

Guide for operationalization of the **Single Window**



Introduction

The Islamic Centre for Development of Trade (ICDT) is the subsidiary organ of the Organisation of Islamic Cooperation, which has been entrusted with trade promotion and investment among the OIC Member States.

Its main objectives are as follows:

- To encourage regular trade exchanges among Member States;
- To promote investments likely to develop trade flows;
- To contribute to the promotion of Member states' products and encourage access to foreign markets;
- To promote trade information;
- To assist Member States in the fields of Trade Promotion and international negotiations;
- To extend assistance to enterprises and economic operators;
- To participate in the trade fairs organised by ICDT.

This study does not claim to know the secret of success of the Single Window; nevertheless, it demonstrates the various good practices to follow in conjunction with the implementation thereof. The implementation of a new Single Window should take inspiration for the good practices spoken about in this study but should take into consideration all the other variables particular to its environment because each Single Window is unique.

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Glossary

AACE	African Alliance for Electronic Trade
UNCTFEB	United Nations Centre for Trade Facilitation and Electronic Business
CCS	Cargo Community System
EDI	Computerized Data Exchange
ETL	Extract, Transform, Load
GST	Goods and Services Tax
SU	Single Window
GUCE	Single Window for External Trade (Cameroon Single Window)
KPI	Key Performance Indicator
OIC	Organization of Islamic Cooperation
PCS	Port Community System
PPP	Public Private Partnership
IS	Information System
WCO	World Customs Organization – WCO

Chapter 1: Single Window concept

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A- Definition of Single Window concept

Several international bodies have dealt with the Single Window telemetric and devised a definition such as that of the United Nations Center for Trade Facilitation and Electronic Business:

« The Single Window concept referred to in these guidelines signifies a system allowing operators dealing in trade and transport to communicate information and standardized documents at a single point of entry to carry out all the formalities required for transport, export and forwarding. If the information is available on an electronic facility the individual data will have to be submitted only once » (Recommendation 33 UNCTFEB)

At the same time, the World Trade Organization (WTO) has defined the Single Window concept as *« A philosophy of governance bringing with it changes in traditional governmental structures toward new agreements better meeting the needs of citizens and businesses. In the «Single Window», approach governmental services will be offered to citizens and business operators through a single interface connected to administrative services. The complex modalities of organization will be transparent for users of the said services on which the supply of such services is built will be transparent user thereby bolstering efficiency and cutting down on the costs in connection with regulation on transactions. »*

While striving to be as generalist as possible in the definition of the Single Window these two bodies were unable to beef up the virtual aspect of Single Windows at the present time, or its transactional aspect based on a duality of exchange between the electronic operators and governmental structures.

The African Alliance for Electronic Commerce and the Single Window concept of the Kingdom of Morocco think in much broader terms. PortNet points out that the Single Window system should make it possible to carry out global formalities or procedures whether sovereign or non-sovereign.

« The Single Window for external trade is a national or regional system primarily built around a computer platform initiated by a government or ad hoc authority for the facilitation of formalities in import, export or forwarding by providing a single point of information and standardized documents to fulfill all official requirements and facilitate logistics »

African Electronic Trade Alliance

« The Single Window is a tool for inclusive integration of actual international trade ecosystem. In other words a non intrusive electronic device made available to importers and exporters for carrying out all the formalities or sovereign and non sovereign procedures in connection with administrations and public and private providers in the framework of an import or export operation »

PORTNET S.A.

B- Study of existing systems

The purpose of this Chapter is to describe the efforts put forth by OIC with regard to the Single Window showing the wide variety it entails in terms of progress, organization and information technologies.

1- Evaluation framework

The said efforts are compared on the basis of five dimensions making it possible a description and comparison in detailed fashion and on a comparative basis:

- **Implementation level:** Single Windows involve long term development so it may be many years for moving on from a political vision to an operational Single Window.
- **Regulatory coverage:** This describes the regulatory and commercial procedures integrated into the Single Window. The user and geographical coverage constitutes a vital aspect because certain services are available only in a few places due to technical limitations or are highly specific to one particular location, i.e. a maritime operator.
- **Activity process:** This dimension completes the regulatory coverage by describing the specific services and functionalities permitted by the Single Window. Single Window encompasses a lot of variance. By way of comparison, these services can be grouped together in front office and back office services.
- **Organizational aspect:** describes the organizational arrangements adopted to ensure operation of the SW. This includes, financial arrangements, legal situation, internal quality management, human resources and skills, as well as the alignment of businesses with the computer-based strategy
- **Technical and technological aspects:** encompasses aspects regarding architecture and infrastructure, harmonization of data and businesses and the electronic signature.

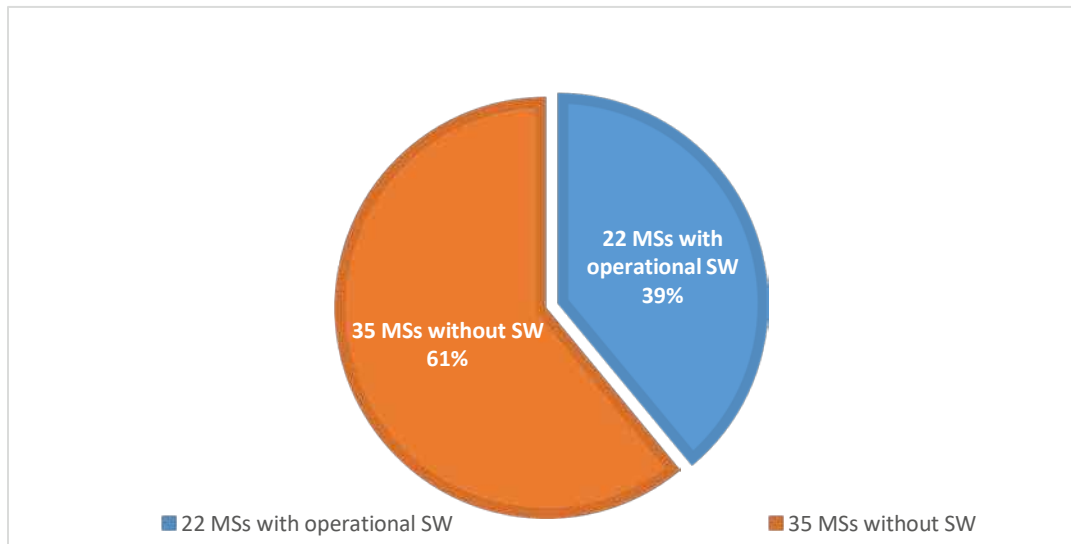
2- Comparative results

Among the OIC members, one distinguishes three different regional groups namely the African group, the Asian group and the Arab group. These three groups are at different stages of economic growth ranging from low income to high-income countries.

To be pointed out is a degree of correlation between the economic development of the country and the effort put forth thereby in relation to the Single Window.

Only 22 out of the 57 Member States have a Single Window thus setting the level of implementation to just 39%.

Figure 1: Number of OIC member countries having a Single Window



Among the 22 OIC Member States disposing of an operational Single Window:

- 15 Member States have an operational first generation;
- 6 Member States are transitioning toward second generation Single Window;
- 1 Member State already has an operational second generation Single Window.

Among the 35 OIC Member States having no Single Window:

- 5 Member states having stages of development in use;
- 6 Member states having adopted visions for just one Single Window;
- 24 Member states w/o initiative / plans for Single Window.

One notes three different regional groups among the 57 OIC countries

The level of implementation differs between the three different regional groups, the African group having the largest number of Single Windows:

- African group: 47% of Member States have just one operational Single Window;
- Asian group: 39% of Member States have just one operational Single Window;
- Arab group: 32% of Member States have just one operational Single Window.

At all levels of economic development, the OIC Member States are committed to the efforts put forth for development of the Single Window. Out of the 22 operational Single Windows,

- 6 low income Member States ;
- 7 in lower intermediate income brackets;
- 2 in upper intermediate income countries;
- 7 in high-income countries. (according to the World Bank classification)

The high-income OIC Member States report a higher level of implementation among them they 100% have one operational Single Window or are in the closing stages of a SW project.

