Recommendation and Guidelines on establishing a Single Window
to enhance the efficient exchange of information between trade and government

Recommendation No. 33
UN/CEFACT’s mission is to improve the ability of business, trade and administrative organizations, from developed, developing and transitional economies, to exchange products and relevant services effectively. Its principal focus is on facilitating national and international transactions, through the simplification and harmonization of processes, procedures and information flows, and so contribute to the growth of global commerce.

Participation in UN/CEFACT is open to United Nations Member States, Intergovernmental Organizations and Non-Governmental Organizations recognised by the United Nations Economic and Social Council (ECOSOC). Through this participation of government and business representatives from around the world, UN/CEFACT has developed a range of trade facilitation and e-business standards, recommendations and tools that are approved within a broad intergovernmental process and implemented globally.
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Foreword

The word ‘facilitate’ means to make easy or easier, and this is precisely the goal of trade facilitation - to make the processes and procedures of international trade as simple and efficient as possible for traders, concerned public authorities and governments. The need for simplification and harmonization is particularly evident in the preparation and submission of the extensive range of information and documents required by governmental authorities to comply with import, export and transit-related regulations. These requirements place a heavy burden on the resources of companies and can constitute a serious barrier to the development and efficiency of international trade, especially for Small and Medium Enterprises (SMEs).

UN/CEFACT Recommendation Number 33 addresses this problem by recommending to Governments and traders the establishment of a “Single Window”, whereby trade-related information and/or documents need only be submitted once at a single entry point to fulfil all import, export, and transit-related regulatory requirements. The Recommendation also suggests that participating authorities and agencies should coordinate their respective controls through the Single Window and should consider providing facilities for payment of relevant duties, taxes and fees. The Recommendation is complemented by a detailed set of Guidelines designed to assist countries in implementation.

Recommendation 33 was developed by the International Trade Procedures Working Group (ITPWG-TBG15) of UN/CEFACT and was approved through the Intersessional Approval Process in September 2004. It is the latest in a series of over 30 trade facilitation Recommendations prepared by UN/CEFACT, all of which are available free of charge on the UNECE website, www.unece.org/trade.

I am convinced that the establishment of a Single Window constitutes an important building block in the area of trade facilitation and I therefore invite all concerned actors, both public and private, to make an effective use of this Recommendation.

Brigita Schmögnerová
Executive Secretary
United Nations Economic Commission for Europe
UN/CEFACT RECOMMENDATION No. 33

ESTABLISHING A SINGLE WINDOW

to enhance the efficient exchange of information
between trade and government

The Recommendation was developed by the International Trade Procedures Working Group (ITPWG – TBG15) of the UN/CEFACT International Trade and Business Processes Group (TBG).

It was formally approved by the UN/CEFACT heads of delegation in September 2004, after an extensive review process by various industry, governmental and international organizations.

A draft of the Recommendation (TRADE/CEFACT/2004/MISC.7) had previously been submitted to the 10th UN/CEFACT Plenary session in May 2004.
1. Introduction

In many countries, companies involved in international trade have regularly to prepare and submit large volumes of information and documents to governmental authorities to comply with import, export and transit-related regulatory requirements. This information and documentation often has to be submitted through several different agencies, each with their own specific (manual or automated) systems and paper forms. These extensive requirements, together with their associated compliance costs, can constitute a serious burden to both governments and the business community and can also be a serious barrier to the development of international trade.

One approach to address this problem is the establishment of a Single Window whereby trade related information and/or documents need only be submitted once at a single entry point. This can enhance the availability and handling of information, expedite and simplify information flows between trade and government and can result in a greater harmonisation and sharing of the relevant data across governmental systems, bringing meaningful gains to all parties involved in cross-border trade. The use of such a facility can result in improved efficiency and effectiveness of official controls and can reduce costs for both governments and traders due to better use of resources.

The Single Window is therefore a practical application of trade facilitation concepts meant to reduce non-tariff trade barriers and can deliver immediate benefits to all members of the trading community.

2. Scope

Within the context of this Recommendation, a Single Window is defined as a facility that allows parties involved in trade and transport to lodge standardized information and documents with a single entry point to fulfil all import, export, and transit-related regulatory requirements. If information is electronic, then individual data elements should only be submitted once.

In practical terms, the Single Window aims to expedite and simplify information flows between trade and government and bring meaningful gains to all parties involved in cross-border trade. The Single Window is generally managed centrally by a lead agency, enabling the appropriate governmental authorities and agencies to receive or have access to the information relevant for their purpose. In addition, participating authorities and agencies should co-ordinate their controls. In some cases, the Single Window may provide facilities for payment of relevant duties, taxes and fees.

A Single Window does not necessarily imply the implementation and use of high-tech information and communication technology (ICT), although facilitation can often be greatly enhanced if Governments identify and adopt relevant ICT technologies for a Single Window.

3. Benefits

The implementation of a Single Window can be highly beneficial for both Governments and trade. For Governments it can bring better risk management, improved levels of security and increased revenue yields with enhanced trader compliance. Trading communities benefit from transparent and predictable interpretation and application of rules, and better deployment of human and financial resources, resulting in appreciable gains in productivity and competitiveness.

The value of such a facility for governments and traders has taken on increased importance in the new security environment with its emphasis on advance information and risk analysis.

4. Environment

The introduction of a Single Window will often first require a feasibility study and needs analysis to determine its potential scope, the level and nature of demand, data and other information requirements, legal issues, options for implementation (including possible phases of implementation), potential for and nature of
a pilot implementation, the cost of implementation under the different scenarios, other resources required (human, technical, etc), potential benefits and risks, time frame, implementation and management strategy.

The most important prerequisites for the successful implementation of a Single Window facility are the political will of the government and the relevant governmental authorities and the full support and participation of the business community. The basic legal framework, including the introduction of privacy laws and rules providing privacy and security in the exchange of information, will also have to be developed.

5. Use of International Standards

When implementing a Single Window, governments and trade are strongly encouraged to consider the use of existing recommendations, standards and tools that have been developed over the past number of years by intergovernmental agencies and international organisations such as UNECE, UNCTAD, WCO, IMO, ICAO and the ICC. The use of standards and available tools will help ensure that the systems developed to implement the Single Window are more likely to be compatible with similar developments in other countries, and could also help in the exchange of information between such facilities over time.

6. Recommendation

The United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT), being aware that the establishment of a Single Window facility, as described in this document and the attached guidelines, can harmonise and simplify the exchange of information between government and trade and considering that this will bring real benefits to both governments and trade, recommends that governments and those engaged in the international trade and movement of goods:

a) Actively consider the possibility of implementing a Single Window facility in their country that allows:
   - parties involved in trade and transport to lodge standardized information and documents with a single entry point to fulfil all import, export, and transit-related regulatory requirements. If information is electronic, then individual data elements should only be submitted once.
   - the sharing of all information in respect of international trade transactions, which is supported by a legal framework that provides privacy and security in the exchange of information;
   - such a single entry point to disseminate, or provide access to, the relevant information to participating governmental authorities or authorised agencies and, where appropriate, to co-ordinate the controls of the various governmental authorities;
   - the addition of facilities to provide trade related government information and receive payment of duties and other charges.

b) Proceed with the setting up of a Single Window facility at the national level through a collaborative effort with all relevant governmental authorities and the business community.

c) Give full consideration to the guidelines attached to the present recommendation in the establishment of their Single Window facility.

UN/CEFACT invites governments to share and report to the UNECE secretariat where appropriate experiences and activities leading to the implementation of a single window facility in their respective countries.
PART TWO

UN/CEFACT

GUIDELINES ON ESTABLISHING A SINGLE WINDOW

to enhance the efficient exchange of information between trade and government

Issued as a complement to UN/CEFACT Recommendation No. 33 on Establishing a Single Window
1. **INTRODUCTION**

These Guidelines, which are complementary to UN/CEFACT Recommendation Number 33 on the Establishment of a Single Window, are designed to assist governments and trade in planning and establishing a Single Window facility for international import, export and transit-related regulatory requirements. They provide an overview of the main issues that have to be addressed, some of the tools available and the steps to be taken.

2. **WHAT IS A SINGLE WINDOW?**

As specified in UN/CEFACT Recommendation Number 33, the Single Window concept covered in these Guidelines refers to 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. If information is electronic, then individual data elements should only be submitted once.

3. **WHAT ARE THE MOST COMMON MODELS FOR A SINGLE WINDOW?**

Although there are many possible approaches to establishing a Single Window, three basic models were discerned from the review undertaken by the UN/CEFACT International Trade Procedures Working Group (ITPWG/TBG15) of various systems that are currently in place or being developed. However, before considering these models, it is important to point out that:

- Although many business and trade practices are common to all countries, each country will also have its own unique requirements and conditions.
- A Single Window should represent a close cooperation between all involved governmental authorities and agencies, and the trading community;
- A Single Window does not necessarily imply the implementation and use of high-tech information and communication technology (ICT), although facilitation can often be greatly enhanced if Governments identify and adopt relevant ICT technologies for a Single Window.

