights the significant benefits to the trading community, and success factors and lessons learnt in the implementation of the uTradeHub.

Developing National Paperless Trade Platform - Case of Korea's uTradeHub

Background

Korea has been promoting an export-driven economic development strategy since 1960 and has emerged as one of the major exporting countries in the world. Korea's export volume rose to US\$ 363.5 billion in 2009 from US\$ 100 million in 1964, making Korea the 9th largest exporter in the world. At the same time, with foreign trade reaching 82.4% of the country's GDP in 2009, Korea has become highly dependent on trade for economic growth and development. Exports are expected to remain an important driver of the Korean economy.

The substantial increase in the trade volume within such a short time, however, posed the issue of inefficiency when it came to the volume of transactions. Essential documents for export/import transactions have been exponentially increasing as the trading volume expanded. Handling huge amount of paper work and the resultant high costs have become one of the biggest concerns to all parties involved in trade transactions. This is why the Korean government adopted paperless trading as a major trade facilitation policy to enhance efficiency in trade and further improve country's competitiveness.

Progress in Paperless Trade of Korea

1989 was the turning point for Paperless Trade in Korea. The Ministry of Commerce, Industry and Energy (MOCIE) completed the 'Basic Plan for Foreign Trade Process Automation' which laid-out the fundamental institutional base for adopting Paperless Trade. Afterwards, the Trade Business Automation Project Team was established in the Korea International Trade Association (KITA), the foremost trade promotion organization in Korea. The Project Team was tasked to solve problems caused by the rapid growth of international trade, which in turn increased labour costs and extra costs accompanied by the process of printing and circulating documents. At the same time, it also set strategies for Trade Business Automation focusing on standardization of trade documents.

Since 1989, promotion of Paperless Trade in Korea has gone through 4 broad stages:

1. The Introduction Stage (1989 ~ 1993) prepared grounds for institutional arrangements to introduce EDI-based Trade Automation. During this period, the 'Basic Plan for Foreign Trade Process Automation' (Oct. 1989) was prepared, followed by other measures such as establishing KTNET (Jun. 1991) and enacting the 'Act on Promotion of Trade Business Automation' (Dec. 1991).

2. The Growth Stage (1994 ~ 2000) includes the launch of the following services:

- EDI service for export/import approval and Letter of Credit (L/C) [Jan. 1994];
- Export declaration [Dec. 1994];
- EDI service for import declaration [Jul. 1996];
- Export/import Manifest Consolidation System [Dec. 1996];
- EDI service for export/import freight and tariff duty refunds [Jul. 1997];
- e-C/O (Certificate of Origin) and notary of Commercial Invoice and Internet-based EDI service [Jun. 2000].

During this period, the scope of electronic documents was expanded to cover the electronic processes of major export/import-related tasks in order to enhance the efficiency of export/import procedures.

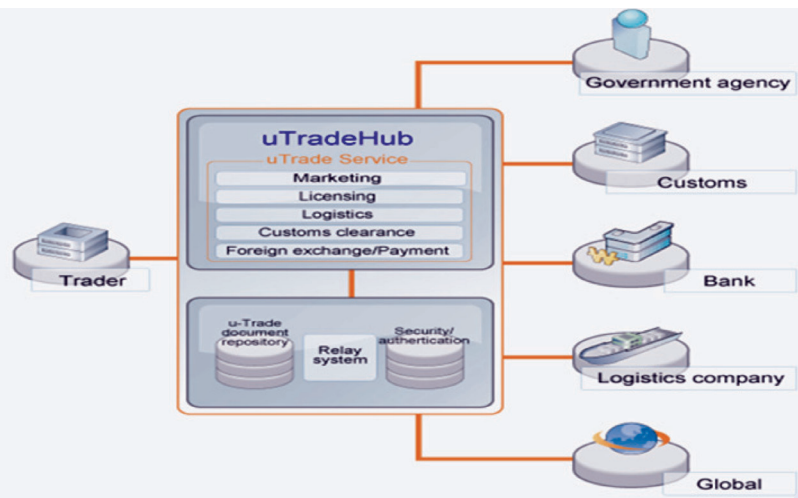
3. At the Take-off Stage (2001 ~ 2007), the Paperless Trading project was accelerated through the following actions:

