PART 1

Chapter 4

Single Window systems

> *Implementation of Single Windows remains one of the most important challenges among all the areas covered by the TFA. This chapter draws on Single Window indicators in the TFIs to assess implementation of Single Windows in 23 economies across various regions. It identifies key implications for policy makers, and in addition draws lessons from ASEAN's experience with creating a regional Single Window.*

Single Windows bring benefits, but are challenging to design and implement

For firms and traders, Single Windows epitomise the gains they would like to see from trade facilitation: a single point of entry for trade procedures and formalities, cutting time and costs, and easing access to trade for even the smallest firm.

Single Windows are formally defined as "facilities that allow parties involved in trade and transport to lodge standardised information and documents with a single entry point to fulfil all import, export, and transit-related regulatory requirements".[1] They can take the form of a single authority or single automated system serving as the sole point for the collection and dissemination of information. Though existing Single Windows do not necessarily cover all aspects of border agency co-operation, they can support it by facilitating exchange of data and operation of integrated procedures.

A well-functioning Single Window provides traders with transparent and consistent application of rules and more predictable clearance procedures. More efficient use of human and financial resources may in turn generate improvements in productivity and competitiveness for both traders and the economy as a whole. For the public sector, Single Windows can bring improvements in risk management and in transparency and accountability, as well as more accurate revenue collection through greater trader compliance. Lastly, neighbouring countries also benefit from enhanced prospects for regional collaboration, integration and exchange of trade information (UN/CEFACT, 2005).

However, for Single Windows to operate efficiently and deliver their full potential, the border agency processes included in the platform need to have been sufficiently synchronised and co-ordinated beforehand. This may be one reason why, despite their significant benefits, implementation of Single Windows remains one of the areas where least progress has been made among the provisions of the TFA.

This chapter draws on specific Single Window indicators developed under the TFIs to assess implementation of Single Windows for 23 economies around the world, highlighting the implications for policy makers. It concludes by drawing lessons from the experience of ASEAN in creating a regional Single Window.

Indicators on Single Windows in the TFIs

There is no single model for Single Windows; they are tailored to specific national or regional requirements. Single Windows can also provide a wide variety of services and facilities, depending on their design and coverage. That said, a number of standards, tools and guidelines have been developed by intergovernmental agencies and international organisations[2] – to ensure that the Single Windows developed across countries and regions are more likely to be compatible with each other, and to support exchange of information.

Drawing on this body of work, five specialised OECD indicators have been developed to build a shared understanding of Single Windows and a systematic approach to tracking their implementation. These indicators seek to capture common design and operational

features of Single Windows going beyond the basic concept set out in the TFA.[3] These include: institutional aspects and scope (indicator A); data content and structure (indicator B); legal framework (indicator C); technological architecture and scope (indicator D); and interoperability (indicator E).[4]

The indicators aim to offer a state-of-the-art tool to assist economies in the design and implementation of national and regional Single Windows.[5] Data gathered over 2015-16 using the indicators identified key achievements and challenges in designing, implementing, and operating Single Windows in 23 economies across some of the most advanced regional Single Window initiatives: the Inter-American Network of International Trade Single Windows in the Latin America and the Caribbean (LAC), the Asia-Pacific Economic Co-operation (APEC) and the Association of Southeast Asian Nations (ASEAN) (Table 4.1). Some economies participate in more than one Single Window initiative.

Table 4.1. **Economy groupings**

Latin America and the Caribbean (LAC)	Asia-Pacific Economic Co-operation (APEC)	Association of Southeast Asian Nations (ASEAN)
Argentina	Australia	Indonesia
Brazil	Canada	Malaysia
Chile	Chile	Philippines
Colombia	Indonesia	Singapore
Costa Rica	Japan	Thailand
Honduras	Korea	Viet Nam
Mexico	Malaysia	
Paraguay	Mexico	
Peru	New Zealand	
Trinidad and Tobago	Peru	
Uruguay	Philippines	
	Singapore	
	Chinese Taipei	
	Thailand	
	Viet Nam	

The overall picture

Amongst these initiatives, there is a wide variation in how key dimensions of Single Windows are currently implemented (Figure 4.1). The technological architecture of Single Windows (indicator D) is the area where there is least variation in – and the best overall – performance, perhaps because it is relatively more straightforward to implement, subject to resource availability. In contrast, indicators (A) institutional aspects and scope; (B) data content and structure; and (C) legal framework display a greater variation, linked to the wide-ranging political and organisational challenges (including related to vested interests) involved in their implementation. There are also significant gaps between current performance and best practice in these three areas (Figure 4.2). It is also perhaps not surprising that the most notable difference in average performance across the selected groups, and where all economies are still at an early stage, is in the challenging area of interoperability (indicator E).

The three country groupings surveyed also display significant differences in their average performance. LAC lags behind best practice, as well as behind the average performance of all the economies explored, and of APEC and ASEAN, on all indicators except that for technological architecture (indicator D) (Figure 4.3). The LAC performance gap is particularly significant in the area of data content and structure.

Figure 4.1. **There is a wide variation in implementation of Single Window initiatives**

OECD Single Windows Indicators: Full sample snapshot, selected regions
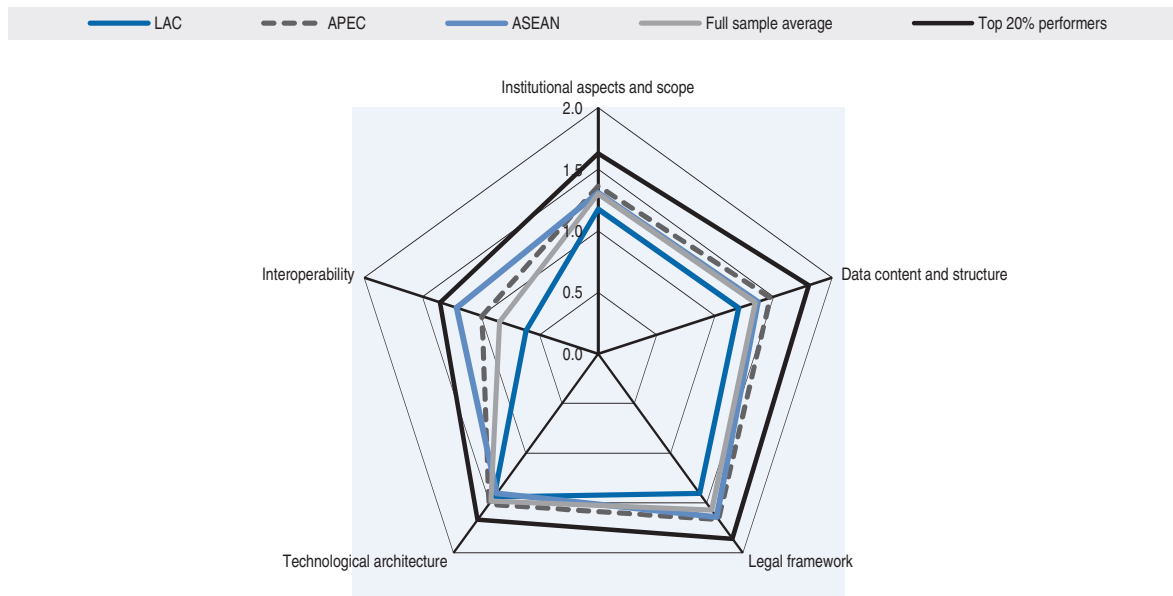
Source: OECD Single Windows Indicators estimates (2015-16).

