

Single Window

- Assessment Methodology
- e-Commercial Documents Exchange --- Regional Single Window

<A> Single Window Assessment Methodology (SWAM project by UN/CEFACT)

1. Overview

The WTO Trade Facilitation Agreement (TFA) stipulates as follows in Article 10.4

"Members shall endeavor to establish or maintain a Single Window, enabling traders to submit documentation and/or data requirements for importation, exportation, or transit of goods through a single-entry point to the participating authorities or agencies."

Although the UNECE Recommendation 33 provides a comprehensive definition¹ of the Single Window concept, countries seem to interpret its various components selectively, resulting in different interpretations of what it means to "have a Single Window" in each country.

There are two main reasons why it happens:

1. Each country needs to adapt the implementation of the Single Window to its specific circumstances.
2. There has been no standardized measure to assess whether a country's Single Window meets global standards.

Under such situation, the UN/CEFACT Single Window Domain initiated SWAM

¹ "A facility that allows parties involved in trade and transport to lodge standardized information and documents with a single entry point to fulfill all import, export, and transit-related regulatory requirements." (definition of SW in Recommendation 33 of UNECE.)

project in 2021 to create a white paper that offers guidance and a tool for assessing the implementation of a Single Window. This paper can be valuable for anyone interested in assessing and enhancing their Single Window implementation. It outlines key factors to consider during a self-assessment, including analyzing the functioning and key indicators of the Single Window, surveying users to gauge their satisfaction levels, and identifying areas for improvement.

Since different countries may adopt different approaches to achieve the same goal, the paper serves as a checklist and reminder of the essential elements to evaluate during the assessment process. Its objective is to assist the relevant authorities in each country in assessing the maturity of their Single Window, promoting continuous improvement, and ultimately facilitating global trade.

2. Outline of Assessment Methodology

(1) Basic Assessment from the compliance with the definition

(2) Assessment by Key Factors

(3) Objectives based Assessment

(4) Assessment on Institutional and Legal Framework

(5) Assessment on Information Technology Framework

(6) Single Window Performance Assessment

- Separately, as Annexures, Models of Questionnaires to each programmed target are provided for the convenience of carrying out an actual Assessment.
- The white paper is currently in the final stage of publication, so the following information should be considered as preliminary. The white paper will be substantial, likely exceeding 50 pages, and the following description provides an overview of the anticipated content along with accompanying comments. While the final white paper may have a different appearance, the content is not expected to differ significantly.

2.1 Basic Assessment from the compliance with 5 key elements in Recommendation 33

(1) Participants of Single Window are both from Public sector and Private sector.

Trade and Transport industries are involved.

(2) Standardized information and documents.

Use of internationally recognized standards where they exist for the coordination between stakeholders and government.

(3) Single entry point is prepared for the submission of all data concerning a transaction.

(4) Fulfilling regulatory requirements

Single Window fulfils a government function and, as such, it has received a relevant mandate from the government to perform these actions.

(5) Single submission

Every data item and every document submitted by a trader as part of an international trade transaction would be submitted to the Single Window only once and then reused as necessary for all agencies/authorities involved.

2.2 Assessment by Key Factors (description under Recommendation 33)

(1) Political will

- Steady operation and constant progress are essential for Single Window for which it is necessary to have a support from the top of the government.
- An adequate mechanism that can overcome even a political change of government will be desirable.
- Importance of users' will on Single Window to collaborate with government to its implementation.

(2) Strong Lead Agency

- Single Window shall be supported by legislation or government decree, providing a strong mandate for the lead agency.
- Lead agency shall ensure alignment with current and future needs of the public.

(3) Engagement and Collaboration between Single Window and Business Community

- The final end of Single Window is to enhance the global trade and the knowledge on global trade possessed by Business community. Therefore a strong partnership between Single Window and Business community shall be established.