- Joined the Pan Asia e-Commerce Alliance (PAA) [Mar. 2001];
- Developed Internet Management System of Logistics (eLogisFrame) [Dec. 2001];
- Established the National e-Trade Committee [Jul. 2003];
- Prepared the Plan for e-Trade Facilitation [Dec. 2003];
- Amended the e-Trade Facilitation Act and launched the project for internet-based national Paperless Trading system [Dec. 2005]; and
- Opened the uTradeHub [May 2007]

The need for Internet-based services soared at this stage with the rapid development of Information Technology and widespread use of Internet. Under such circumstances, it was possible to set up a plan to build the uTradeHub and provide Internet and XML-based Paperless Trading services. The uTradeHub is a Paperless Trade platform that enables traders to process electronic trading with government organizations, Customs service, banks, logistics firms through a seamless system interface (see figure 1). The uTradeHub also guarantees safe storage and maintenance of trade information through the authorized trade document repository and relay system.

4. At the Upgrade Stage (2008 ~ present), the uTradeHub was upgraded for wider dissemination of Paperless Trade. By then, the uTradeHub gained widespread overseas recognition as a good Paperless Trading system and built global

Figure 1: uTradeHub Concept



network for Paperless Trade. This stage has deepened paperless trade with the following activities:

- Ministry of Justice designated KTNET as 'Electronic Bill of Lading (e-B/L) Title Registry' [Sep. 2008];
- Launched service on purchase confirmation [Nov. 2008]; and
- Built electronic negotiation (financial settlement) system and completed a pilot project with Hyundai Motor Corporation [May 2010].

The current focus is on further upgrading and disseminating the services of the uTradeHub.

User and Service Status of Paperless Trade

The uTradeHub offers various services by linking its platform with systems of approximately 30,000 trading and logistics firms, and banks (see figure 2). The major users of the uTradeHub are trading firms (24,570). The rest of the uTradeHub users comprises of forwarders(2,838), logistics firms(2,180) and customs brokers(1,116) that provide services of export/import, customs clearance, trade financing and financial settlement.

Not only export/import-related services but also a comprehensive list of related services, including logistics, customs clearance and licensing/certification, is covered in the uTradeHub as shown in Table 1. In general, there are 7 main services such as notifying export L/C, local L/C and opening import L/C in trade financing area. The Certification part covers 4 services including certificate of origin and freight insurance policy. In addition, 3 services such as export clearance, import clearance and tariff duty refunds are provided in customs clearance part. At last, services of logistics are for declaring transportation of bonded goods and manifest, etc.