Figure 4.2. **There are also significant gaps to best practice across most indicators**

Average performance gap to top 20% performers in the full sample
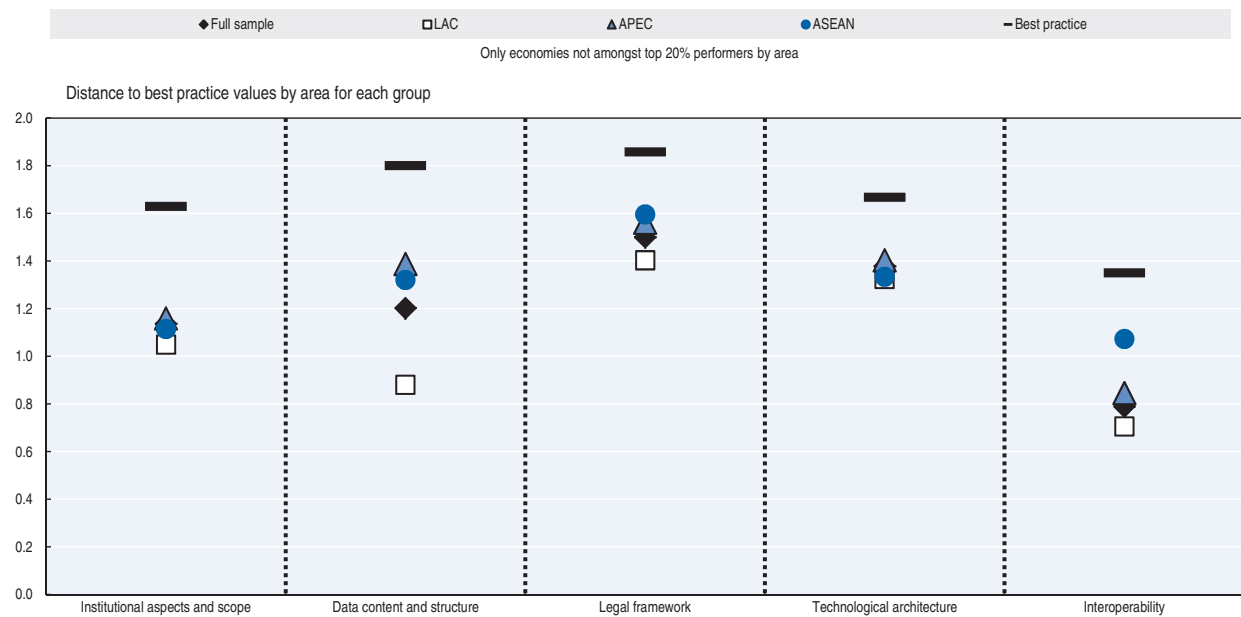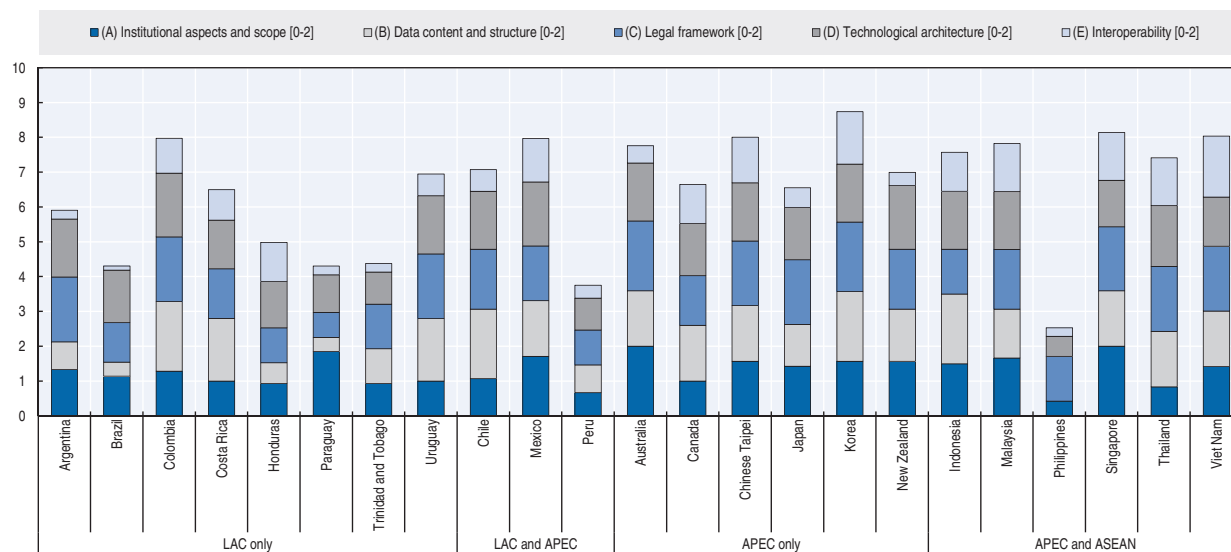

Source: OECD Single Windows Indicators estimates (2015-16).

APEC and ASEAN both perform very close to the average across all economies (Figure 4.3). The overall average is also closer to best practice, thanks to some strong performers within their ranks, and to the momentum provided by the ASEAN Single Window initiative (discussed further below). This initiative is also the main factor explaining ASEAN's near-best practice performance in the area of interoperability.

How each selected group performs across each indicator is discussed in the following section.

Figure 4.3. **OECD Single Windows indicators: Overall regional performance across selected groups**
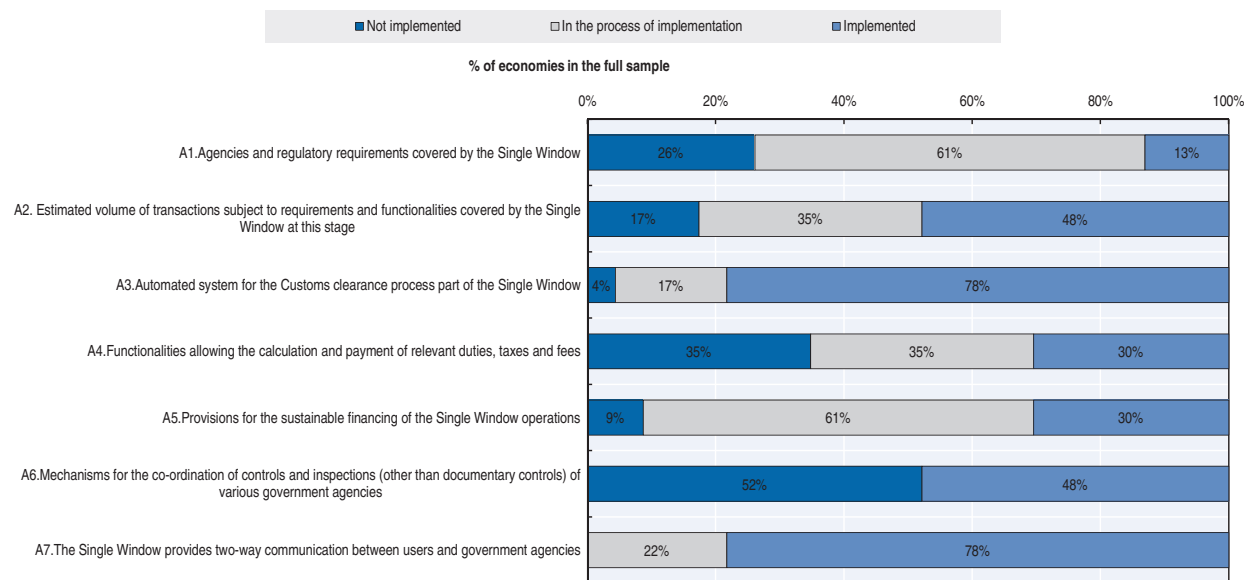

Source: OECD Single Windows Indicators estimates (2015-16).