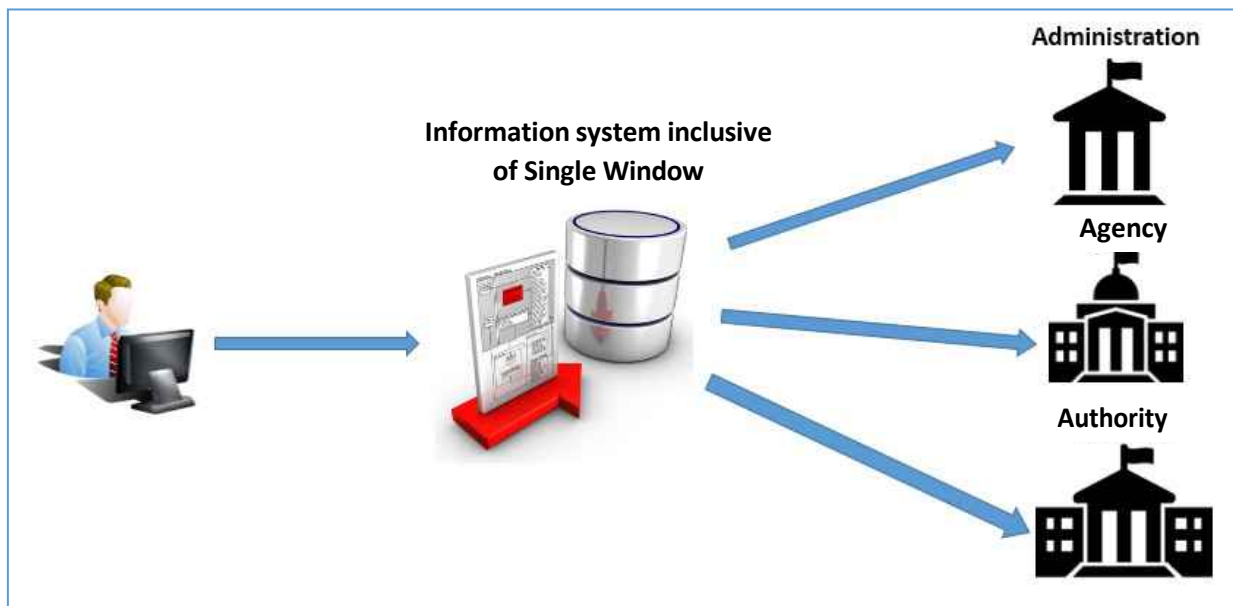
The lower intermediate income countries follow with 44%, after some low-income countries with 43%. The lowest level of implementation is found in the upper intermediate income countries only 27% of which have an operational SW or SW project.

C- Different types of Single Window

1- Typology per governance model

i- Single Window placed at the level of a given authority:

Figure 2: Schematic of a Single Window placed at the level of a given authority



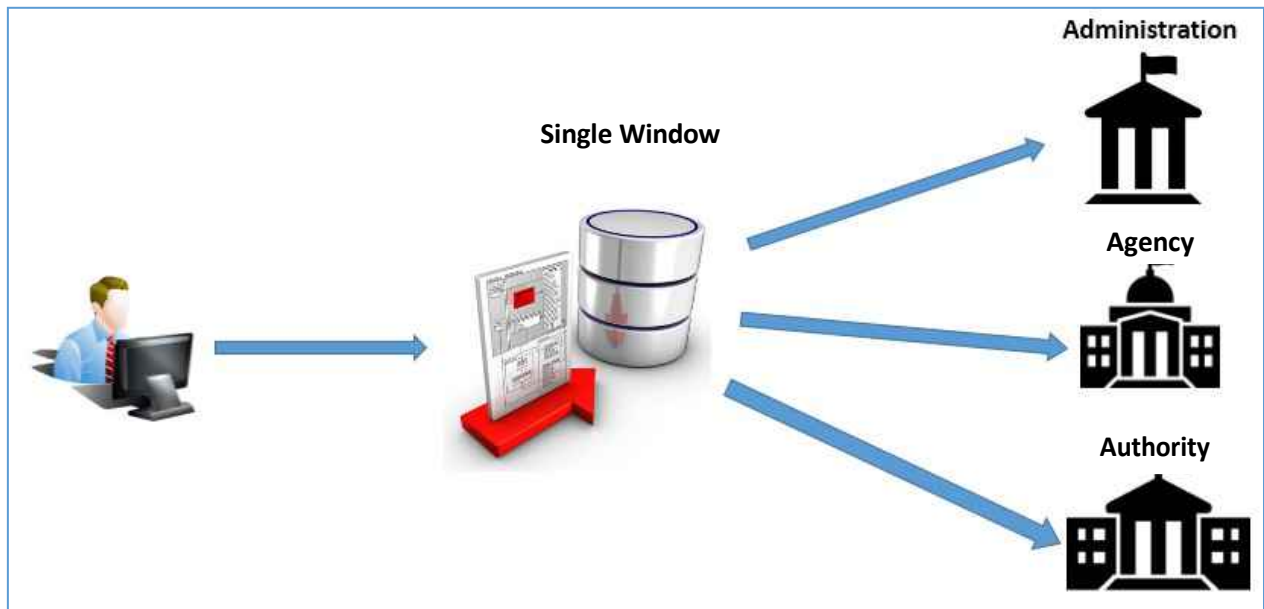
This model consists of placing the Single Window at the level of an information system with all of the stakeholders.

Often this model proves highly effective when used for procedures primarily linked to the entity in charge of the Single Window. However, the remainder of the formalities relative to the external trade logistics chain is not dealt with at the same level of priority and importance.

The approach can easily impede the progress made by the multi partner dematerialization projects, given that the majority of stakeholders do not share the same level of commitment with regard to the success of the implementation of the Single Window concept.

ii- Independent Single Window connecting global authorities

Figure 3: Schematic of an independent Single Window linking global authorities



This concept consists for the creation of an entity responsible for the installation, management and maintenance of Single Windows. Indeed, this entity is at the same distance of all stakeholders the field of coverage of the virtual Single Window services.

In applying this model of governance, the virtual Single Window can have three types of mode of integration with partner information systems:

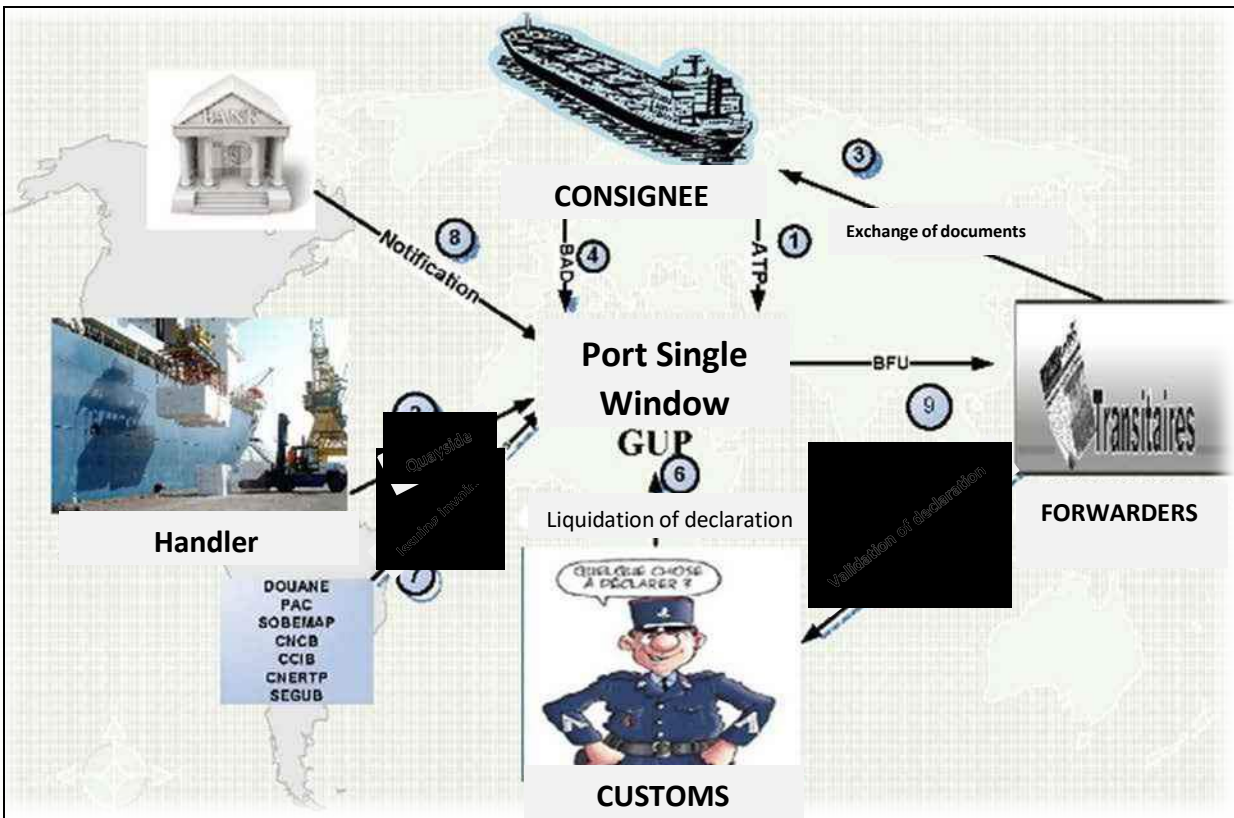
- The Single Window IS does not integrate the trade-partners and deals solely with the conveyance of data and documents;
- The Single Window IS integrate the trade rules of the partners and manages the dematerialized procedure in the form of a decision-making system;
- The Single Window IS is connected to the partner IS and intelligently manages the transactions and optimizes data management without integrating the trading rules of the other entities.