(4) Ease of use, accessibility, and support

- Utilization rate of Single Window services for regulatory filings (EXIM Declarations) and LPCO (License, Permission, Certification, Others) submissions, graded as low (0% to under 30%), medium (30% to 50%), above medium (50% to under 70%), and high (70% and over).
- (5) Legal or Governance Framework
- Provisions related to e-customs, e-commerce, transport, and logistics, concerning the validity of e-documents, and submitting and exchanging data using e-signature.
 - Provisions related to the admissibility of e-documents and messages as evidence in the court.
- (6) Standardization and Interoperability
- Compliance with UN/CEFACT recommendations such as Rec.No.1 and No.18.
 - Adoption of WCO Data Model
 - Utilization of ISO and GS1²
- (7) Financial Sustainability
- Stable financial resources such as government, banks, international bodies, PPP.
 - Presence of a self-sustaining operating model.
- (8) Public Awareness and Communication
- Public Outreach activities, such as events, presentations, advertising campaigns.
 - An effective marketing strategy
- (9) Operational Continuity and Disaster Recovery
- Availability of backup and restore processes to ensure system continuity and data recovery.
 - Implementation of data governance policies to ensure privacy, security and compliance

² GS1 (Global Standards 1) An international standards organization with member bodies in more than 100 countries worldwide.

- Clarity of recovery plans in case of disasters or system disruptions.
- (10) Environmental and Social Sustainability
- The percentage of paperless transactions processed through the Single Window, compared to the total transactions processed.
 - Reduction of greenhouse gas emissions. (reduced physical visit to agencies)
 - Sustainable use of resources.

2.3 Objectives based Assessment

<Meet with Government expectations>

- (1) Improved co-ordination among related governmental agencies
- (2) Efficient sharing of trade-related information among governmental agencies
- (3) Maintaining all related digital data and share among agencies
- (4) Use digital data for risk management and minimize physical inspection.
- (5) Easy analysis of trade flow data, which is also usable for statistic report
- (6) Increased efficiency in revenue collection
- (7) Improved trader compliance through the integration of legal and procedural requirements
- (8) Harmonized procedures across different agencies

<Meet with Business expectations>

- (9) Traders can submit all required information at one time to Single Window
- (10) Distribution of information gets faster and more accurate
- (11) Data transfer errors are minimized by using Single Window
- (12) Realizes faster customs clearance, speeding up supply chain
- (13) Increase transparency and reduce corruption
- (14) Lower administrative cost
- (15) Provides enhanced transparency on regulatory requirements

2.4 Assessment on Institutional and Legal Framework

- Evaluate the regulatory framework governing the introduction and development of the National Single Window, including identifying any legal gaps.

- Identify any barriers to trader interaction with government agencies, as well as impediments to the development of e-commerce by examining relevant acts governing the activities of government agencies in the areas of state regulation of international trade.

2.5 Assessment on Information Technology Framework

- (1) Analyze the technical and functional architecture of current Single Window.
- (2) Evaluate its adequacy.
- (3) Evaluate the level of security and technical infrastructure to mitigate risks.
- (4) Determine the degree of IT services development (e-government, interdepartmental information interaction, e-Payment etc.)
- (5) Framework to provide recommendations of developing technologies for Single Window.

2.6 Single Window Performance Assessment

- (1) Analyze functioning and its key indicators.
- (2) Whether performance is satisfactory for both government and business users.
- (3) Identify any problems.
- (4) Proposals for further development.

< B> Cross-border e-Commerce through UN/CEFACT Single Window Guidelines

- Regional Single Window
- Liberated Single Window

1. Review of current situation

<Mutual linkage of SWs>

- As a new project following SWAM, there is an idea to promote the utilization of Single Window for cross-border e-Commerce through UN/CEFACT Single Window Guidelines. The objective of Single Window is, as repeatedly declared, to facilitate and promote global trade, beyond just streamlining regulatory

procedure in the country.

- Trade is always conducted crossing border, so National Single Window (NSW) in one country cannot solely cover the whole trade transactions.
- Cross-border linkage of NSWs is already partially realized in the world as Regional Single Window (RSW), like ASEAN Single Window (ASW). However, despite the initial plan (implementation stage, about 10 years ago) to exchange commercial documents through ASW, the actual exchange has been mainly regulatory documents like certificates of origin and sanitary certificates. The exchange of commercial documents, such as invoices, has not been sufficiently expanded.

<e-Trade Platform>

- A slight difference of the environment compared with a decade ago is that presently “Electronic (e-) Trade Platforms” are emerging worldwide to facilitate business-to-business exchange of trade-related information among shippers, forwarders, transporters, banks, insurance companies, etc. and finally such commercial information are transferred crossing border to trade counterparty through the linkage of e-Trade Platforms etc.
- These e-Trade Platforms are, unlike Single Windows, generally developed and operated by the private sector, with individuals from various industries directly involved in trade. Therefore, even if they found some issues to overcome for realizing free exchange of commercial documents, they may break such situation utilizing their extensive knowledge on characteristics of commercial documents and experience of handling them, through their daily work.