Figure 2: Current User Status of Paperless Trade in Korea

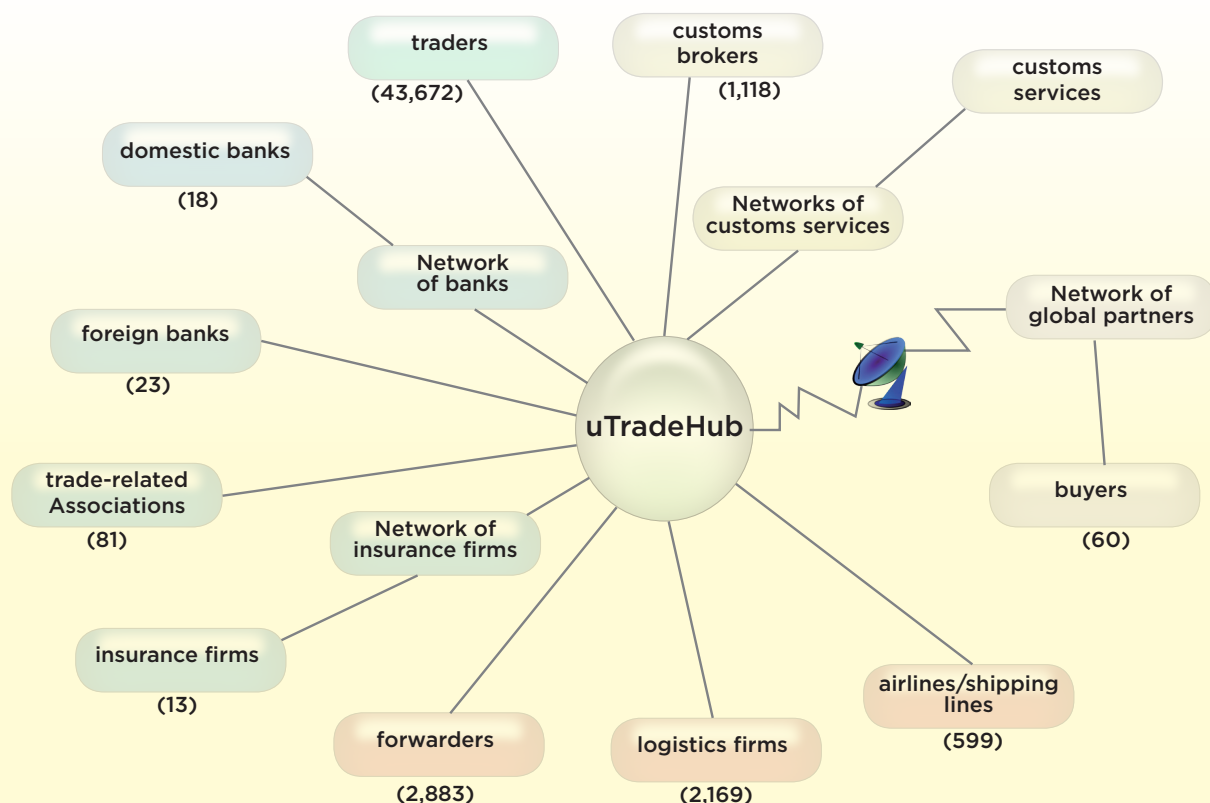


Table 1: Major Services of Paperless Trade

Area	Services
Trade Financing	Export L/C notification Letter of Guarantee Local L/C notification Import L/C opening Local L/C Nego Open Account Nego Master L/C Nego
Licensing/Certification	Purchase confirmation Certificate of Origin Insurance Policy Export/Import Certification
Customs Clearance	Export clearance Import clearance Tariff duty refunds
Logistics	Transportation declaration of bonded goods Exports/Imports decalaration Manifest declaration Delivery of Order

Benefits from Paperless Trade

Compared to the traditional off-line trade, Paperless Trade delivers many benefits:

- It takes less time to complete export/import process by saving time for issuing and circulating documents through EDI and XML-based electronic way.
- Security of electronic documents is guaranteed in the uTradeHub through the u-Trade Document Repository for saving and managing documents and through the certificate system for proof of identify.
- The process for handling documents is more transparent than before because systems

linked with banks, shipping lines and related organizations enable real-time reports of the process as well as the prevention of document forgery.

The uTradeHub is estimated to bring economic benefits of around US\$ 3 billion (Table 2). First, electronic export/import process is expected to save around US\$ 550 million by reducing labour costs and costs of issuing and circulating documents. Second, it is expected to save US\$ 2.9 billion by reducing costs of warehousing and inventory management. Finally, estimated cost cutting is approximately US\$ 320 million from the reduction of redundant investment in IT sector.

Table 2: Estimated Economic Benefits of Paperless Trade

Sector	Contents	Amount
Productivity Increase	Reduction of labor costs	US\$ 263.3 million
	Reduction of printing costs	US\$ 19.1 million
	Reduction of circulation and storage costs	US\$ 271.9 million
Reduction of Extra Fees	Reduction of warehousing costs	US\$ 1.36 billion
	Reduction of inventory management costs	US\$ 750 million
Additional Benefits	Reduction of redundant investment in IT sector	US\$ 318 million
Total		US\$ 2.982 billion

Source: Hyundai Research Institute, 2006/SK C&C ISP, 2009

Legal Framework for Paperless Trade

It is necessary to support legal and institutional framework enabling Paperless Trade, a new way of trade process, to substitute for the traditional paper-based way. Korea enacted the ‘Act on Promotion of Trade Business Automation’ in 1991, the very beginning of Paperless Trade, and fostered a positive environment for EDI-based Paperless Trade. In 2006, the Act was fully revised into the e-Trade Facilitation Act, making it the underlying Act for Paperless Trading process accommodating Internet-based environment.