2- Typology per importance and integration perimeter

i- Single Window limited to a community

At the world level, a frequent case is that of port Single Windows and airport Single Windows. However, these Single Window models do not have much impact on the value chain of external trade. By dealing only with its field of coverage the Single Window involves only a very minimal part of the logistics chain of external trade the impact of which is negligible in the value chain.

Figure 4: Schematic of Single Window limited to a community

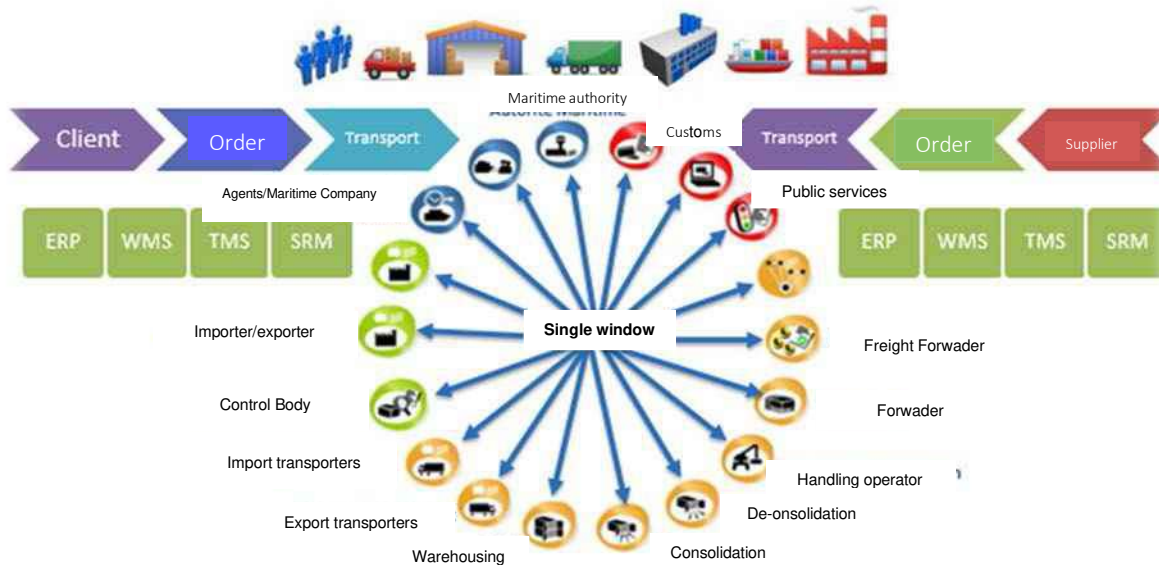


A Single Window limited to a community or to a few bodies would therefore have only a limited scope to the extent in which the segments of intervention between the relevant actors are common. A much broader vision proves to be more efficient by integrating the Single Window to the entire logistical chain of external trade.

ii- Single Window of the external trade logistical chain

The window of the logistical chain of external trade procedures represents an interoperable virtual platform enabling integration via the implementation of CDEs and information systems of all actors partaking in external trade.

Figure 5: Schematic of Single Window of the logistical chain of external trade



The primary objective of this Single Window model is the dematerialization of import/export process and integration from one end to the other in the national and regional logistical chain. Through such integral integration, the economic operator is provided with an electronic Single Window to perform on a daily basis in simple and efficient manner, all the import and export operations.

By adopting this concept, a large capacity for anticipation, productivity, cost control and traceability of international operations is made possible.

However, the deployment and implementation of the Single Window with such wide coverage must proceed hand in hand with appropriate governance and the implication of the majority of participants in the logistics chain.

New ideas on the typologies of Single Windows are now being observed worldwide, for example:

- **Non intrusive:** This is a Single Window conducive to flawless integration with the information systems of importers and exporters, as well as with those of administrations and service providers thereby allowing them to carry out formalities using their own information systems without any negative impact on their internal process or need the use of third-party systems. This is the ultimate end purpose each SW implementation project should have.
- **Systemic importance** of Single Window: when it is for just one Single Window for the international trading operations of the country and it manages one or more operations placed on the critical path of one of the more important processes of the international trade in a given country.

D- Purpose of Single Window

The primary motivation of the Single Window for a given country is to boost the competitiveness of national businesses thanks to savings in time and costs for economic operators in their relationships with governmental authorities.

By curtailing time periods and the expenses in formalities necessary for goods exports the country could rank better in the terms of reference of Doing Business representing one the principal criteria for attracting foreign direct investment.

Being a principal lever in the implementation of the WTO agreement on the facilitation of trade, the implementation of a Single Window turns out to be an ideal tool for the facilitation of trade for the submittal of documentation and/or recent data required for import/export or forwarding and the simplification of procedures.

The Single Window also allows governments to dispose of a genuine tool for measuring the performance of all the components of the logistical chain. This qualification helps foresee correct policies and question those currently existing.

Once the procedures are dematerialized, the government wins out in terms of availability and traceability of data. This limitation of human intervention in the automatic procedures also limits corruption and allows better visibility to all stakeholders.

The implementation of a Single Window has the aim of boosting income of the state (tax and duty) further to the rise in trading flows and limitation of corruption.

E- Success Stories

1- TradeNet: Singapore.¹ Single Windows

Since 1989, Singapore has been using a system called TradeNet based on EDI. With the global aim of simplifying formalities and requirement for import/export, TradeNet® replaces the cumbersome paper-based procedures that traders had to follow to process customs documents and uses the "Single Window" services pertaining to customs clearance and free practices while ensuring coordination between multiple bodies.

When a trader submits an application for authorization by telephone or the Internet, the application is conveyed to a TradeNet administrator. If the trader intends to export and needs a certificate of origin for his goods he can do so on the same form.

¹Singapore Communication – World Trade Organization

- a) TradeNet transmits the application by electronic channels to the customs administration and other bodies for processing. The system creates a file to which the trader has access to check on the status of his request to see whether it has been approved, rejected or is in process.
- b) If the application comprises a fault (typing error, tariff code error, etc.) the trader can correct it and, depending on the mistake, submit it anew as a new application.
- c) To facilitate the payment of taxes and duty (taxes on goods and services or GST...), all users of TradeNet and authors of the declaration must have bank accounts to which electronic payments can be made. When the application is approved the GTS and applicable duty are automatically deducted.
- d) Upon approval of the application a number is assigned thereto and the message of authorization is communicated to the trader so he can print the permit for clearance of the goods. With this document in hand the trader can move on to the import, export or transshipment of the goods. All the permits of TradeNet bear a bar code to facilitate validation, updating and repletion at the various checking points.

TradeNet was tried out in cooperation with a group of 50 users. Today more than 2 400 traders, forwarding agents, and air dispatch agents are connected to TradeNet. All applications for import/export authorizations are processed electronically. The system handles some 20 000 applications per day, i.e. approximately 8 million per year.

2- PortNet: Single Window du of Kingdom of Morocco

- [Introduction to PortNet](#)

Initiated in 2008 by the national port authority in inclusive collaboration with all stakeholders in external trade, the purpose of the PortNet project is to boost business competitiveness. The national Single Window for External Trade procedures has assisted over 31 000 users among which 26000 importers and exporters, 16 banks, 7 public administrations and ministries, as well as hundreds of private operators to carry out on a daily basis their operations via this platform.