2. Options to realize cross-border exchange of commercial documents>

So, from the standpoint of Single Window, there may be some options to become competent in handling commercial documents.

(1) 【Regional Single Window】

- Create various Regional Single Windows (RSWs) worldwide. Each RSW makes

efforts to expand its capability to handle exchange of commercial documents, similar to the ongoing efforts of the ASW. RSWs should also seek to establish connections with each other, aiming at global coverage. The use of international standard data models and other relevant tools will be crucial to achieve success in this journey.

(2) **【Liberated Single Window】 【e-Trade Platform】**

- Single Window is a rigid system by virtue of handling regulatory issues, but at the same time, in order to support trade industry more strongly, it will be necessary to have flexibility to be a “Liberated Single Window”, accepting linkage from outside-systems such as private driven e-Trade Platforms, etc.
- In practice, some Single Windows already work partly with users directly and partly through third-party websites or platforms.
- Depending on the e-Trade Platforms, they aim to link with foreign platforms to create a cross-border network of e-Trade Platforms.
- When a Single Window collaborates with an e-Trade Platform, there will be a possibility that a Single Window of one country indirectly connects with Single Windows in other countries through the network of private e-Trade Platforms. This will enable seamless logistics flow from export customs procedures to import customs procedures, thereby facilitating global trade.

3. Issues to be addressed for realizing cross-border exchange of e-commercial documents
(These points include personal views.)

(1) Creation of Standardized format for e-Commercial Document

- [Difficulty in creation]
For over a decade, it has been recognized that significant effort is required to create and maintain standardized formats for e-commercial documents. Among these documents, invoices are particularly important for billing and receiving payment from importers. However, invoices can be complex, with numerous items,

making it impractical to create a standardized format that covers all types of invoices. Other commercial documents may have less items, but not so simple, either.

In contrast, the information required for customs declarations may not be as detailed as what are needed to mention in invoice for commercial purpose.

- [Way to slip through Difficulty: Standardization of the basic part of invoice]
Taking invoice again as an example, considering the challenges mentioned above, one approach is to divide the invoice into two components. The first part will cover only the most important portion of commercial transactions, securing the extent to fully covers all requirements for regulatory procedures, such as customs clearance and statistical records as well. All commercial invoices will have such basic part at least as a minimum requirement for invoice. The number of common items in this part is limited, making it less challenging to standardize them according to international data models. The second part would encompass the remaining details of the invoice, including specific goods descriptions and conditions. For this portion, all parties involved in the transaction should collaborate to establish a common but private standardized format that can be used among concerned parties or within the same industry, preferably based on international data models. If creating a standardized format for this part proves difficult, it may be possible to enclose the information, as is, in an envelope and attach to the invoice where first part only is standardized.

(2) Need for conversion between in-house formats and Standardized formats

- Even if a standardized format is created using the above approach, many trade-related companies generate commercial documents in their own formats, which would need to be converted into the standardized format.
- For such conversion, after mapping work between two formats, some module will be built to automate conversion for daily operation.

(3) Regional Legal Framework for Cross-border e-Commercial Transactions

- If the restriction by the Legal Framework is severe, it may cause large deviation from the Local Laws of the member countries and will make it difficult to get mutual agreement. If the restriction is soft, it will cause users to feel unconfident whether their rights through e-trade transaction will be legally protected.
- Regional Single Window Agreement is sometimes specified to be subject to Local Laws. The parties in commercial transaction shall be bound by the same rule to ensure their business rights, while Agreement for RSW is sometimes subordinate to national laws. Theoretically two parties are bound by respective different national laws.
- For example, in the “Protocol on the Legal framework to implement the ASEAN Single Window” (effective 2015.09.04) in the Article 15 “Legal Effect of Electronic Documents, Data and Information”, point 2, it is stipulated as follows: “Subject to national laws, rules and regulations of each Member State, authenticated electronic documents produced in connection with transactions under this Protocol may be admissible as evidence of any fact stated therein.”
- Regulatory documents, such as Certificate of Origin, scarcely cause legal trouble. However, Commercial documents may be used in transactions between parties with conflicting interests, too. In case of Cross-border transaction by means of Paper documents, there are many legal precedents on conflicts, and people have common sense on handling the matter. But Cross-border e-Trade is comparatively new. Therefore, it is very important to have a firm Legal Framework capable for enforcement, when necessary.