The three basic models for the Single Window are:

a) **A Single Authority** that receives information, either on paper or electronically, disseminates this information to all relevant governmental authorities, and co-ordinates controls to prevent undue hindrance in the logistical chain. For example, in the Swedish Single Window, Customs performs selected tasks on behalf of some authorities (primarily for the National Tax Administration (import VAT), Statistics Sweden (trade statistics), the Swedish Board of Agriculture and the national Board of Trade (import licensing)).

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2 In preparing these Guidelines, the UN/CEFACT International Trade Procedures Working Group (ITPWG/TBG15) reviewed the operation or development of the Single Windows in Australia, The Czech Republic, Finland, Japan, Mauritius, The Netherlands, Norway, Sweden, Singapore, Thailand, United Kingdom and the United States of America.
b) A Single Automated System for the collection and dissemination of information (either public or private) that integrates the electronic collection, use, and dissemination (and storage) of data related to trade that crosses the border. For example, the United States has established a program that allows traders to submit standard data only once and the system processes and distributes the data to the agencies that have an interest in the transaction. There are various possibilities:

i. Integrated System: Data is processed through the system
ii. Interfaced System (decentralised): Data is sent to the agency for processing
iii. A combination of i and ii.
3-b-ii: **Single Automated System**  
(Interfaced)

**Trader**  
(incl. Transport)

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3-c: **Automated Information Transaction System**

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For further information on master data sets, see UN/TRADE/CEFACT/2002/32/Rev 2 - "Facilitation Recommendation on Providing Guidance to Implementers of Electronic Business"3 - especially Appendix 3 on Simpl.e.business. See Annex D for a full listing of existing international recommendations, standards and tools.
3.1 Lead Agency for a Single Window

The appropriate agency to lead the establishment and operation of a Single Window will vary from country to country depending on legal, political and organisational issues. The lead agency must be a very strong organisation with the necessary vision, authority (legal), political backing, financial and human resources and interfaces to other key organisations. In some cases, because of their pivotal role, the information and documentation they receive and their key position at borders, Customs or port authorities can be the agency best suited to lead a Single Window development and implementation. They can also be the ‘entrance’ points to receive and coordinate the flow of information related to the fulfilment of all cross-border regulatory requirements.

However, the lead organisation does not necessarily have to be a governmental organisation; it can be a private entity such as a Chamber of Commerce or a semi-state organisation such as a Board of Trade. However, private organisations sometimes lack the legal authority to issue and accept information and documents and the power to enforce rules. Therefore, in such a scenario, it may be necessary for the private organisation to seek the explicit formal support of a governmental organisation that has such power at its disposal.

One example of a public-private partnership that led to the establishment of a Single Window was the Mauritius Network Services Ltd, in Mauritius. This is a tripartite joint-venture company involving public and private sector representatives and a foreign technical partner (see Annex A for further details).

Of the twelve Single Windows reviewed in the development of these Guidelines, the majority were lead by Customs. The distribution is as follows:

- Customs (including Ministry of Finance): 7
- Port authorities: 2
- Other governmental authorities: 1
- Public/private partnership: 2

4. WHAT ARE THE BENEFITS OF ESTABLISHING A SINGLE WINDOW?

A Single Window can simplify and facilitate to a considerable extent the process of providing and sharing the necessary information to fulfil trade-related regulatory requirements for both trader and authorities. The use of such a system can result in improved efficiency and effectiveness of official controls and can reduce costs for both governments and traders due to better use of resources.

4.1 Benefits for Government

A Single Window can lead to a better combination of existing governmental systems and processes, while at the same time promoting a more open and facilitative approach to the way in which governments operate and communicate with business. For example, as traders will submit all the required information and documents through a single entity, more effective systems can be established for a quicker and more accurate validation and distribution of this information to all relevant government agencies. This will also result in better co-coordination and co-operation between the governmental authorities involved in trade-related activities.

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4 The lead agency might only have a coordination role (e.g. in Netherlands) or it might be necessary to set up some sort of agreement to lay down functions and responsibilities of the stakeholders and the organisation or (a private or private/public) company that is running the single window. This relationship could be subject to periodic assessment.
Risk management techniques for control and enforcement purposes can also be enhanced through a Single Window facility that collects all data in a systematic way, resulting in more secure and efficient trade procedures. Further, the implementation of a payment system within a Single Window ensures rapid and accurate payment to governmental authorities and agencies for required duties and any other charges.

A Single Window that provides up-to-date information regarding tariff rates and other legal and procedural requirements will reduce any unintentional errors and increase trader compliance. In addition, the collection and co-ordination of the required information and trade documentation, through a Single Window will reduce the use of both human and financial resources, enabling governments to re-deploy resources previously used for administrative tasks to areas of greater concern and importance.

**Benefits for government**

- More effective and efficient deployment of resources
- Correct (and often increased) revenue yield
- Improved trader compliance
- Enhanced security
- Increased integrity and transparency

**4.2 Benefits for trade**

The main benefit for the trading community is that a Single Window can provide the trader with a single point for the one-time submission of all required information and documentation to all governmental agencies involved in export, import or transit procedures.

As the Single Window enables governments to process submitted information, documents and fees both faster and more accurately, traders should benefit from faster clearance and release times, enabling them to speed up the supply chain. In addition, the improved transparency and increased predictability can further reduce the potential for corrupt behaviour from both the public and private sector.

If the Single Window functions as a focal point for the access to updated information on current trade rules, regulations and compliance requirements, it will lower the administrative costs of trade transactions and encourage greater trader compliance.

**Benefits for trade**

- Cutting costs through reducing delays
- Faster clearance and release
- Predictable application and explanation of rules
- More effective and efficient deployment of resources
- Increased transparency
5. SERVICES PROVIDED BY A SINGLE WINDOW

A Single Window can provide a wide variety of services and facilities depending on its design and coverage. A short summary of the services provided by a selected sample of existing Single Windows is provided below. More complete descriptions, including additional details on benefits, implementation model and financial model, are provided in Annex A.

Mauritius: The Single Window in Mauritius allows the submission of customs declarations, their processing and their return by electronic means through TradeNet, a proprietary system developed by Mauritius Network Services Ltd. in collaboration with Singapore Network Services Ltd. (which now operates under the name ‘Crimson Logic’). The system is an EDI-based network application that allows the electronic transmission of documents between various parties involved in the movement of import and export goods, namely the Customs & Excise Department, Freight Forwarders, Shipping Agents, Customs Brokers, the Cargo Handling Corporation, the Ministry of Commerce, Operators within the Freeport, and Importers and Exporters. Banks will also be connected to TradeNet in the future to allow for the electronic payment of duties and taxes via the Mauritius Automated Clearing and Settlement System (MACSS) of the Bank of Mauritius.

TradeNet has also provided the Customs & Excise Department with an opportunity to embark on a major computerisation project, by way of the implementation of the Customs Management System (CMS), that links it in the processing, approval, and clearance of customs declarations.

Source for further information: http://mns.intnet.mu/projects/tradenet.htm

Sweden: The Swedish Single Window system, known as “The Virtual Customs Office” (VCO), allows for electronic Customs declarations and application for import and export licenses and licenses for strategic products. It can be integrated into the traders business system and can automatically update changes in exchange rates, tariff codes and duty rates. The Single Window also includes all trade-related regulations and can provide traders with automated updates on changes via Internet and/or SMS-services. The VCO also offers interactive training courses and possibility to customize and create personal virtual customs offices, which contain all information and processes that each trader uses and finds relevant to its needs and wants.

Import and export declarations can be processed both via Internet and EDIFACT. All services are pooled on a single VCO web page, currently more than 150 e-services are available. The information and procedures on the VCO supports ten different languages.

The system currently involves the Swedish Customs (lead agency), the Swedish Board of Agriculture, the National Board of Trade, the National Inspectorate of Strategic Products and the Police.

Source for further information: http://www.tullverket.se/TargetGroups/General_English/frameset.htm

Netherlands: The Single Window at Schiphol Airport allows for the electronic submission of the cargo manifest by airlines to Customs. Information is supplied by trade to Customs to the VIPPROG system, which was developed by Customs. The VIPPROG system is an EDI based network application that allows the electronic transmission of the Freight Forward Message, a standard message defined by IATA that is available in the SITA system of IATA. The information from SITA is transmitted via the privately owned community system ‘Cargonaut’, when the airline has given an authorisation to ‘Cargonaut’ to provide customs with the information. Customs pays Cargonaut a fee for use and maintenance of the community system.