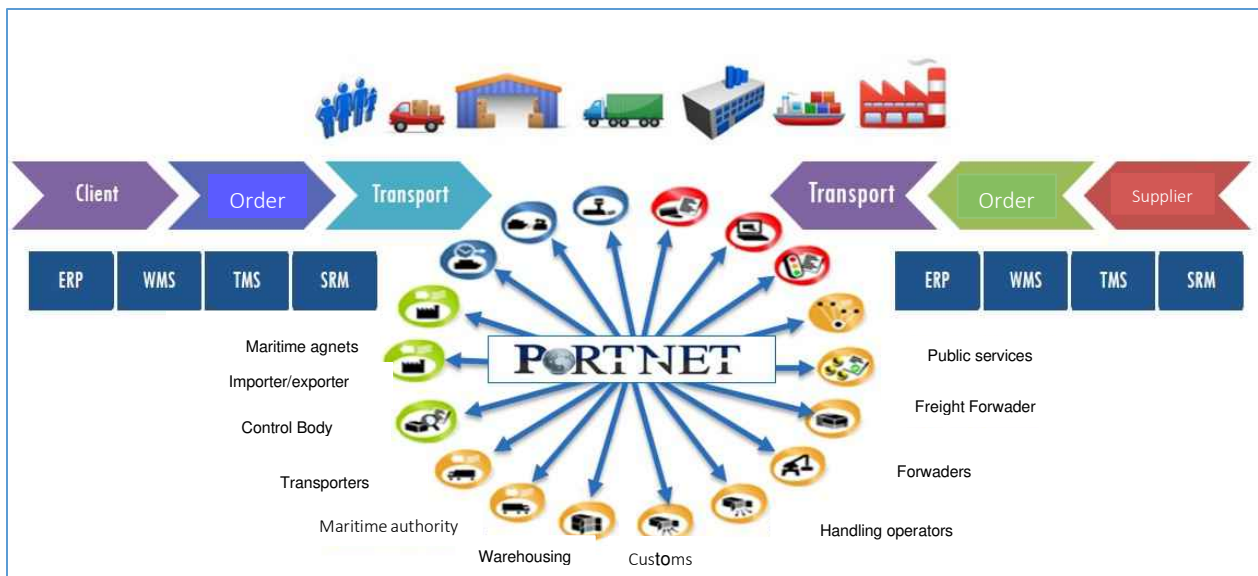
According to the figures the average time spent on hold for containers fell from 13 to 5.72 days and legal registration of import documents on average requires only 2.37 hours and inspection shortened to a median of 1.5 days". The implementation of PortNet also made possible much greater fluidity and traceability in the movement of goods exported and imported via proactive use in the exchange of information and data in connection with the products, thanks to the digitalization of all information systems of the relevant actors in Single Window external trade, while the third aspect had to do with the new mechanisms relative to the electronic payment of all billing for services relative to import/export operations.

PortNet is a primordial basis fostering attraction of foreign investors. The availability of this platform has made it possible to improve the competitiveness of Moroccan businesses. On it all the formalities required for import/export are dealt with.

- [Scope and scale of the Single Window](#)

The PortNet Single Window is an electronic platform for the interchange of data between maritime forwarding operators, the national port authority, port operators, forwarding agents, commercial banks, insurance companies, ministries and other similar bodies.

Figure 6: PortNet at the center of external trade procedures



The PortNet Single Window runs within an electronically distributed architecture through which data are automatically exchanged with external computerized systems such as the customs management system BADR (Automatic; the basis of customs in network) and computer-based system 'ONSSA (National Sanitary Security Bureau for food products). This enables transparent submission of all documents via PortNet and data exchange with all the relevant agencies.

- [Organizational management](#)

In 2010 the national port authority (ANP) created a subsidiary organ called PORTNET S.A. with an initial registered capital of 6 million Moroccan Dirham (MAD), equivalent to 700 000 USD, to develop and run the Single Window. The ownership of PortNet was transferred to the private sector shortly after the inception of the business.

PORTNET S.A. is a community-based structure in which a variety of actors in the maritime transport actors and governmental bodies are present in the management system, in this case ANP, shipping agents, forwarders, customs administration and handling agent, the National Board of Trade, the Casablanca chamber of commerce and rail transporters.

- [Funding sources](#)

The global cost of the initial investment in a Single Window system is estimated at 4 million USD of which 3.8 million USD were provided by ANP, 0.2 million in the equity of PORTNET S.A. maintenance and operating costs are entirely covered by the budget of PORTNET S.A.

PortNet is financed in a variety of manners: a fee for use per transaction which comprises a specific number of applications for documents and an annual subscription of 3 000 MAD payable each year.

- [PortNet IT architecture](#)

The PortNet IT architecture is based on a distributed architectural model meaning that the agencies partaking in the Single Window operate independent computerized system that are interconnected and interoperable with PortNet; for example, BADR run by the customs authority. In this configuration PortNet is a layer for data and information exchange in an organized fashion.

The IT PortNet architecture was designed as single layer with communication channels open with other users. Thanks to interconnectivity services it provides structured management but its purpose is not for centralized data management. After validation the data are shared with partners. The PortNet architecture distributes data via submittal to end users.

Data acquisition and integration is processed in the Single Window application layer (validation rules) and conveyed for submittal to end users for future processing. After data acquisition and the decision of the relevant agency, the agency computer system submits the data and information on PortNet to the end users (business operators, customs, port authorities, transport logistics, etc.). Given that the PortNet system uses web technology and web services for information exchange, there are no geographical limitations for users of Single Window services.

A plan for continuity and resumption after an incident is finalized and a safekeeping site is currently being set up with the second PortNet generation.

- [PortNet IT infrastructure](#)

The PortNet IT architecture is an infrastructure made up of special type components defined by functional Single Window components. The infrastructure model set up is divided into three layers depending on the service and application charges performed by the functional components. The components of the Single Window IT infrastructure refer to the production, recovery after an incident, development, test and training/formation. The computer infrastructure consists of a web portal for submittal of the data originating from external users and service buses that disseminate data to users.

The PortNet Single Window is a sole point of data acknowledgement. Once the data are submitted the exchange layer distributed the data to end users according to an engine and taxonomic rules integrated on a service bus.

- [Electronic signature](#)

The authentication services are founded on user identification information, (user name and password). An additional security layer is provided with use of the digital signature. The electronic signature legal framework is now in place. The law (Law 53-05 of 30 November 2007) enables electronic information exchange and use of electronic signatures.

3- E-GUCE: Single Window of Cameroon

The GUCE was born in August 2000 begun as a physical window at Douala where the principal import/export stakeholders are grouped together in the same building.

The result of a public private partnership (PPP) its principal members are:

- The government represented by the ministries responsible for finance, exchange and transport.
- The operational administrations such as customs, port authorities, national maritime board, the national coffee cacao office, phytosanitary and environmental office.
- The private sector represented by professional organization such as slave systems, shipping agents, insurance companies, banks, forwarding agents, importers and exporters, etc.

In 2004, the first version of the Single Window was initiated with an exchange platform, a private portal. This system processed only a few documents during the pilot phase.

Operational since 2007 the e-Guce system is a computerized platform joining together various actors in external trade so as to ensure the exchange of information concerning external trade formalities strongly supported by the Government. It is the technical base on which the ambitious procedure dematerialization relies.

Since 2014, a new Single Window design was launched and became operational in 2017 and to ensure the processing of upwards of 40 documents the goal being 72 from now to the end of the year.

Because of its expansion the Cameroon Single Window has become systematically important.

4- DUBAI-TRADE: The Single Window for trade and logistics in Dubai and the UAE

Dubai Trade was set up in 2003 to offers electronic services integrated with several commercial and logistics service providers in Dubai through a Single Window.

Dubai Trade joined DP World a world operator under custody of more than 65 marine terminals on six continents. Dubai Customs prime minister of the Dubai government who adopted complete

computerized automatic control and Economic Zones World, world operator of economic zones including the free zone of Jebel Ali, one of the primary contributors to the global growth of Dubai.

Since 2003 there has been rapid transformation and expansion, the number of on line transactions now in excess of 20 million per year and the annual growth of 2 to 4% is continuing.

More than 100 000 new businesses make use of electronic services round the clock through the Dubai Trade Portal.