Institutional aspects and scope

Indicator A (institutional aspects and scope) monitors progress towards building a comprehensive Single Window across two broad dimensions: the number of public and private entities included, and their relevance and impact; and the functioning and effectiveness of the Single Window in relation to the structure, funding and array of services offered. The ultimate success of a Single Window depends critically on the involvement, commitment and readiness of the parties to ensure that the system becomes a regular feature of their business processes. A snapshot of all the economies surveyed (Figure 4.4) shows that, across the systems surveyed, key challenges lie in:

● the extent of trade transactions covered by the Single Window;

● incorporation of functionalities enabling the calculation and payment of relevant duties, taxes and fees;

● mechanisms for the co-ordination of controls and inspections (other than document controls) by various government agencies; and

● comprehensiveness of the coverage of border agencies and related regulatory requirements.

The number of public and private agencies involved in import, export and transit currently included in the Single Window differs between and within groupings, with the highest variations observed within LAC (Figure 4.5). The same is true for the level of import, export, and transit regulatory requirements or functionalities currently covered by Single Window systems. ASEAN Single Windows have, on average, the highest coverage of the most important regulatory requirements and functionalities by volume of export, import and transit transactions.[6] This again attests to the ongoing efforts of ASEAN countries to put in place comprehensive Single Window mechanisms.

Figure 4.4. **Progress on institutional aspects is mixed**

Source: OECD Single Windows Indicators estimates (2015-16).

Single Windows differ in scope and approach across the surveyed countries. Many economies start with a smaller scope and gradually expand the coverage of the Single Window, with further incorporation of government agencies and private sector stakeholders planned for the longer term. In over two-thirds of the economies surveyed, Single Windows also provide for two-way communication between users and government agencies.

An automated Customs clearance process is either already part of the Single Window (the large majority of surveyed economies, at 78%) or in the process of implementation (17% of economies surveyed). In view of its key role in the border process, across all economies surveyed, Customs is usually either the hosting agency or one of the participating agencies for the Single Window, and the lead agency in many economies.

Mechanisms for the co-ordination of controls and inspections of various government agencies, other than for documents, are not yet widespread: 52% of economies surveyed have not yet taken initial steps in this direction. Functionalities enabling the calculation and payment of relevant duties, taxes and fees are even less common, being included in only one third of systems.

More than 90% of the Single Windows surveyed already incorporate, or are in the process of implementing, provisions for sustainable financing of their operations over the medium- and long-term.[7] Government financing is the most widely used mechanism, followed by self-funding through service fees. Public-private partnerships and concession agreements do not appear to be widely used (Figure 4.6).

Data content and structure

Indicator B (data content and structure) covers the use of data in the Single Window and the degree of harmonisation aimed at minimising repetition and costs; the contribution of the Single Window to reducing duplicative or unnecessary data-related

Figure 4.5. **Coverage and scope of Single Windows is strong in ASEAN, but much less so in LAC**

Agencies and regulatory requirements covered
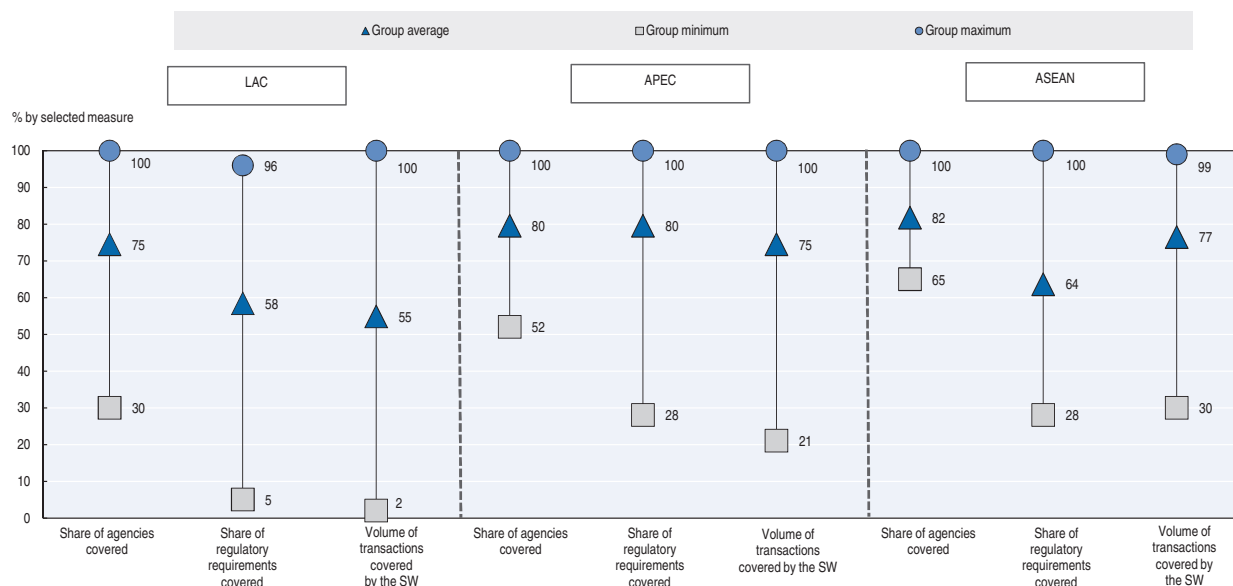
Source: OECD Single Windows Indicators estimates (2015-16).