Additionally, legal foundation is offered by the Framework Act on Electronic Commerce (1999), Digital Signature Act (1999), Act on

Governance of Paperless Trade in Korea

The management structure of Paperless Trade in Korea is generally based on Public-Private collaboration system with the National e-Trade Committee at the centre. The National e-Trade Committee, chaired by the Minister of Knowledge Economy of the Korean government, works for establishing policies regarding Paperless Trade. In parallel, the e-Trade Facilitation Committee from Private sector consolidates views and requirements from private sector covering trading firms, banks and shipping lines.

At operational level, the Korea Paperless Trade Office of KITA is committed to the establishment of Paperless Trading system and carries out

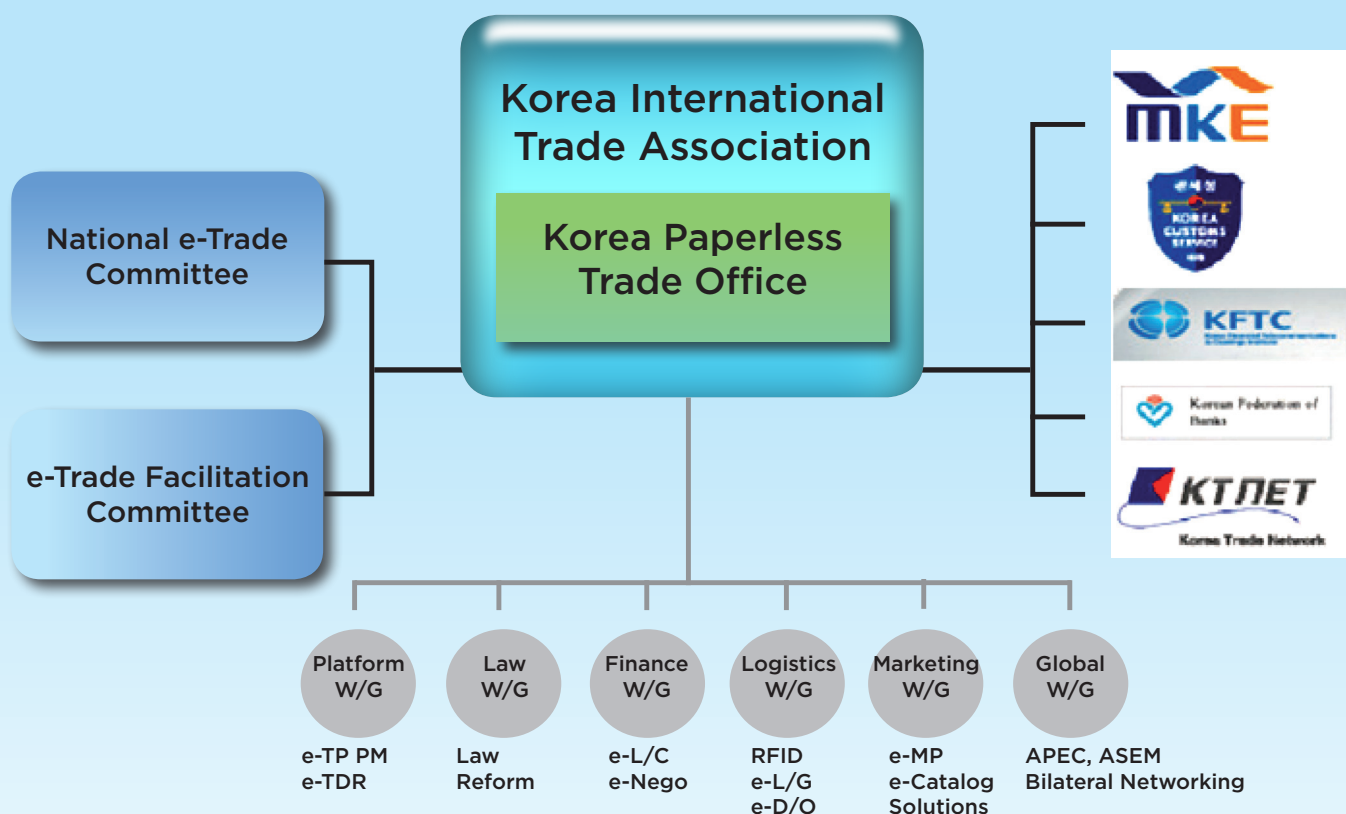
Table 3: Major Acts for Paperless Trade in Korea