5 In preparing these Guidelines, the UN/CEFACT International Trade Procedures Working Group (ITPWG/TBG15) reviewed the operation or development of the Single Windows in Australia, The Czech Republic, Finland, Japan, Mauritius, The Netherlands, Norway, Sweden, Singapore, Thailand, United Kingdom and the United States of America.
The Single Window is based on a cooperation with other enforcement agencies that has resulted in the establishment of a so-called “cargo clearance point” (CCP) in 1994. It was established to improve the handling of goods by various enforcement agencies. This CCP is based on a covenant between Customs, ten other enforcement agencies and trade. The other enforcement agencies include the Marechaussee (immigration), the Health Care Inspectorate, various divisions of the Inspectorate General of Transport, Public Works and Water Management, the Inspectorate for Health Protection and Veterinary Public Health, National Inspection Service for Livestock and Meat and the Plant Protection Service. The CCP is managed by Customs.

In order to be able to give the other enforcement agencies the relevant information they need to perform their tasks, these agencies provide Customs with risk-profiles on the basis of which Customs analyses the information and passes it on, either electronically or on paper, to the other agencies. The other agencies inform Customs in return if they want to check the goods. If more than one agency (including Customs) wants to check the goods, the CCP co-ordinates the checks of all the agencies involved. The aim is to prevent multiple checks that will unnecessarily disrupt the logistical process.

**United States**: The Single Window system being developed and implemented in the United States is known as the International Trade Data System (ITDS). The ITDS vision is to use a secure, integrated government-wide system to meet private sector and Federal requirements for the electronic collection, use, and dissemination of standard trade and transportation data. Customs and Border Protection (CBP) will integrate ITDS requirements into a joint Automated Commercial Environment/International Trade Data System (ACE/ITDS) system in an effort to avoid parallel, separate, and potentially duplicative systems.

ITDS has identified the following major stakeholder groups: Participating Government Agencies (PGAs), the trade, oversight bodies, and CBP.

**Participating Government Agencies** (PGAs) have international trade missions including (a) control over admission or export of cargo, crew, and conveyances, (b) regulation of compliance with federal trade laws such as tariffs and quotas, licenses, and operating authorities, (c) promotion of international trade through activities such as export assistance, and (d) collection and reporting of statistical information about international trade and transportation. For ITDS purposes, agencies can be categorized as follows:

- **Border Operations Agencies** – have responsibility for the import, export, and transit trade processes related to cargo, conveyance and/or crew. Border Operations Agencies may also have license and permit, statistical, or trade promotion responsibilities. Border Operation Agencies sometimes are referred to as admissibility and export control agencies.
- **License and Permit Agencies** – use ACE as the primary means for the recordation and maintenance of license and permit information. License and Permit Agencies may also have statistical or trade promotion responsibilities.
- **Statistical Agencies** – use ACE to extract trade or transportation data, usually not at the transaction-level, to support needs for their own statistical analysis. Statistical Agencies may also have trade promotion responsibilities.
- **Trade Promotion Agencies** – use ACE to facilitate U.S. trade by making available basic import and export information, such as rules and regulations, to the trade, service providers, and the public.

**Sources for further information:**
http://www.itds.treas.gov
http://www.cbp.gov
6. PRACTICAL STEPS IN PLANNING AND IMPLEMENTING A SINGLE WINDOW

Implementing a Single Window is a significant undertaking, involving many stakeholders and requiring commitment from many players in both government and business. It is essential, therefore, that a systematic approach be adopted from the outset. Some of the key steps involved are discussed briefly below and are presented in more detail in Annex B. However, the implementation approach will likely be heavily influenced by the political, social and cultural conditions and traditions in a given country.

Developing the Initial Concept for the Single Window: Serious work on the establishment of a Single Window in a country often starts with the preparation of a concept or briefing paper based on preliminary research, most probably prepared by the lead governmental authority or agency, or private organisation likely to be heavily involved in the eventual implementation of the project.

Making the Initial Decision to Examine the Feasibility of a Single Window: In the framework of an open partnership between government and trade, a meeting would typically be organised for high-level representatives from all relevant trade related organisations\(^6\), and governmental authorities and agencies to discuss the Single Window concept (or concept paper). The object of such a meeting is to get agreement on the project concept and to launch a feasibility study that would include a detailed needs analysis and technological assessment.

Presuming a positive decision is reached to proceed with the feasibility study, the meeting should establish a Project Management Group made up of senior representatives of the key agencies that would be directly involved in implementing and utilising the Single Window. The meeting should also establish a Task Force with appropriate technical and managerial representatives of key agencies in order to carry out the organisational and implementation work required for the project.

Undertaking the Feasibility Study: The feasibility study is a key element of the overall Single Window development. The study should determine the potential scope of the Single Window, the level and nature of demand, possible scenarios for implementation (including possible phases of implementation), potential for and nature of a pilot implementation, the cost of implementation under the different scenarios, other resources required (human, technical, etc), potential benefits and risks, time frame, implementation and management strategy. Some of the key areas that should be covered in the feasibility study are presented in Annex C.

Consideration of the Feasibility Study Report: The findings of the feasibility study should be considered and approved (or otherwise) by the Task Force and eventually submitted for consideration by the Project Management Group. Sufficient time should be allowed for this process, as it is essential to have the maximum input and agreement before the report is finalised. Following this, the agreed preferred Single Window option and the accompanying implementation scenario chosen should then be presented to the wider government and trade community, possibly through a national symposium on the establishment of a Single Window.

Implementation: Whether a pilot, phased or full implementation approach is chosen, it is essential to initiate a clear project management approach throughout the project implementation. The project management plan, which must be formally agreed by both the Project Management Group and Task Force, should contain a set of clearly defined interrelated tasks and event milestones that can assist the Task Force and the Project Management Group to plan, execute, monitor, evaluate, and adjust the project implementation. Key elements of the project implementation plan are listed in Annex B, Section 5.

\(^6\) Typical trade related organisations that could be involved include the National Chamber of Commerce, Importers and/or Exporters Association, Confederation of Industry, Business Associations, etc. When the Single Window has a payments component, banks and other financial institutions must be involved.
7. **STANDARDS AND TOOLS AVAILABLE TO ASSIST IN IMPLEMENTING A SINGLE WINDOW**

When implementing a Single Window, governments and trade are strongly encouraged to consider the use of recommendations, standards and existing tools that have been developed over the past number of years by intergovernmental agencies and international organisations such as UNECE, UNCTAD, the WCO, IMO, ICAO and the ICC. Some of the instruments in this category are described in Annex D.

The use of standards and available tools will help ensure that the systems developed to implement the Single Window are more likely to be compatible with similar developments in other countries, and they could also help in the exchange of information between such Single Window facilities over time. In addition, the use of existing tools and best practices should help reduce the overall cost of implementation, as the project will be drawing on work already completed by other international standards organisations.

8. **KEY FACTORS IN ESTABLISHING A SUCCESSFUL SINGLE WINDOW**

The successful introduction and implementation of a Single Window concept depends to a considerable extent on certain pre-conditions and success factors that vary from country to country and from project to project. This final section of the Guidelines lists some of the success factors gleaned from a review of the operation and development of Single Windows in various countries undertaken by the UN/CEFACT International Trade Procedures Working Group (ITPWG/TBG15). The list of factors is not arranged in any particular order, as the situation in different countries and areas of operation can vary considerably. It is noted that although several of the points have already been mentioned in the Guidelines, they are repeated here for completeness and emphasis.

8.1 Political will

The existence of strong political will on the part of both government and business to implement a Single Window is one of the most critical factors for its successful introduction. Achieving this political will requires proper dissemination of clear and impartial information on objectives, implications, benefits and possible obstacles in the establishment of the Single Window. The availability of resources to establish a Single Window is often directly related to the level of political will and commitment to the project. Establishing the necessary political will is the foundation stone upon which all the other success factors have to rest.

8.2 Strong Lead Agency

Related to the need for political will is the requirement of a strong, resourceful and empowered lead organisation both to launch the project and see it through its various development stages. This organisation must have the appropriate political support, legal authority, human and financial resources, and links with the business community. In addition, it is essential to have a strong individual within the organisation who will be the project champion.

8.3 Partnership between Government and Trade

A Single Window is a practical model for co-operation between agencies within government and also between government and trade. It presents a good opportunity for a public-private partnership in the establishment and operation of the system. Consequently, representatives from all relevant public and private sector agencies should be invited to participate in the development of the system from the outset. This should include participation in all stages of the project, from the initial development of project objectives, situational analysis, and project design through to implementation. The ultimate success of the Single Window will depend critically on the involvement, commitment and readiness of these parties, to ensure that the system becomes a regular feature of their business process.
8.4 Establishment of Clear Project Boundaries and Objectives
As with any project, establishing clearly defined goals and objectives for the Single Window at the outset will help guide the project through its various development stages. These should be based on a careful analysis of the needs, aspirations and resources of the key stakeholders, and also on the existing infrastructure and current approaches to the submission of trade-related information to government. As stated previously, this analysis should involve all key stakeholders from both government and trade. A Single Window should generally be perceived as part of a country's overall strategy to improve trade facilitation.