Figure 4.6. **Most Single Windows are government financed**

Provisions for the sustainable financing of the Single Window operations
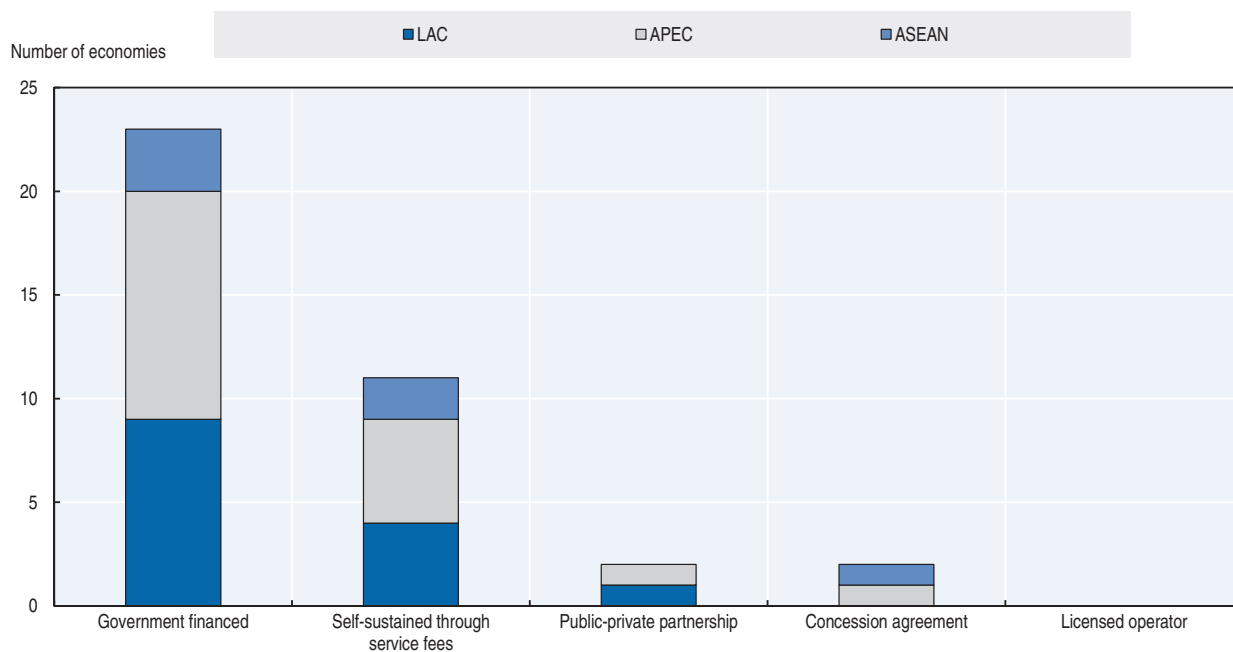
Source: OECD Single Windows Indicators estimates (2015-16).

formalities; and the interactivity of the Single Window and its support to paperless and virtual procedures.[8] Comprehensiveness, stability, and compliance with international norms for electronic data exchange should guide the selection of data standards within a

Single Window. Across the full range of economies surveyed (Figure 4.7), key data-related challenges currently lie in:

- all-electronic processing of import, export and transit transactions;
- use by all government agencies of data submitted through the Single Window, rather than requiring separate submissions;
- one common dataset covering data for import, export and transit for all agencies involved; and
- compatibility of Single Window data requirements, design and work plans with those of other border management and user platforms.

Figure 4.7. **Data requirements are largely harmonised to international standards, but electronic processing remains a work in progress**

Data content and structure: Identifying key challenges
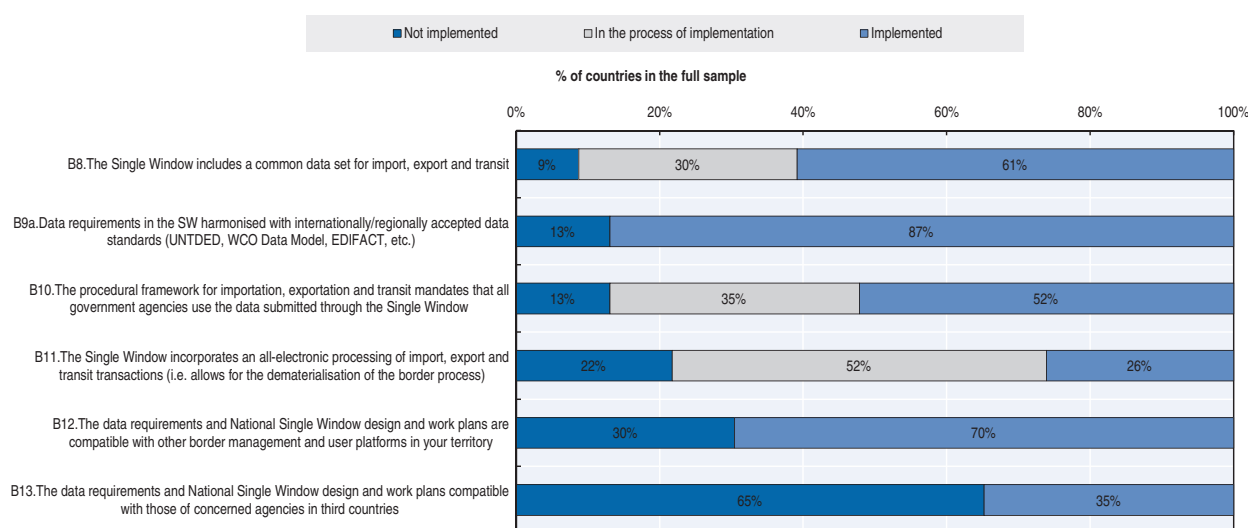
Source: OECD Single Windows Indicators estimates (2015-16).

In only half of the economies surveyed are all government agencies required to use data submitted through the Single Window. This could potentially be linked to the low level of transactions currently submitted through the Single Window (see variable A2 in Figure 4.4). In contrast, across 87% of economies surveyed, data requirements in the Single Window are harmonised with internationally and/or regionally accepted data standards.

All-electronic processing of import, export and transit transactions via Single Windows remains a work in progress: only 26% of systems allow for the complete dematerialisation of the border process. Even here, users may still submit documents in paper form when use of the Single Window is not mandatory.

For more than two-thirds of the Single Windows surveyed, data requirements, design and work plans are currently compatible with other national border management and user platforms. This allows the Single Window systems to interact with domestic port or cargo community systems or service provider platforms where they are not already part of the Single Window, increasing the reach of the Single Window for trade and economic activities.

Compatibility with the data requirements, design and work plans of agencies in third countries, an important building block for Single Window interoperability, is much less advanced. It is currently implemented in only one third of the economies surveyed, with no significant progress in the other economies.

Legal framework

Indicator C (legal framework) looks at how effectively the Single Window addresses privacy and confidentiality, data protection, definition of liabilities and dispute resolution. Creating the legal enabling conditions is one of the key tasks for economies establishing a Single Window or seeking to exchange information with other Single Windows. This is a complex process, requiring a thorough review of the existing practices governing the flow of trade-related information, and changes and clarifications to the data exchange process and related laws and regulations. Implementation is most challenging across the following areas (Figure 4.8):

- availability of recourse in case of a dispute with the Single Window process;
- legal constraints on sharing data;
- mechanisms to handle inaccurate or incomplete data transactions; and
- capacity for electronic archiving and establishing audit trails.

The establishment of laws and regulations on electronic data submission and exchange, as well as on ensuring confidentiality and data protection, is well advanced in most of the Single Windows surveyed. Moreover, 78% of the Single Windows surveyed accept electronic (digital) signatures. However, legal constraints on sharing data among participating agencies remains a significant hurdle, with more than half of the economies surveyed either having taken no action on, or still in the process of addressing, this issue.