In 2008, Dubai Trade launched the "Rosoom" electronic payment system now an indispensable platform of merchants.

The Dubai Trade portal offers Single Window to online services of its stakeholders and provides a rationalized flow of services designed according to client needs with the aim of customer satisfaction. The portal services are on a continuous growth curve and currently include services for merchant, shipping lines and agents, compensation and shipping agents, forwarders and free zone operators including maritime service, handling services and freight handlers, repair and transport services, billing and payment services, as well as free zone services.

F- Factors of failure in the implementation of a Single Window

- 1- **Absence of outright political determination:** the installation of a Single Window at the country level must also go hand in hand with political support of the state in order to accelerate the implementation and proceed to the requisite arbitrations.
- 2- **Deficient governance:** All the stakeholders with regard to procedures managed by a Single Window must contribute to the definition of policies and prioritization of strategic projects. The Single Window must not be managed by one part of the community like PCS, CCS and those placed at the customs level. The partners must fully adopt the Single Window in order to proceed to the implementation thereof.
- 3- **Lack of a clear-cut and achievable road map:** All partners must agree on the road map for implementation and dematerialization of procedures. The said road map must be achievable and adapted to the level maturity of the ecosystem.
- 4- **Rigid and non-adapted technical and functional architecture:** The technical structure of the Single Window virtual platform must enable the integration and interconnection with homogenous information and must provide a high capacity for expansion over time.
- 5- **Lack of an activity continuation plan:** The Single Window must include a plan for continuity of the activity developed in cooperation with all partners. The objective of this approach is to avoid service interruption that could negatively affect the image and success of the project.

6- **Undersized financial capacity:** The initial outlay represents a determining point in the establishment of a Single Window. The entity in charge of SW management must dispose of the financial resources required for the deployment and maintenance of the virtual platform.

7- **Overload for economic operators:** the design of dematerialization procedures must be devised to avoid giving rise to overloading or multiplication of the data to be provided.

G- Factors guaranteeing Single Window viability

1- **Unwavering and efficient governance:** After implementation the governance bodies of the Single Window must continue to play their role so as to ensure that the Single Window is in sync with the strategies of the State and meets the requirements of economic operators. A Single Window project is not limited just its implementation, but rather forms part of the concerns to permit uninterrupted improvement.

2- **Better project prioritization management:** All the partners must agree on the organization of projects by the Single Window in order to maintain in place the synergy of the various partners.

3- **Maintainability of the activity continuation plan:** The Single Window must always keep in place its action continuity plan in order to limit risks in connection with its activity.

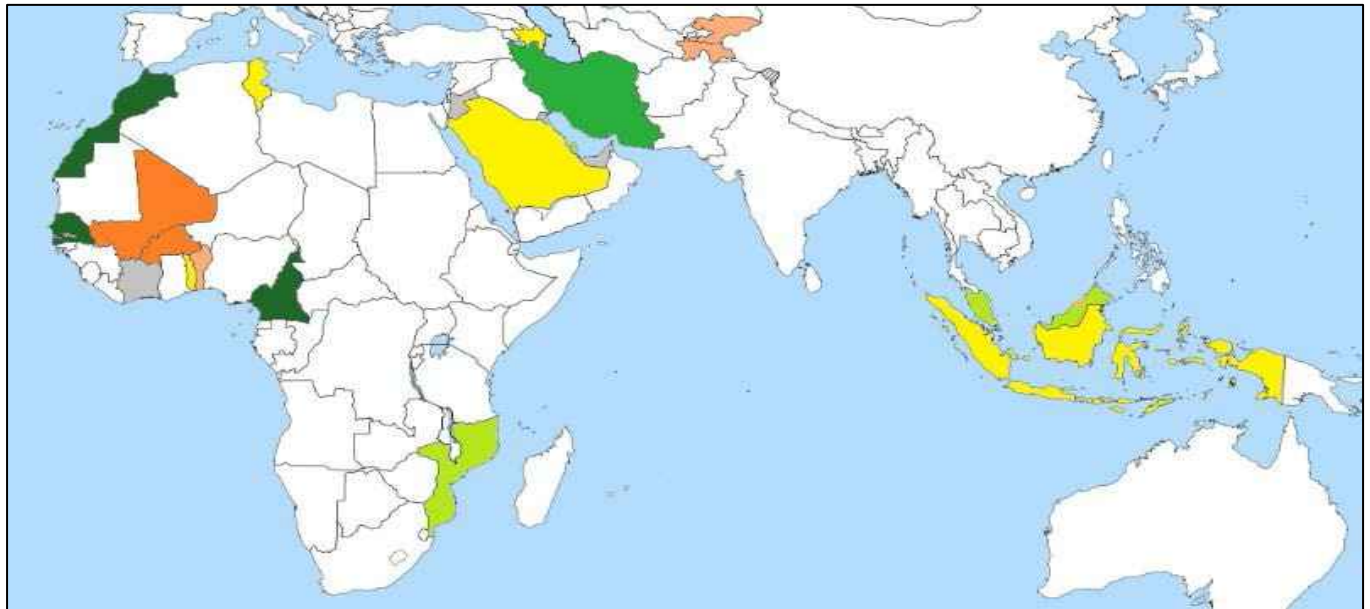
4- **Well allocated financial capacity:** The entity responsible for management of the financial resources required for funding virtual platform maintenance and guarantee its sustainability.

5- **Establishment of performance indicators:** To ensure the quality of services made available to the community and measure the permanent improvement of a window a series of performance indicators must be established and examined by governance bodies.

H- OIC Single Windows

A Single Window can integrate several types of service ranging from integration with customs to State-run bodies.

The six different types of partner studied herein are: Customs, governmental bodies, port authority, logistics businesses, banks and insurance organisms.



- Single Window integrated into all types of partner
- Single Window integrated into all types of partner Single Window
- integrated into four types of partner
- Single Window integrated into three types of partner
- Single Window integrated into two types of partner
- Single Window integrated into only one type of partner
- Lack information on Single Window

Chapter 2: Operationalization of Single Window

Chapter 2: Operationalization of Single Window

The operationalization of a Single Window represents an objective of any community and not only the entity integration in the project. In the majority of cases, the members included in this community have different missions and sometimes divergent interests. Carrying out a project under these circumstances requires inclusive collaboration with the stakeholders, as well as a series of recommendations the details of which will be dealt with in this Chapter.

A- Devising Single Window governance model for governance bodies

The success of a Single Window hinges on the implication of the actors of the procedures to be managed in the governance of the managing body. Finding a consensus between the stakeholders is sometimes difficult to procure given the multiplicity of actors and their dependency in front of different authorities.

Good governance is one which initially decides on the entity placed in charge of deployment and management.

Looking into a few experiences at the international level with regard to the management and running of a Single Window the following can be pointed out:

- The Single Window requires the existence of an entity dedicated to the running and sustainability of the platform and the services offered to economic operators. Entrusting this task to an autonomous management entity the tasks of which are clearly spelled out enable better focusing on own activities and operation of the platform from the operational, technological and procedural and continuous improvement standpoint.
- The Single Window management entity must dispose of a governance structure including the majority of actors in order to participate in the definition of general policies and express its opinion in terms of prioritization of project regarding the dematerialization and facilitation of procedures.
- Moreover, the technical teams of the electronic platform of the said entity must be provided with skilled resources in terms of project management, communication and change oversight, financial management, and activity experts required for good governance of the entity in charge.

B- Designing the Single Window economic model

i- Public Private Partnership

The public private partnership contracts can be of different form and entail separate qualifications. From the standpoint of risk sharing two major categories can be singled out: partnership contracts and concession contacts.

- In a concession the State delegates to a dealer for a set duration the design, completion, funding, operation and maintenance of the Single Window. Often the cost of the investment is subsidized by the public authorities but the primary part to remuneration paid to the dealer consisting of the toll paid by platform users who are also supported by the public authorities.
- On the contrary in a partnership contract the public person entrusts global services to a private operator who will design, fund, built, run and maintain assets that will serve as support to global services made available to the public or a public person. The private entity is remunerated by payment made directly by the public person. The private person is remunerated by the public person in installments throughout the entire period of the contract and in connection with the performance objectives (availability, service quality, etc.).

These two models make it possible to devise a high performance Single Window at the outset of the concession period. However, questions concerning the funding of platform extensions and skills transfer have to be well thought out upon the design of partnership contracts.