8.5 User Friendliness and Accessibility
Accessibility and user friendliness are also key factors for the success of a Single Window project. Comprehensive operating instructions and guidelines should be created for users. Help Desk and user support services, including training, should be established, especially in the early implementation phase of the project. The Help Desk can be a useful means for collecting feedback information on areas of difficulty and bottlenecks in the system, and this information can be a valuable tool in its further development. The need for and value of practical training courses for users cannot be over-emphasised, especially in the early implementation phase of the project. It is also important to address the multilingual requirements in some countries.

It is essential that the design of the system be attuned to the real ICT capacities of the country or region in which it will operate. Keeping in view the potential future technological developments in this area, the maximum number of users should be able to utilise the Single Window from the moment it is launched. In some cases, this may dictate the use of a paper-based system or a dual paper/on-line approach, designed around the limited on-line access capacities of a given geographical area.

8.6 Legally-enabling Environment
Establishing the necessary legal environment is a pre-requisite for Single Window implementation. Related laws and legal restrictions must be identified and carefully analysed. For example, changes in legislation can sometimes be required in order to facilitate electronic data submission/exchange and/or an electronic signature system. Further, restrictions concerning the sharing of information among authorities and agencies, as well as organisational arrangements for the operation of a Single Window, may need to be overcome. Also, the legal issues involved in delegating power and authority to a lead agency need to be examined.

8.7 International Standards and Recommendations
The implementation of a Single Window generally entails the harmonisation and alignment of the relevant trade documents and data sets. In order to ensure compatibility with other international systems and applications, these documents and data models must be based on international standards and recommendations. This is true even if the Single Window is designed to operate without using electronic data communications.

Whenever electronic data interchange is involved, the harmonisation, simplification and standardisation of all data used in international trade are an essential requirement for smooth automatic operation of the Single Window. The harmonisation of data used by different participants in their legacy system can be one of the biggest challenges for automated Single Window implementation. UN/CEFACT trade facilitation recommendations (such as UN/CEFACT Recommendations Number 1 and 18) contain valuable information for Single Window implementation of the system.

8.8 Identification of Possible Obstacles
It is possible that all players in government and/or trade may not welcome the implementation of a Single Window. In such cases, the specific concerns of opponents should be identified and addressed as early as possible in the project. Identified obstacles should be considered individually, taking into account the local situation and requirements. Clearly, cost can be a major obstacle but this must be balanced against future benefits as described in Section 4. However, it is important to be clear about the financial implications of the project so that the decision regarding full or phased implementation can be made. Legal issues also constitute a significant potential problem area.
8.9 Financial Model
A decision on the financial model for the Single Window should be reached as early as possible in the project. This could range from a system totally financed by government (e.g. the Netherlands) to an entirely self-sustainable model (e.g. Mauritius). Also, possibilities for public-private partnerships should be explored, if this is deemed a preferred approach. Clarity on this point can significantly influence decision-makers to support the implementation of the system.

8.10 Payment Possibility
Some Single Windows (e.g. Thailand) include a system for the payment of government fees, taxes, duties and other charges. This can be a very attractive feature for both government and trade, and is especially important when the system is required to generate revenue. However, it should be noted that adding payment features often requires a considerable amount of additional work with harmonisation and especially security.

8.11 Promotion and Marketing
Promotion and marketing of a Single Window is very important and should be carefully planned. The promotion campaign should involve representatives from all the key government and trade stakeholders in the system, as these parties can provide valuable information on the expectations of the user community and help to direct the promotion and marketing messages. A clear implementation timetable should be established and promoted at the earliest possible stage of a Single Window project, as this will assist in the marketing of the project and will help potential users to plan their related operations and investments according to this schedule. Marketing should clearly identify the benefits and cost savings as well as specific points relating to the increased efficiency derived from the implementation of Single Window operation.

8.12 Communications Strategy
Establishing a proper mechanism for keeping all stakeholders informed on project goals, objectives, targets, progress (and difficulties) creates trust and avoids the type of misunderstanding that can lead to the undoing of an otherwise good project. Within this context, it is extremely important to handle stakeholders’ expectations properly, and it is worth remembering the business adage of promising less and delivering more (rather than the other way round). It is also important to remember that stakeholders often do not expect miracles: solving simple practical problems can generate significant goodwill to carry the project through difficult patches along the development path.
EXAMPLES OF EXISTING SINGLE WINDOWS

In developing these Guidelines, a number of existing Single Windows were reviewed. A description of a selected sample of these Single Windows is provided below.

**Mauritius:** The Single Window in Mauritius allows the submission of customs declarations, their processing and their return by electronic means through TradeNet, a proprietary system developed by Mauritius Network Services Ltd. in collaboration with Singapore Network Services Ltd. (which now operates under the name ‘Crimson Logic’). The system is an EDI-based network application that allows the electronic transmission of documents between various parties involved in the movement of import and export goods, namely the Customs & Excise Department, Freight Forwarders, Shipping Agents, Customs Brokers, the Cargo Handling Corporation, the Ministry of Commerce, Operators within the Freeport, and Importers and Exporters. Banks will also be connected to TradeNet in the future to allow the electronic payment of duties and taxes via the Mauritius Automated Clearing and Settlement System (MACSS) of the Bank of Mauritius.

TradeNet has also provided the Customs & Excise Department with an opportunity to embark on a major computerisation project, by way of the implementation of the Customs Management System (CMS), that links with it in the processing, approval, and clearance of customs declarations.

The TradeNet system has been implemented in phases to ensure a smooth and gradual change from traditional methods, and a better acceptance to this new way of dealing with Customs. The first phase, launched in July 1994, dealt with the electronic authorisation by Customs for the delivery of goods in cases where no Customs inspection was required. Later, in January 1995, a second phase was introduced allowing the electronic submission to Customs of sea manifests by shipping agents. At the implementation of the third phase in 1997, facilities were introduced to cater for the electronic declaration and processing of bills of entry. By July 2001, additional functionalities had been added in the fourth and fifth phases to include the transfer of containers from the port area to forwarders’ stations and import/export authorisation by controlling agencies respectively. It is estimated that TradeNet has decreased the average clearance time of goods from about 4 hours to around 15 minutes for non-litigious declarations, with estimated savings of around 1% of GDP.

Trade Net is a public-private partnership between several agencies of the Mauritian Government, the Mauritius Chamber of Commerce and Industry, and Crimson Logic, the partner company that operates its own version of TradeNet in Singapore. All services are charged for on a pay-as-you-use basis, in addition to an initial registration and set-up charge for each user. Most importantly, the project is self-sustaining and generates enough resources for it to proceed with further investments in the field of e-Government within the country. Also, the Mauritian TradeNet system has been purchased and adapted by Ghana for its internal needs.


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7 In preparing these Guidelines, the UN/CEFACT International Trade Procedures Working Group (ITPWG/TBG15) reviewed the operation or development of the Single Windows in Australia, The Czech Republic, Finland, Japan, Mauritius, The Netherlands, Norway, Sweden, Singapore, Thailand, United Kingdom and the United States of America.
Sweden: The present Swedish Single Window system, known as “The Virtual Customs Office” (VCO), allows the submission, by electronic means, of customs declarations and of applications for import and export licenses, for licenses for strategic products and for both the import and export licences. It can further be integrated into the business system of traders and can then automatically update changes in exchange rates, tariff codes and duty rates. The Single Window also includes all trade-related regulations and can provide traders with automated updates on changes via Internet and/or SMS-services. The VCO also offers interactive training courses and the possibility to customize and create personal virtual customs offices, which will contain all information and processes that each trader uses and finds relevant to their needs and wants.

Import and export declarations can be processed both via Internet and EDIFACT. All services are pooled on a single VCO web page, currently more than 150 e-services are available. The information and procedures on the VCO support ten different languages.

The system currently involves the Swedish Customs (lead agency), the Swedish Board of Agriculture, the National Board of Trade, the National Inspectorate of Strategic Products, the Police, the National Tax Administration and Statistics Sweden.

A customer using the electronic customs declaration will get a reply within 90 seconds. Should the processing take longer, the trader will have the option of receiving frequent updates on the progress of the transaction via SMS and e-mail. Feedback from traders has shown that 80% found the virtual customs office saved time, 54% directly saved money, 72% experienced increased flexibility and 65% found that the quality and speed of the service had improved.

The Customs have simultaneously been able to cut costs, increase the efficiency of internal procedures and relocate resources to core activities.

The Single Window system has been developed continuously as a natural consequence of the Swedish governmental policy of transparency and interaction with business and citizens. The Customs has, along with other partner authorities, developed the system on a need-and-request basis from both internal and external (business) parties.

The system is fully financed by government funds and all services are free of charge.