Act	Description
e-Trade Facilitation Act	<ul style="list-style-type: none">• Fundamental Act on Paperless Trade• Internet-based Infrastructure for Paperless Trade• Duty to use Paperless Trading infrastructure
Framework Act on Electronic Commerce	<ul style="list-style-type: none">• Legal validity on electronic documents• Policies on promoting electronic transactions
Digital Signature Act	<ul style="list-style-type: none">• Definition and legal validity of electronic documents and digital signature• Guideline for operating public certification authority
Act on Promotion of Information and Communications Network Utilization and Information Protection	<ul style="list-style-type: none">• Guideline for building and using information network• Guideline for data privacy
Provision on electronic Bill of Lading in the Commercial Law	<ul style="list-style-type: none">• Legal validity on B/L• Logical basis for circulating electronic documents overseas (e.g. e-B/L)• Guideline for operating e-B/L registration authority

Promotion of Information and Communications Network Utilization and Information Protection (2001) for validity of electronic documents and digital signature as well as operation of Paperless Trading system. Especially, the legal foundation for electronic Bill of Lading was prepared in 2008 by the revision of Commercial Law which defined the guideline for enforcement such as the role of the registration authority issuing and circulating electronic Bill of Lading.

policies as the secretariat of the e-Trade Facilitation Committee by managing working groups related to platform, legal framework, finance, logistics, etc. In addition, KTNET has provided trade-related organizations with various Paperless Trade-related services and maintained the uTradeHub as the infrastructure service provider.

Figure 3: Governance of Paperless Trade in Korea



Key Elements of Success in Paperless Trade

A few reasons made it possible for Paperless Trade in Korea to rapidly grow in the last 20 years. First one is strong policy driven by the government. At the centre of the National e-Trade Committee lies the Ministry of Knowledge Economy, which has contributed to strong partnership with the e-Trade Facilitation Committee to cooperate in establishing and carrying out trade-related policies. Particularly, in order to cope with 9th-biggest trade transaction volume in the world and enable whole trading process to be operated electronically in a seamless way, consistent collaboration with other government agencies has been sought in interface with other critical systems such as the integrated national information system of logistics built by the Ministry of Land, Transport and Maritime Affairs and the UNIPASS, electronic Customs clearance system by the Korea Customs Service.

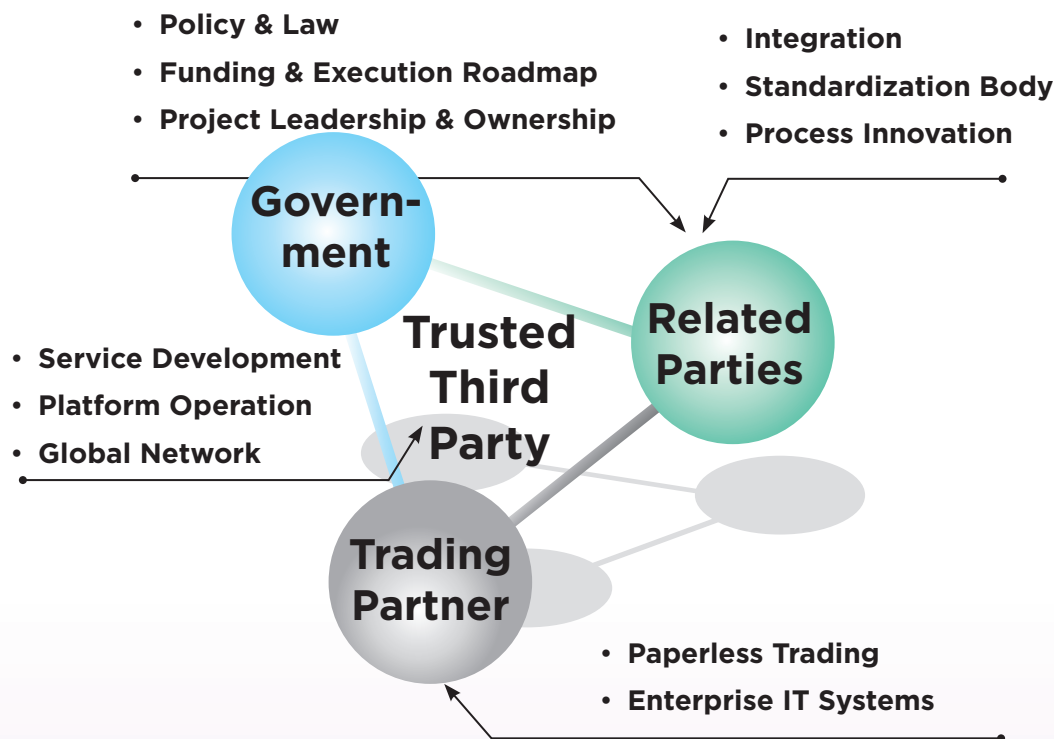
The second key element is to prepare legal framework for paperless trade. This helps to set up systematic legal framework for Paperless Trade by the policies and foundation to establish