Figure 4.8. **Legal frameworks are generally well-developed, with the exceptions of data sharing and disputes**

Legal framework: Identifying key challenges
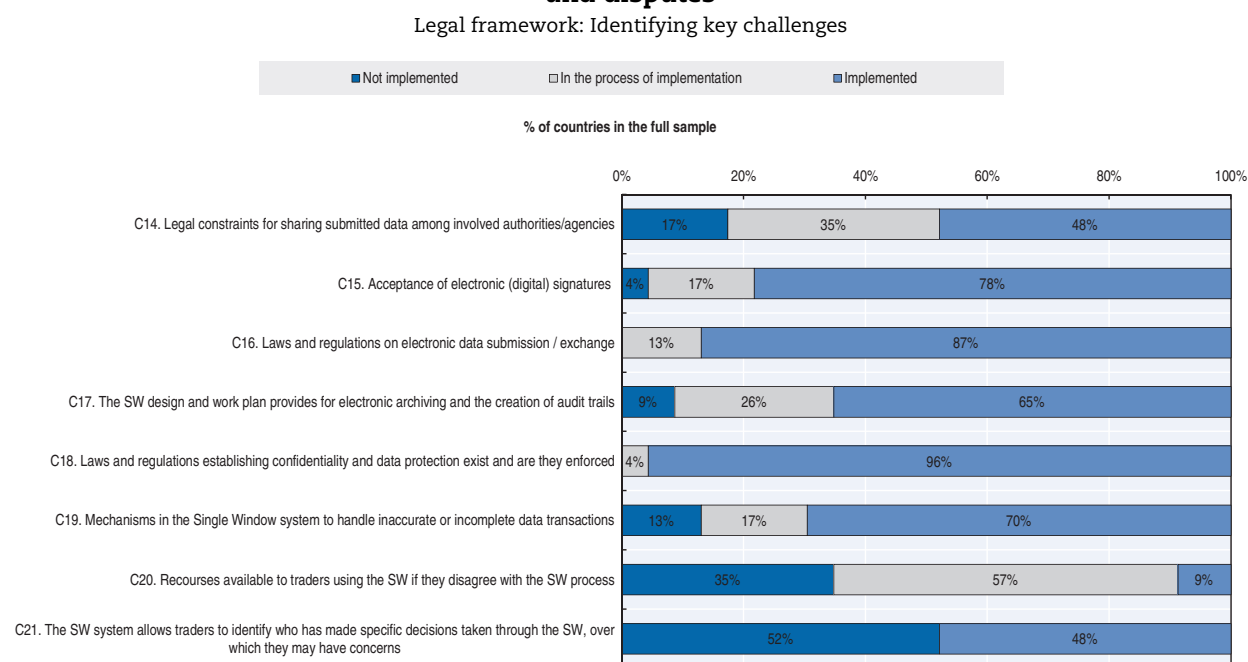
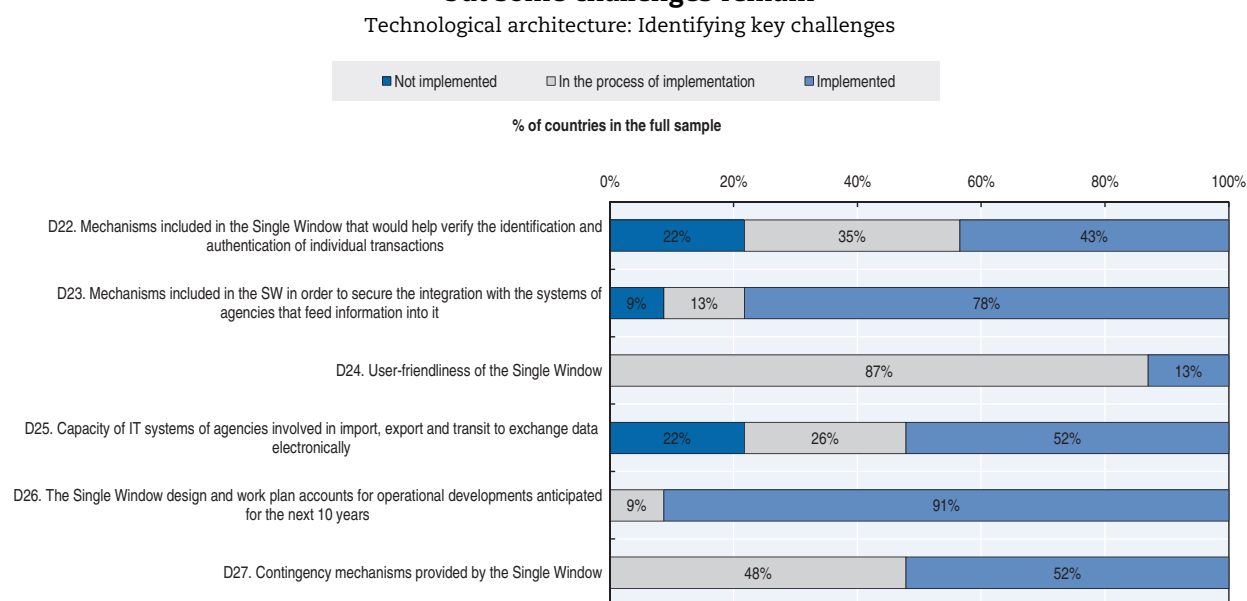Source: OECD Single Windows Indicators estimates (2015-16).

Finally, 65% of Single Windows surveyed provide for electronic archiving and audit trails, while for 26% this remains under implementation.[9] This feature is generally accompanied by mechanisms to handle inaccurate or incomplete data transactions (operational in 70% of Single Window systems surveyed). However, in general, users lack recourse in case of any dispute with the Single Window or its participating agencies: for the majority of economies (57%) this remains a work in progress, while more than one-third of economies have not yet taken any action in this area. Moreover, 52% of the systems surveyed do not allow traders to identify who under the Single Window has taken a specific decision, about which they may have concerns.

Technological architecture

Indicator D (technological architecture) explores how the Single Window addresses the identification and authentication of users, and whether the system is easy to use, fail-proof and capable of handling future developments. It reviews software and hardware development and deployment in the Single Window, particularly as it affects the achievement of policy objectives, and given their important role in underpinning trust in the Single Window by both participating agencies and users. To that end, the following should be a priority (Figure 4.9):

● mechanisms to help verify the identification and authentication of individual transactions;

● mechanisms to secure integration with the systems of agencies that feed information into the Single Window; and

● contingency mechanisms.