TradeNet, the Singapore Single Window was developed and managed in the framework of a public private partnership for which CrimsonLogic was created with the contract expiring in 2017. CrimsonLogic exited the contract in 2016 and replaced by another company.

GCNET, the Single Window of Ghana, has also been developed in the framework of the public private partnership awarded in 2013 for a period of 5 years.

ii- Private law public enterprise

This model consists of created a private law public enterprise responsible for the running, management, expansion and the viability of the Single Window. The dominant influence is presumed when the public authorities either directly or indirectly with regard to the enterprise become the majority holder in the underwritten capital of the enterprise or holder of the majority of votes in connection with the shares issued by the enterprise or can assign more than half of the members of the administrative, management or supervision entities.

The initial funding for the implementation of the Single Window is generally provided by the State or with the guarantee of the enterprise shareholders. The initial funding is generally based on a clearly devised Business Plan.

The success of such a model requires the provision of a delicate financial equilibrium between the expenses necessary for the operation, the initial and continued investment, the status of the Single Window and the proceeds generated by the marketing of the added value services offered.

Special attention should be given to the manner in the pricing system of the Single Window is set up, as well as its eventual status given the direct impact it has of the global cost of an import/export operation.

Morocco, Tunisia and Saudi Arabia have chosen this method of governance by creating businesses operating by governmental promulgation and can enjoy mixed public and private ownership.

iii- Entirely public enterprise

The entity responsible for the management and operation of the Single Window can be a State organization. However, this entity will encounter many difficulties in making profitable the costs with regard to the operation, extension and investments required and will fall under the logic of budgetary expenditures.

This model can make difficult or little flexible the capacity of this entity to mobilize the resources or skills specific enough for fulfilling the tasks required for maintaining the development of the Single Window, in particular in the event of urgent requests issued by its clients or partners.

The complexity of the purchasing and government contract procedure whether for the provision or reception of services is often deemed to be an impediment to rapid development of the relevant entity.

Kirghizstan has opted for this type of governance by creating the TULPAR Single Window under the tutelage of the economics ministry.

C- Designing services offered by the Single Window

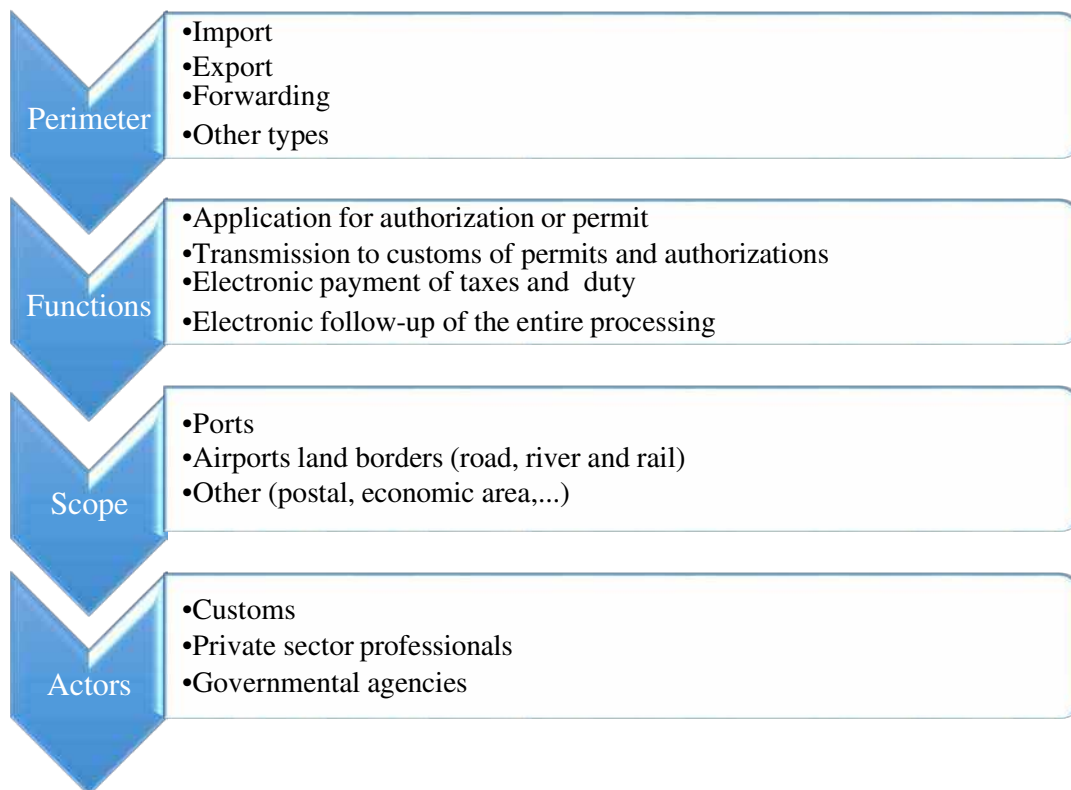
The services proposed by Single Windows vary depending on the type, size and field of coverage. Hereafter follows a classification per perimeter of already existing Single Windows:

i- Single Window for customs clearance formalities

This refers to a Single Window that interconnects around a single or integrated platform, all the actors involved in the formalities for pre-clearance, clearance and post-clearance. The implementation thereof implies confidence and collaboration of several entities not dependent on a sole authority, not engaging in the same activity and sometimes may have divergent interests.

Given that the end customer of this type of window is often the forwarder, importer or exporter and has no direct visibility on the status of operation, has no direct visibility of the when the operation's situation, the real cost and the traceability of decisions this type of Single Window contribute to shortening the custom clearance time periods but its impact of the logistics value chain is limited by Single Window external trade procedures.