and operate Paperless Trading system as well as giving legal effect to electronic documents and digital signature.

Third one is active collaboration with Private sector. The Korea Paperless Trade Office of KITA has devoted to not only consolidating opinions for setting up and implementing policies but also configuring practical cooperating mechanism among trading firms, banks, shipping lines so that Paperless Trade can be widely implemented in B2B sector.

Finally, highly developed IT infrastructure can not be missed out. As a country with strong IT industry, having competitive edges in Internet, semiconductor and cellular phone, etc., Korea owns well developed IT infrastructure in Public and Private sector, offering fundamental condition for realizing Paperless Trading process. It was also possible to develop new process in a short time due to the availability of highly qualified human resources in System Integration.

Figure 4: Public-Private Partnership for Paperless Trade in Korea



Lessons Learnt & Future Tasks

The rapid growth of trade volume as well as inefficient process in the paper-based trading system have motivated Korea to establish policies for Paperless Trade since the end of the 1980's. Korea implemented the uTradeHub to realize Paperless Trade as a major trade facilitation measure.

There are several conditions to meet to achieve goals of trade facilitation policies and to make Paperless Trade come true in a country.

- First, it is fundamental to make efficient policy-making system of government and collaborate with private sector. Since trading involves all of B2G, G2B, B2B transactions, the project should go on with the leadership from government and cooperation with business sector.
- Secondly, Information system needs to be set up for realizing Paperless Trading process. Korea made it real through the uTradeHub and systematically linked it with logistics and customs clearance systems.
- Thirdly, legislation of laws should be implemented for the validity of electronic documents to be issued and circulated as the essential step. Korea guarantees the

validity by various laws like Act on e-Trade Facilitation and the process of electronic Bill of Lading in the provision on electronic Bill of Lading in the Commercial law.

- At last, it is necessary for stakeholders to embrace the change. Paperless Trade is regarded as the paradigm shift from paper-based system to paperless system. Stakeholders' transition to paperless trade should be fully facilitated.

Korea has been a high performer in Paperless Trade for the last 20 years with consistent investment and strong commitment. Next move is to contribute to the realization of global Paperless Trade by sharing the experience and know-how with other partner countries and international organizations through close cooperation. In particular, participation in cooperative programs on paperless trade initiated by international organizations, such as UN and APEC, bear much importance in that they can effectively promote trade facilitation and economic growth at regional and global level, which will bring great benefits to trading communities.



This Brief was prepared by the Paperless Trade Office of the Korea International Trade Association, Republic of Korea. For questions and comments on the specific details of the case, readers may write to Juyeon Ha (mileyha@kita.net) The Brief was reviewed, edited and published by the Trade Facilitation Section of UNESCAP on behalf of UNNExT.

We welcome your feedback as well as expressions of interest in our work on trade facilitation. For further information, please write to Director, Trade and Investment Division, ESCAP

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The United Nations Network of Experts for Paperless Trade in Asia Pacific (UNNExT) provides a networking and knowledge-sharing platform for policy makers, practitioners and technical experts to bridge the implementation gaps between the countries with different level of trade facilitation. Its mission is to establish an ongoing community of knowledge and practice to facilitate the implementation of single window and paperless trade in the Asia-Pacific region. The UNNExT intends to enhance capacity of its members to make informed decisions about policy issues at stake and to implement related international instruments and standards. It is operated jointly by the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) and the United Nations Economic Commission for Europe (UNECE).

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