Figure 4.9. **Progress on establishing technological architecture has been good, but some challenges remain**

Technological architecture: Identifying key challenges
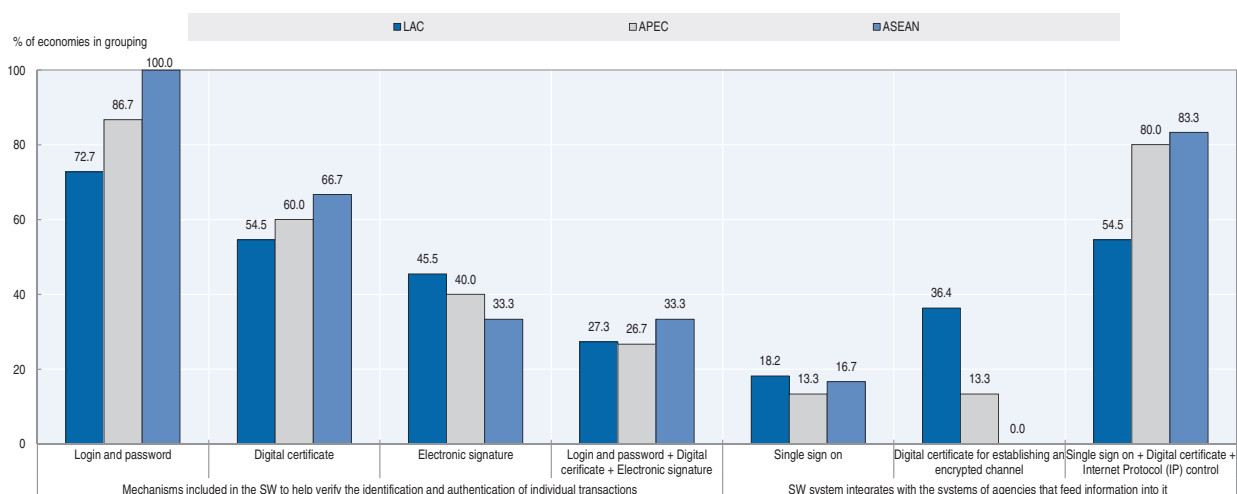

Source: OECD Single Windows Indicators estimates (2015-16).

Only 43% of Single Windows surveyed include mechanisms aimed at verifying the identification and authentication of individual transactions, such as through logins and passwords, digital certificates, or electronic signatures. That said, 78% of systems are already integrated with those of other agencies, through mechanisms such as a single sign

on, digital certificates for establishing an encrypted channel or Internet Protocol (IP) control. Figure 4.10 highlights how these different mechanisms are currently used across the regional groupings.

The capacity of IT systems of participating agencies to exchange data electronically remains limited in half of the economies surveyed. Likewise, the incorporation of contingency mechanisms[10] in case of system failure remains a work in progress for an important share of economies (Figure 4.11). User-friendliness[11] is an ongoing process, with 87% of economies still making additional functionalities available in the system.

Figure 4.10. **Most systems require secure sign on**

Incorporation of mechanisms facilitating Single Window transactions

Source: OECD Single Windows Indicators estimates (2015-16).

Figure 4.11. **With the exception of backup, contingency mechanisms remain a work in progress**
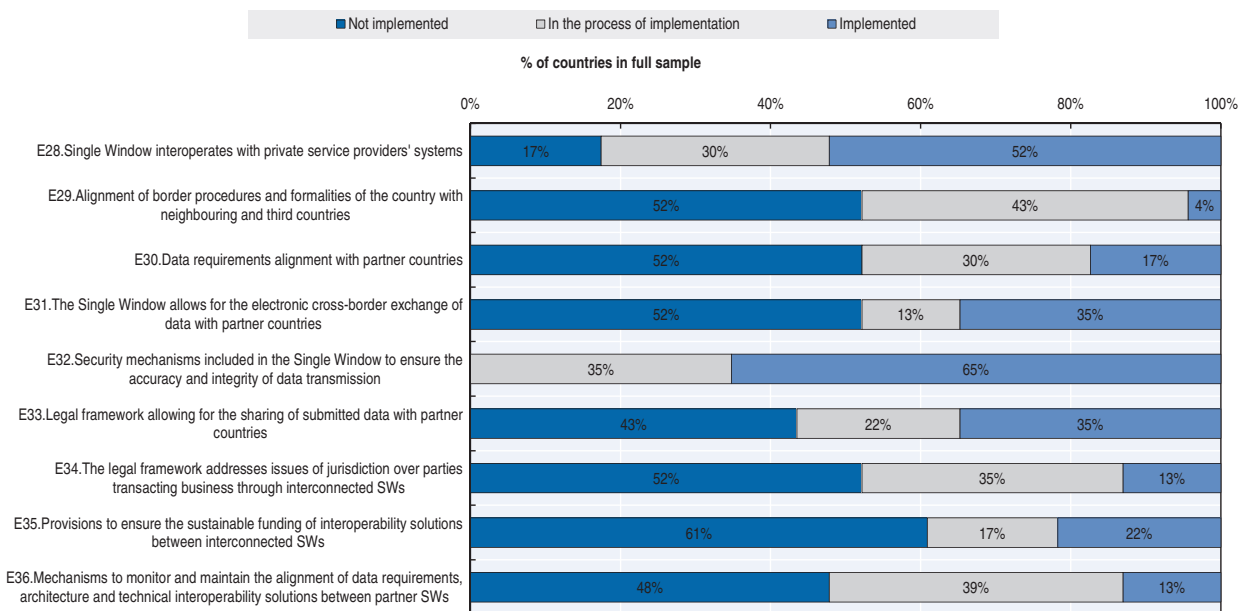
Incorporation of contingency mechanisms
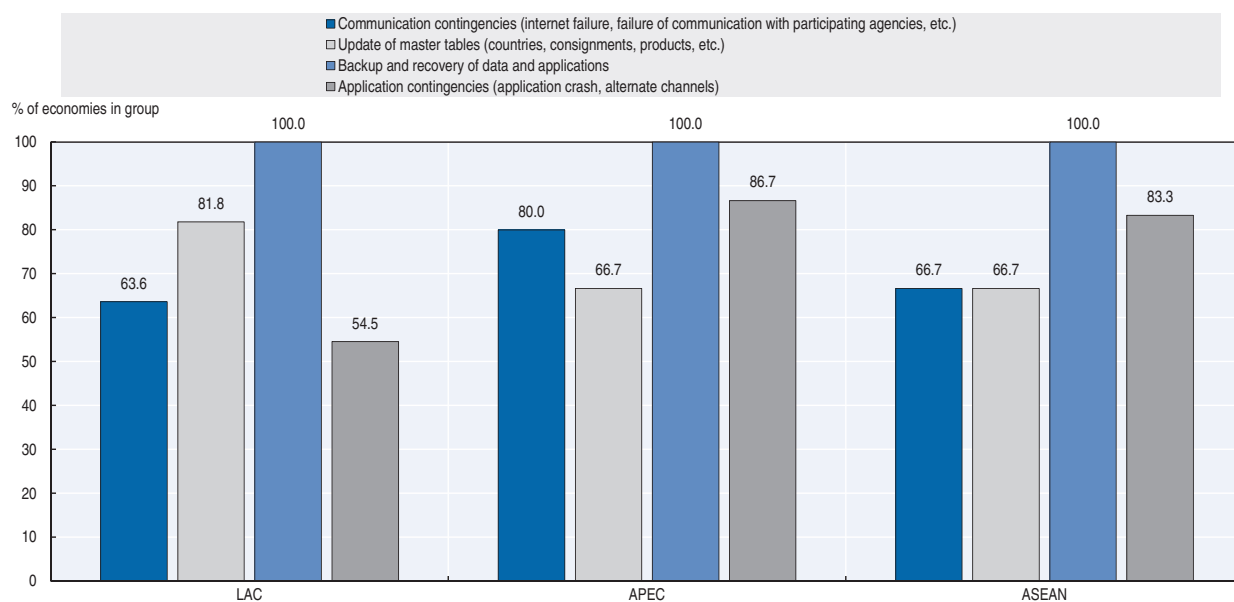
Source: OECD Single Windows Indicators estimates (2015-16).