4. Further Consideration

- (1) **【Data Pipeline】** Possibility of conducting exchange of commercial information without “Document”

- <Pipeline Data Exchange Structure (PDES)>
 - If commercial information can be exchanged without resorting to the electronic documents, the document-related hurdles, such as difficulty on making standardized format with corresponding layout, or costly development of conversion module from user's inhouse format to the standardized format, can be eliminated.
 - PDES has been originated in the European Union (EU), customs union, under its specific environment.
 - In the PDES, the data, input by the originator, is used by all subsequent actors. In case of trade, originator will be mostly Consigner and the subsequent actors will include Customs of both Export and Import countries, Forwarders, Carriers, Banks etc.
 - In the current commercial transactions, various documents are used for exchanging information such as invoice, B/L etc. However, thinking a bit more intensively, all what concerned people need are data, contained in such documents. Documents are only convenient means to carry data, while different documents are carrying the same data. If necessary-data reach directly to the authorized concerned people that need them, it may not be necessary to depend upon document.
- Apply PDES to Customs procedure in Trade flow
 - The Consignor holds the most accurate shipment data that are inputted by Consigner to a PDES at the data collection point. All subsequent authorized parties receive data corresponding to them at their storage through PDES.
 - Not only the customs of exporting country but also the customs of the importing country can be authorized parties to receive original data inputted by Consigner. This concept bears similarities to the ASEAN Customs Declaration Document (ACDD), an option provided to the consignor at their export declaration in the ASEAN region.
 - Nevertheless, this does not imply that import customs clearance can be achieved solely using the data outputted by the customs of the importing country. The data is meant for internal use by customs for cross-checking import declarations that

importers themselves create by extracting separately the same data from PDES. This is quite natural, because authority can hold only the resident importer legally accountable for the importation case.

- The Import Declaration will need to be a visual document that can be checked and judged by customs officers unless the customs office employs an AI-based automatic judgment method.

○ Visualization of Data

- Humans cannot perceive electronic data as it is. Humans need to know composition of various data to understand a message that those data reflect. So, if humans have to check or judge the data, it is necessary to visualize them and to locate them onto a Layout of a document or a screen.
- Data Pipeline is said to possess the capability to visualize data automatically. However, the Data Pipeline should not autonomously determine the layout and where each data element should be located on it, even if it incorporates AI that can suggest the most suitable or probable allocation. Machines do not assume responsibility for the outcome, anyway.
- Instead, humans should establish standardized document and indicate the corresponding allocation of each data element onto such layout, under their own responsibility.
- It means that even by adopting PDES, humans can't be entirely free from standardization or conversion of formats, although there may be some chance to decrease workload.
- In certain cases, such as in-house trading within group companies without conflict of interest, some data may be able to be used directly without being sorted into a document.

(2) 【Algorithmic Automatic Trading】

- Moving Goods and Properties crossing border is the Final Purpose of Trade.
- In case of Stock Deal in Sleeve system, execute trade based on predefined rules and parameters where monitoring stock market movements and automatically

buying at a specified lower limit and selling at a specified upper limit.

- Similar computer algorithm may be possible to be applied for the repeated procurement of prime material for plant operation, such as to monitor inventory levels and issue inquiries to pre-approved suppliers when stock reaches a certain threshold. These systems can evaluate the proposed prices and automatically generate contracts with the most favorable terms from the eligible suppliers.
- In such case, although the overall framework is structured by humans, the direct concerned parties of each transaction is exporter's system and importer's system that can handle solely Data without needing documents, including financial settlement.
- In such case, only issue is, if the customs require shipping documents like invoice, apart from Declarations of Traders. It will depend upon the regulation of each country. Filling up of Declaration format by mapping corresponding data will not be so difficult. However, the function of the Customs is related to the national security that cannot be spoken only from efficiency.
- Anyway when we consider further Trade Facilitation introducing electronical systems like Single Window, or e-Trade Platform, it will be necessary to have orientation to collaborate globally.