Source for further information: http://www.tullverket.se/TargetGroups/General_English/frameset.htm

Netherlands: The Single Window at Schiphol Airport allows the electronic submission of the cargo manifest by airlines to Customs. Information is supplied by trade to Customs to the so-called VIPPROG system, which was developed by Customs. The VIPPROG system is an EDI-based network application that allows the electronic transmission of the Freight Forward Message, a standard message defined by IATA that is available in the SITA system of IATA. The information from SITA is transmitted via the privately owned community system ‘Cargonaut’, when the airline has given an authorisation to ‘Cargonaut’ to provide customs with the information. Customs pays ‘Cargonaut’ a fee for use and maintenance of the community system.

The Single Window is based on a co-operation with other enforcement agencies that has resulted in the establishment of a so-called “cargo clearance point” (CCP) in 1994. It was established to improve the handling of goods by various enforcement agencies. This CCP is based on a covenant between Customs, 10 other enforcement agencies and trade. The other enforcement agencies include the Marechaussee (immigration), the Health Care Inspectorate, various divisions of the Inspectorate General of Transport, Public Works and Water Management, the Inspectorate for Health Protection and Veterinary Public Health, National Inspection Service for Livestock and Meat and the Plant Protection Service. The CCP is managed by Customs.
In order to be able to give the other enforcement agencies the relevant information that they need to perform their tasks, these agencies provide Customs with risk-profiles on the basis of which Customs analyses the information and passes it on, either electronically or on paper, to the other agencies. The other agencies inform customs in return whether they want to check the goods. If more than one agency (including Customs) wants to check the goods, the CCP co-ordinates the checks of all the agencies involved. The aim is to have the goods checked at one point in time, to prevent multiple checks that will unnecessarily disrupt the logistical process.

The sphere of activity of Dutch Customs is not limited to collecting duties, but it is also involved in the control of the import and export and transit of goods within the framework of prohibitions, restrictions, or measures of control in respect of certain goods such as drugs, arms, waste products, items of cultural significance and endangered species. The legislation in these areas is mainly the responsibility of other ministries. In 1996 Memoranda of Understanding with different ministries or enforcement services were concluded with provisions for Customs to carry out controls on behalf of other enforcement agencies.

Trade has shown to be a great supporter of this co-operative approach. The benefits for trade are fewer delays in airfreight logistics, and a reduction in staff costs with regard to submitting the summary declarations and other documents. Throughout the years it has even resulted in arrangements between Customs and trade to hand in pre-arrival information on a voluntary basis, as this further speeds up the clearance of goods. The advantage of the Single Window for Customs is that it has a fairly comprehensive overview of incoming air freight on a pre-arrival basis.

In the near future Dutch Customs will introduce a new system called “Sagitta binnenbrengen” which allows for the pre-arrival submission of summary declarations to customs. It will be possible to submit information via the port authorities’ system or directly. The system will also interface with other Customs systems, and this will make it possible to submit customs declarations. This new system, which will be introduced in 2004, has a nationwide scope. It will therefore make the local system VIPPROG redundant.

**United States:** The initial concept of the International Trade Data System (ITDS) was a result of a special task force, the Future Automated Commercial Environment Team (FACET). The objective of FACET was to examine government international trade processing procedures and to make recommendations for future Customs automation. Among key FACET recommendations was the use of the same data for import and export processing and integrated government oversight of international trade processing. As a result of the FACET Report, the Vice-President directed the US Department of the Treasury to establish the ITDS Project Office. The Project Office was guided by an interagency Board of Directors and was staffed by representatives of Customs (CBP), Participating Government Agencies (PGA’s), government oversight bodies, and contractors (consultant) personnel. ITDS held extensive consultation and outreach with PGA’s and trade industry sectors.

One of the first objectives of the Project Office was to survey PGA operating procedures and information requirements. This was accomplished by surveys and questionnaires. The Project Office reviewed of all forms required by various agencies assembled an inventory of data elements collected by trade agencies. The data inventory revealed the redundancy and duplication of data collected by trade agencies on over 300 forms consisting of nearly 3,000 data fields. Over 90% of this information was redundant. Through a process of analysis and harmonization, ITDS established the Standard Data Set (SDS) consisting of less than 200 data elements. This is in sharp contrast to the original 3,000 data fields.

Also studied were emerging trends in international trade and technology. The globalisation of business, the commercial standardization taking place in business, and the rapid exchange of information made possible through the Internet were factors that needed to be taken into consideration.

Under the North American Free Trade Act (NAFTA) a proof of concept of ITDS called North American Trade Automated Prototype (NATAP) was conducted. NATAP was a joint effort with Canada and Mexico. NATAP, albeit limited in scope, demonstrated that it is possible to achieve the objectives of ITDS of a
After extensive consultation with the trade community and participating agencies the ITDS Project Office issue a preliminary ITDS Design Report. Included in the preliminary design report were: concept of operations, cost benefit analysis, configuration management, data models, processes, work flows, standards, technical infrastructure and reference models, and user functional requirements.

Concurrent with the work of the ITDS Project Office was the development of the new Customs automated system called Automated Commercial Environment (ACE). There was a perception that that ACE and ITDS were competing. While this resulted in some delays, this perceived conflict between the development of the ACE and ITDS was resolved. ITDS is a part of ACE. Components of the preliminary ITDS Design Report are being updated to reflect these changes.

Section 8 of these guidelines note key factors that must be considered for the successful design, development, and implementation of a Single Window System. Following are a summary of ACE/ITDS experience with these factors:

**Political Will and Lead Organization:** Beginning with the FACET Task Force, the Vice-President’s order, and continuing with CBP endorsement of the ITDS/Single Window there has been clear direction from the highest levels of government to ITDS. Any confusion that may have existed in the early conceptualisation of ITDS has disappeared and been replaced by clear commitment to proceed with ITDS. A Board of Directors representing the major trade agencies governs ITDS.

**Partnership between Government and Trade:** ITDS has been integrated into the design, development and implementation of ACE. ACE formed the Trade Support Network (TSN). The TSN is an extensive network of over 300 representatives of the trade community meeting twice a year in both sub-committees and plenary. Specifically to ITDS, there is an ITDS subcommittee co-chaired by representatives of the trade community and government. All decisions regarding ITDS are vetted through this sub-committee.

**Establishment of Clear Objectives and Boundaries:** The overall objective of ITDS are clear; an integrated, government-wide system for international trade. While there is a long-term vision, implementation of ACE/ITDS is designed in manageable, incremental phases.

**User Friendliness and Accessibility:** ITDS is not replacing agency-specific systems. The intent of ITDS is to serve as a utility for the collection, dissemination, and use of data by PGA’s. In some instances, ITDS will transmit agency specific data to the existing agency system (interfaced). In other instances, agencies will have selectivity and processing capability in ACE/ITDS (integrated). ACE/ITDS has also employed web technology to develop a web portal for agencies to access ACE/ITDS data for review and to generate reports of activity.

**Legally–Enabling Environment:** It is inevitable that legal considerations will arise. Among these considerations is the authority to collect data, data sharing, and access to data. As legal issues arise, they will be addressed by the PGA. ACE/ITDS and PGAs also agree to a Memorandum of Understanding (MOU) detailing the responsibilities, operations, processing details, data requirements, etc.

**International Standards and Recommendations:** ACE/ITDS will be compliant with international data standards and messages being developed by the World Customs Organization (WCO), UN/CEFACT, and ISO. Representatives of ACE/ITDS actively participate in WCO Customs Data Model, Data Modelling, and Unique Consignment Reference (UCR) working groups. In addition, ACE/ITDS is closely following the Revised Kyoto Convention on the Simplification and Harmonisation of Customs Procedure and the accompanying Application of Information and Communications Technology guidelines being developed by the WCO. As PGA’s identify their information requirements, the data elements are mapped to the WCO
model. If an element is not included in the WCO Data Model, appropriate actions are taken with the WCO to ensure inclusion of the agency data in the WCO model.

**Promotion, Marketing, and Communications Strategy:** Promotion, marketing, and communications strategy is conducted at two levels with government and trade community, both domestic and international. Workshops are conducted for agencies covering the following range of topics: ACE/ITDS Introductory Integration Workshop (the process a PGA needs to go through to participate in ACE/ITDS), ACE/ITDS Scope Workshop (defining ACE/ITDS from the business process perspective), Business Process Analysis Workshops (discusses how PGAs should document their business processes with a focus on the as-is and to-be processes), Data Harmonization (providing information on analyzing information requirements at the attribute level), Concept of Operations (understanding the types of agency details for developing the agency MOU), Budget Workshop (understanding and planning financial considerations for ACE/ITDS based on anticipated functionality needs). ACE/ITDS also takes advantage of opportunities to educate and promote Single Window by attending and speaking at various conferences, workshops, and government and trade associations meetings at both the domestic and international level.

**Identification of Possible Obstacles:**

- **Commitment of resources:** The lead agency, in particular, and PGA’s must commit financial and personnel resources if a Single Window system is to be successfully implemented. PGA’s often include ITDS responsibilities as collateral duties.