Lastly, policy makers have recognised the need to develop interfaces able to adapt to future technological advances and increases in data volume. Across 91% of systems, the design and work plan account for operational developments covering the next decade, including: the capacity of both hardware and software to evolve; ease of upgrading the software base (operative system, data motor base, etc.); and the possibility of adding more users to the system and more functionalities to the existing application.

Interoperability

Indicator E (interoperability) assesses the capacity of the system to interact with those of private service providers and neighbouring and third countries. All Single Window initiatives surveyed recognise the importance of international interoperability, as well as the use of international standards to enable the seamless sharing of information to facilitate legitimate trade and increase supply chain security. Yet interoperability remains by far the most challenging dimension of Single Window implementation (Figure 4.12).

Figure 4.12. **Interoperability remains the greatest challenge for Single Windows**

Interoperability: Identifying key challenges

Source: OECD Single Windows Indicators estimates (2015-16).

Most progress has been made on the incorporation of different security mechanisms ensuring the accuracy and integrity of data transmission.[12] This is followed by interoperability with the systems of private service providers: 52% of Single Windows are interoperable with those of both logistics service providers (including freight forwarders, Customs brokers, shipping agents) and financial service providers, allowing for the payment of relevant duties, taxes and fees.

Very few of the surveyed economies have full alignment of their border procedures and formalities with neighbouring and third countries. This refers to the general Customs and border procedures and is not limited to Single Window-related procedures; the challenges related to this dimension have already been highlighted in Chapter 3. Progress

is similarly limited on alignment of data requirements with those of partner countries[13] and on allowing the electronic cross-border exchange of data with partner countries.

In only one-third of economies do legal frameworks allow for sharing of submitted data with partner countries and appropriate protection of confidential commercial information. Moreover, even when permitted, in only very few systems is sharing of data backed by appropriate cyber-security measures, such as mutual recognition of electronic documents and data messages; definition of the required level of encryption; or secure data storage. In many of the surveyed economies, the legal framework also currently fails to address jurisdiction over parties conducting business transactions through interconnected Single Windows: 52% of the economies surveyed do not address this issue and for a further 35% it remains a work in progress.

Lastly, only 22% of systems provide for the sustainable funding of interoperability solutions between interconnected Single Windows. Mechanisms to monitor and maintain the alignment of data requirements, architecture and technical interoperability solutions between partner Single Windows are fully implemented in only 13% of systems surveyed.

Creating a regional Single Window: The experience of ASEAN

In 2005, ASEAN agreed to implement the ASEAN Single Window (ASW)[14] to fully integrate National Single Windows (NSWs) of ASEAN member economies, drawing on internationally accepted standards, procedures, documents, technical details and formalities.

The ASW involves direct exchanges of data between ASEAN Member States which are then synchronised across the region.[15] This allows data and information to be submitted only once, and avoids duplicative decision-making for Customs, but makes an effective ICT platform essential. The ASW is composed of three networks: the regional (or central) domain, which allows communication among NSWs, supports the secure electronic transfer of information and tracks transaction statistics; the national domain, which represents the network infrastructure hosted by each Member; and the external networks used by the trading community, which only have direct access to national domains to preserve data confidentiality. While data is directly exchanged between NSWs, it is not retained centrally.[16]

The ASW is overseen by the ASW Steering Committee (ASWSC), which reports directly to ASEAN Directors General of Customs and ASEAN Senior Officials. The ASWSC is assisted by technical (TWG) and legal (LWG) working groups. These groups consulted the private sector on development of the ASW and priorities for data exchange, and studied options for the governance, business model and financial sustainability of the ASW. The TWG and LWG also undertook awareness raising and capacity building at the regional level on business process analysis, data harmonisation and legal aspects, and at the national level on use of software applications.

A pilot evaluation, including a cost-benefit analysis, was launched in 2011, involving seven of the ten ASEAN Members.[17] The pilot tested the technical architecture[18] and sought to streamline and standardise data, explore efficient business processes, strengthen partnerships with stakeholders and raise public awareness. The ASW web portal was launched in 2013 upon successful completion of the pilot, which had seen over a million messages exchanged. A Legal Framework agreement regulating the cross-border exchange of electronic data was concluded in 2015 and is undergoing ratification by

members. Indonesia, Lao PDR, the Philippines and Viet Nam have also conducted legal gap analyses on their NSWs.[19]

Although the original intention was to incorporate the ASEAN Customs Declaration into the ASW, this proved too complicated, including due to standardisation and confidentiality issues. Countries focused instead on the ASEAN preferential certificate of origin, which was important to the private sector, raised no confidentiality issues, and for which a standard operating procedure was already in place. Indonesia, Malaysia, Singapore, Thailand and Viet Nam have initiated bilateral pilots on certificate exchanges and discussions are underway about a broader pilot involving as many ASEAN countries as possible. The intention is also to incorporate commercial and transport documents for goods, as well as documents required for the release and clearance of goods. It is also intended to progressively analyse other government-to-government data, such as phytosanitary, veterinary and health certificates, as well as business-to-business data, such as bills of lading, air waybills, packing lists and invoices with a view to their inclusion. However, these steps are some way off, as the initial stages are only now gaining momentum.

Expected benefits of the ASW include improved risk management and compliance, enhanced track-and-trace capabilities, smoother pre-arrival clearance and better supply chain integration. Importantly, the creation of the ASW has also generated significant impetus for the creation and improvement of NSWs.[20] It has also spurred efforts to harmonise data and procedures among members, including beyond those required for the ASW, such as conformity assessment or phytosanitary policies, thereby supporting broader policy harmonisation efforts.

Finally, by seeking compatibility with international open communication standards, the ASW ensures that each Member can exchange data securely and reliably with third parties.[21] In the long run, the ASW could serve as a platform for all sorts of cross-border data exchange, from the ASEAN Customs Transit System, currently under preparation, to information about assistance goods and equipment shipped by NGOs in case of disasters, as well as providing a basis for monitoring ASEAN economic integration (Benjelloun et al., 2012).

Factors of success and challenges

A first observation is that commitment by Heads of State, economic and trade ministers, and finance ministers, along with pressure from the private sector, has been critical to the ability of ASEAN countries to address challenges related to the ASW.

As ASEAN is not a Customs Union, there were no standard services, forms or processes among NSWs and no harmonised legal frameworks at the outset.[22] This made the initial (technically simpler) suggestion for an ASW in the form of a central portal too ambitious, including politically.[23] A second observation is that it is important for any Single Window endeavour to have ambitious but realistic objectives and a clear vision from the political level of what the mechanism is supposed to accomplish.

While there have been significant achievements, the ASW remains a work in progress. Budget limitations forced countries to scale-down the original technical solutions, but these were not the most challenging issues: ASEAN countries extensively harnessed public-private partnerships, as well as donor funding at both the regional and national level. Current challenges relate to commitment, confidence and overcoming legal hurdles.

While the ASW started slowly as technical issues were resolved, this gave more time to Members to develop their own NSWs, and increase collaboration among their experts.