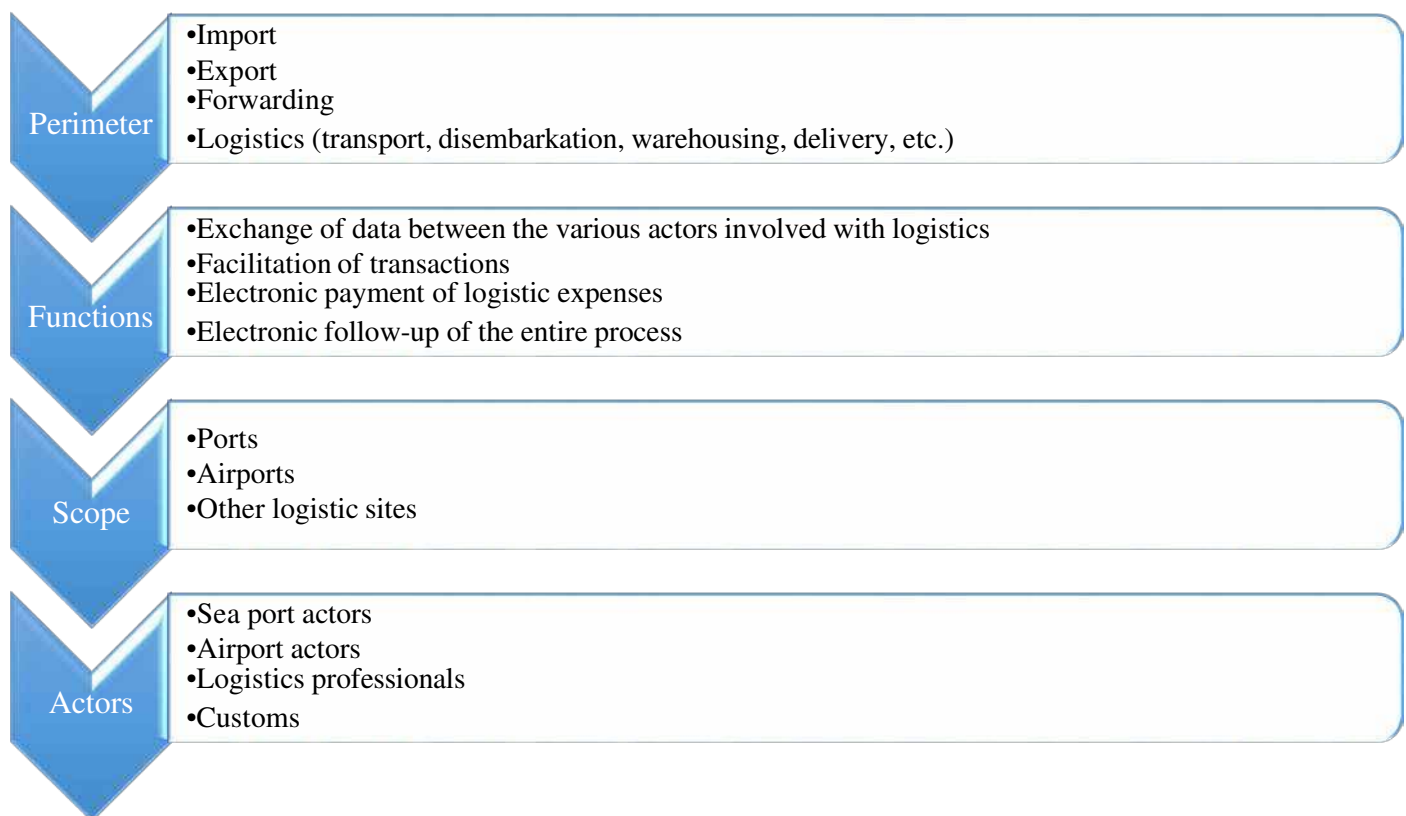
Figure 7: Aspect of customer SW



ii- Sea port, airport Single Window

This type of Single Window concerns the logistics, primarily at the level of the sea port or airport in question. It stresses the rapidity and reliability of the logistics from the announcement of a vessel or the programming of the arrival of an airplane up to the time of delivery of the goods to the end customers. Several European ports are implicated in the universe of Single Windows via the channel provided, also called CCS (Cargo Community System) or PCS (Port Community System). Its impact on logistics is all the greater when the volumes are large, the infrastructures available and the actors involved well fitted out. This tool generally aims at large port areas. However, some of its components can have a positive impact on port areas not as big.

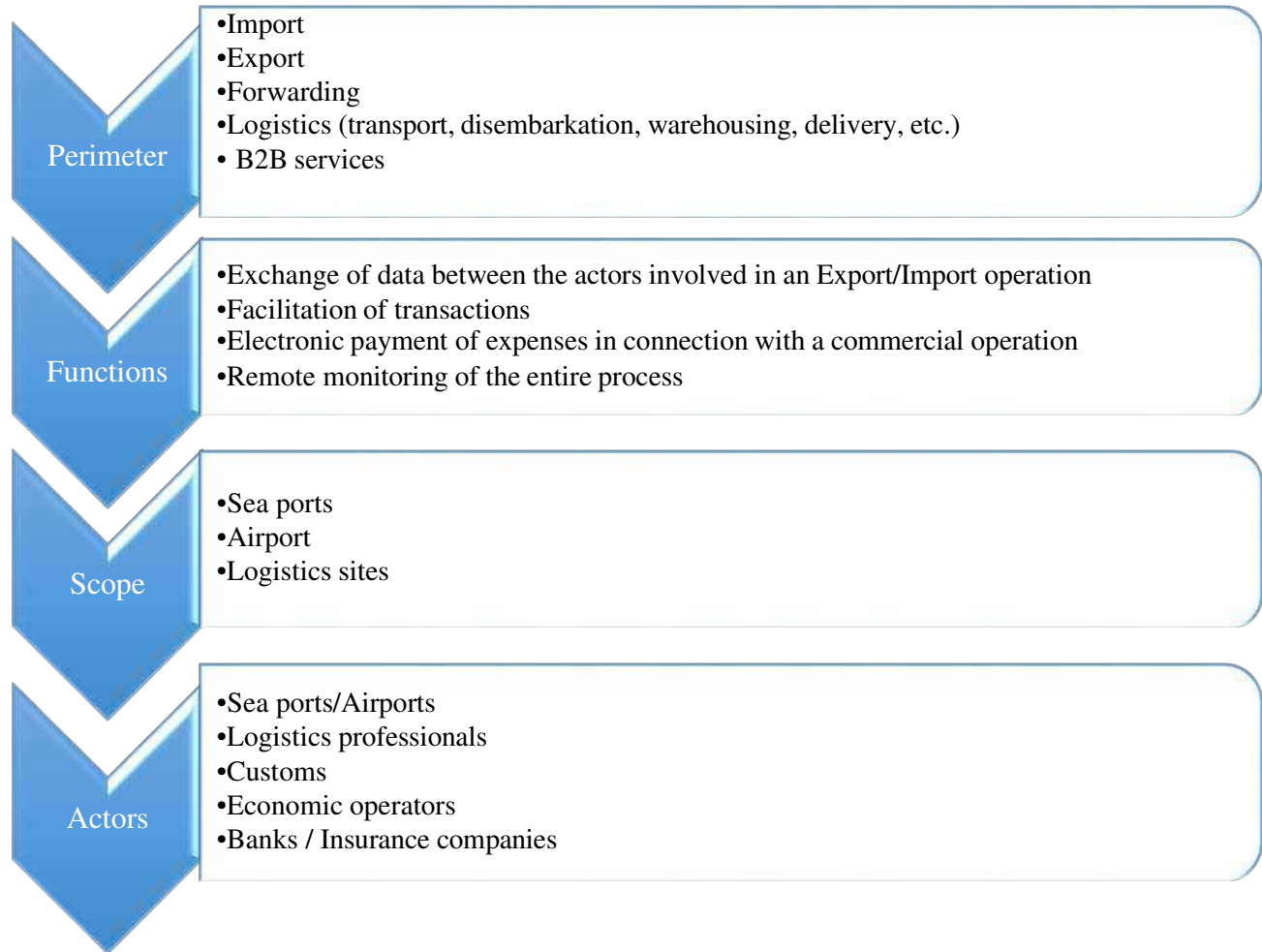
Figure 8: Aspects of sea port or airport SW



iii- Single Window for external trade procedures

Alongside an administrative and logistic aspect there is also a commercial aspect. This refers to the integration of different stages relative to the commercial relationship between the client and the supplier. The objective of this type of Single Window is to assist the economic operator (end customer in the chain) by starting order issuance and finally arriving at the delivery and payment stage for the goods in question. Indeed, its existence would be difficult to fathom in a context where no service platform exists for federating the trading actors.

Figure 9: Aspects of a SW for external trade procedures



D- Define the implementation methodology and governance

i- Methodology to adopt

The first Single Windows were developed following the management methodologies of a conventional project such as the cascaded one. However, this methodology experienced its limits given the evolving context of international trade and the high number of stakeholders. Indeed, the agile methodology offers several advantages:

- ***Iterative and incremental method:*** this makes it possible to avoid the « tunnel effect », in other words the fact of seeing the result only at final delivery and nothing or almost nothing during the entire development phase which so often occurs with development with the Vee cycle.
- ***Maximum adaptability of development of products and applications:*** the sequential composition of the contents of sprints makes it possible to add a modification or functionality not foreseen at the outset. This is the primary reason that makes this method so “agile”.
- ***Participative and inclusive method:*** each member of the community is asked to express him/herself and can partake in all the decisions made with regard to the project. Therefore he/she is more greatly implicated and motivated.

ii- Deployment project governance

The implementation project can be organized in the form of a group of governance bodies, in other words:

- **Steering Committee:** This periodic committee must consist of various project stakeholders and be organized by the relevant leader. The objective of this committee is to validate the strategic choices, give a rundown of the status of the project and ensure arbitration on differing points.
- **Monitoring Committee:** This periodic committee joining together the project team has the objective of:
 - Ensuring monitoring of the project;
 - Checking the quality and detailed progress of the work produced by the various entities contributing to the project;
 - Identify and deal with any potential operational problems;
 - Deal with pending problems such as the applications issued (changes, validation to be provided, etc.) or any belatedness identified;
 - Identify the operational problems in connection with a decision issued by the steering committee;
 - Review management of the risks the project may be facing.

E- Proceed to the technological choices and rising competency of the SW ecosystem.

The virtual Single Window must be provided with technological means able to allow these platforms or meet regulatory developments (new regulations, new functionalities) and must ensure the integration of electronic documents, as well as new extensions governing external trade.

Furthermore, the technological capacity alone is insufficient. The design of a Single Window must also foresee an extendable aspect so as to be able to efficiently adapt to the changes and new items requested.