- **Cost:** Cost is a considerable factor. Fortunately, CBP automation is undergoing a complete redesign under Customs Modernization. Cost of design, developing, and implementing Single Window have been incorporated into Customs Modernization. Countries considering implementation of a Single Window should conduct a comprehensive cost benefit analysis. One important cost consideration is the cost of designing, developing, and maintaining individual agency systems versus the Single Window concept. This is a factor for both government and traders who must maintain different files, standards, and systems to meet different agency requirements.

- **Perceived intention or motivation:** In developing a Single Window concept, agencies may have the mistaken impression that the lead agency is attempting to take over and dominate the international trade process. This perception must be addressed early in the concept phase, making it clear that the lead agency has its own role and responsibilities and is interested in improving, not dominating, the process.

- **Cultural resistance to Change:** This is not unique to Single Window. Any radical change to a process, as Single Window is, will encounter resistance. Education and inclusion are two methods for reducing this resistance. Agency personnel are often focused on their particular function in the trade process. Single Window leaders should stress the importance of the agency role in the entire international trade process. Attempts should be made to re-focus agency mission in to the broader scope of security, protection of society, environment, etc.

- **Data requirements:** Developing a standard data set is critical to achieving efficiency in a Single Window. In defining data, care should be taken to ensure that agency information requirements are included in the standard data set. Another consideration in terms of cost and technology is the integration of international standard data into existing legacy systems. Specifically, methodologies must be developed to cross walk new standards to existing systems standards and a plan to migrate legacy systems to the new standards.

**Sources for further information:**

http://www.itds.treas.gov
http://www.cbp.gov
Implementing a Single Window is a significant undertaking, involving many stakeholders and requiring commitment from many players in both government and business. It is essential, therefore, that a systematic approach be adopted from the outset. Some of the key steps involved are discussed below.

1. Developing the Initial Concept for the Single Window

Serious work on the establishment of a Single Window in a country often starts with the preparation of a concept or briefing paper, based on some initial research. This work is usually undertaken by the lead governmental authority or agency, or private organisation likely to be heavily involved in the eventual implementation of the project (for a discussion on the preferred lead agency see Section 3.1). Such a paper would usually describe the overall objectives and potential benefits of a Single Window, and would present a general overview of what would be involved in its implementation. The paper would typically focus on the practical issues involved and would avoid excessive technical jargon and in-depth discussion of technical concepts. It is important to understand that the objective of the concept paper is to facilitate initial discussion on the topic and obtain approval for a more in-depth study into the need for, approach to and feasibility of a Single Window. It is not intended at that stage to seek agreement for the implementation of a Single Window.

2. Making the Initial Decision to Examine the Feasibility of a Single Window

Following the preparation of the concept paper, and in the framework of an open partnership between government and trade, a meeting would typically be organised for high-level representatives from all relevant trade related organisations, and governmental authorities and agencies to discuss the Single Window concept (on the basis of the concept paper). The object of such a meeting is to get agreement on the project concept and to launch a feasibility study that would include a detailed needs analysis and a technological assessment. Significant “behind the scene” lobbying and project promotion work may be required before the meeting, in order to ensure that participants understand the concept and are positively predisposed towards the idea. As stated elsewhere in these Guidelines, the political will to support the implementation of a Single Window is one of the key pre-requisites for its success.

Presuming that a positive decision is reached to proceed with the feasibility study, the meeting should establish a Project Management Group made up of senior representatives of the key agencies who will be directly involved in implementing and utilising the Single Window. This Project Management Group should have the power to commit funds to the project, make resource allocation decisions and commit their relevant organisations to participating in the project. A draft ‘Objectives, Responsibilities and Terms of Reference’ text should be drawn up for the Project Management Group ahead of time, and agreed upon at the meeting.

The meeting should also set up a Task Force composed of appropriate technical and management representatives of key agencies, to take charge of the carrying out of the organisational and implementation work required for the project. Again, a draft ‘Objectives, Responsibilities and Terms of Reference’ document should be drawn up for the Task Force ahead of time and agreed upon at the meeting.

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8 Typical trade related organisations that could be involved include the National Chamber of Commerce, Importers and/or Exporters Association, Confederation of Industry, Business Associations, etc. When the Single Window has a payments component, banks and other financial institutions must be involved.
3. Undertaking the Feasibility Study

The feasibility study is a key element of the overall Single Window development. The study should determine the potential scope of the Single Window, the level and type of demand, possible scenarios for implementation, potential for and nature of a pilot implementation, resources required (financial, human, technical, etc), potential benefits and risks, a time frame, and an implementation and management strategy. It is strongly recommended that this study be based on direct face-to-face interviews with key players in both government and trade, complimented by relevant questionnaires to collect information from a wider circle of potential participants and users. Some of the key areas that should be covered in the feasibility study are presented in Annex C.

The objective of the feasibility study is to provide decision-makers with an insight into the options available and their consequences for each governmental authority. The study should provide advice on which option is preferable and feasible for the country, the manner in which the implementation should take place (i.e. full or phased implementation), the possible steps for a phased implementation, the nature and extent of an initial pilot implementation, the potential for revenue collection (for fees, duties, etc), the identification of ‘key’ deliverables and a recommended timetable for development and implementation.

It is important to emphasise here that the development of a Single Window does not presuppose the existence of or requirement for a sophisticated computerised information system for the receipt, storage and sharing of information. Clearly information technology can have a huge positive impact on the potential for sharing information in a Single Window context, and this is the more common approach in Single Windows reviewed in the development of the Guidelines. However, it is possible to develop a manual Single Window, whereby the relevant documents are submitted in one central location and are subsequently redistributed to the relevant governmental authority or agency.

It should also be stated that, when considering the technical requirements for a Single Window, the value of and investment in existing legacy systems should be respected. Although it may sometimes be necessary to replace such systems, a practical approach for sharing and exchanging information between agencies may well be the establishment of a central portal or gateway.

3.1 Use of Consultants

A decision will have to be made as to whether the feasibility study should be undertaken in-house by the project Task Force itself or contracted out to a third party. The major advantage of hiring external consultants is that the report is more likely to have an independent focus; also, the consultants can perhaps put forward comments and recommendations that would be difficult for individual government agencies to suggest (for political or other reasons). Furthermore, the necessary skills, experience and required time may not be available in-house to undertake the analysis within the time frame required. However, the major disadvantage of undertaking the work through consultants is that the report may be seen as an external one not connected to the key players in the organisation (i.e. there may be little or no buy-in to the report). A third option is to hire consultants to assist the Task Force in undertaking the feasibility study, but clear lines of authority and responsibility would then have to be defined for this option. The actual approach adopted will generally be decided on the basis of available resources, the time frame for the report and also political considerations.

4. Consideration of the Feasibility Study Report

The findings of the feasibility study will have to be considered and approved by the Task Force and eventually submitted for consideration by the Project Management Group. Sufficient time should be allowed for this process, as it is essential to have the maximum input and agreement before the report is finalised.

After the study has been accepted by the Task Force and Project Management Group, and a preferred Single Window option and the accompanying implementation option chosen, these decisions should be presented to the wider government and trade community. A good approach to this is the organisation of a national symposium on the establishment of a Single Window, where the Task Force (and/or consultants in the case
where the work was contracted out to a third party) can present the research findings and preferred option for implementation. Apart from the obvious communications value, such an exercise will help to ensure that important areas have not been missed in the analysis and that the proposed Single Window option, including proposed pilots and/or phased implementation, makes sense to and has the support of the user community, before the final implementation decisions are made.

5. Implementation (Pilot, Phased and/or Full)

Irrespective of whether a pilot, phased or full implementation has been decided, it is essential that a clear project management approach be adopted throughout the project implementation. The project management plan, which must be formally agreed upon by both the Project Management Group and the Task Force\(^9\), should contain a set of clearly defined interrelated tasks and event milestones that can assist the Task Force and the Project Management Group to plan, execute, monitor, evaluate, and adjust the project implementation. There are many well-established approaches to project management and several good software programmes available to assist in this process. The Project Management Plan should contain:

- A clear statement of the project's scope, goals and objectives;
- A statement on key deliverables, responsibility for delivery, time frame and milestones for completion;
- Definition of the roles and responsibilities of the various participants, including a clear agreement on who is in charge of the project (the project manager) and the level of authority of this manager;
- Specification of the management and monitoring responsibilities of the project manager and the line of authority and communication between the project manager, Project Management Group and the Task Force;
- A clear strategy for communicating with project stakeholders and potential users on a regular basis throughout the implementation, including an agreement on what information needs to be communicated with what groups and in what manner and frequency;
- A clear and agreed project budget, including financial and human resources; it is essential that the necessary funds and personnel be allocated to the project from the outset;
- A clear statement of the project risks (such as a cutback in budget, delay in required legal reforms, etc.) and an agreed response plan (to the best extent possible) to manage these risks, including contingency plans for high-level risks;
- Agreement on the criteria for measuring the project success;
- An agreed project review and feedback mechanism to provide ongoing monitoring of the project process and to deal with any changes in the implementation that may be required.