Effective NSWs are critical for the ASW, but this remains a significant challenge. The original deadline for completing NSWs for some ASEAN members (Brunei Darussalam, Indonesia, Malaysia, Philippines, Singapore and Thailand) was 2008, while others (Cambodia, Lao PDR, Myanmar and Viet Nam) had until 2012 (these timelines have been pushed to 2012 and 2015 respectively).[24] A third observation is that while the ASW provided useful momentum for developing NSWs, the fact that NSWs were not in place or substantially under way when the regional mechanism was initiated greatly complicated its establishment.

A fourth observation is that disparities among ASEAN members with regard to the quality of infrastructure, systems automation, or personnel have also slowed implementation. For instance, NSWs' compliance with information security standards is still uneven, affecting the reliability of sensitive data protection, as all data is retained at the national, not the regional, level. This in turn undermines the confidence of operators in the ASW. Numerous complementary measures are also needed at the national level to support paperless clearance in ASEAN, including a Single Window-ready legal environment, risk management systems, pre-arrival processing mechanisms and Authorised Economic Operator programs.

A fifth observation is the need for domestic co-ordination to underpin regional efforts: insufficient domestic co-ordination between Customs administrations, relevant agencies and economic operators has also slowed progress of the ASW. Moreover, in most participating countries, risk management is undertaken only by Customs, not other border agencies, complicating future discussions about the incorporation of non-Customs documents and procedures.

Legal challenges, including relating to mutual recognition of digital signatures, equivalence of paper and electronic documents, data confidentiality and liability, were also significant. A sixth observation is that legal gap analysis at the national level, but also for cross-border exchanges, needs to start as early as possible, as issuing new or amended legislation can be a lengthy process. Single Window interoperability also faced domestic laws that did not allow the exchange of national data, or which required the consent of the trader.[25] Even for the preferential certificate of origin, which raised no confidentiality or process standardisation challenges, the existing certification procedures had to be adapted to allow e-copies. Given the time required for reviewing, mapping and addressing regional legal impediments, these challenges should be dealt with as early as possible.

The ASW has provided an important opportunity for ASEAN to promote a trade facilitation agenda, both in the form of gradually strengthening NSWs and in analysing and reengineering basic trade documents and processes. While this has been a slow and complicated process, the learning and problem-solving process is already yielding benefits for the region's trade.

The process of developing the ASW also provides important insights for other regions on important factors in establishing a Single Window. In sum, these are:

● The importance of sustained political commitment.

● The need for ambitious but realistic objectives and a clear vision from the political level of what the Single Window is supposed to accomplish.

● Regional Single Windows can provide momentum for developing national Single Windows; however, the absence of established National Single Windows greatly complicates the establishment of a regional Single Window.

● Disparities among parties in terms of the quality of infrastructure, systems automation, or personnel can negatively affect implementation.

● Co-ordination at the domestic level among Customs administrations, relevant agencies and economic operators agencies is needed to underpin regional efforts.

● Given the lead times for crafting and introducing changes, legal gap analysis at the national level, but also for cross-border exchanges, needs to start as early as possible.

Notes

1. UN/CEFACT Recommendation 33. This is the most known definition of the Single Window concept.

2. These include the United Nations Economic Commission for Europe, the United Nations Conference on Trade and Development, the World Customs Organization, the International Maritime Organization, the International Civil Aviation Organization, the International Chamber of Commerce.

3. See WTO TFA Article 10.4 which defines SW as a platform for single-entry, non-duplicative submission of trade documentation, ideally supported by information technology.

4. The policy relevance of these indicators was tested with the support of, and in consultation with relevant international fora, including the Inter-American Network of International Trade Single Windows (*Red VUCE*), UNECE/CEFACT (Centre for Trade Facilitation and Electronic Business), and APEC's Sub-Committee on Customs Procedures (SCCP).

5. The Single Window indicators are not meant at this stage to assess the impact of these platforms on trade flows and trade costs, given the limited number of countries where they are operational and their widely varying levels of development.

6. This includes declarations, permits, certificates, visas and product inspections.

7. Without making any judgement as to the preferred form of financing for the Single Window, this element seeks to understand whether existing financing mechanisms are clear, sustainable over the long term and whether any fees charged correspond to the services provided.

8. Interactivity refers to the ability of users to interact directly with the Single Window; for example, by lodging forms online.

9. This feature refers to the data retained within the Single Window by participating agencies, whether this includes transaction data or just lodging and sign off.

10. Contingency mechanisms can include: communication contingencies (alternatives in case of Internet failure, failure of communication with participating agencies, etc.); update of master tables (countries, consignments, products, etc.); backup and recovery of data and applications; application contingencies (application crash, alternate channels).

11. This includes the incorporation of the following functionalities: Help Desk and user support services; Operating instructions and guidelines; Physical training for users; Wizard; E-learning; Other.

12. This can concern the following mechanisms: transmission of the information without encryption (in the clear); transmission of the information over a secure channel with exchange of digital certificates; encrypted and/or signed transmission.

13. The primary focus of this feature is the extent to which data requirements in the National Single Window are aligned with data requirements in other Single Windows.

14. ASEAN (2005), "Agreement to Establish and Implement the ASEAN Single Window".

15. In the absence of a Customs Union, and given the significant institutional, legal and operational complexities involved in integrating different national systems (including concerns about concentration of risk from channelling information through a single server), the ASW does not centralise the processing of information, but limits itself to electronic cross-border data exchange among NSWs.

16. Nevertheless, the electronic "stamping" of cross-border messages by the ASW is critical for establishing the sequence of exchanges in case of a regional dispute.

17. Brunei, Indonesia, Malaysia, the Philippines, Singapore, Thailand and Viet Nam.

18. Including ICT solutions, security protocols, interfaces, messaging, routing and synchronising functions.

19. This has included examining whether there is national enabling legislation in place; equivalence of electronic and paper copies; acceptance of electronic (including digital) signatures; electronic data retention and archiving; ability to use electronic data in judicial proceedings; and liability and dispute resolution issues.

20. Singapore has operated its Single Window for over two decades; Brunei Darussalam, Indonesia, Malaysia, Philippines, and Thailand are at relatively advanced stages of NSW completion. CLMV (Cambodia, Lao PDR., Myanmar, and Viet Nam) countries are implementing e-Customs platforms and launching NSW efforts with support from the donor community.

21. This would, for example, support the exchange of certificates of origin or advance cargo information with non-ASEAN trading partners. Related individual discussions with the People's Republic of China, Japan and Korea are currently underway.

22. Such as for electronic signatures, data protection, use of electronic data in judicial proceedings, data retention and archiving, liability and dispute settlement (Benjelloun et al., 2012).

23. Direct data input from traders against differing formalities and requirements also meant that such a portal could not operate without a unified automated processing system for all Member States and carefully co-ordinated and air-tight security procedures, meant to address failures and ensure the protection of confidential data.

24. New NSW progress indicators allow Members to report every six months.

25. This is the case in Indonesia, Thailand and Singapore.

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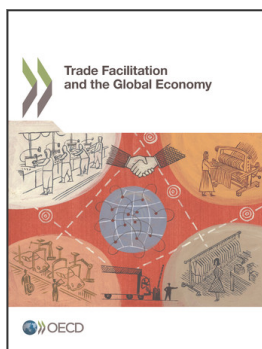
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