Consequently, it is recommended to give thought beforehand to the architecture (design) of the SW to provide it the flexibility to confront changes. The SW must also be designed to foresee interoperability with other systems to cut down on the transmission time and ensure the existence of a single piece of data without any redundancy

Also primordial is the security of information at all levels. It is necessary to efficiently structure the modification method while making sure to avoid missing any steps. The notion of Data Pipeline (which replaces different clusters of information contained in various types of document, (commercial data and container monitoring data) makes it possible to provide a sole data tunnel positively impacting the fluidity of external trade.

However, the design and technical options provided in conjunction with the implementation of the Single Window must occur along with upgrading and higher competency of the whole ecosystem with which the Single Window interacts.

F- Anticipate the sovereign adaptation which should occur along with the deployment of the services offered by the SW.

At the time of design of the services and procedures handled by the Single Window to be implemented one must also think about the legal component. The laws, decrees, regulation conventions and service memorandums must be in sync with the dematerialized procedures and looked at a new in the framework of SW implementation.

The most frequently encountered cases are those concerning:

- Electronic signature;
- Electronic archiving;
- Strong authentication;
- Recognition of dematerialized transactions;
- Regulatory aspects dealing with and merchandise.

I- Think about integrated risk management

Integrated risk management is a process that is proactive and continuous in order to understand the risks the organization is exposed so as to manage and consequently make the strategic decisions contributing to achievement of the objectives. It must be included in the routine activities, be permanently applied and continuously renewed.

The application of modern risk management methods should include clearly defined procedures clarifying the respective responsibilities of the SW operator, as well as the actors providing initiatives appropriate for managing and containing the said risks.

In addition, the design of the Single Window system and the ecosystem thereof must seriously consider the expansionary and agile aspect governing international trade procedures.

J- Procure hefty communication tools for changes in conduct

Management of the changes resulting from the implementation of a Single Window requires an official communication plan geared to:

- Procure the adherence and support of the relevant stakeholders;
- Overcome resistance and apprehensions;
- Maintain clarity and limit confusion.

A formal approach to external communication implies the creation of categories of stakeholder by describing a proposal on the worth of the Single Window projects for each type of stakeholder and by creating well targeted groups for communication.

Further, a communication plan must be formally developed to ensure public visibility among participating communities. It should implicate both internal and external stakeholders. The establishment of a Single Window is highly complex, requires the intervention of various stakeholders while different formulas have to be created in order to satisfy them. The communication activities must emanate from the plan in order to remain in the spirit of the interested parties in a credible fashion.

One might make regular use of seminars, develop work groups, organize awareness activities, publish brochures, send out mail and exploit other means of communication.

K- The fundamental principles for the Single Window management, in particular with regard to systemic importance

i- Effective understanding of the impact of the system on the stakeholders:

The stakeholders running the network and other parties implicated, in certain cases, including clients, must clearly understand the various risks existing in the system and where they occur. The role and procedures of the system are an important determinant of the origin of risks. These procedures must clearly define the rights and obligations of all the relevant parties and other parties must be provided with updated explanatory documents. In particular the relationship between the system rules and the other components of the legal environment must be clearly understood and explained.

ii- A clear and efficient basis of procedures and rules:

A basis of procedures and rules must be established with the participation of all actors. These actors must also participate in its development and keeping it up-to-date. The rules and procedures governing the interaction of a Single Window with other stakeholders should be applicable and the consequences thereof foreseeable.

iii- The Single Window and partner systems must be provided with a substantial expansion capacity:

To take account of regulatory risks the Single Window as well as the partner systems must be provided with a rapid and efficient expansion capacity. This recommendation emanates from the regulatory and economic environment impacting the method of operation of actors in the sphere of international trade. The said environment has seen permanent changes dictated by national and international political orientations.

iv- Integration of the security component in the Single Window life cycle:

The Single Window must establish a risk management device for its information system. This device should allow better control over the security of the ISs via the implementation of protection measures in proportion to the stakes at hand and adequate for the existing risks.

This management is based on a process of regular identification, evaluation and handling of risks. This system must also make it possible to make sure the security measures have been adapted. The choice of these measures is done while making sure that the actions foreseen and the costs engineered are proportionate to the reduction of risk.

v- Objective, published and equitable access criterion:

The ISSWS should have objective and transparent membership criteria enabling equitable and open access. Indeed, the system must not serve the interests of restrictive communities.

These criteria must foster competition between stakeholders and enable commercial operations at low cost. Nevertheless, the principle of openness should be permanently controlled so as to protect the Single Window against membership that could place the entire system under an impending risk.

vi- Provide a delicate balance between the cost, quality, security and efficiency:

The ultimate interests of the various actors linked to the Single Window lies in the execution of operations at the lowest cost possible while guaranteeing demanding requirements in terms of optimization, quality and security.

A compromise is necessary between this determination to keep costs down and other objectives such as always striving to shore up the security level. The system design and the choice of technologies to be provided should enable the establishment of a balance between the value of the resources to be rented, the requirements regarding the specificities of the Single Window and the effects the system may have on the country's global international trade.

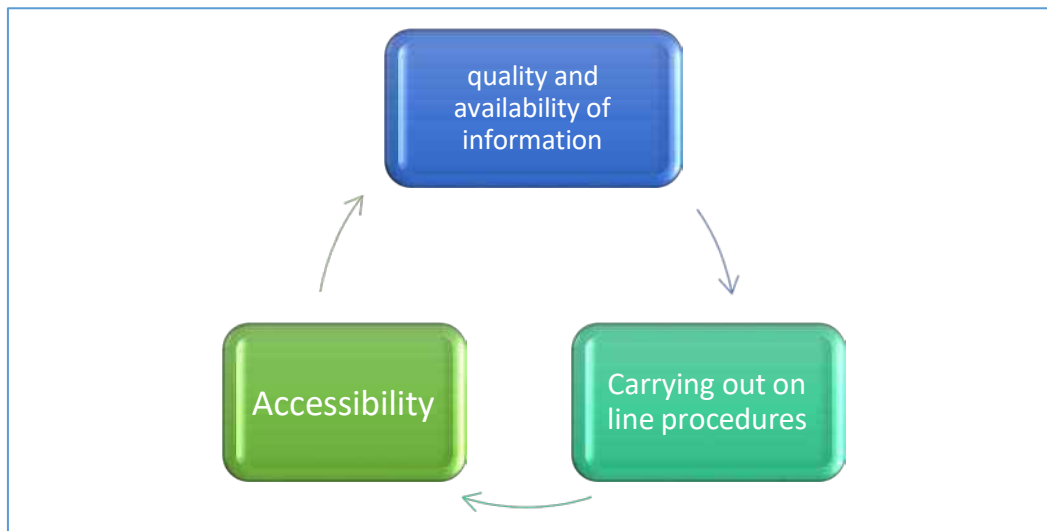
L- Decision making within the Single Window

- Measuring the performance of a Single Window:

The key performance indicator (KPI) for the facilitation of trade is reached only when all the stakeholders join together and lend mutual support to one another. These indicators can be classified into three categories:

- **Quality and availability of information:** this criterion assesses the quality of the information available on line, as well as whether the said information is complete, well- structured, easy to understand and the estimated worth of the transactions.
- **Execution of on line procedures:** this allows assessment of to what extent the said execution of formalities is possible on line (ranging from simple downloading to in the most highly sophisticated web applications); the integrated customs clearance processes and mechanisms for calculation and payment of pertinent fees, taxes and duty, coordination and control processes and inspection operations.
- **Accessibility including for cross-border users:** evaluate whether the portal can be used by foreign users, in particular from a technical standpoint (for example if it is possible to affix an electronic signature on documents in the framework of execution of formalities), and if it is easy for foreigners to understand the requirements applicable thereto.

Figure 10: The tree aspects making it possible to measure the performance of the SW



The presentation of the said indicators can be done via a control panel, a tool for performance improvement whether developed on a weekly or monthly basis, makes it possible to follow the status of the international commercial activity with regard to the objectives set.

- **Role of Business Intelligence within the Single Window:**

Business Intelligence (BI), also known under the name of computerized decision-making refers to all the tools and methods aiming at the transmission to the managers of pertinent information. Its purpose is to assist them in understanding their environment and to work therewith making their strategic decisions.

Data collection by the Single Window constitutes the basis on which Business Intelligence will capitalize after checking the quality and format. This data is stored in a terms of reference facility. These terms of reference are often called Datawarehouse.

This data can then be distributed to users as needed via the tool adapted to the specificity of each trade.

Business Intelligence is a lever indispensable for keeping abreast by the Single Window.