As with the needs analysis and feasibility study, a decision will have to be taken as to whether the work will be carried out by internal or external resources. For external contracts, the tendering process will obviously have to comply with existing governmental regulations, which vary from country to country. However, it is suggested that the process should be open, should have clear evaluation criteria (points) agreed by the Project Management Group before the tender is issued (and included in the actual tender documentation), and the tender committee should have representatives from all key organisations involved in the project.

\(^9\) A decision will have to be made as to whether the initial Project Management Group and Task Force should continue "as is" or should be reconstituted (a recommendation in this regard will likely be contained in the feasibility study).
KEY COMPONENTS OF THE FEASIBILITY STUDY

The feasibility study should cover the following areas:

Project Needs and Potential of a Single Window

- Examine existing requirements, procedures, and processes for the submission of import, export and transit documents and information to government to:
  - Identify key governmental authorities and agencies that can potentially be involved in the system;
  - Determine the extent to which it is possible to harmonise and simplify these requirements, procedures, information flows and documents. In particular, explore possibilities for ensuring the single submission of documents and information;
- Consider the potential of the Single Window to address trade security issues;
- Identify the needs of potential users, especially regarding the design of the eventual service and associated interfaces (either electronic or physical);
- Consider “best practice” methods in existing Single Windows. This may involve visits to operational Single Windows;
- Consider the need for and approach to generating the required political support for the project.

Organisational Aspects

- Examine the overall organisational aspect of the proposed Single Window to determine:
  - Which governmental authorities and agencies should be involved;
  - Which governmental authority/agency, or private organisation should lead the running of the Single Window project - government, private owner under government contract or completely privately-owned by business (service provider);
  - Whether the Single Window should be centralized or decentralized;
  - Should it be an active or passive program;
  - Should a payment system be part of the Single Window system;
  - Should participation be voluntary or mandatory;
  - Should common risk profiles/compliance assessments be part of the system and should they be developed and/or shared;
  - Who bears the risk if/when something goes wrong.

Human Resources and Training

- Review and document existing personnel resources within the relevant governmental authorities and agencies for the project development, implementation, and operation, and consider training, additional staffing and management requirements related to the implementation of the Single Window.
Legal

- Review the legal issues, privacy legislation and data protection laws associated with the implementation of a Single Window, including the submission of information by traders, the exchange of information between various governmental authorities and agencies, and issues related to the use of electronic signatures.

**Note:** Exchange of information between governmental authorities or agencies requires an appropriate statutory gateway. Exchange of information between governmental authorities or agencies is often restricted to trader consent, disclosure by order of a court, or in the public interest. Also, data protection legislation may affect the obtaining, use and disclosure of personal data.

Technical aspects of a Single Window

- Review existing technical systems for receiving, storing and exchanging the above information;
- Determine overall technical requirements, including specific requirements for additional systems development, interfaces, outlets and the possible development of interface systems to existing legacy systems for the proposed scenarios;
- Determine if existing systems will be able to handle (likely) increases in the volume and flow of data;
- Examine issues related to the verification and authentication of data;

**Note:** The development of a Single Window presents an ideal opportunity to consider the benefit of implementing related changes in the collection of information, such as those related to web-based technology.

Information and Documentation

- Review the existing set of trade documents in use and determine whether these need to be aligned, harmonised and/or simplified (preferably according to the UN Layout Key).
- Determine what data will be required; how it will be submitted; and in what format (electronic (EDI? XML? Other?) or paper);
- Determine who can submit the data or documents (Importers/Exporters, Customs Brokers, Agents);
- Determine how the data should be shared amongst participating governmental authorities and agencies and where it should be stored, etc.
- Consider how the data could be exchanged with administrations in other countries;
- Consider how the data could be used for risk analysis and other related purposes;
- Quantify the potential benefits of making better use of data held in commercial systems and records in meeting government requirements and helping to reduce business compliance costs in the transmission of information.

**Note:** A minimum data set must be agreed upon amongst all parties, including the format, data fields and data elements. These should be in conformity with international standards (e.g. UNECE/ISO UNTDED and the World Customs Organisation data model).

Impact assessment

- Examine the potential impact of the project on existing systems, procedures, employment, job descriptions, etc;
- Consider potential social and cultural issues that may arise in connection with the establishment of the Single Window;
- Consider the potential response of groups or organisations that may perceive the Single Window as a threat (groups or organisations that may have a vested interest in maintaining the status quo);
- Consider the possible impact of the Single Window on reducing corruption and the effect this may have;
- Recommend an appropriate change management strategy for the project.
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Implementation Options

- Develop implementation options, specifying proposed operational models, relevant governmental authorities and agencies that would be involved, suggested lead governmental authority or agency, or private organisation, services to be provided, potential costs and benefits, and time frames for implementation;
- Suggest whether a full or partial implementation process should be undertaken. Factors to be considered relate to the availability (or lack thereof) of resources for full project implementation (financial, human, technical, etc), different levels of need of the relevant governmental authorities and agencies and the significant difference in time and or resources required by different agencies to:
  - Achieve the required legislative changes to operate a Single Window;
  - Develop, or modify where necessary, existing legacy systems;
  - Generate the required level of commitment for project implementation;
- Make recommendations regarding a pilot implementation for the project.

Note: In some cases, it may be worthwhile to opt for ‘staggered’ implementation, with short-term enhancements that still deliver adequate benefits to make the project attractive to the trade, while moving closer to the desired (electronic) ‘joined up’ government/trade system in the longer term. However, when implementing an approach in stages, it is essential that initial infrastructural changes support the long-term solution identified in the needs analysis and feasibility study. Also, short- or medium-term solutions must be properly costed and assessed against strategic criteria before any decision is taken regarding implementation.

Business Model

- Develop a Business Case for the establishment of a Single Window under each proposed scenario, including an estimate of the initial and operating costs, value of the benefits, sustainability, possible mechanisms for revenue collection and sources of project financing;
- Determine the resources needed to complete the project from research to implementation;
- Assess the extent to which resources from governmental authorities and agencies, including central funding, would be required to develop a full project plan, the timescales needed to develop that plan and to implement the project;
- Examine the potential for a public-private partnership approach to the implementation of the project, including revenue streams;
- Identify the key risks that the Single Window project may face. In particular, operational, legal, and infrastructural issues that could make it extremely difficult to deliver a solution at both a reasonable cost and a sufficiently attractive service level to encourage trade take-up should be identified.

Promotion and Communications

- Recommend a promotion and communications strategy for the development and operation of the Single Window. This is essential to keep all stakeholders informed and “on-board” throughout the project.
TOOLS AVAILABLE TO ASSIST IN IMPLEMENTING A SINGLE WINDOW

When implementing a Single Window, governments and trade are strongly encouraged to consider the use of relevant recommendations, standards and existing tools that have been developed over the past number of years by intergovernmental agencies and international organisations such as UNECE, UNCTAD, WCO, IMO, ICAO and the ICC. Some of the instruments in this category are described below, listed by the organisations in charge of their use.

UNITED NATIONS CENTRE FOR TRADE FACILITATION AND ELECTRONIC BUSINESS (UN/CEFACT), UNECE

In its capacity as the international focal point for trade facilitation standards and recommendations, UNECE, through its Centre for Trade Facilitation and Electronic Business (CEFACT), develops and maintains instruments meant to reduce, simplify, harmonize and automate procedures, information flow and paperwork in international trade. Some of the main Recommendations in this respect are as follows:

Simplification and Harmonisation of Trade Procedures

Recommendation Number 18 - Facilitation Measures related to International Trade Procedures: Contains a series of recommendations regarding the simplification and harmonisation of international trade procedures, including specific recommendations regarding the submission of information to governments in relation to the movement of goods. Each section describes the application area, outlines the procedures and documents covered, and describes the particular problems for which facilitation measures are provided.

Recommendation Number 4 - National Trade Facilitation Bodies: Emphasises the need for a strong government-trade partnership in trade facilitation matters and recommends that Governments establish and support national trade facilitation bodies with balanced private and public sector participation in order to identify issues affecting the cost and efficiency of their country’s international trade.

Trade Documents

Recommendation Number 1 - United Nations Layout Key for Trade Documents: Provides an international basis for the standardization of documents used in international trade and transport, including the visual representation of such documents. The UN Layout Key is intended particularly to serve as a basis for designing aligned series of forms employing a master document in a reprographic one-run method of document preparation; it can also be used to develop screen layouts for the visual display of computerized information.

UN/CEFACT has also developed a range of other Recommendations related to Trade Documents, such as Recommendation Number 6 - Aligned Invoice Layout Key, and Recommendation Number 22 - Layout Key for Standard Consignment Instructions.

Please refer to http://www.unece.org/cefact/trafix/bdy_recs.htm for a full list of UN/CEFACT recommendations.
Recommendation Number 16: UN/LOCODE - Code for Ports and other Locations:
Recommend a five-letter alphabetic code for abbreviating the names of locations of interest to international trade, such as ports, airports, inland freight terminals, and other locations where Customs clearance of goods can take place, and whose names need to be represented unambiguously in data interchange between participants in international trade. The UN/LOCODE’s code list currently contains 60,000 codes for locations around the world.

UN/CEFACT has also developed a range of other recommendations related to codes for international trade transactions, such as Recommendation Number 19 - Codes for Modes of Transport; Recommendation Number 20 - Codes for Units of Measurement used in International Trade.

Recommendations for Information and Communications Technology (ICT)
Recommendation Number 25 - Use of the UN/EDIFACT Standard: Recommends coordinated action by Governments to promote UN/EDIFACT as the single international standard for electronic interchange of data (EDI) between public administrations and private companies of all economic sectors world-wide. There are currently over 200 UN/EDIFACT messages available for the exchange of data between organizations.

UN/CEFACT has also developed a range of other Recommendations related to ICT for international trade including:
- Recommendation Number 14 - Authentication of Trade Documents by means other than signature;
- Recommendation Number 26 - Commercial Use of Interchange Agreements for Electronic Data Interchange;
- Recommendation Number 31 - Electronic Commerce Agreement;

Trade Data Element Directory (TDED, ISO 7372) contains the standard data elements, which can be used with any method for data interchange on paper documents as well as with other means of data communication. They can be selected for transmission one by one, or used within a particular system of interchange rules, e.g. the UN/EDIFACT. The Directory provides a common language for terms used in international trade and facilitates the interchange of data. UNTDE is a component of aligned, UNLK conform trade documents. The directory has been the basis for the first UN/EDIFACT releases and will be integrated in the future UN/CEFACT core component directory. The WCO data harmonization initiative is based on TDED definitions.

Other Tools for Implementation
United Nations electronic Trade Documents (UNeDocs): is a tool based on the UN Layout Key to provide standard based trade documents in paper and electronic format. Traders and administrators can use the documents either in paper or electronic format depending of their needs. UNeDocs provide precise specification of the form layout and the data requirements. The increased precision facilitates the implementation of efficient and automated procedures. The documents facilitate the transition from paper-based information processing to electronic document exchange. UNeDocs mitigates the digital divide by providing low cost solutions for the digital documents.

Modelling: UN/CEFACT Modelling Methodology (UMM): It is often useful at the development stage of a project to develop a model of the processes involved in submitting import and export information to government. This model can be very useful in understanding the processes and information flows and will assist in the further analysis and development and automation of the project.
WORLD CUSTOMS ORGANIZATION (WCO)

For many years, the WCO has been making progress on the simplification and harmonization of international Customs instruments and procedures. The WCO developed and introduced the Harmonized Commodity Description and Coding System, which is used world-wide as the basis for classifying goods and for the collection of duties and taxes. The WCO is administering the WTO Valuation Agreement and developed harmonized non-preferential rules of origin under the WTO Agreement on Rules of Origin. The WCO has also revised the International Convention on the Simplification and Harmonization of Customs Procedures (the Revised Kyoto Convention).

**WCO Revised Kyoto Convention:** The Revised Kyoto Convention contains a binding provision for Customs to ensure that where goods must be inspected by Customs and other competent authorities that these inspections are co-ordinated and where possible carried out at the same time. In addition, the Convention also addresses the operation of joint controls at common border crossings, the establishment of juxtaposed customs offices and the sharing of information with other bodies.

**WCO Customs Data Model:** The WCO Customs Data Model is a harmonized and standardized maximum framework for data requirements for Customs and other official cross-border related purposes. The Customs Data Model supports the operation of single window systems and allows the sharing of information nationally and internationally. The Customs Data Model is based on the UNTDED, applies UN/CEFACT's Modelling Methodology (UMM) and refers to a range of UN, ISO and other international code standards such as the UN/LOCODE. The Customs Data Model contains currently message implementation guidelines only for UN/EDIFACT but will offer XML specifications in future versions.

**WCO Unique Consignment Reference (UCR):** The WCO UCR is a concept using ISO 15459 (ISO License Plate) compliant numbering systems or equivalent industry solutions such as applied for example in the express carrier industry to uniquely identify consignments in international trade from origin to destination. The UCR establishes an information and documentation link between the supplier and the customer in an international trade transaction and requires this reference to be used throughout the entire supply chain. The UCR has to be linked with the transport reference, where the UCR is not already serving also as the transport reference. The UCR can be used as the common access key for national and international data sharing.

UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT (UNCTAD)

**The Automated System for Customs Data (ASYCUDA)\(^{11}\)**

ASYCUDA is a computerized customs management system that covers most foreign trade procedures. The system handles manifests and customs declarations, accounting procedures, and transit and suspense procedures. It generates trade data that can be used for statistical economic analysis. The ASYCUDA software is developed in Geneva by UNCTAD and operates on microcomputers in a client server environment. ASYCUDA is fully compliant with international codes and standards developed by ISO (International Organisation for Standardisation), WCO (World Customs Organization) and the United Nations. ASYCUDA can be configured to suit the national characteristics of individual Customs regimes, national tariffs and legislation. The system also provides for electronic data interchange (EDI) between traders and Customs using EDIFACT (Electronic Data Interchange for Administration, Commerce and Transport) rules.

The most recent Web-based version of ASYCUDA will allow Customs administrators and traders to handle most of their transactions via the Internet. The new e-Customs platform, dubbed Asycudaworld, will be particularly useful to developing countries, where poor fixed-line telecommunications are a major problem for e-government applications. It is also powerful enough

\(^{11}\)For more information on ASYCUDA, visit the web-site: www.asycuda.org
to accommodate the operational and managerial needs of Customs operations in any developed country as well. AsycudaWorld will mean even greater tax revenue collection and lower transaction costs than are already provided by the current version of the system, ASYCUDA++, making it a showcase for e-government. A secondary benefit is the provision of information to facilitate measures to combat fraud, corruption and illicit trafficking, as it gives Customs authorities in different countries a tool for working together online.

INTERNATIONAL MARITIME ORGANIZATION (IMO)

IMO addresses the issues related to facilitation of international maritime traffic, through its Facilitation Committee (FAL Committee). These issues include, e.g. simplification of formalities, documentary requirements and procedures on the arrival and departure of ships and harmonization of documents required by the public authorities (standardized IMO FAL Forms). Electronic business in the area of maritime traffic is one of the most important issues, which are currently under discussion in the FAL Committee. IMO has also recognized the pressing need for “a single window concept” and “pre-arrival information” to allow all the information required to be provided for and by a visiting ship to a port, including that required by the public authorities, through one point of entry. Proposed amendments to the Annex to the FAL Convention to specifically address the single window concept, together with other proposed amendments, are under consideration by the FAL Committee.

The Convention on Facilitation of International Maritime Traffic is an international convention that has addressed:
• facilitation of international maritime traffic;
• prevention of unnecessary delays to ships, their crews, passengers and cargoes; and
• unification and simplification of formalities, documentary requirements and procedures.

Amongst others it deals in the Annex, Section 1, C with electronic data-processing techniques for exchange of information.

The IMO Compendium on Facilitation and Electronic Business (FAL.5/Circ.15, dated 19 February 2001 and FAL.5/Circ.15/Corr.1): International–guidance that has been developed for exchange of information electronically and electronic means for the clearance of ships.

INTERNATIONAL CHAMBER OF COMMERCE (ICC)

ICC creates rules, norms, standards and tools for international trade. Though voluntary, ICC rules carry the force of law when incorporated into contracts and countries throughout the world abide by them because they have become indispensable in facilitating and harmonising international trade procedures and contracts across borders.

ICC/UNCTAD Rules for Multimodal Transport Documents: ICC/UNCTAD Rules set the only globally accepted standard for multimodal transport documents and frequently provide a basis for national legislation. Intended to avoid the problems that would arise for transporters from having to cope with a multiplicity of different regimes when drawing up contracts, the rules offer a uniform legal regime for private transport contracts and simplified documentation and practice.
SIGNPOSTS FOR FURTHER INFORMATION

Sweden  http://www.tullverket.se/TargetGroups/General_English/frameset.htm
United States  http://www.itds.treas.gov
Singapore  http://www.tradenet.gov.sg/
Mauritius  http://ncb.intnet.mu/mof/department/customs/services.htm
WCO  http://www.wcoomd.org
UNECE  http://www.unece.org/trade
UN/CEFACT  http://www.unece.org/cefact/
UNCTAD  http://www.unctad.org/
IMO  http://www.imo.org/
ICAO  http://www.icao.int/
ICC  http://www.iccwbo.org/